UNIVERSITY OF NEW ENGLAND

A Legal Exploration Of The Copyright Protection Of Australian Databases In The Fourth Industrial Era

Wellett Potter
ORCID ID: https://orcid.org/0000-0003-3534-4017
Thesis for a Doctor of Philosophy (Law)

Dissertation submitted on: 16 October 2020

School of Law, University of New England, Armidale

Thesis Submitted for Doctor of Philosophy (Law) in Total Fulfilment of that Degree

Abstract

Databases have existed for centuries; however, with the establishment of the fourth industrial era, technological developments have changed the way they are produced, copied and disseminated. In recent years, the judicial application of copyright laws, (which have their origins in the pre-industrial era) to databases have revealed the limitations of copyright. The central thesis argues that the current judicial application of Australian copyright law, as perceived by some database producers, under-protects some privately funded databases. This is due to a failure to establish 'independent intellectual effort' and traceable human authorship in databases involving collaborative processes and technology.

This is problematic because it purportedly (1) challenges copyright's role as a primary legal mechanism for assigning ownership and access rights, while (2) leaving such works open to economic exploitation, which discourages investment in database production from a Lockean perspective. In exploring the issues, six separate but interrelated questions pertaining to the copyright protection of modern databases will be examined:

1. What are two primary underlying philosophical justifications for the copyright protection of databases?
2. How has originality and authorship of databases evolved under international law, the EU and US?
3. What are the Australian copyright subsistence criteria and, over the last 200 years, how has originality and authorship judicially evolved to regulate the protection of databases?
4. How does the current Australian judicial application pertaining to originality and authorship purport to under-protect some databases?
5. What lessons can be learned from the EU sui generis database right, if Australia were to implement such a regime?
6. What lessons can be learned from current open access initiatives if applied to Australian databases?

This study makes a meaningful contribution to Australian copyright scholarship and policy through its novel approach, which seeks to balance the underlying rationales and philosophical justifications of copyright, sui generis rights and open access initiatives with the pressures evident from changing technology. It seeks novelty in its overall approach to the thesis question through an underlying distinction between private and public databases. This results in investigation which encompasses three aspects: (1) the philosophical origins of copyright and an extensive study of Australian precedent as relevant to private databases (2) sui generis database rights as relevant to private databases and (3) open access works as relevant to public databases. After considering the six questions posited, the study concludes with recommendations to amend Australian copyright to ensure the ongoing future protection of databases.

Certification of Dissertation

I, Wellett Potter, candidate for the degree of PhD in Law certify that the ideas, experimental work, results, analyses, software and conclusions reported in this dissertation are entirely my own effort, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for any other award, except where otherwise acknowledged.

The law stated is current as of 28 September 2020.

Wellett Potter Date 8 October 2020

Acknowledgements

> 'The county here is rich and pleasant but you must pass through rough and dangerous places before you reach the end of your journey' – The Wizard of Oz.

This quote epitomises my PhD journey, which has required prolonged perseverance due to several concurrent life challenges. I could not have walked the long, winding and dangerous yellow brick road alone and would like to express my deepest gratitude to the following supporters:

- Current supervisors – Professor Mark Perry, A/Professor Heather Forrest (UTAS), Dr Ying Chen, for their wonderful support, guidance and mentorship;
- Past supervisors – Professor Jürgen Bröhmer, Professor Lillian Corbin;
- Family – my late parents, Narelle and Quentin, Welvin, Elsworth and Mr B;
- Friends – especially, Ivan Adnan, Faye, John and Kahrina Dorczak, Dr. Eric Ghosh, A/Profesor Claes Granmar, Sr. Kathy Hodge (RSM), Nissi Loiterton, A/Professor Finex Ndhlovu, Dr. Rochelle Nicholls, Paul Sattler, Dr. Cindy Schneider, Teresa & Arthur Schofield, Christina & Richard Symonds, Marites Valesco, Shayne Wilson, June Ward, Anthea Wikstrom and Janet Williamson;
- Dr Daniel Fry, Dr Imca Hinze, Dr Willie Offermeier, and Dr Richard Schloeffel (OAM);
- Professor Michael Adams and my colleagues at the UNE School of Law;
- Past and present UNE HDR Co-ordinators – A/Professor Heather Forrest, Dr Same Varayudej, Dr Monique Cormier, Dr Patrick Graham;
- Belinda Eastgate, Lyn Gollan, Katherine Johnson, Anna Lawlor, Carmel Velleley and the professional team at the UNE School of Law;
- The UNE HDR Team; and
- Dr Miriam Verbeek for her services as a professional copy-editor of this work.

Table of Contents

Abstract i
Certification of Dissertation iii
Acknowledgements iv
Table of Contents i
Table of Figures vi
Acronyms and Abbreviations vii

PART ONE – THE RELATIONSHIP BETWEEN DATABASES AND COPYRIGHT IN THE FOURTH INDUSTRIAL ERA 1

CHAPTER 1: WHY THIS DISSERTATION MATTERS AND WHAT IT WILL ANALYSE 2

1.1 Why Data and Databases are Vital in the Fourth Industrial Era and How a Database is Defined 2

1.2 The Difference Between Private and Public Databases 7

1.3 The Central Thesis and Why the Copyright Protection of Databases is Important 9

1.4 Methodology and Structure 12

1.5 Scope 21

1.6 Contributions to the Scholarship and Practice of Copyright Law 22

1.7 Conclusion 24

CHAPTER 2: THE UNDER-AND-OVER PROTECTION OF DATABASES AND HOW THIS RELATES TO THE CENTRAL THESIS 25

2.1 Philosophical Justifications for Protecting Databases Through Copyright 26

2.1.1 Utilitarianism 26
2.1.2 Labour-Based Approaches 26
2.1.3 The Application of Labour Based Theory to Databases 28
2.1.4 The Application of Public Interest Theory to Public Databases 32

2.2 The Fascinating Relationship Between Incentive to Create, Process of Authorship and Means of Access in Databases 34

2.2.1 Copyright's 'Elegant Paradox' and Statutory Monopoly Rights 34
2.2.2 The Historical Origins of Incentive Versus Access 37
2.2.3 The Empowerment and Entrapment of Copyright Paradigms to Databases 39

2.3 Technological, Social and Cultural Factors Which Favour Strengthening Copyright Protection for Databases 42

2.3.1 Changes to Tangibility and Access 42
2.3.2 Transition from Industrial to Information-Based Economies 44
2.3.3 End Users' Exploitation of Databases 47
2.3.4 Changes to Global Communication Structures 49
2.3.5 The Change from Passive Audience Members to Active Mass Consumers/Producers 50
2.3.6 The Use of 'Artificial Intelligence' in Database Production Challenges Authorship Norms 51

2.4 Technological, Social and Cultural Factors Which Favour Weakening Copyright Protection for Databases 54
2.4.1 The Other Avenues of Database Protection Extraneous to Copyright 54
2.4.2 Collaborative Efforts Which Challenge the Traditional Notion of the (Sole) Author 57
2.4.3 Databases Provide Significant Social & Utilitarian Benefit, & Copyright Should Not Be Used to Limit This 59
2.5 The Role of Copyright in Future Global Information Economies 62
2.6 Conclusion 66
CHAPTER 3: DATABASE ORIGINALITY AND AUTHORSHIP UNDER INTERNATIONAL LAW, THE EU AND US 68
3.1 Three Originality Standards Around the World 68
3.1.1 The Sweat of the Brow (SOTB) or 'Industrious Collection' Standard 70
3.1.2 The 'Creativity' Standard (TCS) 71
3.1.3 A Sui Generis Database Right 72
3.2 The Copyright Protection of Databases Under International Law 74
3.2.1 *Berne* 74
3.2.2 *TRIPS* 75
3.2.3 *WIPO Copyright Treaty* 77
3.2.4 International Law Favours the Creativity Originality Standard 78
3.2.5 Authorship Under International Law 79
3.3 The EU Database Directive 82
3.3.1 Definition of a Database Under the Directive 82
3.3.2 Authorship/Joint Authorship Under the Directive 85
3.3.3 The First Right - Copyright 86
3.3.4 The Second Right – Sui Generis Protection 87
3.3.4.1 Infringement of the Sui Generis Right 88
3.3.5 Protection for a Wide Scope of Content 89
3.4 The Protection of Databases in the US 90
3.4.1 Definition of a Database 90
3.4.2 Originality and Authorship Under the US *Copyright Act* 91
3.4.3 SOTB and the Landmark Case of Feist 92
3.4.4 The Legacy of *Feist* and Criticisms Against SOTB 94
3.5 Conclusion 97
PART TWO - THE COPYRIGHT PROTECTION OF AUSTRALIAN DATABASES 100
CHAPTER 4: DATABASE ORIGINALITY AND AUTHORSHIP UNDER AUSTRALIAN LAW 101
4.1 Introduction 101
4.2 Identification as a Literary Work 102
4.3 Material Form and the Idea/Expression Dichotomy 106
4.4 Originality 110
4.4.1 Statutory Originality 110
4.4.2 SOTB in Early Australian Precedent 111
4.4.2.1 1800s – Labour, Expense and Skill 111

4.4.2.2 1900s – Skill, Labour and Experience 117
4.5 Authorship, Territorial Connection to Australia and Moral Rights 121
4.5.1 Authorship and its Romantic Construct 122
4.5.2 Statutory Authorship and Joint Authorship 127
4.5.3 Historical Authorship Precedent 128
4.5.4 Moral Rights 135
4.5.4.1 The Right of Attribution 136
4.5.4.2 The Right Against False Attribution 137
4.5.4.3 The Right of an Author's Integrity of Authorship 138
4.6 Subsistence, Duration & Copyright Infringement 140
4.7 Summary of Precedent 141
CHAPTER 5: THE JUDICIAL APPLICATION OF ORIGINALITY AND AUTHORSHIP IN 21ST CENTURY AUSTRALIAN CASES 147
5.1 Introduction 147
5.2 Judicial Application of Originality and Authorship: Early 2000s 148
5.2.1 *Desktop Marketing* 148
5.2.2 Originality and Authorship in Desktop Marketing 151
5.2.3 Refusal of Special Leave to the High Court 154
5.3 Judicial Application of Originality and Authorship: 2009 Onwards 155
5.3.1 *IceTV* 155
5.3.2 *Telstra* 158
5.3.3 *Telstra Appeal* 164
5.3.4 Originality Post-*IceTV* 168
5.3.5 Joint Authorship Post-*IceTV* 172
5.4 Conclusion 176
CHAPTER 6: HOW SOME DATABASES ARE PURPORTED TO BE CURRENTLY UNDER-PROTECTED THROUGH AUSTRALIAN COPYRIGHT LAW 178
6.1 Relevance to the Central Thesis 178
6.2 The Applicability of Originality and Authorship to Databases Post *IceTV* 179
6.2.1 What Has Changed About Originality Since *IceTV*? 179
6.2.2 What Has Changed About Authorship/Joint Authorship Since *IceTV*? 185
6.3 The Reasons Why Some Databases Are Purported to be Currently Under-Protected By Copyright 191
PART THREE – THE UK: FROM 'SWEAT OF THE BROW' TO SUI GENERIS 201
CHAPTER 7: THE UK: FROM 'SWEAT OF THE BROW' TO SUI GENERIS 202
7.1 The UK: A Relevant Case Study with Important Lessons for Australia 202
7.1.1 The Four Key Stages of EU Copyright Development 204
7.2 The Protection of Databases in the UK, Pre-*the Directive* 206
7.2.1 Originality in UK Jurisprudence 207
7.2.2 Authorship in UK Jurisprudence 211
7.3 Reasons for Implementing the Directive 214

7.3.1 Harmonisation Across EU Member States 215
7.3.2 Economic Stimulation of Database Investment as a Primary Motivation 217
7.3.3 Balance Between Database Makers and Users' Interests 218
7.3.4 The Arduous EU Implementation Process 219
7.4 Amendments to UK National Database Protection Post-Directive 225
7.4.1 Distinction Between Compilations and Databases 226
7.4.2 Originality 227
7.4.3 Authorship 229
7.4.4 Infringement of the Database Right 229
7.5 The Possible Implications of Brexit on the Future of UK Database Protection 230
7.6 Conclusion 233
CHAPTER 8: LESSONS AUSTRALIA CAN LEARN THROUGH THE CJEU APPLICATION OF THE EU DIRECTIVE 236
8.1 The Role of the CJEU and Its Impact on the EU Protection of Databases 236
***8.2* The CJEU Interpretation of Copyright Subsistence Under the *EU Directive* 238**
8.2.1 *Infopaq* 239
8.2.2 *Meltwater* 241
8.2.3 *Football Dataco* 245
8.2.3.1 CJEU Judgement 247
8.2.4 The Impact of CJEU Interpretation of Copyright Subsistence in the UK and What Australia Can Learn from This 250
8.2.4.1 Recent National UK Copyright Decisions About Originality 252
8.2.4.2 Recent National UK Copyright Decisions About Authorship/Joint Authorship 257
8.3 Database Right 262
8.3.1 Substantial Investment 263
8.3.2 Creating vs Obtaining Data 265
8.3.3 Extraction 268
8.3.4 Utilisation 269
8.3.5 Whole or Substantial Part of a Database 273
8.3.6 Scope of the Right 275
8.4 Lessons Australia Can Learn from the CJEU Interpretation of the Database Right 277
CHAPTER 9: EVALUATION OF SUI GENERIS PROTECTION 280
9.1 The Relevance to the Overall Study of Evaluating Sui Generis Protection 280
9.2 The Major Purpose and Benefits of Implementing the Directive in Australia 281
9.3 EU Empirical Analysis of the *Directive* and the Implications of This for Australia 282
9.3.1 First EC Evaluation – 2005 282
9.3.2 The Digital Single Market and Its Relevance to the Directive 288
9.3.3 Second Evaluation – 2018 291
9.4 Theoretical Criticisms Levelled at the Directive and What Australia Can Learn From Those 296

9.5 How the Hypothetical Application of the Database Right in Australia Would Compare to its Application in the EU 302

1.1.1 Figure 9.3 The CJEU Interpretation of Copyright Subsistence Under the Directive 303

1.1.2 Figure 2 CJEU Narrow Interpretation of the Database Right 305

9.6 Final Recommendation: No Australian Sui Generis Database Right 307

CHAPTER 10: DATABASES AND OPEN ACCESS INITIATIVES IN AUSTRALIA 313

10.1 How Open Access Differs to Traditional Publishing Practices 313

10.1.1 What is an Open Access Work and What is its Relationship to Copyright? 315

10.1.2 The Link Between the OA Movement and the Concept of the Commons 317

10.2 Relevant History of the OAW Movement 319

10.2.1 The Example of Academia and Its Modern Reception 324

10.2.2 Traditional Publishing Practice 327

10.2.3 Case Study: Academic Publications 330

10.3 Justifications for Making Data Freely Available 335

10.3.1 The Open-Access Spectrum – From Gold to Green 338

10.4 Creative Commons Licensing 346

10.4.1 Conflicts Between CC and the EU Directive 354

10.5 Open Data Policies and Public Sector Information 355

10.6 Conclusion: OA Databases and the Future 361

CHAPTER 11: CONCLUSION — THE FUTURE COPYRIGHT PROTECTION OF AUSTRALIAN DATABASES 364

11.1 Overall Relevance of this Chapter to the Central Thesis 364

11.2 Graph: The Future Challenge of Balancing Various Interests and the Public/Private Divide 366

11.3 In the Future, What Can Be Done to Address the Current Problems? 368

Bibliography 371

Journal Articles/Books/Reports 371

Case Law 439

Legislation 458

Treaties 463

Other 465

Table of Figures

Figure 2.1: Private versus public interests 40
Figure 3.1: The Spectrum of Originality 69
Figure 7.1: Timeline showing the development of EU database law 204
Figure 9.1: The CJEU Interpretation of Copyright Subsistence Under the Directive .. 303
Figure 9.2: CJEU Narrow Interpretation of the Database Right 305
Figure 10.1: A Paradigm Shift in Licencing 330
Figure 10.2: Traditional Academic Publishing 332
Figure 10.3: Gold Open Access 339
Figure 10.4: Green Open Access 342
Figure 10.5: The Relationship Between the History of OAWs with CCs 348
Figure 10.6: Know Your Rights – Creative Commons Australia 352
Figure 10.7: Most Restrictive to Least Restrictive Options 353
Figure 11.1: Differences Between Private and Public Databases 367

Acronyms and Abbreviations

AG	Australian Government
AI	Artificial Intelligence
ALM	Application lifecycle management tools
ALRC	Australian Law Reform Commission
APC	Article processing charge
ARC	Australian Research Council
BHB	British Horseracing Board
BOAI	Budapest Open Access Initiative
Brexit	British Exit Referendum
CC licencing	Creative Commons licences
CGW	Computer generated work
CJEU	Court of Justice of the European Union
CTA	Copyright transfer agreement
DBMS	Database management system
DCE	Digital Copyright Exchange
Desktop	Desktop Marketing Systems Pty Ltd
DRM	Digital rights management
DSM	Digital Single Market
DSMS	DSM Strategy
EC	European Commission
EU	European Union
EURAB	European Research Advisory Board
FD	Football Dataco and other claimants
GATT	General Agreement on Tariffs and Trade Framework
GEO	Group of Earth Observation
GEOSS	GEO Global Earth Observing System of Systems
IP	Intellectual property
IPEC	Intellectual Property Enterprise Court
MIT	Massachusetts Institute of Technology
MSDS	Material safety data sheets
NC	Non-Commercial
ND	No Derivative Works
NGO	Non-profit non-government organisations
NHMRC	National Health and Medical Research Council
OA	Open Access
OAK	The Open Access Knowledge
OAP	Open access publishing

OAWs	Open access works
PSI	Public Sector Information
QUT	Queensland University of Technology
RAM	Random-access memory
RDF	Raw data feed
SA	Share Alike
SIS	Satellite Information Services Ltd
SOTB	Sweat of the brow
SPARC	Scholarly Publishing and Academic Resources Coalition
SSRN	Social Sciences Research Network
TCS	The creativity standard/industrious creation standard
TDM	Text and data mining
Telstra	Telstra Corporation
TPM	Technological protection measures
UK	United Kingdom
US	United States of America
WH	William Hill
WIPO	World Intellectual Property Organisation
WTO	World Trade Organisation

PART ONE – THE RELATIONSHIP BETWEEN DATABASES AND COPYRIGHT IN THE FOURTH INDUSTRIAL ERA

CHAPTER 1: WHY THIS DISSERTATION MATTERS AND WHAT IT WILL ANALYSE

> Information wants to be free. Information also wants to be expensive ... That tension will not go away. It leads to endless wrenching debate … because each round of new devices makes the tension worse, not better.[1]

> Databases stand at the juncture between information as such and the expression of literary and artistic ideas. From the first perspective, information appears to be a necessary element in social existence and so arguably it should be freely accessible to all. From the second, the need to provide an incentive for the costly business of assembling large databases argues for an equivalent appropriation to that given to creators and their producers by copyright. Deciding how to structure this crossroads — be it with filter lanes or with stop signs — calls for refined legal engineering. William R. Cornish, Herschel Smith Professor of Intellectual Property Law, Faculty of Law, University of Cambridge.[2]

1.1 Why Data and Databases are Vital in the Fourth Industrial Era and How a Database is Defined

Although tangible lists and compilations have been produced for centuries, during the last three decades a remarkable revolution has occurred.[3] Advancing technological capabilities and better affordability of personal computers has led to the dominance of the internet as a global communications and commercial medium.[4] Subsequently, the fourth industrial era has begun in earnest, where access to and control of data is vital.

Data is generated, collated and communicated exponentially, some estimates have found the total volume of global data is expanding at an annual compound rate of 60%, which is ever-increasing.[5] Other estimates suggest that 90% of the total world's total data has been generated during the last two years.[6] Digitisation processes (eg, for cultural heritage

---

[1] Stewart Brand, *The Media Lab: Inventing the Future* at *MIT* (Viking Penguin, 1987) 202.

[2] William R Cornish (ed), 'Foreword' in Mark Davison, *The Legal Protection of Databases* (Cambridge University Press, 2003) xv.

[3] Brian Fitzgerald et al, *Internet and E-Commerce Law: Technology Law and Policy* (Thompson Lawbook Co, 2007) ix; John Tessensohn, 'The Devil's in the Details: The Quest for Legal Protection of Computer Databases and the Collections of Information Act, H. R. 2652' (1998) 38 *IDEA: The Journal of Law and Technology* 439, 439.

[4] Michael L Rustad and Diane D'Angelo, 'The Path of Internet Law: An Annotated Guide to Legal Landmarks' (2011) 12 *Duke Law and Technology Review* 1, 5.

[5] 'All Too Much: Monstrous Amounts of Data – Special Report', *The Economist Online* (online, 25 February 2010) <http://www.economist.com/node/15557421>.

[6] Australian Government Productivity Commission, 'Data Availability and Use' (Productivity Commission Inquiry Report, No 82, 31 March 2017) 4.

preservation)[7] also contribute to massive data production,[8] as does the rise of technoheritage.[9] As data is produced, collated and accessed faster and more efficiently than ever before,[10] its storage is essential.[11] Data storage mediums have evolved from predominantly localised and tangible environments into global, intangible environments.[12] These factors, along with the convergence of telecommunications and computer-related technologies, have resulted in extensive utilisation of databases.[13] Databases are used to produce, collate, access, communicate and disseminate vast volumes of data.[14] Currently, it is estimated that organised data collated in databases accounts for approximately twenty percent of total world data.[15]

There is no single definition for a database. It may be simply defined as 'a structured collection of records or data, stored in a way that makes it easy to access the information'.[16] The Australian *Copyright Act 1968* (Cth) ('*The Act*') does not define 'database'. Rather, it is classified as factual compilation and therefore a 'literary work'. Specifically, under the current Act, s 10(1) states: 'literary work includes: (a) a table, or compilation, expressed in words, figures or symbols; and (b) a computer program or compilation of computer programs.'[17] The terms 'database' and 'factual compilation' are often used interchangeably, because '[d]atabases are typically viewed as compilations of facts and/or information.'[18]

---

[7] Maurizio Borghi, Kris Erickson and Marcella Favale, 'With Enough Eyeballs All Searches Are Diligent: Mobilizing the Crowd in Copyright Clearance for Mass Digitization' (2016) 16(1) *Chicago-Kent Journal of Intellectual Property* 135, 136–138. Also see generally, Radim Polcak, 'Digitisation, Cultural Institutions and Intellectual Property' (2015) 9(2) *Masaryk University Journal of Law and Technology* 121.

[8] Maree Sainsbury, 'Databases and Copyright - Finding the Match' (2001) 3 *Digital Technology Law Journal*, 1 <http://www.austlii.edu.au/au/journals/DTLJ/2001/3.html>; David Sorkin, Peter DiCola and Marcelo Halpern (Moderator and Panelists), 'Legal Problems in Data Management: IT and Privacy at the Forefront: 'Big Data': Ownership, Copyright and Protection' (2015) 31 *Marshall Journal of Information Technology and Privacy* 565, 566.

[9] See generally, Sonia K Katyal, 'Technoheritage' (2017) *California Law Review* 1111.

[10] Michael Murray, 'Reconstructing the Contours of the Copyright Originality and Idea-Expression Doctrines Regarding the Right to Deny Access to Works' (2014) 1(4) *Texas A&M Law Review* 921, 922.

[11] Raghu Ramakrishnan and Johannes Gehrke, *Database Management Systems* (McGraw Hill Higher Education, 2nd ed, 2000) 3.

[12] Brand, (n 1) 18.

[13] J H Reichman and Paul F Uhlir, 'Database Protection at the Crossroads: Recent Developments and their Impact on Science and Technology' (1999) 14 *Berkeley Technology Law Journal* 793, 794.

[14] David Tamaroff, 'Bottling the Free Flow of Information: A Comparative Analysis of US and EU Database Protection' (2011) 12(1) *Wake Forest Journal of Business and Intellectual Property Law* 1, 1.

[15] Michelle Nemschoff, 'A Quick Guide to Structured and Unstructured Data', *Smart Data Collective* (Web Page, 28 June 2014) <https://www.smartdatacollective.com/quick-guide-structured-and-unstructured-data/>.

[16] Jay Forder and Dan Svantesson, *Internet and E-Commerce Law* (Oxford University Press, 2008) 9.

[17] *Copyright Act 1968* (Cth) ('*The Act*'), s 10(1).

[18] Sandra Gosnell, 'Database Protection Down Under: Would a "Sweaty" Australia be Better Off with a Northerly Change?' (2003) 26(3) *University of New South Wales Law Journal* 639, 642.

Under European law, the term is broadly defined as 'a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means.'[19]

Physically, databases can be classified into two groups: (1) non-digital (such as bibliographic indexes that were once commonly used in libraries);[20] or (2) digitised databases. Digitised databases store data electronically[21] and will be the primary focus of this study (hereafter referred to as a 'database'). The reason for this is that these databases are primarily used in telecommunications and computer-related technologies. In modern databases, the process of data compilation varies depending on technological nuances, but the basic actions of people involved in creating databases remain similar. During the database compilation process, decisions must be made concerning different fields and records that are to be defined, as well as the presentation to the end-user.[22] Data may be entered through:

(a) Manual input (being 'keyed in', selected by mouse or speech recognition) by a person or people (a process of gathering data);[23]

(b) Electronically generated using computer software, often via a database management system (DBMS) which has been programmed by software developers/employees (a process of generating data);[24] or

(c) A mixture of both methods – initially programmed by a person/people, then electronically generated and a final manual amendment by a person/people (a process of gathering and generating data).[25]

---

[19] *Directive 96/9/EC of the European Parliament and the Council of 11 March 1996 on the Legal Protection of Databases* [1996] OJ L 77/20, art 1, § 2 ('*EU Directive*').

[20] Richard Brown, 'Copyright and Computer Databases: The Case of the Bibliographic Utility' (1985) 11 *Rutgers Computer and Technology Law Journal* 17, 17–9.

[21] B Douglas Blansit, 'The Basics of Relational Databases Using MySQL' (2006) 3(3) *Journal of Electronic Resources in Medical Libraries* 135, 137.

[22] Mark Davison, *The Legal Protection of Databases* (Cambridge University Press, 2003) 22.

[23] Helen Mitchard and Jim Winkles, 'Experimental Comparisons of Data Entry by Automatic Speech Recognition, Keyboard, and Mouse' (Australian Department of Defence, Defence Science and Technology Organisation, Document No DTSO-RR-2220, November 2001) 6.

[24] Raghu Ramakrishnan and Johannes Gehrke, *Database Management Systems* (McGraw Hill Higher Education, 2nd ed, 2000) 20, 22.

[25] Ibid 20-1.

Generally, the more complex the database, the more prevalent the electronic generation of data via DBMS. Although databases primarily store data, there are many different types and structures, serving an infinite number of purposes. One such example is a relational database. This type is produced with records which are 'related to one another by shared data fields.'[26] Relational databases are considered reliable due to a 'lack of redundancy';[27] that is, any updates flow through to all related databases and records can be modified without having to restructure the entire database. They are often used in business due to their capacity to collate and manipulate data to produce the desired result.[28] Their utility includes simple tasks and complex queries where the modification of records is needed.[29]

Databases are often compiled, maintained and produced via a DBMS.[30] This is software which controls data and oversees its manipulation.[31] A typical DBMS performs many tasks, including updating records, performing searches and producing reports.[32] It is usual for modern DBMS to separate the database from the user interface, making it 'user friendly' for those working with it.[33] This also prevents the database structure from being disturbed when being linked to new operating systems and software.[34]

With the current rate of technological development, a full comprehension of the types/structures of databases and DBMS that will exist in the future and their potential utility is inconceivable. Of certainty is that databases are constantly evolving, are highly transformative in nature and this shall continue as the fourth industrial era continues in earnest.[35]

Within this study, in defining the nuances of what a database is, the terms 'data' and 'information' must be distinguished. This study will use the term 'data' to mean raw data/facts and the term 'information' in a colloquial sense to refer to processed data/facts.[36]

---

[26] Pete Loshin, 'Relational Databases' (2001) 35(2) *Computerworld* 60, 60.
[27] Ibid.
[28] Blansit (n 21) 135.
[29] Mick West, 'Relational Databases' (2008) 15(1) *Game Developer* 44, 44.
[30] Dick Pountain, *The Penguin Concise Dictionary of Computing* (Penguin Books, 2003) 105.
[31] Blansit (n 21) 137.
[32] Pountain (n 30) 105.
[33] Ibid.
[34] Ibid.
[35] Samuel E Trosow, '*Sui Generis* Database Legislation: A Critical Analysis' (2004-2005) 7 *Yale Journal of Law and Technology* 534, 542.
[36] Shubha Ghosh, 'Transparent and Commercialized?: Managing the Public-Private Model for Data Production and Use' (Legal Studies Research Paper Series Paper No 1155, University of Wisconsin Law School, 2011) 4 <http://ssrn.com/abstract=1780486>.

There is also an inherent and difficult distinction that must be made between the terms 'information' and 'knowledge'. 'Knowledge' shall be used throughout this dissertation to refer to a much broader issue: that of the practical and cultural practices necessary to process information into innovative outcomes in the digital context.[37]

Another important distinction to be made is between data which is collated within a database and the actual structure or arrangement of the database itself. Precedent has long established that data/facts are not protectable through copyright.[38] The idea/expression dichotomy espouses that no individual owns information as property[39] (see 4.3). Instead, information belongs in the public domain and is likely valueless from an economic perspective.[40] Its 'value' as an asset is borne through the innovative techniques involved in its categorisation[41] and interpretation[42] — its **original** selection, arrangement and re-use.[43] It is, per se, the application of technology to data via an author's instruction that give it 'value' through its original expression as a database.[44] For this reason, originality is of paramount importance in establishing copyright in databases.[45] Analysis of this issue follows in 3.1 through an analysis of the three standards of originality which are utilised around the world.

---

[37] Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (Yale University Press, 2006) 313.

[38] *IceTV Pty Limited v Nine Network Australia Pty Limited* (2009) 239 CLR 458, 472 [28] (French CJ, Crennan and Kiefel JJ) ('*IceTV*'), applying the principle from *Blackie & Sons Ltd v Lothian Book Publishing Co Pty Ltd* (1921) 29 CLR 396, 400 (Starke J); *Victoria Park Racing and Recreation Grounds Co Ltd v Taylor* (1937) 58 CLR 479, 497 (Latham CJ), 511 (Dixon J) ('*Victoria Park*'); *Computer Edge Pty Ltd v Apple Computer Inc* (1986) 161 CLR 171, 181 (Gibbs CJ). See also *Walter v Steinkopff* [1892] 3 Ch 489; *Chilton v Progress Printing & Publishing Co* [1895] 2 Ch 29; *Odhams Press Ltd v London & Provincial Sporting News Agency* (1929) Ltd [1936] Ch 357, 364 (Lord Wright MR); *Football League Ltd v Littlewoods Pools Ltd* [1959] Ch 637, 654, 651-2 (Upjohn J); *Fraser v Evans* [1969] 1 QB 349, 362 (Lord Denning MR); *Elanco Products Ltd v Mandops (Agrochemical Specialists) Ltd* [1979] FSR 46, 52 (Goff LJ); *Sawkins v Hyperion Records Ltd* [2005] 3 All ER 636, 642-3 (Mummery LJ). Also see: *Feist Publications v Rural Telephone Service Company*, 499 US 340, 344 (1991) ('*Feist*'); Sorkin, DiCola and Halpern (n 8) 570.

[39] *Breen v Williams* (1996) 186 CLR 71, 81, citing *Phipps v Boardman* [1967] 2 AC 46, 127-8 (Upjohn L); Mark Thomas, 'Information as Property: Humanism or Economic Rationalism in the Millennium?' (1998) 14 *Queensland University of Technology Law Journal* 203, 203. Also see Australian Government Productivity Commission, 'Data Availability and Use' (n 6) 196.

[40] Michael Mattioli, 'Disclosing Big Data' (2015) 99 *Minnesota Law Review* 535, 536.

[41] Michal Shur-Ofry, 'Databases and Dynamism' (2011) 44(2) *University of Michigan Journal of Law Reform* 315, 317.

[42] John M Conley, Robert Cook-Deegan and Gabriel Lázaro-Muñoz, 'Myriad After Myriad: The Proprietary Data Dilemma' (2014) 15(4) *North Carolina Journal of Law & Technology* 597, 613.

[43] Mattioli (n 40) 536.

[44] *Desktop Marketing Systems Pty Ltd v Telstra Corporation Limited* (2002) 119 FCR 491 ('*Desktop Marketing*').

[45] Krishna Hariani and Anirudh Hariani, 'Analyzing "Originality" in Copyright Law: Transcending Jurisdictional Disparity' (2011) 51(3) *IDEA – the Intellectual Property Law Review* 491, 510.

1.2 The Difference Between Private and Public Databases

From an economic perspective, databases can be broadly separated into two categories: those which are privately funded and those that are publicly funded. This distinction is important because the funding of database production often determines subsequent accessibility to information. The distinction is also often highlighted in European law and policy,[46] with the debate that IP governs private property through national private and commercial laws.[47] It is relevant to this study because a clear distinction can be made between the treatment of such works from a copyright perspective. Because modern databases are commercially valuable, their authors/producers are inclined to assert proprietary rights in their databases through copyright. Copyright is, therefore, used as a means to strictly control access to and the dissemination of their database; whereas the authors of public databases waive their proprietary rights and release their database, freely allowing access and dissemination. The distinction between private and public databases is reflected judicially in Australian copyright, where past infringement cases have primarily involved private databases, with database authors asserting copyright against alleged infringers.

Copyright law is predicated on a significant contradiction, described as 'an original sin' by a prominent European copyright scholar.[48] That is, a delicate balance is sought between authors and users,[49] and this can be seen through the distinction between private and public rights.[50] With databases, this distinction can be seen through:

Private funding: for example, a database primarily funded by a business or a laboratory, with the (often significant) production costs being borne commercially. One of the largest

---

[46] See, eg, M Van Eechoud, 'Government Works' in B Hugenholtz, A Quaedvlieg, and D Visser (eds) *A Century of Dutch Copyright Law: Auteurswet 1912–2012* (deLex, 2012) 153–6.

[47] Andreas Rahmatian, 'Cyberspace and Intellectual Property Rights' in N Tsagourias and R Buchan (eds), *Research Handbook on International Law and Cyberspace* (Edward Elgar, 2015) 72.

[48] Eleonora Rosati, 'Originality in US and UK Copyright Experiences as a Springboard for an EU-Wide Reform Debate' (2010) 41(5) *International Review of Intellectual Property and Competition Law* 524, 526.

[49] As stated in the long title of the *Statute of Anne 1710* (UK) 8 Anne, c 19, for 'Authors or purchasers'. See Christopher John Adduono, *Rebalancing Copyright Law* (PhD Thesis, University of Southampton, 2015), 1-2; Susan Crennan, 'Recent Developments in Intellectual Property Law in Australia With Some Reference to the Global Economy' (Paper presented at the Institute of Advanced Legal Studies, University of London, 15 February 2010) 1-2; See generally, Jane C Ginsburg, 'Copyright and Control Over New Technologies of Dissemination' (2001) 101 *Columbia Law Review* 1613.

[50] Rosati, 'Originality in US and UK Copyright Experiences as a Springboard for an EU-Wide Reform Debate' (n 48) 526, citing Peter Jaszi, 'Towards a Theory of Copyright: The Metamorphoses of "Authorship"' (1991) *Duke Law Journal* 455, 463.

private databases belongs to Google, who keep information pertaining to this highly confidential. Conservative estimates in 2014 were that Google's database exceeded 10 million exabytes (10 million terabytes).[51] Traditionally, the producers of privately funded databases have zealously guarded property rights through licencing regimes.[52] In this way, the data output is primarily proprietary and commercial in nature.[53] Private databases which meet the copyright subsistence criteria are protected, so if infringement is alleged, producers can commence litigation.

Public funding: for example, a database primarily being funded through a university or government agency[54] with the costs being borne by the State[55] or a non-profit research institute. Such databases are usually released through open access initiatives. These models are non-commercial, permitting end users to freely access and re-utilise database contents.[56] They often attach other non-commercial conditions, such as authorial attribution.[57] As public databases are free to access and reuse, infringement is not an issue.

There are exceptions to this private/public dichotomy, with some publicly funded databases restricting database access through copyright[58] and subsequently licensing data. This practice, however, is discouraged because it taxes the public system and results in lost future opportunities.[59] Alternatively, a private database may be freely released to the public through licensing arrangements,[60] such as a Creative Commons licence.[61]

---

[51] Randall Munroe, 'Google's Datacentres on Punch Cards', *What If? The Book: What If? Serious Scientific Answers to Absurd Hypothetical Questions* (Web Page, 2012-2017) <https://what-if.xkcd.com/63/>.
[52] Paul Uhlir and Peter Schröder, 'Open Data for Global Science' in Brian Fitzgerald (ed), *Legal Framework for e-Research: Realising* the *Potential* (Sydney University Press, 2008) 189, 197.
[53] Ibid. See Chapter 5: and Chapter 6:.
[54] Benkler (n 37) 313.
[55] Ruth Okediji, 'Government as Owner of Intellectual Property? Considerations for Public Welfare in the Era of Big Data' (2016) 18(2) *Vanderbilt Journal of Entertainment and Technology Law* 331, 347–9.
[56] Jorge L Contreras, 'Confronting the Crisis in Scientific Publishing: Latency, Licensing, and Access' (2013) 53(2) *Santa Clara Law Review* 491, 525–540.
[57] Peter Suber, *Open Access* (MIT Press Essential Knowledge, 2013) 8–9, citing the *Budapest Open Access Initiative* (14 February 2002), *Bethesda Statement on Open Access Publishing* (20 June 2003) and the *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities* (22 October 2003).
[58] Miriam Marcowitz-Bitton, 'Commercializing Public Sector Information' (2015) 97 *Journal of the Patent and Trademark Office Society* 412, 414–5.
[59] Uhlir and Schröder (n 52) 200.
[60] James Boyle, *Shamans, Software and Spleens: Law and the Construction of the Information Society* (Harvard University Press, 1996) 36-8.
[61] See Chapter 10:.

Depending on the overarching role/purpose of a database, sometimes other arrangements occur; for example, databases created through private/public partnerships[62] with private/public interests.[63] Such databases complicate copyright ownership and access and rely upon complex contractual arrangements. Some initiatives have been classified and discussed in recent literature about digital libraries.[64] This study will use the underlying distinction between private and public database production as the 'red thread', or running theme, that underpins all chapters. Any analysis throughout this study pertaining to database litigation involves private databases, whereas analysis pertaining to open access regimes and Creative Commons licencing pertains to public databases. This study will show that, currently in Australia, some database producers who wish to monetise their databases purport that their databases are under-protected through copyright. This is due to a failure to judicially establish the criteria for originality and authorship, which means that copyright fails. Such producers argue that their databases are therefore vulnerable to economic exploitation because the database can be freely accessed and reused, despite often substantial production costs. Contrastingly, this study will analyse the underlying rationale behind publicly funded databases and the fact they are freely accessible and reusable, due to being funded by the State. Having discussed the nuances of defining a database, the scope of protectable subject matter and the distinction between private/public databases, the next section shall discuss why the copyright protection of databases is important and will outline the central thesis.

1.3 The Central Thesis and Why the Copyright Protection of Databases is Important

This dissertation will critically analyse the extent to which the current Australian copyright subsistence criteria of originality and authorship is purported to under-protect some databases. An assumption made to advance this study is that intellectual property (IP) law is often used to control access to data through a focus upon alienability.[65] Therefore, instead

---

[62] Uhlir and Schröder (n 52) 197.

[63] Cesare Bartolini, 'An Overview of the Limitations to the Dissemination of Data' (Paper presented at Interdisciplinary Centre for Security, Reliability and Trust (SnT), University of Luxembourg, Budapest, 3 June 2015) 6.

[64] Oren Bracha, 'Standing Copyright Law on Its Head? The Googlization of Everything and the Many Faces of Property' (2007) 85 *Texas Law Review* 1799, 1820–1824.

[65] Jane B Baron, 'Property as Control: The Case of Information' (2012) 18 *Michigan Telecommunications and Technology Law Review* 367, 369–384; Jacqueline Lipton, 'Mixed Metaphors in Cyberspace: Property in Information and Information Systems' (2003) 35 *Loyola University Chicago Law Journal* 235, 247–

of using other avenues of the law, copyright law is an appropriate means by which to protect databases because of one of copyright's primary benefits — the ability to grant owners substantial control over their work. However, as alluded to in the quotes that open this study, due to changes in technology, old tensions have been re-ignited in this new context, with competing interests becoming unbalanced.[66] On the one hand, because information is highly prized, there is the social argument that it ought to be freely available to the public. On the other hand, because the commercial costs of collating databases are expensive, there is the need for a database producer to recoup investment through private economic rights. Both sides of this debate are deeply polarising.[67] Throughout history, the recouping of investment in databases has often been sought and successfully granted through authorial monopoly rights conferred via copyright.

In recent times, the question of whether copyright can judicially be found to subsist in such databases has been contentious in light of modern database production methods. Subsequently, the criteria of originality and authorship will be the major focus of this study because they have recently attracted the most judicial consternation in Australia and overseas. It will be shown that a dichotomy emerges when current subsistence laws which have their origins in a pre-technological era are applied to modern databases: copyright subsistence has recently failed in Australia when applied to some privately funded commercial databases. These databases have been produced via computerised processes, involving the contributions of many people, and have required substantial investment.

Therefore, the central thesis is that the current judicial application of Australian copyright law, as perceived by some database producers, under-protects some privately funded databases involving collaborative efforts and technology. This is problematic because it purportedly (1) challenges copyright's role as a primary legal mechanism for assigning ownership and access rights, while (2) leaving such works

249; Teresa Scassa and D R Fraser Taylor, 'Intellectual Property Law and Geospatial Information: Some Challenges' (2014) 6(1) *WIPO Journal* 79, 81, 85.

[66] Dan Burk, 'Copyright and Hypernarrative' (2018) 31 *Law and Literature* 1, 1–2; Henry Perritt Jr, 'Property and Innovation in the Global Information Infrastructure' (1996) *University of Chicago Legal Forum* 261, 268–81.

[67] Jessica Litman, 'War and Peace: The 34th Annual Donald C Brace Lecture' (2006) 53 *Journal of the Copyright Society of the USA* 325, 330.

open to economic exploitation, which discourages investment in database production from a Lockean perspective.

As copyright is the primary legal mechanism for assigning ownership and access rights, when copyright is inapplicable, some private databases are instead left open to economic exploitation. From a Lockean perspective, this discourages investment in production because there is no incentivisation provided for authors to invest in or create their database. This dissertation subsequently seeks to examine what can be done to address the issue of privately funded databases produced in Australia which currently fall outside of copyright protection, through an examination of sui generis database rights and open access regimes.

The applicability and importance of copyright to commercial databases might be quickly dismissed by some. It might be argued that copyright is not a particularly relevant field because there are other avenues of the law (such as data protection laws, contracts etc) which can protect data. However, when undertaking a closer examination, copyright provokes important and complex questions which are relevant to database protection, authorship, originality and copyright's ultimate role in future information economies. Questions such as the following have vexed copyright lawyers and policy makers globally for years:

(a) Is copyright applicable to databases generally and, if so, what content is protectable through copyright? Issues for consideration include whether copyright subsists in the raw data/facts which is kept within the database; the database design (the expression of the database); or a DBMS;

(b) For the purposes of copyright subsistence, what extent of human contribution is sufficient to constitute authorship? That is, does copyright deem the person/people who are involved in database compilation (albeit in an antecedent and constrained manner) to be the 'authors' of the database?

(c) If so, is the expression of the database sufficiently original for copyright to subsist?

(d) In the alternative, if copyright fails in such databases, should a sui generis database right such as that utilised by the EU, and/or the utilisation of open access initiatives be implemented?

These questions have prompted the following six questions which guide the overall structure and scope of this study:

1. What are two primary underlying philosophical justifications for the copyright protection of databases?

2. How has originality and authorship of databases evolved under International law, in the EU and the US?

3. What are the Australian copyright subsistence criteria and, over the last 200 years, how has originality and authorship judicially evolved to regulate the protection of databases?

4. How does the current Australian judicial application pertaining to originality and authorship purport to under-protect some databases?

5. What lessons can be learned from the EU sui generis database right, if Australia were to implement such a regime?

6. What lessons can be learned from current open access initiatives if applied to Australian databases?

The next section explains the methodology and structure for answering these questions.

1.4 Methodology and Structure

This dissertation comprises an introduction, four parts and a conclusion. Analysis will occur through doctrinal research of primary and secondary copyright law, incorporating historical and modern precedent pertaining to databases. Doctrinal examination of the EU sui generis model of database protection and open access schemes will occur.

Doctrinal research is 'research into the law and legal concepts'.[68] This study will systematically explore the rules governing the copyright protection of databases to analyse various relationships between these laws and identify conceptually difficult issues by analysing the problems with current law.[69] The six research questions presented above will

[68] Terry Hutchinson and Nigel Duncan, 'Defining and Describing What We Do' (2012) 17(1) *Deakin Law Review* 83, 85.
[69] Ibid 101.

be systematically addressed from a positivist perspective, which relies upon the basic rules of statutory interpretation. In accordance with the modern approach to statutory interpretation for general words, context will be considered in the first instance and not when later ambiguity arises.[70] This study will provide recommendations and ideas as to possible future amendments to Australian law to address the identified problems.[71]

Primary sources of law studied throughout this dissertation include relevant international treaties, to highlight the overarching global harmonisation of intellectual property laws. Precedent from Australia, England and the Court of Justice of the European Union (CJEU) will be analysed, as will legislation from these jurisdictions. These primary sources of law will be examined to ascertain how these jurisdictions extraneous to Australia have sought to address copyright protection for databases in consideration of developing technology.

PART ONE of this dissertation introduces the subject matter and provides context. It comprises of three chapters. This chapter (Chapter 1) introduces the main themes and the definition of a database, outlines the central thesis and details the research methodology, structure, scope and contributions that this study will make to the scholarship and practice of copyright law. It will be argued that the questions which comprise this study will make a novel and meaningful contribution to legal policy and scholarship for five reasons.

Chapter 2: will then set the framework by analysing the first research question:

Issue 1 – Philosophical Justifications for the Copyright Protection of Databases

1. What are two primary underlying philosophical justifications for the copyright protection of databases?

This chapter introduces the underlying philosophical justifications of utilitarianism and the labour theory and analyses their application to databases. It is necessary to examine these justifications because they underpin the purpose of copyright protection and, by

[70] *K & S Lake City Freighters Pty Ltd v Gordon & Gotch Ltd* (1985) 60 ALR 509, 514 (Mason J); Maree Sainsbury, 'Context or Chaos: Statutory Interpretation and the Australian Copyright Act' (2011) 32(1) *Statute Law Review* 54, 55.
[71] Hutchinson and Duncan (n 68) 101.

understanding the past, it assists with understanding what may occur in the future.[72] This chapter also addresses the underlying assumptions which underpin this dissertation. Discussion will begin with the major assumption underpinning the central thesis, which leads to examining the primary purpose/s for the implementation of copyright. Analysis ensues about the relationship between authorship, incentive to create and access to works.

At 2.3, this study examines the evident changes in technology and the social and cultural changes which have impacted the way that databases are currently produced. It discusses the apparent tensions that emerge through changes in technology and society and addresses the assumptions which have been made in response to these tensions to advance this study.

It will be argued that considerable challenges emerge when the application of legal principles that were formulated in a pre-technological, material world are applied to the current intangible, digital environment. As a starting point, ever-increasing tensions emerge between the territoriality of copyright law[73] and the non-territoriality of database mediums such as the internet.[74] Succinctly stated, arguably, the current application of copyright law to databases highlights fundamental conflicts in jurisprudence and legal policy, not only in Australia but around the world. These tensions have broad utilitarian and economic implications in future digital environments. Relevant issues include the incentive to innovate, the vesting of authorship and database rights, access to knowledge, wealth distribution and, ultimately, the future power and control of innovative freedom.[75] These issues are highly relevant and the recommendations made at the end of this study have been formulated in consideration of these tensions and their possible future implications.

Chapter 3: examines the second research question:

---

[72] Orit Fischman-Afori, 'The Evolution of Copyright Law and Inductive Speculations as to its Future' (2012) 19(2) *Journal of Intellectual Property Law* 231, 242.

[73] Jane C Ginsburg, 'Global Use/Territorial Rights: Private International Law Questions of the Global Information Infrastructure' (1994) 42 *Journal of Copyright Society of the USA* 318, 319–20.

[74] Jane C Ginsburg, 'The Cyberian Captivity of Copyright Territoriality and Author's Rights in a Networked World' (1999) 15 *Santa Clara Computer and High Technology Law Journal* 347, 347–8.

[75] Benkler (n 37) 1–28; James Boyle, 'A Politics of Intellectual Property: Environmentalism for the Net?' (1997) 47 *Duke Law Journal* 87, 90; Lawrence Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World* (Random House, 2001) viii, 5–16; Pamela Samuelson et al, 'The Copyright Principles Project: Directions for Reform' (2010) 25 *Berkeley Technology Law Journal* 1175, 1176.

Issue 2 - The Copyright Protection of Databases Under International Law, the EU and US

2. How has originality and authorship of databases evolved under international law, the EU and US?

Firstly, the three standards of originality which are used around the world will be examined. This will lead into an analysis of the treatment of databases under international law and it will be argued that international law favours a creativity standard of originality. Then the treatment of databases in the EU and the US will be analysed to distil key points that will later be compared to the corresponding legal protection of databases under Australian law.

PART TWO comprises three chapters and will investigate the third question.

Issue 3 – Database Originality and Authorship in Australia

3. What are the Australian copyright subsistence criteria and over the last 200 years, how has originality and authorship judicially evolved to regulate the protection of databases?

The first two chapters of PART TWO will undertake a literature review, primarily focusing upon Australian law and the last chapter will engage in legal analysis. Chapter 4: introduces and contextualises the statutory subsistence criteria, all of which must be satisfied for copyright to subsist in a database. This chapter will explain the application of fundamental concepts to databases, such as the idea/expression dichotomy and the Romantic authorship construct. It examines the judicial evolution of originality and authorship in Australia by examining English precedent from the 18th through to the 20th century. Arguably, the social context at that time influenced judicial decision making, with unfair competition principles and pirating initially influencing the application of originality. This was in favour of the public benefit in the late 18th and early 19th centuries. As time progressed and originality was codified in legislation in the early 20th century, this study will argue that a noticeable shift occurred in which originality became synonymous with authorship.

The balance subsequently swung from potential public policy benefits and detriments of pirating towards an 'author-orientated' (author-centric) focus, where it was essential to precisely establish the extent of authorial labour invested. It will be argued that this correlated with the domination of the economic foundations of the 20th century, which revolved around restrictions in supply.

Then Chapter 5: will continue to answer the third issue pertaining to how the judicial application of originality and authorship has evolved to regulate the protection of databases. To achieve this, it will examine early 21st century Australian jurisprudence regarding originality and authorship. It will be argued that as the early 21st century continued, so an increasingly atomistic judicial examination occurred which focused on an author's 'labour', 'skill' and 'expense' in producing the work. It will be argued that authorship was subsequently used as a vehicle by which to assert private interests and ownership, to control works in favour of any potential public interest in utilising works. This was important because it determined who could control and ultimately access databases. However, the 2009 landmark case of *IceTV Pty Ltd v Nine Network Australia Pty Ltd* ('*IceTV*') resulted in a re-orientation of the originality standard and this chapter will examine the judicial application of *IceTV* precedent in subsequent database cases.

Chapter 6: will then evaluate the fourth question:

Issue 4 – The Limitations of the Copyright Protection of Databases in Australia

> 4. How does the current Australian judicial application pertaining to originality and authorship purport to under-protect some databases?

The chapter will address the central thesis by analysing how, in recent times, changes in technology have purported to have affected the way that originality and authorship are judicially applicable to some private databases. It will be seen that tensions from laws that have their origins in a pre-technological era emerge when applied to modern databases. In recent cases, copyright has failed in some private databases due to a lack of traceable human authorship and 'independent intellectual effort'. For this reason, it will be seen that some database owners have argued that the Australian copyright subsistence framework pertaining to originality and authorship has reached its limitations. This is because some database producers who have wished to monetise their databases have been unable to do so,

thus leading to a perception of under-protection for databases through copyright. Some commercial producers have found that their valuable databases (which have involved collaborative efforts in production) have fallen outside of copyright, leaving them vulnerable to economic exploitation. From a Lockean perspective, this discourages economic investment in database production and produces a negative outcome, due to a lack of incentivisation provided for authors to invest in or create a database.

It will be argued that there has been an abrupt shift in precedent, where private rights which were increasingly emphasised to the detriment of public interest throughout 19th and 20th century have suddenly been ignored. Instead, the economic rights of some databases have been minimised, which has led to this perception of under-protection by some database producers. Arguably, this reflects an unbalancing of the incentive/access paradigm which subsequently requires rebalancing.

Next, to investigate possible avenues to achieve this, PART THREE will consider whether a sui generis database right similar to that used in Europe would likely result in suitable protection for Australian databases. It comprises of three chapters which will examine the fifth question:

Issue 5 – Databases and Sui Generis Protection

5. What lessons can be learned from the EU sui generis database right, if Australia were to implement such a regime?

To investigate the lessons that can be learned from the EU sui generis right, Chapter 7: shall use the UK as a case study. It will investigate how the UK protected databases during its time as a long-standing Member State of the EU. Although the UK recently departed the EU through the Brexit referendum, for two reasons, its precedent regarding the protection of databases remains highly relevant. Firstly, historically, Australia shares its common law and statutory origins with England, as analysed in Chapter 4:. Both jurisdictions share commonalities in legal precedent until they diverged from each other at a particular point in time, which makes them amenable for comparison. Secondly, England is an appropriate case study because as a past Member State of the EU for over 40 years it reflected EU

copyright laws and, accordingly, underwent a process of regional harmonisation and compliance.[76]

As a then-EU Member State, sui generis database protection occurred in the UK through *Directive 96/9/EC of the European Parliament and the Council of 11 March 1996 on the Legal Protection of Databases* (hereafter 'the Directive', 'the Database Directive' or 'EU Directive').[77] Because each Member State is responsible for harmonising their national laws with the Directive,[78] the UK complied by implementing sui generis protection through national database law after 1996.[79] English database cases referred to the CJEU will also be analysed.

To fully examine the nuances of the English protection of databases, Chapter 7: will firstly examine the copyright protection of databases in the UK prior to the implementation of the EU Directive. The judicial interpretation of copyright in relation to originality and authorship will be the focus. It will be argued that England shared commonalities with Australian copyright law pre-2009, which are clearly discernible in English precedent. This chapter will also discuss the rationales behind the EU's implementation of the Directive. It will also discuss the likely implications of Brexit on the future protection of UK databases.

Chapter 8: will then analyse the English application of the Directive, with reference to relevant preliminary rulings which were referred to the CJEU. What will be revealed in relation to originality in the CJEU is that an autonomous concept of Community law has evolved, with a standard which requires an author to demonstrate their 'personal touch'[80] through 'free and creative choices'. It will be argued that this parallels the current situation

---

[76] Eleonora Rosati, 'Brexit and UK Copyright: The Story of a Loss Among All Other Losses' (2016) 11(8) *Journal of Intellectual Property Law & Practice* 563, 563.

[77] [1996] OJ L 77/20.

[78] IT IP Law Group Europe, 'IT & IP Litigation in Europe: A Legal Guide for Foreign Lawyers' (Working Guide from IT IP Law Group: A Pan European Network of Specialist Law Firms, 2017) 17.

[79] *Football Dataco Ltd and Others v Sportradar GmbH and Others* [2011] EWCA Civ 330 (Ch) [13] (Laws, Jacob and Wilson LJ).

[80] *Infopaq International A/S v Danske Dagblades Forening* (Case C-5/08) [2009] ECR I-6569 ('*Infopaq*'), [45], affirmed in *Bezpečnostní softwarová asociace - Svaz softwarové ochrany v Ministerstvo kultury* (Case C-393/09) [2010] ECR I-13971 [45], [50]; *Association Premier League Ltd and Others v QC Leisure and Others* (Court of Justice of the European Communities, C-403/08 and C-429/08, 4 October 2011), [97]; *Eva-Maria Painer v Standard VerlagsGmbH and Others* (Court of Justice of the European Communities, C-145/10, 1 December 2011), [89] and [92]; *Football Dataco Ltd and Others v Yahoo! UK Ltd and Others* (Court of Justice of the European Communities, C-604/10, 1 March 2012), [38] ('*Football Dataco*').

under Australian law, where mere labour and skill is insufficient[81] to establish originality. In relation to the database right, the CJEU has found that two conditions must be met: (1) data must be structured within a database,[82] and (2) the database must have been produced via 'substantial investment'.[83] In recent years, interpretation of the right has been narrowly construed; accordingly, it will be argued that the CJEU has been highly conscious of defining the boundaries between data itself and the expression of data under the database right, analogous to the distinction in the idea/expression dichotomy (see 4.3). It will be seen, however, that the narrow interpretation of the right has resulted in some databases falling outside of protection, once again leaving some commercially valuable databases under-protected.

Finally, Chapter 9: will evaluate whether Australia should enact sui generis protection, ultimately advising against doing so. In considering this issue, analysis from the two official evaluations of the Directive will be discussed. The first evaluation from 2005 acknowledged that the economic benefits of the sui generis right had been unproven.[84] The second evaluation from 2018 found that there was no immediate need for policy changes but there was a need to monitor how future laws (for example, those pertaining to public sector information or open access initiatives) would interact with the Directive.[85] It was postulated that future amendments would be needed to clarify various identified legal uncertainties. It will be argued that these uncertainties are substantial enough to warrant great caution in implementing such a regime in Australia.

A notice from the European Parliament to the European Commission in consideration of the recent initiative towards a European Digital Single Market will also be considered. This

---

[81] Ibid, Opinion of Advocate General Mengozzi, delivered on 15 December 2011.

[82] *EU Directive* (n 19), art 1 § 2.

[83] *Fixtures Marketing Ltd v Organismos Prognostikon Agonon Podosfairou ('OPAP')* (C-444/02) [2004] ECR I-10590 [35]; *British Horseracing Board v William Hill Organisation* (Case C-203/02) [2005] I-10461, [32], [46] ('*BHB*'); *Directmedia Publishing GmbH v Albert-Ludwigs Üniversität Freiburg* (Case C-304/07) 9 October 2008, [33] ('*Directmedia*'); *Innoweb BV v Wegener ICT Media BV, Wegener Mediaventions BV* (Case C-202/12) 19 December 2013, [36].

[84] European Commission, 'First Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (DG Internal Market and Services Working Paper, Brussels, 12 December 2005) 5.

[85] European Commission, 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (Commission Staff Working Document, Brussels, 25 April 2018, SWD(2018) 147 final) 2; European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (Final Report prepared by the Joint Institute for Innovation Policy and Technopolis Group, Study SMART number 2017/0084, 2018) vii.

notice advised follow-up on policy options to abolish the EU Directive[86] and presents a strong argument against implementation of such a regime in Australia. Finally, in consideration of these issues, this chapter will analyse the reasons that encourage and discourage implementation of sui generis database protection within Australia. **It will ultimately advise against such implementation.**

PART FOUR will examine possibilities for the future direction of database protection in Australia by focusing on open access schemes for publicly funded databases. It comprises two chapters. Chapter 10: will examine the sixth research question:

Issue 6 - Databases and Licensing: Open Access (Public Databases)

6. What lessons can be learned from current open access initiatives if applied to Australian databases?

Chapter 10: will examine what an open access work is and explain the underlying philosophical and social rationales for making information freely available. It will use the example of academic publishing to contrast the rights of authors and rights-holders in traditional public practices to open access publishing (OAP).

Creative Commons, an open content licensing protocol, will be analysed in an evaluation of whether its principles would be suitable for the protection of public databases within Australia. This involves discussion about the advantages and disadvantages of using Creative Commons for public sector information. It will be argued that the most prominent disadvantage from a cost-recovery perspective is that open access works (OAWs) are irreconcilable with the traditional notion of monetarily incentivising an author for producing a work. This will lead to a recommendation that the future development of hybrid OAP models warrant further investigation.

Based upon the findings from each chapter, the overarching conclusion in Chapter 11: presents recommendations for the future copyright protection of databases in Australia. It posits that copyright, sui generis and open access schemes contain the underlying

[86] European Parliament, 'Towards a Digital Single Market Act - European Parliament resolution of 19 January 2016 on Towards a Digital Single Market Act (2015/2147(INI)' *European Parliament* (Web Page, 2020) [108] <https://www.europarl.europa.eu/doceo/document/TA-8-2016-0009_EN.html>.

philosophies and doctrines to address this issue, but that some amendments are needed to the current law. Taking into consideration the major arguments from each chapter, a multi-pronged approach will be advised to address the problems outlined above. Several recommendations for the amendment of current copyright law will be made.

Favouring an underlying economic approach to this issue, these recommendations include:

- No changes to the post-*IceTV* originality criterion, which is now in quasi-global harmonisation with the rest of the world;
- Amendment to *the Act* to make provision for the authorship of computer generated works (CGW) and works involving DBMS where it is difficult to directly trace the labour back to a human author;
- The possibility of introducing a new type of data right or a new category of database right under copyright law (not a Part III or Part IV work);
- Although it is beyond the scope of this study, a recommendation for further research and investigation about the introduction of a new type of neighbouring right, as suggested in the EU;
- Alternatively, a most extreme amendment would be the implementation of a sui generis database right, similar to that employed in the EU and UK. This, however, is not a preferable option for many reasons, as analysed in Chapter 9:. If this occurs, though, it is highly recommended that this be an 'opt-in' scheme, where owners register for the right, instead of a right which automatically subsists. If such a right were implemented, it would also be essential to consider how it interacts with open access initiatives and to qualify this interaction up-front;
- Alternatively, in favouring a utilitarian approach to future Australian database protection, it is recommended that the *status quo* in copyright be maintained, through: (1) the promotion of ongoing open access initiatives, along with (2) further research and development about various types of licencing schemes, which make provision for databases produced through various combinations of public and private initiatives.

1.5 Scope

The scope of this study primarily pertains to copyright law, because in considering IP rights, copyright is one of the principle mechanisms for the assignment of ownership and the right

to access goods. Also, as occurs in many common law jurisdictions, Australia has traditionally protected databases through copyright. This is substantially reflected in legislation and precedent[87] and by the fact that there is currently no database right extraneous to copyright, such as a sui generis right.

The chosen jurisdictions are appropriate to study because they are members of the *Berne Convention*,[88] ('*Berne*') an international convention which harmonises intellectual property rights around the world. *Berne* sets minimum international standards for copyright protection and member nations must, at least, reflect the prescribed standard within their national legislation.[89] The jurisdictions examined in this dissertation are also members of the *TRIPS Agreement*,[90] ('*TRIPS*') another international convention which seeks to harmonise intellectual property rights across the globe and which incorporates *Berne*.[91]

The EU has been chosen for study because it is a significant trading partner with Australia, it has numerous treaties with Australia and it influences the UK. Additionally, the EU substantially influences a broad spectrum of private and public laws around the world. In the global context of IP rights, the EU wields considerable power in any international negotiations pertaining to the protection of databases or any other copyright-protectable subject matter.[92] Although the UK has departed the EU, as a former EU Member State, its application of copyright and database law also remains relevant. Past copyright jurisprudence referred by the UK to the CJEU, therefore, remains highly relevant to this study.[93]

1.6 Contributions to the Scholarship and Practice of Copyright Law

This dissertation will make a meaningful and novel contribution to legal policy and scholarship for five reasons. Firstly, it is timely to examine these issues in Australian

---

[87] Gosnell (n 18) 642.
[88] *Berne Convention for the Protection of* Literary *and Artistic Works*, opened for signature 9 July 1886, 943 UNTS, 178 ('*Berne*'. The UK signed *Berne* on behalf of its dominions (including Australia) on 5 December 1887. *Berne* formally entered into force in Australia on 1 March 1978 and the US on 1 March 1989.
[89] Susy Frankel, 'The International Copyright Problem and Durable Solutions' (2015) 18(1) *Vanderbilt Journal of Entertainment and Technology Law* 39, 66–8.
[90] *Agreement on Trade-Related* Aspects *of Intellectual Property Rights* opened for signature 15 April 1994, 1869 UNTS 299 (entered into force 1 January 1995) ('*TRIPS*').
[91] See 3.2.
[92] Estelle Derclaye, *The Legal Protection of Databases: A Comparative Analysis* (Edward Elgar Publishing, 2007) 5.
[93] Rosati, 'Brexit and UK Copyright: The Story of a Loss Among All Other Losses' (n 76) 563.

copyright law because of the evident tensions and limitations which are emerging due to the application of legal precedent which has its origins in a pre-technological era to new technology. As alluded to in the quote at the beginning of this study, the changes in technology during the fourth industrial era place heightened tension upon the application of the law. Also, the protection of private databases which fall outside of copyright has not received any attention from Australian policy makers in recent times. At a future time, when policy makers refocus their attention to the issue of whether sui generis protection should be implemented, the analysis here will convey the nuances of these complex issues in the context of the fourth industrial era. The recommendations made will usefully provide a reasoned approach to these problems and are relevant to data collation and communication industries, within Australia presently and into the future.

Secondly, from an academic and jurisprudential viewpoint, originality and authorship are key doctrines of Australian copyright law and, therefore, fresh analysis pertaining to their recent judicial application to some databases in the fourth industrial era will make an important contribution to scholarly knowledge in these fields for current and future understanding.

Thirdly, the issues analysed throughout this study are important for the future because existing international and national copyright framework has the capacity to shape the future socio-cultural, economic, scientific and technological direction of humanity via its treatment of some databases. This is because copyright facilitates proprietary rights and database authorship which, ultimately determines the control of and access to data. Subsequently, copyright is vital because it has the capacity to control future public access to knowledge.[94] Therefore, analysis about the application of copyright to databases significantly contributes to ongoing global legal development and ultimately will contribute to the control of future knowledge and innovative freedom.

Fourthly, this dissertation advances scholarship in relation to copyright, sui generis rights and open access. It achieves this by undertaking a novel approach which seeks to balance the underlying rationales and philosophical justifications of these areas with the pressures evident from new technology. It seeks novelty in its overall approach to the thesis question through the underlying distinction which is emphasised between private and public

[94] Samuelson et al, (n 75) 1176.

databases. This leads to subsequent investigation about sui generis database rights on one hand and open access works on another.

Fifthly, although the issue of whether Australia should implement sui generis protection has been studied in the past by various legal scholars, this study presents current perspectives to this problem. Through the scope of the recommendations, the overall aim of this study is to contribute to current scholarly knowledge and debate within this area of the law. The recommendations developed resolve currently identified problems. They also seek to re-orientate the direction of copyright law to cope with the ongoing and future pressures which are evident from the application of new technologies on the law. For the above reasons, this study makes a novel contribution to future legal scholarship and policy.

1.7 Conclusion

Having introduced the major themes, central thesis, methodology and structure, six research questions, scope and how this dissertation will contribute to scholarly knowledge and the practice of law, the next chapter will distil the major underlying assumption which underpins the central thesis. This assumption is that copyright *should* protect databases. Subsequently, the chapter will explain the purported significance of the under-and-over protection of databases. To do this, it will first examine the major philosophical justifications for protecting databases and discuss their applicability to databases. Then it will examine the fascinating relationship which exists between incentive to create, authorship and access. After this, it will discuss emerging technological, social and cultural trends which both favour strengthening and weakening database protection. Assumptions which have been made in response to these developments to advance the study will be disclosed. Finally, Chapter 2: will discuss the role that copyright policy will play in future digital economies. To do this, the purported ramifications of the under-and-over protection of databases through copyright will be discussed.

CHAPTER 2: THE UNDER-AND-OVER PROTECTION OF DATABASES AND HOW THIS RELATES TO THE CENTRAL THESIS

As previously stated, **the central thesis advances that some database producers purport that the current judicial application of Australian copyright subsistence under-protects some privately funded databases. This is because originality and authorship fail when considering the processes involved in the creation of some private databases.** This means that some commercially valuable databases are vulnerable to economic exploitation, which discourages investment in databases from a Lockean perspective. In declaring this, however, an inherent underlying assumption exists that copyright *should* protect these databases.

To justify this assumption, it becomes necessary to identify and understand why the purported under-and-over protection of databases is important to some producers. Exploring this issue requires (1) identification and application of the significance of the primary purposes of copyright to databases and (2) an exploration of current technological, social and cultural trends which pressurise the future role of copyright law with regard to database protection.

In considering point (1), this chapter will examine the underlying rationales for copyright protection, by addressing the first question posed for analysis:

Issue 1 – The Philosophical Justifications for the Copyright Protection of Databases

1. What are two primary underlying philosophical justifications for the copyright protection of databases?

The chapter will examine the two primary competing philosophical justifications for the historical implementation of copyright: the utilitarian and labour-based approaches. This will lead into an exploration of the fascinating relationship between incentive to create, authorship and access, which highlights the tensions arising from the two philosophical approaches. After this, to address point (2), this chapter will explore how emerging social, cultural and technological trends will likely pressurise the role of copyright in the future protection of databases and state assumptions made in response to these trends.

2.1 Philosophical Justifications for Protecting Databases Through Copyright

In beginning this analysis, the next section will briefly outline the arguments which confer property rights onto the creators of intellectual works. As expertly explained by a copyright scholar, there are seven non-conclusive, and debatable justifications which fall under two theoretical strands:[95]

2.1.1 Utilitarianism

- Instrumentalism/utilitarianism[96] aims to promote innovation and productivity[97] by incentivising the public good. A balance is sought between the economic rights of authors and the public interest.[98] Copyright is emphasised as a proprietary (private) right, which is to the detriment of the public domain (public).[99]

2.1.2 Labour-Based Approaches

- Labour (Lockean) theory – this was espoused by English enlightenment philosopher and physician John Locke. This theory has heavily influenced copyright precedent and policy around the world, particularly in England and colonies.[100]

---

[95] Lior Zemer, *The Idea of Authorship in Copyright* (Ashgate, 2007) 9–25.
[96] Ibid 9–13.
[97] *TRIPS* (n 90) art 7.
[98] Zemer, *The Idea of Authorship in Copyright* (n 95) 10.
[99] Boyle, *Shamans, Software and Spleens* (n 60) 244.
[100] Zemer, *The Idea of Authorship in Copyright* (n 95) 13. Also see generally, Carys J Craig, 'Locke, Labour and Limiting the Author's Right: A Warning against a Lockean Approach to Copyright Law' (2002) 28 *Queen's Law Journal* 1; Carys J Craig, *Copyright, Communication and Culture – Towards a Relational Theory of Copyright Law* (Edward Elgar, 2011) 67–102; Benjamin Damstedt, 'Limiting Locke: A Natural Law Justification for the Fair Use Doctrine' (2003) 112 *The Yale Law Journal* 1179; Abraham Drassinower, 'A Rights-Based View of the Idea/Expression Dichotomy in Copyright Law' (2003) 16(1) *Canadian Journal of Law and Jurisprudence* 3; Joseph A R Gerber, 'Locking out Locke: A New Natural Copyright Law' (2017) 27 *Fordham Intellectual Property Media & Entertainment Law Journal* 613; Wendy J Gordon, 'A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property' (1993) 102 *Yale Law Journal* 1533; Steven J Horowitz, 'Rethinking Lockean Copyright and Fair Use' (2005) 10(1) *Deakin Law Review* 209; Justin Hughes, 'The Philosophy of Intellectual Property' (1988 – 1989) 77 *Georgetown Law Journal* 287; Michael Edward Kenneally, *Intellectual Property Rights and Institutions: A Pluralist Account* (Doctoral Dissertation, Harvard University, 2014) 48-55; Jacqueline Lipton, 'Information Property: Rights and Responsibilities' (2004) 56 *Florida Law Review* 135; Robert Merges, 'Locke for the Masses: Property Rights and the Products of Collective Creativity' (2007) 36 *Hofstra Law Review* 1179; Alexander D Northover, '"Enough and as Good" in the Intellectual Commons: A Lockean Theory of Copyright and the Merger Doctrine' (2016) 65 *Emory Law Journal* 1363; Jonathan Peterson, 'Legal Theory' (2008) 14(4) *Legal Theory* 257; Karl Widerquist, 'Lockean Theories of Property: Justifications for Unilateral Appropriation' (2010) 2(1) *Public Reason* 3; Alfred C Yen, 'Restoring the Natural Law: Copyright as Labor and Possession' (1990) 51 *Ohio State Law Journal* 517; Lior Zemer, 'The Making of a New Copyright Lockean' (2006) 29 *Harvard Journal of Law and Public Policy* 891. See also *CCH Canadian Ltd v Law Society of Upper Canada* [2004] 1 SCR 339.

- Personhood theory – this justification originates from Hegelian and Kantian philosophies.[101] It espouses that copyright is a manifestation of an 'individual's mental processes'.[102]

- Social-institutional-planning – a major feature is cultural diversity, with the aim of promoting civic culture from a robust and balanced copyright regime.[103]

- Traditional proprietarianism – this justification promotes copyright as a traditional form of property, with debates about traditional concepts of ownership, entitlement and trespass to copyright.[104]

- Authorial constructionism – this justification debates the social perspective of copyright, while criticising and deconstructing the Romantic notion of an individual genius author.[105] Arguments here often debate ultimate originality,[106] finding that the works of authors are influenced socially and draw upon the works of others.

- Social constructionism – this rights-based justification promotes both public and private rights and promotes a public property right in all works. It emphasises the acts of collaboration which occur between authors and the public collectively and seeks to emphasise their mutuality as joint creators through a balanced reward.[107]

Of importance to this study is that all the justifications in both categories espouse similar nuances. Their elements are often combined pluralistically by various scholars in legal analysis.[108] For example, the Lockean theory contains elements of naturalist[109] and instrumentalist theories.[110] In their most extreme versions, however, these justifications are

---

[101] See generally, Anne Barron, 'Kant, Copyright and Communicative Freedom' (2012) 31(1) *Law and Philosophy* 1; Kim Treiger-Bar-Am, 'Kant on Copyright: Rights of Transformative Authorship' (2008) 25(3) *Cardozo Arts and Entertainment* 1060.

[102] Hughes, 'The Philosophy of Intellectual Property' (n 100) 331– 7.

[103] Zemer, *The Idea of Authorship in Copyright* (n 95) 17.

[104] Ibid 18–9.

[105] Ibid 19. See also Mark A Lemley, 'Book Review: Romantic Authorship and the Rhetoric of Property' (1997) 75 *Texas Law Review* 873.

[106] Zemer, *The Idea of Authorship in Copyright* (n 95) 20, citing Jessica Litman, 'The Public Domain' (1990) 39 *Emory Law Journal* 965, 966.

[107] Ibid 21 and ch 5.

[108] Zemer, *The Idea of Authorship in Copyright* (n 95) 21–2; see generally, D B Resnik, 'A Pluralistic Account of Intellectual Property' (2003) 46(4) *Journal of Business Ethics* 319.

[109] See generally, Wendy J Gordon, 'A Property Right in Self-Expression' (n 100).

[110] Rebecca Giblin and Kimberlee Weatherall, 'If We Redesigned Copyright from Scratch, What Might It Look Like?' in Rebecca Giblin and Kimberlee Weatherall (eds), *What If We Could Reimagine Copyright?* (Australian National University Press, 2017) 1, 3–19.

inconsistent with one another; for example, instrumentalism posits that the granting of property rights to authors is necessary to ensure creation for the public, whereas naturalism treats the role of the public as being secondary to incentivising authors.[111]

Despite this, what is interesting when examining copyright jurisprudence, treaties and national laws relevant to databases is that the underlying themes and elements common to all justifications co-exist.[112] Indeed, national copyright policies often express a mixture of both philosophies. Of note is that these justifications are reconciled in the international IP regime, with some World Trade Organisation (WTO) countries historically having naturalist backgrounds and others bringing instrumentalist backgrounds. This will be discussed in Chapter 3: which initially focuses upon the treatment of databases in international law. The next section will discuss the application of labour-based theory to private databases and will outline the assumption made in response to this.

2.1.3 The Application of Labour Based Theory to Databases

This section focuses upon two strands of labour-based theory. The first reflects the philosophy of Locke[113] and purports to reward database producers for their labour.[114] The labour theory aims to strike a balance between the rights of the producer and the public, with two primary interpretations: (1) in order to have labour, society *must* provide authorial reward; or (2) authorial labour *should* be rewarded.[115] Effort, such as the time and labour spent in creating the database, is incentivised through the granting of a monopolistic head-start in which to recoup the investment.[116] Under this strand, some database producers seek to obtain a reward for production by controlling access to and re-utilisation of the database. This reward for the 'fruits of labour' is said to encourage future market wealth via subsequent incentive to create,[117] or incentive to commercialise in the modern world.[118]

---

[111] Edwin Hettinger, 'Justifying Intellectual Property' (1989) 18(1) *Philosophy & Public Affairs* 31, 48.
[112] Giblin and Weatherall (n 110) 17.
[113] See generally, John Locke, *Second Treatise on Government* (1680).
[114] Hughes, 'The Philosophy of Intellectual Property' (n 100) 296.
[115] Ibid.
[116] Jacqueline Lipton, 'Balancing Private Rights and Public Policies: Reconceptualizing Property in Databases' (2003) 18 *Berkeley Technology Law Journal* 773, 776.
[117] Locke, *Second Treatise on Government* (n 113); Hettinger, 'Justifying Intellectual Property' (n 111) 36–7.
[118] Jane C Ginsburg, 'Creation and Commercial Value: Copyright Protection of Works of Information' (1990) 90 *Columbia Law Review* 1865, 1866; Adam Mossoff, 'How Copyright Drives Innovation: A Case Study of Scholarly Publishing in the Digital World' [2015] (3) *Michigan State Law Review* 955, 956–7.

The second strand reflects the personhood philosophy of Georg Wilhelm Friedrich Hegel;[119] this personality theory considers a work to be an expression of the author.[120] It is rooted in the dignity of personhood and espouses that an author has the right to protect the integrity of their work as an extension of the right to protect their personality.[121] Therefore, in expressing ownership, an individual will impose their creative will upon their work.[122] Because this standard is mostly relied upon in civil law countries,[123] its judicial application and history will be scantly examined within this dissertation.[124]

The first strand pertaining to the proprietary (economic) interests in database production has been heavily endorsed by historical copyright jurisprudence in countries which have their origins in Imperial British law, such as Australia.[125] This underlying doctrine is reflected in many Parliamentary debates and legislation. For example, s 3(a)(i) of the *Copyright Amendment (Digital Agenda) Act 2000* (Cth) states that that Act's objective is to promote the creation of new technologies 'by allowing financial rewards for creators and investors.' This theory is also endorsed through 'promotion of the sciences and the arts' in the *US Constitution*.[126]

Economically, some modern commercial databases are expensive to produce, particularly when they involve the use of sophisticated software and DBMS. Significant investment often goes into their development, creation and upkeep, and such works often generate substantial profit, through access fees.[127] This is evidenced in 2010 Australian case of *Telstra*,[128] where the production cost of the Sensis database was $300 million, with the

---

[119] See generally, Georg Wilhelm Friedrich Hegel, *Elements of the Philosophy of Right* (1821), Allen Wood (ed), (Cambridge University Press, 1991).
[120] Christopher Yoo, 'Copyright and Personhood Revisited' (Faculty Scholarship Paper 423, University of Pennsylvania Law School, 2012) 2–3.
[121] Ibid.
[122] Abraham Drassinower, 'Copyright is Not About Copying' (2012) 125(1) *Harvard Law Review* 108, 108; Hughes, 'The Philosophy of Intellectual Property' (n 100) 287–8.
[123] Derclaye, *The Legal Protection of Databases* (n 92) 1.
[124] See generally, *Feist* (n 38).
[125] Derclaye, *The Legal Protection of Databases* (n 92) 1. See, eg, *CCH Canadian Ltd v Law Society of Upper Canada* (n 100); *Sawkins v Hyperion Records Ltd* (n 38); *Henkel KgaA v Holdfast New Zealand Ltd* [2007] 1 NZLR 577 (New Zealand). Also see C D Freedman, 'Should Canada Implement a New Sui Generis Database Right?' (2002) 13(1) *Fordham Intellectual Property, Media and Entertainment Law Journal* 36, 71; and generally, Carys J Craig, 'The Evolution of Originality in Canadian Copyright Law' (n 100); Abraham Drassinower, 'Sweat of the Brow, Creativity, and Authorship: On Originality in Canadian Copyright Law' (2003–2004) 1 *University of Ottawa Law and Technology Journal* 105.
[126] *United States Constitution*, art I, § 8, cl 8.
[127] John Hayden, 'Copyright Protection of Computer Databases After Feist' (1991) 5 *Harvard Journal of Law & Technology* 215, 216.
[128] *Telstra Corporation Limited v Phone Directories Company Pty Ltd* (2010) 264 ALR 617 ('*Telstra*').

development process taking over five years.[129] During the 2006 financial year, the profits for two telephone directories produced via relational databases exceeded $1 billion and $300 million respectively.[130]

The ruling in this case prompted the argument that unless copyright protects most databases, creators will lack incentive for production.[131] Some scholars have argued that if databases are generally under-protected by copyright, substantial investment into database creation will cease[132] or the production of such databases will be restrained to 'suboptimal levels.'[133] The private proprietary (economic) rights granted to database producers embody traditional norms of individual authorship and ownership.[134] As stated by Finkelstein J: 'databases provide a wealth of information … if copyright protection is not given, the investment of time and money that is required to produce those compilations will not be forthcoming.'[135]

Labour theory espouses that if under-protection ensues via copyright, then an author may be deprived of the economic opportunity for a legal monopolistic head-start in which to exploit their work.[136] It is argued that if this head-start is not granted, market failures or misappropriation of a database may occur, and overall production may decline due to free-riding.[137] Free-riding occurs when a second-comer profits from data-mining.[138] By freely engaging in data-mining from an existing database, the second-comer gains an economic advantage because they do not have to invest in set-up and collation. It is important that databases not be under-protected through copyright, as opposed to under-protection generally, because copyright is one of principle mechanisms by which to assign ownership

---

[129] Ibid 639 [72] (Gordon J).
[130] Ibid 634 [52] (Gordon J).
[131] J R Boyarski, 'The Heist of Feist: Protections for Collections of Information and the Possible Federalization of "Hot News"' (1999) 21 *Cardozo Law Review* 871, 877; William M Landes and Richard A Posner, 'An Economic Analysis of Copyright Law' (1989) 18 *Journal of Legal Studies* 325, 328.
[132] Boyarski (n 131) 877.
[133] J H Reichman and Pamela Samuelson, 'Intellectual Property Rights in Data?' (1997) 50 *Vanderbilt Law Review* 51, 55; Hettinger (n 111) 36.
[134] Aaron Perzanowski and Jason Schultz, 'Reconciling Intellectual and Personal Property' (2015) 90(3) *Notre Dame Law Review* 1211, 1211–12.
[135] *Telstra Corporation Limited v Desktop Marketing Systems Pty Ltd* (2001) 181 ALR 134, 157 [83].
[136] Reichman and Samuelson (n 133) 145–58.
[137] Paula Baron, 'Back to the Future: Learning from the Past in the Database Debate' (2001) 62 *Ohio State Law Journal* 879, 880; Brian L Frye, 'Against Creativity' (2017) 11 *New York University Journal of Law and Liberty* 426, 428.
[138] See Patricia Loughlan, 'Pirates, Parasites, Reapers, Sowers, Fruits, Foxes … The Metaphors of Intellectual Property' (2006) 28 *Sydney Law Review* 211, 217.

and the right to access goods. The copyright regime offers a robustness and legal certainty to those involved.

It is, however, also possible to over-protect databases through too strong a copyright regime. The argument is that such protection would lead to the creation of stringent monopolies, which results in the restriction of access to data or the capacity for owners to charge for access to facts.[139] There is a risk of privatising and monopolising pricing which ultimately restricts access to information.[140] This is concerning, particularly when considering sole-source/synthetic databases (databases which collate unique, non-fungible data with scarcity value, which cannot be reproduced via independent collation).[141] The restriction of access presents challenges in any subsequent collation of this type of information.

It is for this reason that some commentators have argued that sole-source databases should be protected in a different way to other databases.[142] This is because there is a risk that granting protection to sole-source databases effectively equates to a legal and economic monopoly over facts that cannot be sourced from anywhere else.[143] This monopoly is similar to the idea-expression dichotomy in copyright,[144] leading to argument that a mandatory licensing scheme should apply for such databases.[145] Consideration must also be given to databases which are created incidentally as a by-product of another database (a 'spin-off'

---

[139] Ranjit Kumar, 'Database Protection – the European Way and Its Impact on India' (2005) 45 *IDEA – The Intellectual Property Law Review* 97, 111–12; Reichman and Samuelson (n 133) 53–5; Charles Von Simson, 'Feist or Famine: American Database Copyright as an Economic Model for the European Union' (1995) 20 *Brooklyn Journal of International Law* 729, 766–8; Peter K Yu, 'The Trust and Distrust of Intellectual Property Rights' (Legal Studies Research Paper Series No 02-04, Michigan State University College of Law, 2004) 9.

[140] Neeta Thakur, 'Database Protection in the European Union and the United States: the European Database Directive as an Optimum Global Model' (2001) 1 *Intellectual Property Quarterly* 100, 130.

[141] Australian Government Productivity Commission, 'Data Availability and Use' (n 6) 62; Amar A Hasan, 'Sweating in Europe: The European Database Directive' (2005) 9 *Computer Law Review and Technology Journal* 479, 483–4.

[142] Jonathan Band and Makoto Kono, 'The Database Protection Debate in the 106th Congress' (2001) 62 *Ohio State Law Journal* 869, 872–3; Mark J Davison and P Bernt Hugenholtz, 'Football Fixtures, Horse Races and Spin-offs: The ECJ Domesticates the Database Right' (2005) 27(3) *European Intellectual Property Review* 113, 115; P Bernt Hugenholtz, 'Abuse of Database Right Sole-Source Information Banks Under the EU Database Directive' (Paper presented at the Antitrust, Patent and Copyright Conference, 15-16 January 2004).

[143] Daniel Gervais, 'The Protection of Databases' (2007) 82(3) *Chicago-Kent Law Review* 1109, 1163–4; Maurice Schellekens, 'A Database Right in Search Results? An Intellectual Property Right Reconsidered in Respect of Computer Generated Databases' (2011) 27(6) *Computer Law and Security Review* 620, 627.

[144] Derclaye, *The Legal Protection of Databases* (n 92) 179.

[145] US Office of the General Counsel, 'Database Protection and Access Issues, Recommendations Patent and Trademark Office Report on Recommendations from the April 1998 Conference on Database Protection and Access Issues', *United States Patent and Trade Mark Office* (Web Page, 7 April 2009) <http://www.uspto.gov/ip/events/database/dbase498.jsp>.

database) as opposed to a database created as a primary product (see 8.3.2). The very creation of such incidental databases has led to questions regarding the need for extra incentivisation through copyright. An assumption made throughout this study is that most producers of such by-product databases would wish to monetise them through labour-based theory, to capitalise upon their creation, despite the limited degree of primary investment in the database to begin with.

The application of labour-based theory in copyright has the capacity to provide market stability for database authors. It achieves this by preventing market failures or data misappropriation through free-riding by a second-comer.[146] This is important when the cost of accessing, copying or reproducing some databases is often a fraction of the establishment, upkeep and protection costs.[147] Therefore, relying on Finkelstein J's argument and the economic evidence from the Telstra case, it is assumed throughout this study that the economic investment in some databases as a marketplace asset justifies their ongoing protection by addressing the limitations of the current application of originality and authorship. The next section will examine public databases and the assumptions made about utilitarian theory through public interest rights.

2.1.4 The Application of Public Interest Theory to Public Databases

What constitutes the 'public interest' is a complex issue which has long vexed philosophers to the point of remaining 'totally undefined'.[148] The notion varies, depending on its context — that is, who is involved and how it is being articulated — which often results in complementary or conflicting outcomes.[149]

Recently, this issue has been thoroughly re-examined by prominent Australian scholars in its application to copyright.[150] Excellent guidance has been provided, including on the

---

[146] Baron (n 137) 880; Robert J Paul F Uhlier Serafin et al, 'A Question of Balance: Private Rights and Public Interests in Scientific and Technical Databases' (Committee for a Study on Promoting Access to Scientific and Technical Data for the Public Interest Publication, US National Research Council, 1999) 2 <http://nap.edu/9692>.

[147] Willem F Grosheide, 'Database Protection – The European Way' (2002) 8 *Washington University Journal of Law and Policy* 39, 40–1.

[148] Rebecca Giblin and Kimberlee Weatherall, 'If We Redesigned Copyright from Scratch, What Might It Look Like?' (n 110) 1, 3, citing Robert A Dahl and Charles E Lindblom, *Politics, Economics, and Welfare: Planning and Politico-Economic Systems Resolved into Basic Social Processes* (Harper & Row, 1963) 501.

[149] Ibid 16.

[150] Ibid 3–19.

necessity of explicitly outlining its justification; the reason for its existence. Although defining the 'public interest' remains difficult, at the core of the concept is the utilitarian acknowledgement of shared societal interest over individual self-interest.[151] In its application to public databases, this means defining common interests which encourage creativity, collaboration and innovation. It involves recognising the rights of database producers, promoting accessibility for the public as end-users and promoting database access to advance worldwide technological, scientific and economic progress.[152]

Publicly funded databases will be explored in Chapter 10:, however, the primary incentive for creators is usually reputational via subsequent publication and attribution, as opposed to individual proprietary interests.[153] As public databases are usually funded by the State, they are licensed under open access models, releasing information freely.[154] Open Access models ensure that access to data does not become restricted by authorship/ownership rights.

There is significant benefit in public databases because of their major role in advancing and changing world knowledge structures, innovation and scientific endeavours.[155] They are also extensively used in medical,[156] technological[157] and cultural endeavours. Their role is largely utilitarian: as a public good, they seek to advance world knowledge and benefit humanity through discovery.[158]

The public benefits as end users through the accessibility and openness of public databases. Benefits include collaborating to solve serious challenges faced by humanity, such as

---

[151] Ibid 1, 18.
[152] Ibid.
[153] Contreras (n 56) 498–9; Karen A Jordan, 'Financial Conflicts of Interest in Human Subjects Research: Proposals for a More Effective Regulatory Scheme' (2003) 60(1) *Washington and Lee Law Review* 15, 92-4.
[154] Jerome H Reichman and Ruth L Okediji, 'When Copyright and Science Collide: Empowering Digitally Integrated Research Methods on a Global Scale' (2012) 96 *Minnesota Law Review* 1362, 1470.
[155] Ray Harris and Susan Rosenfeld, 'Copyright Protection for Genetic Databases' (2004–2005) 45 *Jurimetrics* 225, 227–42; Sara Hugelier, 'Publishing Open-Access Biomedical Data: Legal Challenges' (2015) 1(1) *Biomedical Data Journal* 43, 43; Murray, 'Post-Myriad Genetics Copyright of Synthetic Biology and Living Media' [2014] (10) *Oklahoma Journal of Law & Technology* 72, 72. See generally, Dianne Nicol and Jane Nielsen, 'The Australian Medical Biotechnology Industry and Access to Intellectual Property: Issues for Patent Law Development' (2001) 23 *Sydney Law Review* 347; Amol Pachnanda, 'Scientific Databases Should Be Protected Under a *Sui Generis* Regime' (2003) 51 *Buffalo Law Review* 219; Reichman and Uhlir, 'A Contractually Reconstructed Research Commons for Scientific Data in a Highly Protectionist Intellectual Property Environment' (n 13) 318.
[156] Conley, Cook-Deegan and Lázaro-Muñoz (n 42) 612–16.
[157] Kristy Gale, 'The Sports Industry's New Power Play: Athlete Biometric Data Domination, Who Owns It and What May be Done With It?' (2016) 6(1*) Arizona State University Sports and Entertainment Law Journal* 7, 8, 14–17.
[158] Uhlir and Schröder (n 52) 189.

sustainability in food, water and shelter, climate change, disease and pandemic management, environmental degradation, clean energy initiatives and water resource management.[159]

Wikis are public databases where collaborators contribute their ideas and work towards establishing a common goal.[160] There are significant socio-cultural benefits of such initiatives, and the application of copyright law to components of these sites warrants consideration.[161] Therefore, it is concluded throughout this study that a deepening global dependence on public databases for utilitarian purposes adds weight to public interest justifications for their effective management,[162] particularly through copyright.

Having introduced the two major philosophical justifications for the copyright protection of databases and the major assumptions made about their application to some databases, the next section will take the analysis a step further.

2.2 The Fascinating Relationship Between Incentive to Create, Process of Authorship and Means of Access in Databases

This section will explore the relationship between the incentive to create a work (which is grounded in the theories just examined in the above section), the granting of authorship and subsequent access to a work. It is important to understand this relationship because it underpins the central thesis and the six chosen research questions through copyright's crucial role in the relationship between private and public rights.

2.2.1 Copyright's 'Elegant Paradox' and Statutory Monopoly Rights

The primary purpose of the copyright protection of databases — the promotion of creativity — is underpinned by an 'elegant paradox'.[163] As explained by a prominent European IP scholar, copyright 'is a system that promotes, or at least, aspires to promote knowledge, [and] cultural dissemination by restricting it, by creating temporary monopolies [for

---

[159] Shizuo Yamamoto, 'Applications of Earth Satellite Observations: Serving Society, Science and Industry' (Report of CEOS – Committee on Earth Observation Satellites and JAXA – Japan Aerospace Exploration Agency, 2015) 5.

[160] See generally, Jacqueline Lipton, 'Wikipedia and the European Union Database Directive' (2010) 26 *Santa Clara Computer and High Technology Law Journal* 631.

[161] Forina Yezril, 'Somewhere Beyond the ©: Copyright and Web Design' (2015) 5(1) *New York University Journal of Intellectual Property and Entertainment Law* 43, 53–7.

[162] Davison, *The Legal Protection of Databases* (n 22) 1.

[163] P Bernt Hugenholtz, 'Owning Science: IPR's as Impediments to Knowledge Sharing, Institute for Information Law' (Paper presented at Communia Conference 2009, Turin, Italy, 29 June 2009).

authors] in express ideas and creations.'[164] It achieves this through the allocation of social wealth as generated by authorial creativity, through a set of rules and standards.[165] Legally, the meaning of 'creativity' is imprecise.[166] Therefore the judicial application of copyright to databases is predicated on the fascinating relationship which exists between the incentive to create, the monopoly right conferred through authorship and access to a protected work.

This paradigm can be examined through Australian law in relation to a database. Being grounded in Lockean philosophy, under the *Act* authorship seeks to reward the author for investment in their original database. Authorship subsequently vests through the successful establishment of the subsistence criterion.[167] When established, exclusive rights are granted to the database author/s.[168] That is, copyright grants exclusionary entitlements[169] through statutory monopoly rights. These rights provide exclusivity over the information expressed: the author has the exclusive right to object to the usage of their database[170] and/or restrict its reproduction and communication.[171] In Australia, infringement includes the exercising of the database author's bundle of exclusive rights[172] without a license or authority;[173] or via the known sale, distribution or exhibition of a database without authorisation.[174] Unless database ownership is altered through licencing,[175] authorship rights control future database access, communication and re-utilisation.[176] Copyright, therefore, plays a pivotal role in the relationship between private rights and the public's ability to access information.[177]

The balance of the relationship between the incentive to create, authorship and subsequent access is underpinned by the overarching purposes/role of protection. To examine this issue,

---

[164] Ibid.
[165] Thomas B Nachbar, 'Rules and Standards in Copyright' (2014) 52(2) *Houston Law Review* 583, 588–601.
[166] Diane Leenher Zimmerman, 'It's an Original! In Pursuit of Copyright's Elusive Essence' (2005) 28 *Columbia Journal of Law & the Arts* 187, 189–90.
[167] *Statute of Anne* (n 49) c 19; *Copyright Act 1801* (UK) 41 Geo III, c 107; *Copyright Act 1814* (UK) 54 Geo III, c 156; *Copyright Act 1905* (Cth) ss 18(1), 19; *The Act* (n 168) s 35(1).
[168] *The Act* s 35(1).
[169] Oren Bracha and Talha Syed, 'Beyond the Incentive-Access Paradigm? Product Differentiation and Copyright Revisited' (2014) 92(7) *Texas Law Review* 1841, 1843.
[170] Raymond Nimmer, 'Information Wars and the Challenges of Context Protection in Digital Contexts' (2011) 13(4) *Vanderbilt Journal of Entertainment and Technology Law* 825, 834.
[171] *IceTV* (n 38) 467 [11], 469 [15], 470 [22], 472 [28] and 483–6 [65]–[71].
[172] *The Act* (n 168) s 31.
[173] Ibid s 36.
[174] Ibid s 38.
[175] *IceTV* (n 38) 502 [132] (French CJ, Crennan and Kiefel JJ).
[176] Peter K Yu, 'The Political Economy of Data Protection' (2010) 84(3) *Chicago-Kent Law Review* 777, 777-79.
[177] Carys J Craig, 'Globalizing User Rights-Talk: On Copyright Limits and Rhetorical Risks' (2017) 33 *American University International Law Review* 1, 7-8.

it is useful to consider the implications when copyright is successfully established in a database: 'every allocation of a claim-right imposes duties on certain portions of society, which sometimes implies far-reaching consequences that can directly affect society as a whole'.[178] In granting copyright and, thereby, establishing authorship, the author's monopoly right incentivises them to keep creating, while preventing others from copying the work.[179]

This monopoly right has developed over centuries through statute.[180] In essence, copyright 'trades off the costs of limiting access to a work against the benefits of providing incentives to create the work in the first place'.[181] An implication of this right is that a fundamental tension is created by two important yet competing duties: those of private and public interests.[182] A delicate but tension-filled balance ensues between private incentive to create versus public restriction to access.[183] It is supported by the rights-based philosophy previously discussed in two ways:[184]

1. On the one hand, there is a private individual right which states that because of the substantial investment that has gone into creating a database, that copyright protection must be given to the author, to encourage further creative output.[185] Therefore, copyright provides an economic monopoly right to the author as an incentive to promote the subsequent future production of such works.

2. On the other hand, whenever copyright protection is granted to an individual author, the accompanying rights have the capacity to over-protect the work. Copyright restrains the public from accessing the work for the specified duration of protection. In Australia, the duration of copyright is currently life of the author plus 70 years,

---

[178] Lior Zemer, 'What Copyright Is: Time to Remember the Basics' (2007) 4 *Buffalo Intellectual Property Law Journal* 54, 55.
[179] *Statute of Anne* (n 49) c 19.
[180] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (2001) (n 135) 152 [66], 157 [84], 158 [85] (Finkelstein J); *IceTV* (n 38) 458, 467 [11], 469 [15], 470 [22], 472 [28] and 483-486 [65]-[71].
[181] Landes and Posner, (n 131) 326.
[182] Ibid.
[183] Ibid; Glynn S Lunney Jr, 'Reexamining Copyright's Incentives-Access Paradigm' (1996) 49(3) *Vanderbilt Law Review* 483, 485–6.
[184] Samuel E Trosow, 'The Illusive Search for Justificatory Theories: Copyright, Commodification and Capital' (2003) 16(2) *Canadian Journal of Law and Jurisprudence* 217, 223.
[185] Jeremy Waldron, 'From Authors to Copiers: Individual Rights and Social Values in Intellectual Property' (1992) 68(2) *Chicago Kent Law Review* 841, 82; William Van Caenegem, 'Copyright, Communication and New Technologies' (1995) 23(2) *Federal Law Review* 322, 323.

after the end of the calendar year in which the work was first published.[186] With databases, the restriction imposed by the grant of this monopoly right may have substantial economic and utilitarian effects. This includes the potential to impede the free flow of data through prohibiting copies, restricting or prohibiting access to knowledge and ultimately inhibiting creative and scientific progress.[187] By inhibiting progress, this economic monopoly has the capacity to violate Lockean justifications.[188] It is for this reason that this economic monopoly places a burden on judicial decision makers and has done so for over two centuries, as will be shown in the next section.

2.2.2 The Historical Origins of Incentive Versus Access

This fundamental tension entered judicial and scholarly consciousness early. It was initially discussed in 1692, when Locke wrote a letter opposing licensing renewals and discussed the tensions arising through the application of authorial rights in commodities.[189] The issue of restricted access due to monopoly rights was of serious concern in early English jurisprudence when a perpetual copyright term was under consideration.

The 1774 House of Lords case of *Donaldson v Beckett* ('*Donaldson*')[190] eventually quashed this notion, overturning the King's Bench decision of *Millar v Taylor*,[191] which had found in favour of perpetual copyright. In *Donaldson*, the House of Lords was concerned that the public's ability to learn would be curtailed if copyright was granted perpetually in books. This would lead to an unjust outcome; that is, a violation of the purpose of copyright. In 1785, Lord Mansfield CJ eloquently summarised the situation in an infringement case involving sea charts, stating:

> [W]e must take care to guard against two extremes equally prejudicial; the one, that men of ability, who have employed their time for the service of the community, may not be deprived of their just merits, and the reward of their ingenuity and labour; the other, that the world may not be deprived of improvements, nor the progress of the arts be retarded.

---

[186] *The Act* (n 168) s 33(2).
[187] Kristen Osenga, 'Information May Want to Be Free, But Information Products Do Not: Protecting and Facilitating Transactions in Information Products' (2009) 30(5) *Cardozo Law Review* 2099, 2102–3.
[188] See, eg, *Copyright Amendment (Digital Agenda) Act 2000* (Cth) s 3 (a) (i) or the long title of the *Act* (n 168).
[189] Lior Zemer, 'The Making of a New Copyright Lockean' (2006) 29 *Harvard Journal of Law and Public Policy* 891, 898.
[190] (1774) 17 Parliament History England 953.
[191] (1769) 98 ER 201.

> The challenge facing this Court, and copyright law generally, is to find a fair and appropriate equilibrium that achieves both goals.[192]

As stated in the 1854 case of *Jeffreys v Boosey*, copyright is 'altogether an artificial right, not naturally and necessarily arising out of the social rules that ought to prevail among mankind but ... a creature of the municipal laws of each country, to be enjoyed for such time and under such regulation as the law of each state may direct.'[193] Subsequently, in providing this 'artificial right' – this statute-based artificial monopoly right – as an incentive to a (private) database author, conflicting interests are directed towards the public, which must be navigated judicially.[194]

This issue of balance remains relevant today. As enunciated in the case of *Skybase Nominees Pty Ltd v Fortuity Pty Ltd*,[195] a dichotomy exists between the 'monopoly rights which are conferred upon the owner of copyright in a literary, dramatic or artistic work on the one hand, and the freedom to express ideas or discuss facts on the other'.[196] In modern times, there is a sense of history repeating itself, as the philosophies associated with copyright are repeatedly applied to new types of works.[197] Copyright has progressed through a process of proliferation and an increasing number of works are subject to copyright each year.[198] After all, copyright began as an 18th century publishers' (Stationers') monopoly right,[199] enacted after the introduction of the printing press. Following lobbying to the English parliament by the London Stationer's Company, the purpose of copyright was touted as the prevention of

---

[192] *Sayer v Moore* (1785) 1 East 361n, 362. Also see Isabella Alexander, 'Sayer v Moore (1785)' in Jose Bellido (ed), *Landmark Cases in Intellectual Property Law* (Hart Publishing, 2017) ch 3; Abraham Drassinower, 'From Distribution to Dialogue: Remarks on the Concept of Balance in Copyright Law' (2009) 34 *Journal of Corporation Law* 991, 995; Ginsburg, 'Creation and Commercial Value: Copyright Protection of Works of Information' (n 118) 1877; Zemer, 'The Making of a New Copyright Lockean' (n 189) 908.

[193] (1854) 10 ER 681.

[194] *Stevens v Kabushiki Kaisha Sony Computer Entertainment* (2005) 224 CLR 193, 241 [169] (Kirby J).

[195] (1996) 36 IPR 529.

[196] Ibid 531 (Hill J).

[197] Justin Hughes, 'A Short History of "Intellectual Property" in Relation to Copyright' (2012) 33(4) *Cardozo Law Review* 1293, 1324–31; Peter K Yu, 'The Copy in Copyright' (Legal Studies Research Paper No 17-15, Texas A & M University School of Law, 2016) 1–4; Giblin and Weatherall, 'If We Redesigned Copyright from Scratch, What Might It Look Like?' (n 110) 2.

[198] Molly Shaffer Van Houweling, 'Author Autonomy and Atomism in Copyright Law' (2010) 96 *Virginia Law Review* 549, 558–9.

[199] See Chapter 4:; Alina Ng Boyte, 'Finding Copyright's Core Content' (Mississippi College School of Law, Legal Studies Research Paper No. 2013-09, 2013) 1–2; Evaldas Lekešys, 'Does the Telecommunication Company Have Copyrights to the List of the Subscribers?' (2007) 3(1) *International Journal of Baltic Law* 4, 6. Also see generally, Rebecca Schoff Curtin, 'The Transactional Origins of Authors' Copyright' (2016) 40(2) *Columbia Journal of Law & the Arts* 175.

widespread print pirating by London bookseller cartels.[200] Now, over 200 years later, databases are yet again testing copyright's application, being more analogous to verbal communication rather than the printing press.[201]

As explored in one of the quotes at the beginning of this dissertation, what is apparent is that copyright has long grappled with these competing interests and particularly when technological advancement produces new types of works. In recent times, the judicial application of copyright has been challenged by the processes involved in producing modern databases. This is due to the highly constrained, fact-based nature of databases, as well as their 'low authorial presence'.[202] Databases usually comprise of the logical expression of data and they express their results in a constrained way due to societal conventions, such as alphabetical or chronological order.[203] As a result, there is often limited scope for creative decisions by database authors. For example, alphabetical ordering cannot be considered a creative endeavour on the author's part.[204] It is for these reasons that some argue that the competing interests between authorship, access and incentive to create have reached their limitations through the creation of modern databases.[205] This will be explored further in the next section.

2.2.3 The Empowerment and Entrapment of Copyright Paradigms to Databases

An inherent tension emerges in considering the nature of modern databases, arising from proprietary (economic) rights and corresponding inferences that copyright traditionally grants.[206] As illustrated in Figure 2.1, on the one hand, there is the duty to ensure the author is encouraged to engage in further creation (private interests); and on the other hand, there is the duty to ensure that their work is accessible to those who wish to access it (public

---

[200] Dennis W K Khong, 'The Historical Law and Economics of the First Copyright Act' (2006) 2(1) *Erasmus Law and Economics Review* 35, 60.
[201] Ithiel de Sola Pool, *Technologies of Freedom: On Free Speech in an Electronic Age* (Harvard University Press, 1983) 214.
[202] Jane Ginsburg, 'Creation and Commercial Value' (n 118) 1866–7; Paula Baron, 'Back to the Future' (n 137) 893.
[203] See Chapter 5:.
[204] James Schatz, Bradley W Anderson and Holly Garland Langworthy, 'What's Mine is Yours? The Dilemma of a Factual Compilation' (1992) 17 *University of Dayton Law Review* 423, 429.
[205] Edward Lee, 'Digital Originality' (2012) 14(4) *Vanderbilt Journal of Entertainment and Technology Law* 919, 921.
[206] Hughes, 'A Short History of "Intellectual Property" in Relation to Copyright' (n 197) 1325.

interests).[207] The duties of furthering innovation and diffusion through social adoption[208] are also highlighted by databases, which are highly factual in nature.

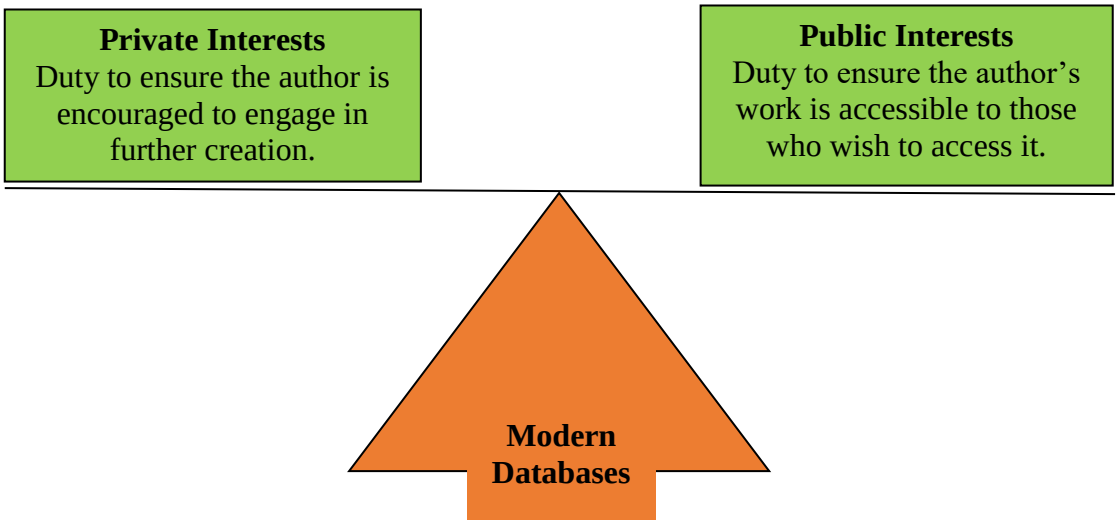

Figure 2.1: Private versus public interests

It is usual for private rights to trump public interests.[209] In addition to the expense of modern database production, the change in physical medium appears a catalyst for much of this private/public interest tension. Although copyright's judicial application has traditionally been expanded to envelop new works,[210] historically it has been applicable to tangible creations,[211] not intangible and expensive commercial assets, such as Telstra's Sensis database.[212] These long-established legal paradigms under which databases are classified

[207] Jessica Litman, 'Lawful Personal Use' (2007) 85(7) *Texas Law Review* 1871, 1879–82.
[208] Gaia Bernstein, 'In the Shadow of Innovation' (2010) 31(6) *Cardozo Law Review* 2257, 2258.
[209] Rosemary J Coombe and J Cohen, 'The Law and Late Modern Culture: Reflections on Between Facts and Norms from the Perspective of Critical Cultural Legal Studies' (1999) 76 *Denver University Law Review* 1029, 1039–40.
[210] Kathy Bowrey, 'The Outer Limits of Copyright Law: Where Law Meets Philosophy and Culture' (2001) 12(1) *Law and Critique* 75, 85; Kimberlee Weatherall, 'So Call Me a Copyright Radical' (Sydney Law School Legal Studies Research Paper No. 12/44, July 2012) 1–2.
[211] Laura Gasaway, 'Copyright Basics: From Earliest Times to the Digital Age' (2010) 10(3) *Wake Forest Intellectual Property Law Journal* 241, 241–44.
[212] *Cary v Faden* (1799) 5 Ves Jr 24; 31 ER 453; *Matthewson v Stockdale* (1806) 12 Ves Jr 270; 33 ER 103; *Kelly v Morris* (1865-66) LR 1 Eq 697; *Morris v Ashbee* (1868-69) LR 7 Eq 34; *Morris v Wright* (1870) LR 5; Ch App 279; *Walter v Lane* [1900] AC 539; *Sands & McDougall Pty Ltd v Robinson* (1917) 23 CLR 49; *Victoria Park* (n 38); *GA Cramp & Sons Ltd v Frank Smythson Ltd* [1944] 2 All ER 92; AC 329; *Ladbroke (Football) Ltd v William Hill (Football) Ltd* [1964] 1 WLR 273; *Computer Edge Pty Ltd v Apple Computer Inc* (n 38); *Milwell Pty Ltd v Olympic Amusements Pty Ltd* (1999) 85 FCR 436; and *Desktop Marketing* (n 44).

were created to accommodate the expression of ideas in limited, tangible, creative works.[213] The current incompatibilities have prompted this observation:

> Copyright law has always dealt more comfortably with the novelist, painter, or composer, than with the historian, reporter, or compiler … Although copyright prerequisites such as originality or creativity may carry significance when applied to *Macbeth* or *Ulysses*, their utility is less apparent in the context of a financial report in the *Wall Street Journal*, and even more obscure with respect to the Manhattan telephone directory.[214]

The issues have motivated an Australian IP academic to muse: 'if we were starting today with a completely blank slate, with no international treaties and no historical baggage, we would undoubtedly arrive at something very different from the current intellectual property regimes'. [215] However, starting afresh is simply impossible due to historical, pre-established copyright paradigms, which are significantly influenced by minimum standards as expressed through international treaties (see 3.2). As succinctly stated by a US academic: '[copyright] Paradigms not only empower; they also entrap'.[216] Despite this, the notion of reimagining copyright from scratch has been a recently explored and contested issue in several prominent publications, both in Australia[217] and overseas.[218] The thought-provoking analysis presented divergent ideas and conceptions, bound by common underlying themes which relate to the fundamental role of copyright, such as the importance of access.[219]

It is, however, imperative to work within the confines of the current copyright framework. This includes compliance with international treaties (which provide mandatory minimum standards), historical precedent, private ordering within the copyright regime,[220] existing business models and economic interests.[221] Therefore, this study will assume that copyright

---

[213] Trosow, 'The Illusive Search for Justificatory Theories' (n 184) 219.
[214] R C Denicola, 'Copyright in Collections of Facts: A Theory for the Protection of Non-Fiction Literary Work' (1981) 81 *Columbia Law Review* 516, 516.
[215] David Lindsay, 'Copyright Protection of Electronic Databases' (1993) 4(2) *Journal of Law, Information and Science* 287, 287.
[216] Oliver R Goodenough, 'Pointillism, Copyright and the Droit D'Auteur: Time to See a Bigger Picture' (1994) 5(2) *Entertainment Law Review* 35, 35.
[217] Giblin and Weatherall, 'If We Redesigned Copyright from Scratch, What Might It Look Like?' (n 110) 1–24.
[218] Jessica Litman, 'The Copyright Revision Act of 2026' (2009) 13(2) *Marquette Intellectual Property Law Review* 249, 261–262; Samuelson et al, (n 75) 1176–80.
[219] Rebecca Giblin and Kimberlee Weatherall, 'A Collection of Impossible Ideas' in Rebecca Giblin and Kimberlee Weatherall (eds), *What If We Could Reimagine Copyright?* (Australian National University Press, 2017) 315, 316–32.
[220] See generally, Jennifer E Rothman, 'Copyright's Private Ordering and the "Next Great Copyright Act"' (2014) 29(3) *Berkeley Technology Law Journal* 1595.
[221] Giblin and Weatherall, 'If We Redesigned Copyright from Scratch, What Might It Look Like?' (n 110) 2.

law in Australia must continue to comply with these pre-established paradigms. International treaties will be analysed in 3.2 in order to explore how databases are defined and treated under international law. Chapter 3: shall also analyse the treatment of databases in the US and EU.

Determination of copyright subsistence is important because it ultimately determines access to data. There is longstanding intellectual debate about the extent of protection provided by copyright law to databases in various jurisdictions.[222] Much of this dilemma stems from differing evaluations and perspectives (depending on the position of the rights-holder) as to the perceived extent of protection that *ought* to be granted to such works. In various jurisdictions, there are arguments in favour of increasing the application of copyright to databases (due to perceived under-protection) or decreasing it (due to perceived over-protection).

The following sections of this study will examine major technological, social and cultural factors which favour strengthening or weakening the current copyright protection of databases. They will also outline the conclusions made in response to these factors to advance the study.

2.3 Technological, Social and Cultural Factors Which Favour Strengthening Copyright Protection for Databases

There are several technological, social and cultural trends which support the argument in favour of strengthening copyright protection for databases. These trends and the conclusions made in response to them will be outlined below.

2.3.1 Changes to Tangibility and Access

A significant shift from tangible, labour-intensive record-keeping to an intangible digital environment has occurred.[223] Physical location is no longer a barrier to data and information retrieval.[224] Information processing through databases is resulting in an opaque society; an

[222] See, eg, Raymond Nimmer, (n 170) 827–828, 833–39.

[223] See generally, Natalie M Banta, 'Property Interests in Digital Assets: The Rise of Digital Feudalism' (2007) 38 *Cardozo Law Review* 1099; Paula Baron (n 137) 882; Nestor Duch-Brown, Bertin Martens and Frank Mueller-Langer, 'The Economics of Ownership, Access and Trade in Digital Data' (Joint Research Commission Digital Economy Working Paper No 2017-01, European Commission, 2017) 10–11.

[224] Herbert Zech, 'Information as Property' (2015) 3 *JIPITEC - Journal of Intellectual Property, Information Technology, and Electronic Commerce Law* 192, 193.

intangible world where individuals' information controls their entire existence.[225] The internet has decentralised and re-dispersed data[226] and it has been argued that this challenges the incentive/access paradigm.[227] The same technology used to create databases has the capacity to allow third parties to cheaply access, reproduce and transform information into an entirely new product.[228] It is for this reason that databases 'are simultaneously difficult to produce and easy to copy'.[229]

Concurrently, the metering of access has changed; whereas access to tangible products is usually metered through physical access in its entirety, intangible products can be easily decompartmentalised through dissemination and instantaneously communicated.[230] Indeed, the very notion of the ease of creation and communication brings an inherent ability to disseminate and communicate information freely and quickly.[231]

Databases have also become a major source of capital necessary to produce goods and services.[232] For example, information generated by the German car industry by self-driving cars is extremely economically valuable to car companies and their competitors.[233] Consequently, it may be argued that the ease of dissemination and communication leaves databases particularly economically vulnerable to free riding via infringement. From an economic perspective, such exploitation is problematic because it deprives owners of

---

[225] Judith Duportail, 'I Asked Tinder for my Data. It Sent Me 800 Pages of My Deepest, Darkest Secrets', *The Guardian Online* (26 September 2017) <https://www.theguardian.com/technology/2017/sep/26/tinder-personal-data-dating-app-messages-hacked-sold>.

[226] R L Rutsky, 'Information Wants to be Consumed' in Sande Cohen and R L Rutsky (eds), *Consumption in an Age of Information* (Berg, 2005) 61, 63-4.

[227] See generally, Nicolas Suzor, 'Access, Progress and Fairness: Rethinking Exclusivity in Copyright' (2013) 15(2) *Vanderbilt Journal of Entertainment and Technology Law* 297.

[228] James Gibson, 'Re-Reifying Data' (2004) 80(1) *Notre Dame Law Review* 163, 164–5; Gosnell (n 18) 639; Kenneth Himma, 'The Justification of Intellectual Property: Contemporary Philosophical Disputes' (2008) 59(7) *Journal of the American Society for Information Science and Technology* 1143, 1143.

[229] Hayden (n 127) 216.

[230] Lawrence Lessig, 'For the Love of Culture: Google, Copyright and Our Future', *New Republic* (Online, 26 January 2010) <https://newrepublic.com/article/72706/the-love-culture>.

[231] Rutsky (n 226) 64.

[232] Australian Government Productivity Commission, 'Data Availability and Use' (n 6) 61–2; Lemley, 'Book Review' (n 105) 876; Boyle, *Shamans, Software and Spleens* (n 60) 2–3.

[233] P Bernt Hugenholtz, 'Data Property: Unwelcome Guest in the House of IP' (Paper presented at the Trading Data in the Digital Economy Conference: Legal Concepts and Tools, Münster, Germany, 4 May 2017) 1.

revenue for their investment and may take the form of unauthorised reproduction,[234] publication,[235] communication[236] or adaptation of the database.[237]

Although fundamental differences exist due to the intangible nature of modern databases, there remains an inherent expectation which is grounded in copyright jurisprudence; that is, that copyright can continue facilitating authorship and access of intangibles in the same manner as it does tangible property.[238] There appears to have been reluctance on the part of humanity to acknowledge the differences between property rights in the tangible and intangible.[239] It has been speculated this may be due to history or simple human psychology.[240] What is often ignored is that the change from tangible to intangible pressurises the judicial application of copyright to databases because '[copyright] regulates copies. In the physical world, this architecture means that the law regulates a small set of the possible uses of a copyrighted work. In the digital world, this architecture means that the law regulates everything'.[241] Due to the important role that the regulation of copyright provides in the digital environment, this study concludes that this justifies strengthening protection by addressing the limitations demonstrated through the current application of originality and authorship.

2.3.2 Transition from Industrial to Information-Based Economies

Another argument in support of strengthening copyright protection for databases is that countries are transitioning from 'industrially based economies to information-based economies,'[242] and databases are vital driving forces behind this.[243] Databases are essential tools due to their increasing technological sophistication,[244] and are utilised by businesses of all sizes and net worth. Their use as valuable assets[245] contributes to the steady

---

[234] *The Act* (n 168) s 31(1)(a)(i).
[235] Ibid s 31(1)(a)(ii).
[236] Ibid s 31(1)(a)(iv).
[237] Ibid s 31(1)(a)(vi).
[238] Anirban Mazumder, 'Anomalies in Copyright Law' (2006) 9(6) *The Journal of World Intellectual Property* 654, 661–2.
[239] Christian G Stallberg, 'Towards a New Paradigm in Justifying Copyright: An Universalistic-Transcendental Approach' (2007) 18(2) *Fordham Intellectual Property, Media and Entertainment Law Journal* 333, 335.
[240] Wendy J Gordon, 'An Enquiry into the Merits of Copyright: The Challenges of Consistency, Consent and Encouragement Theory' (1989) 41 *Stanford Law Review* 1343, 1347–8.
[241] Lessig, 'For the Love of Culture: Google, Copyright and Our Future' (n 230).
[242] Davison, *The Legal Protection of Databases* (n 22).
[243] Brand (n 1) 204–5. Also see generally, de Sola Pool (n 201).
[244] Hayden (n 127) 216.
[245] Herbert Zech, 'Information as Property' (n 224) 192.

development of economies, and this trend is likely to continue. This is occurring to the extent that 'electronic information processing constitutes the engine of 21st century economic development'.[246] Global internet usage provokes substantial economic investment in information technology products.[247] As sources of information, databases can be a lucrative profit source.[248]

Aspects of communications,[249] commerce, research[250] and cultural networks[251] heavily rely upon databases. They are also used in many technological applications including: the internet of things;[252] wearable technology;[253] online video gaming;[254] 'advanced forms of multi-layered software, sophisticated databases, mapping services, and "collaborative works" involving many people interacting via … networks'.[255] Mass data is generated from social media,[256] emails, videos/audio, mobile devices and the internet of things. [257] Long-haul space exploration is a future aim, which generates questions pertaining to the

---

[246] J H Reichman, 'Electronic Information Tools – The Outer Edge of World Intellectual Property Law' (1992) 17 *University of Dayton Law Review* 797, 820.

[247] John Conley, Mary Brown and Robert Bryan, 'Database Protection in a Digital World' (1999) 6 *Richmond Journal of Law & Technology* 2, 2.

[248] Charles Brill, 'Legal Protection of Collections of Facts' (1998) *Computer Law Review and Technology Journal* 1, 1–2; Mazumder, 'Anomalies in Copyright Law' (n 238) 662.

[249] Jan van Cuilenburg and Denis McQuail 'Media Policy Paradigm Shifts: Towards a New Communications Policy Paradigm' (2003) 18(2) *European Journal of Communication Copyright* 181, 182–3.

[250] See, eg, Eleni Kamateri, Evangelos Kalampokis, Efthimios Tambouris and Konstantinos Tarabanis, 'The Linked Medical Data Access Control Framework' (2014) 50 *Journal of Biomedical Informatics* 213, 213–14; Andrew W Torrance, 'DNA Copyright' (2011) 46 *Valparaiso University Law Review* 1, 26–31, 34-7.

[251] Julie Cohen, 'Creativity and Culture in Copyright Theory' (2007) 40 *UC Davis Law Review* 1151, 1185-87.

[252] Jack M Balkin, 'The Path of Robotics Law' (2015) 6 *California Law Review* 45, 54–5; Stacy-Ann Elvy, 'Commodifying Consumer Data in the Era of the Internet of Things' (2018) 59 *Boston College Law Review* 423, 424–7; Richard S Whitt, '"Through a Glass Darkly" Technical, Policy, and Financial Actions to Avert the Coming Digital Dark Ages' (2017) 33(2) *Santa Clara High Technology Law Journal* 117, 134.

[253] Park Yon Jin and Marko Skoric, 'Personalized Ad in Your Google Glass? Wearable Technology, Hands-Off Data Collection, and New Policy Imperative' (2015) *Journal of Business Ethics* <DOI 10.1007/s10551-015-2766-2>.

[254] See generally, Angela Adrian, *Law and Order in Virtual Worlds: Exploring Avatars, Their Ownership and Rights* (Information Science Reference, 2010); Kenneth W Eng, 'Content Creators, Virtual Goods: Who Owns Virtual Property?' (2016) 34 *Cardozo Arts and Entertainment Law Journal* 249; Gregory F Lastowka and Dan Hunter, 'The Laws of the Virtual Worlds' (2004) 92(1) *California Law Review* 1; Tyler T Ochoa, 'Who Owns an Avatar? Copyright, Creativity and Virtual Worlds' (2012) 14(4) *Vanderbilt Journal of Entertainment and Technology Law* 959.

[255] Cameron Andrews, 'Copyright in Computer-Generated Work in Australia Post-Ice TV: Time for the Commonwealth to Act' (2011) 22 *Australian Intellectual Property Journal* 29, 29. Also see: Melissa Dolin, 'Joint Authorship and Collaborative Artwork Created Through Social Media' (2011) 39(4*) AIPLA Quarterly Journal* 536, 537.

[256] See generally, Alison C Storella, 'It's Selfie-Evident: Spectrums of Alienability and Copyrighted Content on Social Media' (2014) 94(6) *Boston University Law Review* 2045.

[257] Australian Government Productivity, 'Data Availability and Use' (n 6) 57–8.

territoriality of IP law and space law.[258] The connectivity of sources has escalated, leading to the collation and generation of data through volunteered, observed and inferred data usage.[259] This means that one of the key attributes of any database that will continue to be heavily relied upon is a capacity to efficiently manage, compile, store and retrieve data within a single program.[260]

Significant future innovation will likely continue in newly established digital economies which rely upon databases as a prerequisite for effective functionality. Recent domestic examples of the promotion of database innovation are evidenced by the facilitated growth of a 'Digital Economy'.[261] Other examples include the UK's Digital Copyright Exchange (DCE), a licencing platform,[262] an international music registry for licensed works,[263] digital copyright management systems,[264] the growth of the Sports data industry[265] and proposals for a consolidated audit trail for the financial sector. [266]

Another major arena for innovation is the management of Big Data and the conversion of mass data into knowledge which reveals previously unrecognised human behaviour traits.[267] Examples include the ability to: detect behavioural patterns in business, insurance and

---

[258] See generally, Sedef Ayalp, 'Lost in Space: The Copyright Dilemma' (2016) 7(2) *Intellectual Property Brief* 86; Lee Ann W Lockridge, 'Comment: Intellectual Property in Outer Space: International Law, National Jurisdiction, and Exclusive Rights in Geospatial Data and Databases' (2006) 32 *Journal of Space Law* 319.

[259] Australian Government Productivity Commission, 'Data Availability and Use' (n 6) 58.

[260] Margo Seltzer, 'Beyond Relational Databases' (2005) 3(3) *Queue* 50, 52.

[261] For further information, see Commonwealth of Australia, *Australia's Digital Economy: Future Directions*, (2009) Department of Broadband, Communications and the Digital Environment <www.dbcde.gov.au/digital_economy/final_report>.

[262] Ian Hargreaves, Digital Opportunity: Review of Intellectual Property and Growth, (May 2011), 33.

[263] Ibid 31.

[264] Julie Cohen, 'Lochner in Cyberspace: The New Economic Orthodoxy of "Rights Management"' (1998) 97 *Michigan Law Review* 462, 462–70.

[265] See generally, Christian Frodl, 'Commercialisation of Sports Data: Rights of Event Owners over Information and Statistics Generated about Their Sports Events' (2015) 26(1) *Marquette Sports Law Review* 55; Julia Johnson, 'Database Protection a Reality? How the Professional and Fantasy Sporting World Could Benefit From a *Sui Generis* Intellectual Property Right' (2014) 27 *Intellectual Property Journal* 238.

[266] Bob Pisani, 'It's Google vs Amazon to Create the Biggest Database in History', *CNBC.com* (Web Page, 27 April 2016) <http://www.cnbc.com/2016/04/26/its-google-vs-amazon-to-create-the-biggest-data-base-in-history.html>.

[267] James Manyika et al, 'Big Data: The Next Frontier for Innovation, Competition and Productivity' (Report of the McKinsey Global Institute, May 2011) 1; Sorkin, DiCola and Halpern (n 8) 570; Bart Van der Sloot and Sascha van Schendel, 'Ten Questions for Future Regulation of Big Data: A Comparative and Empirical Legal Study' (2016) 7 *JIPITEC – Journal of Intellectual Property, Information Technology, and Electronic Commerce Law* 110, 110; Xiaodan Wang, Randal Burns and Tanu Malik, 'LifeRaft: Data-Driven, Batch Processing for the Exploration of Scientific Databases' (Paper presented at 4th Biennial Conference on Innovative Data Systems Research (CIDR), Asilomar California USA, 4-7 January 2009).

finance;[268] combat crime and prevent disease;[269] and identify pharmaceutical interactions.[270] While there are critical issues surrounding the permissible extent of commercial transparency,[271] privacy,[272] data anonymisation[273] and validation of re-used data,[274] such analysis shows enormous utilitarian potential.[275] Such examples include identifying trends in food purchases prior to hurricanes[276] and using tracked supermarket consumer behaviour to target car insurance premiums.[277]

This study, therefore, assumes that copyright should facilitate further innovation through strengthening protection and addressing the limitations demonstrated via the current judicial application of originality and authorship.

2.3.3 End Users' Exploitation of Databases

The internet regularly exposes databases to possible economic exploitation through many avenues, with over 4.5 billion users worldwide as of mid-2019.[278] Some database compilers desire protection from the unauthorised access, extraction and re-utilisation of their database contents. This is particularly so where the declining cost of reproduction and communication has shifted focus onto the potential value of the information itself.[279] Most people navigate the internet via search engines, which often rely on databases in components of their indexing for effective data retrieval.[280]

---

[268] Richard Kemp, 'Legal Aspects of Managing Big Data' (2014) 30 *Computer Law & Security Review* 482, 485.
[269] Kenneth Cukier, 'Data, Data Everywhere', *The Economist Online* (Web Page, 25 February 2010) <http://www.economist.com/node/15557443?story_id=15557443>.
[270] Mattioli (n 40) 540–41.
[271] Ghosh (n 36) 3.
[272] Cukier (n 269).
[273] Hugelier (n 155) 44.
[274] Mattioli (n 40) 536–37.
[275] Paul Ohm, 'The Underwhelming Benefits of Big Data' (2013) 161 *University of Pennsylvania Law Review* 339, 340; Okediji (n 55) 331–4.
[276] Sorkin, DiCola and Halpern (n 8) 568–70.
[277] Australian Government Productivity Commission, 'Data Availability and Use' (n 6) 89.
[278] Miniwatts Marketing Group, 'Internet Usage Statistics', *Internet World Stats – Usage and Population Statistics* (Web Page, 6 November 2019) <http://www.internetworldstats.com/stats.htm>.
[279] Lemley, 'Book Review' (n 105) 875–76.
[280] Seltzer (n 260) 53.

Although social inequality remains a barrier to access,[281] end-users are engaging in new behaviours[282] which challenge pre-established national laws that currently protect databases within digital environments. For example, databases can be financially exploited through cybercrime,[283] malicious database hacking,[284] identity theft,[285] phishing, malware, hacking and ransomware attacks.[286] Information Samaritans exploit and freely release information publicly.[287] Data mining (knowledge discovery),[288] where information is extracted from databases,[289] may be beneficial when authorised,[290] but highly detrimental when unauthorised.[291] The notion of legal reform permitting commercial data mining is troubling to businesses, as evidenced in a recent submission to the ALRC on behalf of Telstra.[292] There is also a burgeoning fan fiction and remix/re-use culture.[293] This dissertation will

---

[281] Doris Estelle Long, 'Dissonant Harmonization: Limitations on "Cash n' Carry" Creativity' (2007) 70 *Albany Law Review* 1163, 1163. Also see generally, Lea Shaver, 'Copyright and Inequality' (2014) 92(1) *Washington University Law Review* 117.

[282] Uhlir and Schröder (n 52) 198.

[283] See generally, Eldar Haber, 'Copyrighted Crimes: The Copyrightability of Illegal Works' (2013) 16(2) *Yale Journal of Law and Technology* 454; Alice Haemmerli, 'Take It, It's Mine: Illicit Transfers of Copyright by Operation of Law' (2006) 63(4) *Washington and Lee Law Review* 1011; Katharine C Hinkle, 'Countermeasures in the Cyber Context: One More Thing to Worry About' (2011) 37 *Yale Journal of International Law* 11; Panu Siitonen, 'Changing IP Law in Finland' in *Navigating Intellectual Property Law in Europe: Leading Lawyers on Complying with Regional Laws, Leveraging New Technology, and Avoiding Infringement Issues* (Aspatore, 2011) 1, 2.

[284] Australian Government Productivity Commission, 'Data Availability and Use' (n 6) 34.

[285] Ibid (n 6) 9.

[286] Alex Manea, 'Over 33,000 Databases Hacked in Largest Ever Ransomware Attack', *Inside Blackberry Blog* (Blog Post, 9 February 2017) <http://blogs.blackberry.com/2017/02/over-33000-databases-hacked-in-largest-ever-ransomware-attack/>; Rene Millman, 'Hackers Now Hit MySQL DBS with Ransomware', *SC Magazine UK* (Web Page, 27 February 2017) <https://www.scmagazineuk.com/hackers-hit-mysql-databases-ransomware/article/1475201>; Anthony Minnaar, 'The Growing Use of Malware, Malvertising and Ransomware by Cybercriminals' (2016) 109(11) *Servamus: Community-Based Safety and Security Magazine* 28.

[287] See G M Hunsucker, 'The European Union Database Directive: Regional Stepping Stone to an International Model?' (1997) 7(2) *Fordham Intellectual Property, Media and Entertainment Law Journal* 697, 702; Paula Baron (n 137) 886; also see the Massachusetts Supreme Court case of *United States v LaMacchia*, 817 F Supp 535, 536 (D Mass, 1994).

[288] Reichman and Okediji (n 154) 1368.

[289] Aaron Schwabach, *Internet and the Law: Technology, Society and Compromises*, (ABC CLIO, 2006) 73, citing Zarsky 2002-03.

[290] Joint Information Systems Committee, The Value and Benefit of Text Mining to United Kingdom Further Higher Education (2012), 49.

[291] See, eg, Jörg Kahler, 'EU Database Protection of Website Content with the Online Travel Business as an Example' (2012) 9 *US-China Law Review* 93.

[292] Telstra Corporation Limited, 'Submission to the Australian Law Reform Commission's Issues Paper No. 42, *Copyright and the Digital Economy*, (November 2012) 11.

[293] See, eg, Ronald A Cass and Keith N Hylton, *Laws of Creation: Property Rights in the World of Ideas* (Harvard University Press, 2013); Khanuengnit Khaosaeng, *Online Re-creation Culture in the 21st Century: The Reconciliation between Copyright Holders, Online Re-creators and the Public Interest* (PhD Thesis, Queen Mary, University of London, 2016); John Kuehl, 'Video Games and Intellectual Property: Similarities, Differences and a New Approach to Protection' (2016) 7(2) *Cybaris: An Intellectual Property Law Review* 313; Stacey M Lantagne, 'The Copymark Creep: How the Normative Standards of Fan Communities Can Rescue Copyright' (2016) 32(2) *Georgia State University Law Review* 459; Lastowka

subsequently assume that these end-user behaviours warrant the strengthening of database protection by addressing the limitations demonstrated through the current judicial application of originality and authorship.

2.3.4 Changes to Global Communication Structures

A significant argument in support of strengthening copyright protection for databases is that technologies and communications have seemingly forever changed the way that people 'communicate, interact, create and use various materials, engage in business transactions and deal with information'.[294] The nature and structure of fundamental global communications is rapidly changing, which affects everything.[295] Database use in telecommunications has evolved to the extent that the focus has predominantly shifted from mass society to the establishment of larger global networks, driven by the individual.[296]

Mass society is 'a social formation with an infrastructure of groups, organizations and communities ('masses') that shapes its prime mode of organization at all levels'.[297] The popularity of social media initiatives, which may contain content protectable by copyright, is one such example.[298] Participation in widespread cultural interaction is avid.[299] Where once an individual could only communicate with others within limited hierarchies and scope, it is now possible to instantly communicate with millions. New types of hierarchies and global networks, which surpass all physical boundaries, are being established.[300]

---

and Hunter (n 254); Jacqueline D Lipton, 'Copyright and the Commercialization of Fan Fiction' (2014) 52 *Houston Law Review* 425, 428; Wellett Potter and Heather Ann Forrest, 'Musicological and Legal Perspectives on Music Borrowing: Past, Present and Future' (2011) 22 *Australian Intellectual Property Journal* 137, 137; Wellett Potter, 'Music Mash-Ups: The Current Australian Copyright Implications, Moral Rights and Fair Dealing in the Remix Era' (2012) 17(2) *Deakin Law Review* 349; Amanda Schreyer, 'An Overview of Legal Protection for Fictional Characters: Balancing Public and Private Interests' (2015) 6(1) *Cybaris: An Intellectual Property Law Review* 50; Jayme Rebecca Taylor, 'Convention Cosplay: Subversive Potential in Anime Fandom' (Anthropology Masters Thesis, University of British Columbia, 2009); Rebecca Tushnet, 'Legal Fictions: Copyright, Fan Fiction, and A New Common Law' (1997) 17(3) *Loyola Los Angeles Entertainment Law Journal* 651, 655.

[294] Brian Fitzgerald et al, (n 3) 'Preface' by Anne Fitzgerald (ix).

[295] Brand (n 1) xiii.

[296] Jan Van Dijk, *The Network Society: Social Aspects of New Media* (Sage Publications, 2nd ed, 2006), 28.

[297] Ibid 32.

[298] Mihajlo Babovic, 'The Emperor's New Digital Clothes: The Illusion of Copyright Rights in Social Media' (2015) 6(1) *Cybaris: An Intellectual Property Law Review* 138, 144–46; Brittany Curtis, 'Copyright vs Social Media: Who Will Win?' [2016] (20) *Intellectual Property Law Bulletin* 81, 81–2; Axel Bruns and Hallvard MoeKatrin, 'Structural Layers of Communication in Twitter' in Katrin Weller, Axel Bruns, Jean Burgess, Merja Mahrt and Cornelius Puschmann (eds) *Twitter and Society* (Peter Lang, 2014) 15, 15-29.

[299] Jack M Balkin, 'Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society' (2004) 79(1) *New York University Law Review* 1, 2.

[300] Benkler, *The Wealth of Networks* (n 37) 357.

The probable long-term social and legal outcomes of these trends are starting to be analysed. This study assumes that because copyright influences the production and communication of databases, copyright will play a substantial role in changing social hierarchies, networks and power structures through its capacity to control accessibility to information. Copyright ultimately underpins democracy, communication structures and shapes the way people communicate – ultimately, copyright shapes the need for truth.[301] The future implications of copyright's role in the world remain undetermined but are likely to be critical and far-reaching. Three such ramifications have been speculated as being: (1) major shifts in competition and innovation to reflect the change from the tangible to intangible (2) a political shift from state to non-state and (3) a geopolitical shift from West to East.[302] This study, therefore, assumes that the future role of copyright in relation to database protection should facilitate and support these trends by addressing the purported under-protection of databases seen through the judicial application of originality and authorship.

2.3.5 The Change from Passive Audience Members to Active Mass Consumers/Producers

This study assumes that the copyright protection of databases requires strengthening because the internet has resulted in the converging of three mass industries: publishing, broadcasting and computers.[303] Consequently, people's activities have changed from passive audience members to active mass consumers[304] and producers. A recent Australian data accessibility report stated, 'If you are using a product or service and not paying for it (or sometimes even when you are), then *you* are the product'.[305] There has also been changes in people's behaviour: in the past it was only possible to read, edit and print databases but now people can quickly control database selection, production, consumption and communication.[306] In response, new hybrid initiatives are emerging, such as transmedia

---

[301] Maurizio Borghi, 'Copyright and Truth' (2011) 12(1) *Theoretical Inquiries in Law* 1, 1–4.
[302] Francis Gurry, 'Re-Thinking the Role of Intellectual Property' (Speech delivered at the 5th Francis Gurry Lecture, University of Melbourne Law School, 22 August 2013) <http://www.law.unimelb.edu.au/files/dmfile/dg_speech_melbourne_20131.pdf>.
[303] Brand, (n 1) 10.
[304] Molly Shaffer van Houweling, 'Atomism and Automation' (2012) 27 *Berkeley Technology Law Journal* 1471, 1474; Jane Kaufman Winn and James R Wrathall, 'Who Owns the Customer? The Emerging Law of Commercial Transactions in Electronic Customer Data' (2000– 001) 56 *The Business Lawyer* 213, 213–216, 230–40.
[305] Australian Government Productivity Commission, 'Data Availability and Use' (n 6) 9.
[306] Brand (n 1) 272.

works, which challenge existing authorship paradigms. Such challenges are caused by issues such as audience participation in transmedia storytelling.[307]

The collaborative efforts in creating and communicating intangible databases by the public as private consumers results in an ongoing refocusing of worldwide innovation. Activities which once required significant infrastructure and commercial capital have become accessible and affordable to private individuals.[308] Online infrastructure is, instead, shouldered by society via a broad distribution over the internet.[309] A networked, knowledge-based capital is emerging,[310] which will be significantly influenced and shaped by the future role of copyright. This study therefore assumes that the future copyright protection of databases should facilitate these activities and that this is achievable by addressing the limitations demonstrated by the current judicial application of originality and authorship.

2.3.6 The Use of 'Artificial Intelligence' in Database Production Challenges Authorship Norms

A further reason in support of the strengthening of copyright protection is that many databases are produced through automated computerised processes, with highly constrained and often antecedent human input. This raises questions as to whether the production of a database is sufficiently original for copyright to subsist and whether human authorship can be established. The establishment of originality and authorship under copyright requires a detailed analysis of the precise input of people throughout database production.[311] This will be explored in Chapter 6:.

As computer-generated technology develops into the realm of artificial intelligence (AI), issues pertaining to the precise contribution of humans versus autonomous machine production are raised.[312] An ultimate goal of AI has not yet been achieved: that is, the

---

[307] Elisabeth S Aultman, 'Authorship Atomized: Modeling Ownership in Participatory Media Productions' [2014] (36) *Hastings Communications and Entertainment Law Journal* 383, 384–88.

[308] Shaffer van Houweling, 'Atomism and Automation' (n 304) 1473.

[309] Benkler, *The Wealth of Networks* (n 37) 6.

[310] See generally, Gobind M Herani et al, 'Knowledge Transformation and Economic Development: The Role of Digital Technology – An Analysis: Indus Institute of Higher Education (IIHE), Karachi, Pakistan' (MPRA Paper No 5575, Munich Personal RePEc Archive, 7 November 2007); Benkler, *The Wealth of Networks* (n 37) 6.

[311] Neal F Burstyn, 'Creative Sparks: Works of Nature, Selection, and the Human Author' (2015) 39(2) *Columbia Journal of Law & the Arts* 281, 299–303.

[312] See generally, Tuomas Sorjamaa, *I, Author – Authorship and Copyright in the Age of Artificial Intelligence* (LLM Thesis, Hanken School of Economics, Helsinki, 2016).

establishment of intelligent, autonomous, fully integrated, self-perpetuating, self-learning[313] machines which act like humans instead of robots.[314] With each passing year, this goal becomes closer.[315] The authorship of works produced through computer-generated processes with minimal degrees of human input is already occurring and has recently prompted considerable commentary.[316] It is undoubtable that future judicial consideration

---

[313] See generally, Michael Gaspar, 'Protecting a Dream: Copyright Ownership in Dream Decoding' (2014) 42(4) *AIPLA Quarterly Journal* 631; Benjamin L W Sobel, 'Artificial Intelligence's Fair Use Crisis' (2017) 41 *Columbia Journal of Law & the Arts* 45, 47–79.

[314] Amir H Khoury, 'Intellectual Property Rights for Hubots: On the Legal Implications of Human-like Robots as Innovators and Creators' (2017) 35 *Cardozo Arts & Entertainment Law Journal* 635, 640–41.

[315] Shlomit Yanisky-Ravid and Luis Antonio Velez-Hernandez, 'Copyrightability of Artworks Produced by Creative Robots and Originality: The Formality-Objective Model' (2018) 19(1) 19 *Minnesota Journal of Law Science and Technology* 1, 3–7.

[316] See generally, Angela Adrian (n 254); Saleh Al-Sharieh, *A Roadmap for Assimilating Authors' and Users' Human Rights into International Copyright Law* (LLD Thesis, University of Ottawa Faculty of Law 2014); Toby Bond and Sarah Blair, 'Artificial Intelligence & Copyright: Section 9(3) or Authorship Without an Author: Editorial' (2019) 14(6) *Journal of Intellectual Property Law & Practice* 423; Annemarie Bridy, 'Coding Creativity: Copyright and the Artificially Intelligent Author' (2012) 5 *Stanford Technology Law Review* 1; Annemarie Bridy, 'The Evolution of Authorship: Work Made By Code' (2016) 39(3) *Columbia Journal of Law & the Arts* 395; Balkin, 'The Path of Robotics Law' (n 252); Theo Austin Bruton, 'Mind-Movies: Original Authorship As Applied to Works From "Mind-Reading" Neurotechnology' (2014) 14(1) *Chicago-Kent Journal of Intellectual Property* 263; Madeleine de Cock Buning, 'Autonomous Intelligent Systems as Creative Agents under the EU Framework for Intellectual Property' (2016) 2 *European Journal of Risk Regulation* 310; Burstyn (n 311); Timothy Butler, 'Can a Computer be an Author: Copyright Aspects of Artificial Intelligence', (1982) 4(4) *Hastings Communication and Entertainment Law Journal* 707; Ryan Calo, 'Robotics and the Lessons of Cyberlaw' (2015) 103 *California Law Review* 513; Shun-ling Chen, 'Collaborative Authorship: From Folklaw to the Wikiborg' (2011) 1 *Journal of Law, Technology and Policy* 131; Ralph D Clifford, 'Intellectual Property in the Era of the Creative Computer Program: Will the True Creator Please Stand Up?' (1997) 71 *Tulane Law Review* 1675; Dolin (n 255); Anne Fitzgerald and Tim Seidenspinner, 'Copyright and Computer-Generated Materials: Is It Time to Reboot the Discussion About Authorship' (2013) 3 *Victoria University Law and Justice Journal* 47; Alexandra George, 'Reforming Australia's Copyright Law: An Opportunity to Address the Issues of Authorship and Originality' (2014) 37(3) *University of New South Wales Law Journal* 939; Jane C Ginsburg, 'Putting Cars on the "Information Superhighway": Authors, Exploiters and Copyright in Cyberspace' (1995) 95 *Columbia Law Review* 1466; Jane C Ginsburg, 'The Cyberian Captivity of Copyright Territoriality and Author's Rights in a Networked World' (n 74); Jane C Ginsburg, 'People Not Machines: Authorship and What It Means in the Berne Convention' (2018) 49(2) *International Review of Industrial Property and Copyright Law* 131; Brad A Greenberg, 'More Than Just a Formality: Instant Authorship and Copyright's Opt-Out Future in the Digital Age' (2012) 59 *UCLA Law Review* 1028; James Grimmelmann, 'There's No Such Thing as A Computer-Authored Work: And it's a Good Thing, Too' (2016) 39(3) *Columbia Journal of Law & the Arts* 403; İsmet Bumin Kapulluoğlu, *The Emerging Need to Allocate Copyright Ownership and Authorship Over Computer Generated Musical Compositions* (LLM Thesis, Tilburg University, 2018); Sankalp Khanna, Abdul Sattar and David Hansen, 'Advances in Artificial Intelligence Research in Health' (2012) 5(9) *Australasian Medical Journal* 475; Liis Lindström, *Automated Processing of Copyrighted Works in the European Union – A Way Forward?* (Master's Thesis, University of Tartu, 2014); Jani McCutcheon, 'Curing the Authorless Void: Protecting Computer-Generated Works Following IceTV and Phone Directories' (2013) 37 *Melbourne University Law Review* 46; Timothy J McFarlin, 'An Idea of Authorship: Orson Welles, The War of the Worlds Copyright and Why We Should Recognize Idea-Contributors as Joint Authors' (2016) 66(3) *Case Western Reserve Law Review* 701; John O McGinnis, 'Accelerating AI' (2010) 104 *Northwestern University Law Review* 366; Alina Ng, 'When Users are Authors: Authorship in the Age of Digital Media' (2010) 12(4) *Vanderbilt Journal of Entertainment and Technology Law* 853; Ochoa, 'Who Owns an Avatar?' (n 254); Mark Perry, 'From Music Tracks to Google Maps: Who Owns Computer-Generated Works?'(2010) 26 *Computer Law and Security Review* 621; Wellett Potter, 'When Computers Dream of Electric Sheep: Australian

of the application of copyright subsistence to works produced through these methods will continue.

The overall assumption based on the points discussed above is that an inherent tension emerges when considering collaborative models of database creation and the subsistence tests for authorship and originality. This is because copyright has traditionally focused upon the notion of individual authorship and proprietary rights in original databases. This study, therefore assumes that the changes demonstrated in the role of authorship favours strengthening the copyright protection of databases. Arguably, this is achievable by addressing the current limitations in the judicial application of authorship and originality.

Because the factors which favour increasing copyright protection have been discussed, the next section will consider technological, social and cultural factors which favour weakening copyright protection for databases and the assumptions made in response to these. It is necessary to explore these factors to provide a balanced approach to the thesis. The weakening of the copyright protection of databases is underpinned by utilitarian-based approaches, such as OAWs, which will be analysed in Chapter 10:.

Authorship Rights in an Age of Artificial Intelligence' (2015) 33(3) *Copyright Reporter – Journal of the Copyright Society of Australia* 22; William T Ralston, 'Copyright in Computer-Composed Music: Hal Meets Handel' (2005) 52 *Journal of the Copyright Society of the USA* 281; Sam Ricketson, 'Reflections on Authorship and the Meaning of a "Work" in Australian and Singapore Copyright Law' (2012) 24 *Singapore Academy of Law Journal* 792; Sam Ricketson, 'The Need for Human Authorship – Australian Developments: Telstra Corp v Phone Directories Co Pty Ltd' (2012) 34(1) *European Intellectual Property Review* 54; Pamela Samuelson, 'Allocating Ownership Rights in Computer-Generated Works' (1985) 47 *University of Pittsburgh Law Review* 1185; Schellekens (n 143); Shaffer Van Houweling, 'Author Autonomy and Atomism in Copyright Law' (n 198); John Tehranian, 'Sex, Drones & Videotape: Rethinking Copyright's Authorship-Fixation Conflation in the Age of Performance' (2017) 68 *Hastings Law Journal* 1319; Yanisky-Ravid and Velez-Hernandez (n 315); Lin Weeks, 'Media Law and Copyright Implications of Automated Journalism' (2014) 4(1) *New York University Journal of Intellectual Property and Entertainment Law* 67, 85–93; Andrew J Wu, 'From Video Games to Artificial Intelligence: Assigning Copyright Ownership to Works Generated by Increasingly Sophisticated Computer Programs' (1997) 25(1) *AIPLA Quarterly Journal* 131; Robert Yu, 'The Machine Author: What Level of Copyright Protection is Appropriate for Fully Independent Computer Generated Works' (2017) 165 *University of Pennsylvania Law Review* 1245; Zech, 'Information as Property' (n 224) 193; and Shujing Zhang, 'Research on Copyright Protection of AI Creation' (Conference Paper, International Symposium on Innovation and Education, Law and Social Sciences (IELSS 2019), August 2019).

2.4 Technological, Social and Cultural Factors Which Favour Weakening Copyright Protection for Databases

2.4.1 The Other Avenues of Database Protection Extraneous to Copyright

Information is potentially protectable by laws other than copyright.[317] In Australia, such legal measures include contract law,[318] confidential information,[319] unjust enrichment[320] and consumer laws[321] (including passing-off[322] and misleading or deceptive conduct).[323] Australian patent laws may also remedy some issues, particularly in relation to health-related databases.[324]

Privacy laws provide overarching protection for personal data, through Federal[325] and State[326] statute and other legislation.[327] The *Privacy Act 1988* (Cth) and related principles apply to all government agencies and private sector entities, which have an annual turnover exceeding $3,000,000.[328] It seeks to promote the protection of individuals' privacy[329] by focusing on the responsible collation, use and disclosure of personal data. [330]

---

[317] Osenga (n 187) 2102.

[318] See generally, Estelle Derclaye, 'An Economic Analysis of the Contractual Protection of Databases' (2005) 2 *Journal of Law, Technology and Policy* 101; Jane C Ginsburg, 'Surveying the Borders of Copyright' (1994) 41 *Journal, Copyright Society of the USA* 322, 325-26; Raymond Nimmer, (n 170) 856–62.

[319] *Coco v AN Clark (Engineers) Ltd* [1969] RPC 41; *CA Inc and Another v ISI Pty Ltd* (2012) 201 FCR 23.

[320] Anne Fitzgerald, Brian Fitzgerald, Cristina Cifuentes and Peter Cook, *Going Digital 2000: Legal Issues for E-Commerce, Software and the Internet*, (Prospect Media, 2nd ed, 2000) 14–15. Also see generally, Brian Fitzgerald and Leif Gamertsfelder, 'A Conceptual Framework for Protecting the Value of Informational Products through Unjust Enrichment Law' (1998) 16(3) *Australian Bar Review* <https://ssrn.com/abstract=137500>.

[321] *Competition and Consumer Act 2010* (Cth). See generally, Mark Davison, *The Legal Protection of Databases* (n 22); Mark Davison, 'Sui Generis or too Generous: Legislative Protection of Databases, its Implications for Australia and Some Suggestions for Reform' (1998) 21(3) *University of New South Wales Law Journal* 729, 734; Gosnell (n 18) 649–57.

[322] See generally *Conagra Inc v McCain Foods (Aust) Pty Ltd* (1992) 23 IPR 193.

[323] *Competition and Consumer Act 2010* (Cth) sch 2 ch 2.

[324] Charles Lawson, 'Patenting Health-Related Databases and Information in Australia' (2005) 17(1) *Bond Law Review* 58. Also see *Patent Act 1990* (Cth).

[325] *Privacy Act 1988* (Cth).

[326] *Information Privacy Act 2014* (ACT); *Privacy and Personal Information Protection Act 1998* (NSW); *Information Act 2002* (NT); *Information Privacy Act 2009* (Qld); *Personal Information Protection Act 2004* (Tas) and *Privacy and Data Protection Act 2014* (Vic).

[327] For example, *Telecommunications Act 1997* (Cth); *National Health Act 1953* (Cth); or the *Health Records and Information Privacy Act 2002* (NSW).

[328] Australian Government, 'Australian Businesses and the EU General Data Protection Regulation' (Privacy Business Resource 21, Office of the Information Commissioner, January 2018) 3.

[329] *Privacy Act 1988* (Cth) s 2A.

[330] Australian Government Productivity Commission, 'Data Availability and Use' (n 6) 66.

Overseas, the EU's *General Data Protection Regulation* ('*GDPR*')[331] came into force on 25 May 2018 and is regarded as the most substantial development in relation to personal data protection in over 20 years.[332] It is highly relevant to Australian businesses due to its extraterritorial effect.[333] The *GDPR* seeks to protect the fundamental rights and freedoms of EU citizens in relation to the protection of their personal data[334] and to strengthen consumer efficiency.[335] It contains principles relating to the processing of personal data;[336] transparency and consent;[337] children and consent;[338] the processing of regulated data;[339] pseudonymisation;[340] restriction of data processing;[341] and data portability.[342] The right to data erasure (which includes the right to be forgotten) gives citizens the right to request that their data be deleted in certain circumstances.[343] The *GDPR* applies to data stored in databases and currently, Australian privacy law has no such equivalent right.[344]

---

[331] Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons With Regard To The Processing Of Personal Data And On The Free Movement Of Such Data, And Repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L 119/1, 1. ('*GDPR*')

[332] Christoph Luykx, 'EU General Data Protection Regulation (GDPR): Are You Ready For It?' (Working Paper of Vanson Bourne, Commissioned by CA Technologies, 2016) Foreword and Introduction.

[333] *GDPR* (n 331) art 3 § 1.

[334] Ibid art 1 § 2.

[335] Federico Sartore, 'Big Data: Privacy and Intellectual Property in a Comparative Perspective' (Trento Law and Technology Research Group, Student Paper n 26, 2016) 63.

[336] *GDPR* (n 331) art 5 § 1-2.

[337] Ibid art 6 and 7.

[338] Ibid art 8.

[339] Ibid art 9 and 10.

[340] Ibid art 25 and 32.

[341] Ibid art 18.

[342] Ibid art 20.

[343] Ibid art 17.

[344] Australian Government, 'Australian Businesses and the EU General Data Protection Regulation' (n 328) 10.

In overseas jurisdictions such as the US, laws pertaining to unfair competition;[345] formalities;[346] contracts;[347] the tort of misappropriation;[348] and trade secrets[349] are used to protect databases extraneous to copyright. National US antitrust laws, trademark and patent principles[350] have also been suggested as having the potential to ease database access concerns in that jurisdiction.[351] Another unique model of database protection was proposed in a study about the balance between database rights and policies.[352] This model drew upon the principles of patent and trademark law and sought to achieve satisfaction for the commercial needs of database producers.[353]

Other technical options include digital rights management (DRM),[354] which is defined as 'technology that controls access to content on digital devices'.[355] DRM may involve the use of metadata;[356] digital signatures;[357] and watermarks[358] to preclude data access[359] and

---

[345] Deepu Jacob Thomas and Prasan Dhar, 'Of Square Pegs and Round Holes: Towards a New Paradigm of Database Protection' (2008) 4 *The Indian Journal of Law and Technology* 34, 53; J H Reichman, 'Legal Hybrids Between the Patent and Copyright Paradigms' (1994) 94 *Columbia Law Review* 2432, 2476.

[346] Stef Van Gompel, 'Copyright Formalities in the Internet Age: Filters of Protection or Facilitators of Licensing' (2013) 28 *Berkeley Technology Law Journal* 1425, 1426–30.

[347] Jane C Ginsburg, 'A Marriage of Convenience? A Comment on the Protection of Databases' (2007) 82(3) *Chicago-Kent Law Review* 1171, 1171–2; also see generally, Séverine Dusollier, 'Sharing Access to Intellectual Property Through Private Ordering' (2007) 82 *Chicago-Kent Law Review*, 1391.

[348] Michael J Bastian, 'Protection of "Noncreative" Databases": Harmonisation of United States, Foreign and International Law' (1999) 22 *Boston College International and Comparative Law Review* 425, 458–63; Davison, *The Legal Protection of Databases* (n 22) 11 and chapters 2, 4 & 5; Estelle Derclaye, 'Can and Should Misappropriation Also Protect Databases? A Comparative Approach' in Paul Torremans (ed), *Copyright Law: A Handbook of Contemporary Research* (Edward Elgar, 2007) 83, 85–86; Hasan (n 141) 481–482; Nancy Whitmore, 'Extending Copyright Protection to Combat Free-Riding by Digital News Aggregators and Online Search Engines' (2015) 24(1) *Catholic University Journal of Law and Technology* 1, 12–18.

[349] Sorkin, DiCola and Halpern (n 8) 570.

[350] Lipton, 'Balancing Private Rights and Public Policies' (n 116) 778.

[351] See generally, Daryl Lim Tze Wei, 'Regulating Access to Databases Through Antitrust Law: A Missing Perspective in the Database Debate' (2006) 7 *Stanford Technology Law Review* <http://stlr.stanford.edu/STLR/Articles/06_STLR_7>.

[352] Lipton, 'Balancing Private Rights and Public Policies' (n 116) 773.

[353] Ibid 804.

[354] See, generally Fred Dingledy and Alex Berrio Matamoros, 'What is Digital Rights Management?' in Catherine A Lemmer and Carla P Wale (eds) *Digital Rights Management: The Librarian's Guide* (Roman and Littlefield, 2016); Gareth Paul Latter, *Copyright Law in the Digital Environment: DRM Systems, Anti-Circumvention Legislation and User Rights* (Master of Laws Thesis, Rhodes University, 2010); Mark Perry 'Rights Management Information' in Michael Geist (ed) *In the Public Interest: The Future of Canadian Copyright Law* (2005) 251, 252–4.

[355] Dingledy and Berrio Matamoros (n 354) 1. Also see Lipton, 'Balancing Private Rights and Public Policies' (n 116) 787.

[356] Brittany Curtis (n 298) 84–6.

[357] John Conley, Mary Maureen Brown and Robert M Bryan, 'Database Protection in a Digital World' (1999) 6 *Richmond Journal of Law & Technology* 2, 8-9.

[358] Udai Pratap Rao, Dhiren R Patel and Punitkumar M Vikani, 'Relational Database Watermarking for Ownership Protection' (2012) 6 *Procedia Technology* 988, 988–9.

[359] Paula Baron (n 137) 880.

prevent unauthorised transfer or usage.[360] Methods used include permissions management; geo-blocking;[361] access controls; the use of specialised hardware/software to access a work; copy protection; and digital watermarks.[362]

Technological protection measures (TPM) also adopt a 'protectionist stance'[363] by controlling access to content on digital platforms to prevent compromising commercial assets.[364] Such measures arguably help to protect an author/creator's rights under copyright, while promoting competition.[365] The encoding is included in the product/hardware and is effective because it immediately restricts the way that a user accesses/uses a work.[366] Following a 2005 case,[367] *The Act* introduced new anti-circumvention laws.[368] Owners or licensees of a copyright work containing a TPM are permitted to bring an action for infringement if their TPM is knowingly circumvented.[369] However, two major problems with TPMs generally are that they require continual updating, which can be costly,[370] and enforcement can often be too late to be effective.[371] To advance this study and to narrow its scope to focus on copyright-related issues, an assumption has been made that copyright has the potential to be as effective in protecting the rights of database owners as these other avenues of law might be.

2.4.2 Collaborative Efforts Which Challenge the Traditional Notion of the (Sole) Author

There are emerging collaborative efforts which challenge the traditional notion of the (sole) author and traditional proprietary ownership norms.[372] For example, the fundamental nature of creation, scientific research and communication of database products is changing.[373] It is

---

[360] Dingledy and Berrio Matamoros (n 354) 4.
[361] Australian Government Productivity Commission, Productivity (n 6) 142–5.
[362] Dingledy and Berrio Matamoros (n 354) 4–7.
[363] Mark Perry and Casey M Chisick, 'Copyright and Anti-Circumvention: Growing Pains in a Digital Millennium' (2000) *New Zealand Intellectual Property Journal* 261, 262.
[364] Rafal Kasprowski, 'Perspectives on DRM: Between Digital Rights Management and Digital Restrictions Management' (2010) 36(3) *Bulletin of the American Society for Information Science and Technology* 49, 49.
[365] Perry and Chisick (n 363) 262.
[366] Kasprowski (n 364) 49.
[367] *Stevens v Kabushiki Kaisha Sony Computer Entertainment* (2005) 224 CLR 193.
[368] *The Act* (n 168) ss 116AN, 116AO and 116AP.
[369] Ibid s 116AN(1)(a)-(c).
[370] Lipton, 'Balancing Private Rights and Public Policies' (n 116) 785.
[371] Ibid 785.
[372] Harold Demsetz, 'Toward a Theory of Property Rights II: The Competition Between Private and Collective Ownership' (1992) 31 *Journal of Legal Studies* 653, 658.
[373] Chen, (n 316) 132–4.

becoming common practice to collaborate with research[374] in lieu of more traditional norms of individual proprietary creation.[375] More people are creating works and communicating them using open access licensing schemes due to shifts in underlying economic, social and cultural ideals.[376] Wikipedia is an example, being an open, public encyclopaedic database which is authored through the free, collaborative efforts of many individuals around the world.[377]

In scientific fields, 20 groups collaborated to draft the human genome sequence.[378] Overall, the number of researchers who are collaborating in individual research projects is growing and there are practical debates around attribution and what it means to 'author' a work.[379] A quantitative comparison using statistics from 1975 reveal a single scientific paper authored by 49 people was the highest joint authorship.[380] Comparing this to papers produced in 2012, there were 600 publications citing over 100 joint authors, with one genetics paper citing over 1000 joint authors – a process termed 'hyperauthorship'.[381]

---

[374] Michal Koščík and Matěj Myška, 'Database Authorship and Ownership of Sui Generis Database Rights in Data-Driven Research' (2017) 31(1) *International Review of Law, Computers & Technology* 43, 44.

[375] Benkler, *The Wealth of Networks* (n 37) 68–90.

[376] Colleen Chien, 'Beyond Eureka: What Creators Want (Freedom, Credit and Audiences) and How Intellectual Property Can Better Give it to Them (By Supporting, Sharing, Licensing and Attribution)' (2016) 114(6) *Michigan Law Review* 1081, 1082–95; see generally, Lawrence Lessig, *The Future of Ideas'* (n 75); Suber (n 57) 3–4; Haochen Sun, 'Copyright and Responsibility' (2013) 4 *Harvard Journal of Sports and Entertainment Law* 263, 291–5. See Chapter 10:.

[377] Benkler, *The Wealth of Networks* (n 37) 70–1; see generally, Chen (n 317).

[378] Jasper A Bovenberg, 'Should Genomics Companies Set Up Database in Europe? The EU Database Protection Directive Revisited' (2001) 23(8) *European Intellectual Property Review* 361, 364. Also see Charlotte E Tschider, 'Metaphor after Myriad: The Effect of Legal Rhetoric on Intellectual Property Protection for Biological Sequences' (2017) 57 *IDEA - The Journal of the Franklin Pierce Center for Intellectual Property* 519, 520–54.

[379] Elizabeth Adeney, 'Research Collaborations and "Authorship": Differentiating Legal From Management Norms' (2016) 44(2) *Australian Business Law Review* 132, 132–3.

[380] Koščík and Myška (n 374) 43-4.

[381] Ibid 44.

This collaborative behaviour challenges the traditional legal notion of the role of the sole author[382] and the role of the incentivisation of an author through copyright.[383] These concepts are discussed in 4.5.1. The open access movement ('OAM') also challenges these norms, rejecting traditional authorial economic incentivisation,[384] and espousing various non-economic benefits to author and the public.[385] This will be discussed in Chapter 10:. The utilitarian benefits of such works have prompted the assumption that their creation should be supported as much as is possible through copyright to benefit innovation.

2.4.3 Databases Provide Significant Social & Utilitarian Benefit, & Copyright Should Not Be Used to Limit This

There has been a social issue which has been mostly ignored throughout Australian copyright jurisprudence in favour of strengthening database protection in the interests of copyright's proprietary incentive. This is the substantial utilitarian role that copyright plays regarding access to knowledge.[386] Arguably, the role of the future social, cultural and utilitarian benefits of databases are significant.[387] While database usage in science and telecommunications results in substantial innovation, the potential future benefits of databases are profound. Humanity faces urgent challenges in terms of 'climate change, environmental degradation, management of common resources, food security and health

---

[382] See generally, Adeney (n 379); Aultman (n 307); Shyamkrishna Balganesh, 'Causing Copyright' (2017) 117(1) *Columbia Law Review* 1, 14–15; Alina Ng Boyte, 'The Conceits of Our Legal Imagination: Legal Fictions and the Concept of Deemed Authorship' (2014) 17(3) *New York University Journal of Legislation and Public Policy* 707; Christopher Buccafusco, 'A Theory of Copyright Authorship' (2016) 102 *Virginia Law Review* 1229; Francina Cantatore, 'From Vault to Honesty Box: Australian Authors and the Changing Face of Copyright' (2013) 25(1) *Bond Law Review* 98; Wayne M Cox, 'The Fantastic Failure: How Current Copyright Law Stacks the Deck Against the Original Authors of Justice' (2015) 55(3) *IDEA: The Intellectual Property Law Review* 361; Curtin (n 199); Daniel Gervais, 'Authors, Online' (2015) 38(3) *Columbia Journal of Law and the Arts* 385; Jane C Ginsburg, 'Authors and Users in Copyright' (1997) 45 *Journal of the Copyright Society of the USA* 1; Jane C Ginsburg, 'The Author's Place in the Future of Copyright' (2009) 45 *Williamette Law Review* 381; Wendy J Gordon, 'The Core of Copyright: Authors, Not Publishers' (2014) 52(2) *Houston Law Review* 613; Molly Shaffer Van Houweling, 'Authors Versus Owners' (2016) 54(2) *Houston Law Review* 371; and Zemer, *The Idea of Authorship in Copyright* (n 95).

[383] Diane Leenher Zimmerman, 'Copyrights as Incentives: Did We Just Imagine That?' (2011) 12(1) *Theoretical Inquiries in Law* 29, 30-4. See Chapter 6:.

[384] Christopher Buccafusco, Zachary C Burns, Jeanne C Fromer and Christopher Jon Sprigman, 'Experimental Tests of Intellectual Property Laws' Creativity Thresholds' (2014) 92(7) *Texas Law Review* 1921, 1922.

[385] Teressa Scassa and Niki Singh, 'Open Data and Official Language Regimes: An Examination of the Canadian Experience' (2015) 7(1) *JeDEM – Journal of Democracy* 117, 118–19; Suber (n 57) ch 1; Paul F Uhlir et al, 'The Value of Open Data Sharing' (CODATA and Group on Earth Observations, 2015) 4–6.

[386] Jenny Lynn Sheridan, 'Copyright's Knowledge Principle' (2014) 17(1) *Vanderbilt Journal of Entertainment and Technology Law* 39, 85. Also see generally, Lunney (n 183).

[387] Julie Wald, 'Legislating the Golden Rule: Achieving Comparable Protection Under the European Union Database Directive' (2002) 25 *Fordham International Law Journal* 987, 995.

concerns'[388] with the COVID-19 pandemic being a significant challenge throughout 2020-2021. Database innovation demonstrates solid potential to solve these issues and if copyright is used as an obstacle rather than an incentive then this is problematic.

There are newly developing fields of science which are wholly dependent upon access to databases. In addition to tele-epidemiology, such fields include: cosmology, bioinformatics[389] and particle physics.[390] Within scientific research fields, database annotation continues to grow.[391] The production process currently requires human effort and time, which limits knowledge growth, particularly in biological discovery.[392] 3D printing is another field of growing innovation.[393] As technology develops, these limitations are likely to be solved, most likely involving databases.

Further utilitarian justifications for database usage emerge when considering their socio-cultural role in social networking. For example, MySQL is an open-source DBMS often used for data management. Users include Facebook, Flickr, Twitter, YouTube eBay, PayPal, LinkedIn, Tesla and Google (but not for searching).[394] Information is being gathered exponentially through social networking usage, with the reported active daily users of Snapchat being 60 million, Twitter reporting 126 million and Facebook 1.2 billion as of February 2019.[395]

---

[388] Uhlir et al (n 385).

[389] Dov S Greenbaum, 'The Database Debate: In Support of an Inequitable Solution' (2003) 13 *Albany Law Journal of Science and Technology* 431, 445–50. See generally, M Scott McBride, 'Bioinformatics and Intellectual Property Protection' (2002) 17 *Berkeley Technology Law Journal* 1331; Samuel E Trosow, '*Sui Generis* Database Legislation: A Critical Analysis' (2004-2005) 7 *Yale Journal of Law and Technology* 534, 546-7.

[390] Saeed Shahrivari, 'Beyond Batch Processing: Towards Real-Time and Streaming Big Data' (2014) 3(4) *Computers* 117, 117.

[391] Reichman and Okediji (n 154) 1368.

[392] Dennis Glynn Jr et al, 'DAVID: Database for Annotation, Visualization, and Integrated Discovery' (2003) 4(9) *Genome Biology* R60, R60. Also see Yann Joly, Nik Zeps and Bartha M Knoppers, 'Genomic Databases Access Agreements: Legal Validity and Possible Sanctions' (2011) 130 *Human Genetics* 441.

[393] See generally, Sarah Craig, 'Protection for Printing: An Analysis of Copyright Protection for 3D Printing' (2017) 1 *University of Illinois Law Review* 307.

[394] Oracle Corporation, 'Why MySQL?' *MySQL* (Web Page, January 2020) <https://www.mysql.com/why-mysql/>.

[395] Hamza Shaban, 'Twitter Reveals Its Daily Active User Numbers For The First Time', *The Washington Post Online* (Web Page, 8 February 2019) <https://www.washingtonpost.com/technology/2019/02/07/twitter-reveals-its-daily-active-user-numbers-first-time/>.

With these platforms, opportunity to control and access information will dominate knowledge-based societies.[396] Therefore, copyright will not only affect economic power, but it plays a substantial political and utilitarian role through the capacity to regulate the production, distribution and exchange of future knowledge.[397] A problem is if copyright is used as a future shield to prevent access to knowledge, then this will adversely stunt the creation of new works of knowledge.[398] In association with this, it has been argued that minimum attention is paid to the way that copyright culturally manifests in the physical world, despite the significant implications of this.[399]

Using copyright as a means to restrict access violates not only utilitarian justifications for database protection but also economic justifications. At a minimum, there is the potential to hinder humanity's progress and innovative freedom.[400] At the economic end of the spectrum, there is the capacity to restrict remuneration for substantial investment in expensive databases. This may undermine markets by generating suboptimal incentives for commitment to invest.[401] There is the capacity to contravene historical copyright jurisprudence, provoking widespread infringement and ultimately violate the social norms of copyright.

There have been recent debates about whether increased access to information actually results in significant progress to humanity.[402] This argument is predicated upon the assumption that people wish to gain access to knowledge.[403] While difficult to quantify, some will argue that the over-protection of databases will limit future access to knowledge and stifle innovation. This could negatively impact social, political, cultural, educational, technological, scientific and economic fields.[404] For this reason, copyright policymakers

---

[396] Anirban Mazumder, 'Information, Copyright and the Future' (2007) 29(5) *European Intellectual Property Review* 180, 180–1.
[397] Balkin, 'Digital Speech and Democratic Culture (n 299) 3; Boyle, 'A Politics of Intellectual Property (n 75) 90.
[398] Amanda Reid, 'Claiming the Copyright' (2016) 34(2) *Yale Law and Policy Review* 425, 426; Sheridan (n 386) 97.
[399] Rosemary J Coombe, 'Critical Cultural Legal Studies' (2013) 10(2) *Yale Journal of Law & the Humanities* 463, 470–1.
[400] Yu, 'The Trust and Distrust of Intellectual Property Rights' (n 139) 1–2.
[401] Christine Greenhalgh and Padraig Dixon, 'The Economics of Intellectual Property: A Review to Identify Themes for Future Research' (University of Oxford Department of Economics Discussion Paper Series No. 135, 2002) 5.
[402] Gervais, 'Authors, Online' (n 382) 387–9.
[403] Ibid.
[404] Boyle, 'A Politics of Intellectual Property' (n 75) 89–90.

must be careful in the decisions that are made regarding the extent to which to protect databases in the future – a delicate balance is necessary. To examine this issue in further depth, the next section will discuss the issue of the role of copyright in future global information economies. This section assumes that copyright will play a vital future role, with the assumptions made in the next section underpinning the recommendations made at the end of this study.

2.5 The Role of Copyright in Future Global Information Economies

Although copyright and its policies affect everyone,[405] particularly those who use the internet,[406] this fact often goes unnoticed.[407] The current changes in technology, social and cultural factors explored in section 2.4 operate as a double-edged sword for future copyright policymakers regarding databases. On the one hand, fantastic and limitless economic, technological, social and cultural opportunities will be created through database production and communication in innovative markets across the public and private sectors.[408] However, on the other hand, such innovative opportunities challenge the role that copyright plays with the rights of database producers.[409] Copyright purportedly has a substantial role to play in the advancement of cultural expression[410] and social justice, due to its ability to control access to knowledge.[411] It is for this reason that copyright is considered 'one of the greatest balancing acts of the law'.[412] While insurance risks ('e-risks') emerge,[413] the most pertinent issues emerge between the economic interests of producers and the utilitarian interests of the public to access databases.

Taking into consideration two of the major external pressures in this complex issue — the rapidly changing technological context and the competing interests of stakeholders and

---

[405] Lessig, 'For the Love of Culture: Google, Copyright and Our Future' (n 230).
[406] Maria A Pallante, 'The Curious Case of Copyright Formalities' (2013) 28 *Berkeley Technology Law Journal* 1415, 1416.
[407] Australian Government Productivity Commission, 'Intellectual Property Arrangements' (Productivity Commission Inquiry Report, No 78, 23 September 2016) 52.
[408] Australian Government Productivity Commission, 'Data Availability and Use' (n 6) v.
[409] Siitonen (n 283) 2.
[410] Mireille Van Eechoud, 'Voices Near and Far' in Mireille Van Eechoud, (eds), *The Work of Authorship* (Amsterdam University Press, 2014) 7.
[411] Lateef Mtima, 'Copyright and Social Justice in the Digital Information Society: "Three Steps" Toward Intellectual Property Social Justice' (2015) 53(2) *Houston Law Review* 459, 459–60; see generally, Shaver (n 281).
[412] *Stevens v Kabushiki Kaisha Sony Computer Entertainment* (2005) 224 CLR 193, 241 [169] (Kirby J).
[413] Nigel Wilson, 'E-Risks and Insurance in the Information Age' (2011) 24 *New Zealand Universities Law Review* 550, 550.

users — it is desirable to achieve balance.[414] What is desirable for the future of Australian database copyright protection is a regime which maintains the individual foundations of ownership while striving for a balanced inclusion of collaborative behaviours.[415]

Some will purport that over-protection will result in a highly restrictive regime which has the potential to violate the idea/expression dichotomy (see 4.3), while under-protection will result in a regime that insufficiently fulfils copyright's purposes and discourages investment. Arguably, consideration must be given to what has traditionally been the two most important competing interests. These are Lockean philosophy through the exclusive rights of the database producer/author (which promotes economic investment and subsequent innovation) and utilitarian philosophy through legitimate access to and re-use of a database (for public end users).[416]

In response to this, an assumption made here is that on one hand data industries need to ensure remuneration for continued investment in innovation. On the other hand, weight must be given to the potential benefits to humanity through database dissemination and accessibility for end users.[417] Database producers seek legal protection which grants them the right to recoup investment and end-users seek the right to access and re-utilise databases. However, if the balance becomes legislatively skewed, as aptly stated by two prominent IP scholars, 'whenever contemplating the expansion of legal protection [against works such as databases], legislators must not fail to recognize the risk of chilling valuable innovation in the process'.[418] This is a compelling argument, because copyright can be used as a means by which to restrict innovation,[419] particularly as it continues its trend of expansion in duration, subject matter and scope.[420]

---

[414] Reid (n 398) 431; Samuelson et al (n 75) 1176; Yu, 'The Trust and Distrust of Intellectual Property Rights' (n 139) 13.

[415] Tracy Reilly, 'Copyright and a Synergistic Society' (2017) 18(2) *Minnesota Journal of Law, Science and Technology* 575, 578.

[416] Catherine Colston, 'Sui Generis Database Right: Ripe for Review?' (2001) *Journal of Information, Law and Technology* 3, 3 <http://eprints.cdlr.strath.ac.uk/629/>.

[417] Australian Government Productivity Commission (n 407) 63.

[418] Perry and Casey Chisick (n 363) 262.

[419] Mark S Nadel, 'How Current Copyright Law Discourages Creative Output: the Overlooked Impact of Marketing' (2004) 19(2) *Berkeley Technology Law Journal* 785, 787–8; Samuel E Trosow, 'The Illusive Search for Justificatory Theories' (n 184) 217–20.

[420] Pascale Chapdelaine, 'The Property Attributes of Copyright' (2014) 10 *Buffalo Intellectual Property Law Journal* 34, 34–7; Erlend Lavik and Stef Van Gompel, 'On the Prospects of Raising the Originality Requirement in Copyright Law: Perspectives from the Humanities' (2013) 60 *Journal of the Copyright Society of the USA* 387, 387; Anthony R Reese, 'Copyrightable Subject Matter in the "Next Great

A significant problem is that if end users are denied the opportunity to access data, they may blatantly infringe copyright law, which fundamentally undermines copyright's purpose while simultaneously pressurising database innovation.[421] With the diversity of databases comes more choice, which may result in mass pirating and undermining of the entire global IP system.[422] It has therefore been argued that there needs to be a focus on fundamental rationales for producing IP, which revolve around encouraging authorial intellectual creativity and balancing proprietary and moral rights (personal rights of the author, which will be explored in 4.5). As summarised by a prominent copyright scholar:

> Copyright is and must remain a legal system that encourages and protects the result of intellectual creativity. Conceptually, the protection should be sufficient to attain this objective and to show respect for authors. A balance must be struck between proprietary rights and moral rights: on the one hand, an economic incentive to optimise distribution of the work and, consequently, revenues generated by its exploitation; on the other hand, a mechanism enabling authors to protect their status as authors and the integrity of their work. That is the true foundation of copyright.[423]

In response to this, this study assumes that conceptually, this balance is appropriate. The question then becomes whether this balance remains achievable in the practical context of changing technology, the increasing privatisation of information[424] and the social and cultural trends explored in this chapter. If it is assumed so, then the next question becomes how to address the added complication of database products that do not fit neatly into current subsistence paradigms pertaining to authorship and originality (discussed in 3.2.4 for international law and Chapters 4-6 for Australian law). In response to this, technological neutrality has been expressed as an essential component of future IP regimes.[425] The

---

Copyright Act" (2014) 29 *Berkeley Technology Law Journal* 1489, 1492–96; Pamela Samuelson, 'Evolving Conceptions of Copyright Subject Matter' (2016) 78 *University of Pittsburgh Law Review* 17, 17–57.

[421] Brand (n 1) 202.

[422] Frederick Oduol Oduor, 'The Internet and Copyright Protection: Are We Producing a Global Generation of Copyright Criminals?' (2011) 18 *Villanova Sports and Entertainment Law Journal* 501, 502, 507–16; Antoni Terra, 'Copyright Law and Digital Piracy: An Economic Global Cross-National Study' (2016) 18(1) *North Carolina Journal of Law & Technology* 69, 75–84.

[423] Daniel Gervais, 'The Compatibility of the Skill and Labour Originality Standard with the Berne Convention and the TRIPS Agreement' (2004) 26(2) *European Intellectual Property Review* 75, 78 (emphasis added). See 4.5.4 for Australian moral rights theory.

[424] Peter K Yu, 'Intellectual Property and the Information Ecosystem' (2005) 1 *Michigan State Law Review* 1, 7.

[425] Australian Government Productivity Commission, 'Intellectual Property Arrangements' (n 407) 70; Brad A Greenberg, 'Rethinking Technology Neutrality' (2016) 100(4) *Minnesota Law Review* 1495, 1498-

question for future copyright policy, therefore, becomes how to provide legal certainty to those involved. With changing technology, it thus becomes necessary to incorporate 'sufficient flexibility to realise the benefits of new technologies, without losing the core benefits to creators and to the economy that copyright provides'.[426] This is highly pertinent to the issue of the future copyright-protection of databases due to technologies that are currently unforeseen. It becomes necessary to seek balance between private and public rights in databases as the fourth industrial era continues in earnest.

Such issues pertaining to data accessibility were examined in a recent report released by the Australian Government Productivity Commission, on 31 March 2017.[427] This report raised many relevant points. It sought to analyse the options for improving the use of public/private sector data and increasing its availability to individuals and organisations.[428] The benefits and costs of various options were examined, with the overarching and important goal of encouraging innovation and competition in Australia.[429] Overall, through a vertical approach, the benefits of the increased usage of public open data was analysed.

It found that existing provisions which enable access to public open data in Australia currently fall below the standard of other countries which have similar government structures.[430] Additionally, it was found that widespread benefits would ensue from access to such data, with consumers particularly likely to benefit.[431] The report reinforced copyright's essential role in protecting the form in which some data is expressed (the idea/expression dichotomy – see 4.3), thereby permitting claimable ownership (and exclusive rights)[432] over some processed datasets.[433]

In summation, it is arguable that the future role of copyright has the capacity to either facilitate (promote) or undermine (restrict) the entire future framework of the global information economy.[434] This can be seen through the copyright protection of databases,

---

1501; Kevin P Siu, 'Technological Neutrality: Toward Copyright Convergence in the Digital Age' (2013) 71 *Toronto Factual Law Review* 76, 79–81.

[426] Ian Hargreaves (n 262) 47.

[427] Australian Government Productivity Commission, 'Data Availability and Use' (n 6).

[428] Ibid v.

[429] Ibid.

[430] Ibid 33.

[431] Ibid.

[432] Ibid 139.

[433] Ibid 65.

[434] Boyle, 'A Politics of Intellectual Property' (n 75) 89.

where the owner controls access to and communication of knowledge.[435] It is for this reason that some will argue that if copyright over-protects databases, access to information is restricted; this is a fundamental form of power in contemporary knowledge-based economies.[436] Alternatively, others will argue that if under-protection occurs, databases are vulnerable to economic exploitation and this is problematic because, from an economic and Lockean perspective, this discourages database investment and promotion of future innovation.

The importance of copyright's role on the economy has recently been highlighted, with a re-examination of the entire framework of the Australian IP system in the context of changing technology and the global economy.[437] Interestingly, in 2016, public policy endorsed the importance of an appropriate *economic* framework.[438] A substantial report expressed the essentiality of achieving a balance between copyright and economic initiatives to benefit all Australians.[439] The report deemed this outcome desirable so that future economic interests in innovation are allowed to flourish, without an overly restrictive (strong) IP regime. The aim was to support incentive for authors to invest and innovate while at the same time permitting access to ideas and products.[440] This aim also underpins the recommendations made at the end of this study.

2.6 Conclusion

In conclusion, this chapter has addressed the assumption which underpins the central thesis, which is that copyright should protect databases. To engage with this assumption, it has analysed why the copyright protection of databases is important. This necessitated analysis about the two primary competing philosophical justifications for the historical implementation of copyright: the utilitarian and labour-based approaches and their application to databases. Exploration ensued about the relationship between incentive to create, authorship and access, which highlighted the evident tensions between these two

---

[435] Lessig, 'For the Love of Culture' (n 230); Samuelson et al (n 75) 1176; Weatherall (n 210) 11; Yu, 'The Trust and Distrust of Intellectual Property Rights' (n 139) 22.
[436] Mazumder, 'Anomalies in Copyright Law' (n 238) 662; Yu, 'The Political Economy of Data' (n 176) 801.
[437] Australian Law Reform Commission, 'Copyright and the Digital Economy'(n 6) 20–1; Australian Government Productivity Commission, 'Intellectual Property Arrangements' (n 407) iv.
[438] Australian Government Productivity Commission, 'Intellectual Property Arrangements' (n 407) 57 (emphasis added).
[439] Ibid 54.
[440] Ibid iv, 43.

philosophical justifications. This led to respective detailed examinations of the evident technological, social and cultural changes which favour the strengthening and weakening of database protection and the assumptions made to advance this study.

Lastly, through examining the future role of copyright through the lens of database protection, this study argued that copyright's role in the future information economy is critical. This is because the future protection of databases through copyright will result in either restricting or facilitating access to knowledge[441] — the most powerful economic and utilitarian asset in the fourth-industrial era.

The next chapter, Chapter 3:, focuses on the international context of database protection, by examining the treatment of database originality and authorship under international law. This necessitates examination of the three standards of originality which are used around the world to evaluate copyright subsistence. Then it will examine the treatment of databases under international law through three relevant international treaties via examination of originality and authorship. After this, the EU Database Directive and the treatment of originality and authorship in the US will be examined. Finally, some key points will be distilled in the conclusion to this chapter, which will later be compared to the way that databases are protected in Australia.

[441] Lessig, 'For the Love of Culture' (n 230); Samuelson et al (n 75) 1176.

CHAPTER 3: DATABASE ORIGINALITY AND AUTHORSHIP UNDER INTERNATIONAL LAW, THE EU AND US

This chapter shall examine the second question posited for analysis:

> 2. How has originality and authorship of databases evolved under international law, the EU and US?

To begin this analysis, it becomes necessary to introduce the three originality standards which exist around the world. This will lead to analysis about the copyright protection of databases under international law, which is a necessary starting point because most countries draw their database protection jurisprudence from the international framework. It will be shown that while the two primary justifications for having copyright (discussed in Chapter 2:) have influenced the way that originality is treated under international law, a standard which focuses on the author's 'selection and arrangement' of data is clearly favoured. The notion of authorship under international law will also be analysed and it will be seen that, although the concept is not specifically defined, it is a key principle from which basic assumptions are made. After this, the chapter will discuss the EU Database Directive and the protection of databases in the US. This will provide a foundation to distil key points about originality and authorship, which will be used in Chapters 4-6 as a comparison to the way databases are protected under Australian law.

3.1 Three Originality Standards Around the World

The notion of originality remains undefined under international law.[442] However, as identified by a prominent database protection scholar, there are three clear standards used globally in determining the originality of the expression of the data in a database.[443] These standards pertain to the level of originality demonstrated in the creation or selection of the contents of a compilation. The first two standards are underpinned by the philosophical justifications discussed in 2.1. This matters because these justifications incentivise authors to create new databases. The originality standards are:

---

[442] Elizabeth F Judge and Daniel J Gervais, 'Of Silos and Constellations: Comparing Notions of Originality in Copyright Law' (2009) 27(2) *Cardozo Arts and Entertainment Law Journal* 375, 375.
[443] Davison, *The Legal Protection of Databases* (n 22) 10.

1. A lower standard of originality – the 'sweat of the brow' test (SOTB);

2. A higher standard of originality – the creativity standard/industrious creation standard (TCS); and

3. A hybrid standard incorporating copyright and a sui generis database right – the EU Database Directive.

What is fascinating about these justifications are that they are reconciled in the international IP regime, and this can be observed when examining their application to databases. Historically, although some WTO countries have naturalist backgrounds and others have instrumentalist backgrounds (see 2.1) underlying co-existing themes are common to both justifications.[444]

The judicial application of originality can be conceptualised as a spectrum – a sliding scale. It ranges from a low standard to a high standard.[445] It is impossible to precisely define what constitutes 'low' or 'high' (as illustrated in Figure 3.1), but generalisations have developed as guidance for ultimate judicial determination.[446] In this way, originality has become a policy tool for judges to shape copyright protection. This is also reflected by the fact that the definitions provided by the international treaties only set minimum standards for originality. Copyright subsistence is determined by application of the law to the facts of each case.

Figure 3.1: The Spectrum of Originality

It must also be remembered that judicial application of originality to databases pertains to the expression of the ideas displayed, not the ideas themselves.[447] The database subject

[444] Giblin and Weatherall, 'If We Redesigned Copyright from Scratch, What Might It Look Like?' (n 110) 17.
[445] Davison, *The Legal Protection of Databases* (n 22) 17.
[446] Ibid.
[447] *University of London Press Ltd v University Tutorial Press Ltd* [1916] 2 Ch 601, 608 (Peterson J) ('*London Press*'); *Victoria Park* (n 38) (Latham CJ); *Computer Edge Pty Ltd v Apple Computer Inc* (n 38) 181 (Gibbs CJ).

matter considered is the expression of the information rather than conferral of exclusive proprietary rights over information. This affirms the idea/expression dichotomy (see 4.3).[448] In the next section, the nuances of the three differing originality standards will be explained with a focus on their application to databases:

3.1.1 The Sweat of the Brow (SOTB) or 'Industrious Collection' Standard

Underpinned by Lockean philosophy,[449] (see 2.1.2) this has traditionally been employed in common law countries.[450] Judicially, it is determined when there is a **'low' standard of originality in the expression of data.** Therefore, this standard grants a broad scope of protection where **substantial labour or expense has been incurred in the compiling of the database,[451] even if there is no ingenuity in the presentation of the data**.[452]

Having Lockean origins, it is premised on the theory of 'just desserts', namely that an author deserves to be rewarded for their effort.[453] This incentivisation subsequently confers monopoly rights to recoup authorial investment.[454] Jurisdictions which have their origins in Imperial British law have traditionally been influenced by Lockean philosophy.[455] Countries include Australia, the UK, Canada, South Africa, Singapore and New Zealand. Lockean philosophy has also been represented through US IP law, with the most significant representation via the promotion of the science and arts in the *US Constitution*.[456]

Because this standard rewards the authorial effort expended on database production, it disregards any intellectual effort or creativity demonstrated in the actual expression of the database itself. [457] This means that the database expression does not have to show any signs

---

[448] *TRIPS* (n 90) art 9 § 2; *WIPO Copyright Treaty*, opened for signature 31 December 1997, CRNR/DC/94 (entered into force 6 March 2002) art 2 ('*WCT*'). See Chapter 4:.
[449] Locke (n 113).
[450] Derclaye, *The Legal Protection of Databases* (n 92) 1; Freedman (n 125) 71; and generally, Abraham Drassinower, 'Sweat of the Brow, Creativity, and Authorship' (n 125).
[451] *Desktop Marketing* (n 44) (Sackville J).
[452] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 137 [9] (Finkelstein J).
[453] Kevin Garnett, Gillian Davies and Gwilym Harbottle, *Copinger and Skone James on Copyright* (Sweet & Maxwell, 15th ed, 2005) 117.
[454] Bracha and Syed (n 169) 1843-4.
[455] See, eg, *CCH Canadian Ltd v Law Society of Upper Canada* (n 100); *Sawkins v Hyperion Records Ltd* (n 38); *Henkel KgaA v Holdfast New Zealand Ltd* (n 125). Note: Canadian law controversially departed from 'sweat of the brow' to the higher 'creativity' standard with the 1998 case of *Tele-Direct (Publications) Inc v American Business Information Inc* [1998] 2 FC 22, 38.
[456] *United States Constitution* art I, § 8, cl 8.
[457] Justine Pila, 'Compilation Copyright: A Matter Calling For "A Certain … Sobriety"' (2008) 19 *Australian Intellectual Property Law Journal* 231, 238.

of intellectual ingenuity in the creativity or arrangement of the data. Databases do not have to comprise of original data but may have been sourced from third-party databases and reused or adapted. It is for this reason that databases that are created via this method are sometimes referred to as 'non-original' databases in EU jurisdictions such as Holland and the Nordic countries.[458]

This standard rewards a database author with copyright protection when they engage in a process of sufficient 'labour', 'skill' and 'expense' in compiling a database. Therefore, under this standard it would be theoretically possible to confer copyright protection to two separate database authors, both of whom started from nothing and invested substantial effort in independently obtaining all the data for their respective databases.[459] SOTB matters to this thesis because it was the standard traditionally used in Australia and the UK. The judicial application of SOTB to databases in Australia will be analysed in Chapter 4:-5 and the UK application in Chapter 7:.

3.1.2 The 'Creativity' Standard (TCS)

This standard is underpinned by the Hegelian personality theory and is often used in civil law countries.[460] It requires a **higher standard of originality in the expression of the data.** Originality will subsist under this standard where there has been **sufficient authorial intellectual creativity demonstrated in the selection, arrangement or presentation** of the data.[461]

This clearly reflects Hegel's personality theory, which espouses that an author will express their individual mental processes[462] or personality through their creative will.[463] An individual is, therefore, seen as embodying their personality into the database by displaying creativity in the arrangement or selection of data.[464] Databases that are produced via substantial intellectual creation in their selection, arrangement or presentation result in

---

[458] P Bernt Hugenholtz, 'Implementing the European Database Directive' in Jan Kabel and Gerard Mom (eds) *Intellectual Property and Information Law: Essays in Honour of Herman Cohen Johoram* (Kluwer Law International, 1998) 184, § 3.
[459] Jason H Eaddy 'Database Copyright Analysis for Dummies: Protecting Your Intellectual Investment is About the Design, Not the Data' (2008) 42 *New England Law Review* 229, 303.
[460] Derclaye, *The Legal Protection of Databases* (n 92) 1.
[461] *Feist* (n 38) 347-8.
[462] Hughes, 'The Philosophy of Intellectual Property' (n 100) 331–7.
[463] Ibid 287–8.
[464] See *Feist* (n 38).

'new' unique results. TCS matters to this thesis because it is the standard used in the EU and its judicial application to databases will be analysed in 8.2.

3.1.3 A Sui Generis Database Right

The term 'sui generis' is defined as 'belonging to a species all of its own'.[465] It is a separate right, independent to copyright. Sui generis IP rights exist to extend protection to works that do not meet standard definitions of protectable subject matter, for example, circuit layouts and plant varieties. Throughout the world, there have been two different methods of sui generis protection created for databases, but only one is still used in the EU.

In the US, the other (now disused) method of sui generis database right was based upon misappropriation principles.[466] A plaintiff was permitted to prevent a defendant from making a reasonable economic profit from the plaintiff's database investment.[467] Introduction of this method ultimately failed.[468] There were several unsuccessful attempts to introduce sui generis database rights and related legislation in the US.[469] Most people were opposed to its introduction because they did not believe that it would be beneficial:[470] on one side of the debate, individuals, members of the scientific, educational and library communities and a major database producer were opposed to its introduction;[471] on the other side, companies and trade associations for the database and publishing industries were in favour of its introduction.[472] The protection, however, ultimately failed in multiple Bills

---

[465] Peter Butt et al, (eds), *Butterworths Concise Australian Legal Dictionary* (LexisNexis Butterworths, 3rd ed, 2004) 417.

[466] US Copyright Office, 'Copyright Protection for Databases in the United States' (Report on Legal Protection for Databases, August 1997) 51–5, 57–61 <http://www.copyright.gov/reports/>. Also see generally, Boyarski (n 131).

[467] Davison, *The Legal Protection of Databases* (n 22) 214.

[468] Ibid 214; Reichman and Uhlir (n 13) 821–31.

[469] US Copyright Office (n 466) 51–5, 57–61. Also see Band and Kono (n 142) 870–878; Jonathan Band, 'The Database Debate in the 108th Congress: The Saga Continues' (2005) 27(6) *European Intellectual Property Review* 205, 208–212; J Carlos Fernández-Molina, 'The Legal Protection of Databases: Current Situation of the International Harmonisation Process' (2004) 56(6) *Aslib Proceedings* 325, 329–30; Davison, *The Legal Protection of Databases* (n 22) 190–213; Amanda Perkins, 'United States Still No Closer to Database Legislation' (2000) 22(8) *European Intellectual Property Review* 366, 366–72; Gabriel M Ramsey and Elizabeth A Howard, 'Databases in the Biological Sciences: A User's Guide to the Current Copyright Landscape' (2003) 132 *Plant Physiology* 1131, 1133–4; US Patent and Trademark Office, 'Database Protection and Access Issues, Recommendations: Patent and Trademark Office Report on Recommendations from the April 1998 Conference on Database Protection and Access Issues' (US Patent and Trademark Office, Department of Commerce, Washington, DC, July 1998); and US Public Policy Committee of the ACM, 'USACM Comments on Legislative Efforts to Expand Protection for Collections of Data' (US Public Policy Committee of the ACM Paper, May 2003).

[470] US Copyright Office (n 466) 51–5, 54–5.

[471] Ibid.

[472] Ibid.

presented before the US Congress.[473] In 1999, during the 106th Congress, the *Collections of Information Antipiracy Act*[474] was adopted by the House Committee on the Judiciary. This Bill was described as being analogous to the EU Database Directive (to be discussed at section 3.3), and it had an exceedingly broad scope, allowing a database producer to extend their protection beyond primary markets and into any related markets.[475] Concurrently, the House Committee on Commerce passed the narrower *Consumer and Investor Access to Information Act*,[476] which was different to a database right, described as merely codifying 'the common-law tort of the hot-news misappropriation'.[477]

To avoid making a choice between these differing Bills, The US House Committee on Rules and the House Republican leadership urged the committees to negotiate a compromise. Despite their efforts, negotiations stalled before the 106th Congress ended.[478] When the issue was addressed by the 107th Congress, negotiations again failed.[479] This was due to the politicised dynamics of those involved. A significant factor was the lack of consensus by invested committee members on the important issues debated during closed-door meetings without key stakeholders being present.[480]

Because the US sui generis database right ultimately failed to be implemented, it will not be discussed in any further detail in this study. Instead, there will be focus on the EU model of sui generis database protection. It has been adopted nationally since early 1998 by Member States and remains current law today. The EU database right may be described as a hybrid, drawing upon copyright and a sui generis right. It will be discussed after the next section, which examines the protection of databases under international law.

---

[473] See *The Database Investment and Intellectual Property Antipiracy Act of 1996*, 104th Congress, HR 3531; *The Collections of Information Antipiracy Act 1997*, 105th Congress, HR 2652; *Database and Collections of Information Misappropriation Act 2003*, 108th Congress, HR 3261; Katleen Janssen, and Jos Dumortier, 'The Protection of Maps and Spatial Databases in Europe and the United States by Copyright and the *Sui Generis* Right' (2006) 24(2) *The John Marshall Journal of Information Technology & Privacy Law* 195, 223–224; Tessensohn (n 3) 466–87.

[474] HR 354, 106th Congress (1999).

[475] Charles R McManis, 'Database Protection in the Digital Information Age' (2001) 7 *Roger Williams University Law Review* 7, 9.

[476] HR 1858, 106th Congress (1999). Also see McManis (n 475) 9.

[477] McManis (n 475) 10.

[478] See generally, Band and Kono (n 142); Band (n 469) 205.

[479] McManis (n 475) 9.

[480] Band (n 469) 206.

3.2 The Copyright Protection of Databases Under International Law

Stated succinctly, around the world there is no universal standard of database protection. The protection of databases under international law is appropriately described as an 'unharmonized patchwork of laws'.[481] Three international treaties make provision for the copyright protection of compilations and they seek to complement each other. They are *Berne*[482] and *TRIPS*;[483] and the *Copyright Treaty* of the World Intellectual Property Organisation (WIPO) ('*WCT*').[484] WIPO has been a specialised UN agency since 1974, overseeing the protection of IP rights.[485] Of significance is that none of these treaties define 'database'[486] but instead define 'compilation', which may be applicable to a database if it satisfies the requisite subsistence criterion. Importantly, each of these treaties set minimum standards for the protection of compilations which align with each other.[487] In this way, they seek to provoke harmonisation in national laws.[488] They were developed in response to changes in technology, global trade and social contexts and their rich histories reflect this.

The next section will explain how each treaty defines a compilation and will contextualise this by providing a brief background.

3.2.1 *Berne*

It was during the mid-1800s that international copyright protection began through bilateral treaties, which sought to recognise mutual rights but were limited in scope.[489] The oldest treaty, *Berne*, was adopted on 9 September 1886.[490] *Berne* aims to 'protect in as effective and uniform a manner as possible, the rights of authors in their literary and artistic works'.[491] It has undergone several major revisions, many of which have been facilitated by the

---

[481] Derclaye, *The Legal Protection of Databases* (n 92) 3.
[482] *Berne* (n 88).
[483] *TRIPS* (n 90).
[484] *WCT* (n 448).
[485] Mireille Van Eechoud, 'Bridging the Gap: Private International Law Principles for Intellectual Property Law' (2016) 4 *Nederlands Internationaal Privaatrecht* 716, 717.
[486] For example, see Lee Bygrave, 'The Data Difficulty in Database Protection' (2013) 35(1) *European Intellectual Property Review* 25, 25.
[487] Regarding *TRIPS*, see Greenhalgh and Dixon (n 401) 44-6; World Intellectual Property Organisation, 'Intellectual Property Handbook: Policy, Law and Use' (WIPO Publication No 489 (E), WIPO 2008) 263, 5.175.
[488] Marketa Trimble, 'The Multiplicity of Copyright Laws on the Internet' (2015) 25 *Fordham Intellectual Property Media and Entertainment Law Journal* 339, 342-3.
[489] World Intellectual Property Organisation (n 487) 262, 5.165.
[490] Ibid 166.
[491] *Berne* (n 88) preamble.

development of new technologies impacting the usage of author's works.[492] This is important in the context of this study because databases use and continue to utilise evolving technology.

Since 1948, art 2(5) of *Berne* encompasses a database as an intellectual creation under collections of literary or artistic works such as anthologies. This article provides: 'Collections of literary or artistic works such as encyclopedias and anthologies which, *by reason of the selection and arrangement of their contents, constitute intellectual creations,* shall be protected as such, without prejudice to the copyright in each of the works forming part of such collections'.[493]

Three principles underpin *Berne*. These principles are relevant to this study because they are applicable to all nations who are signatories to this convention, including Australia, EU Member States and the US. These principles are: (1) national treatment;[494] (2) automatic protection[495] and (3) independence of protection. Under national treatment, a signatory nation must extend the same rights/protections provided to their own nation to all foreign rights-holders.[496] Automatic protection means that no formality of registration or deposit is needed for national treatment to occur.[497] Through the principle of independence of protection, exercising rights under *Berne* are independent to the protection which exists in the country of origin.[498]

3.2.2 TRIPS

Following guided development from WIPO throughout the 1970s and 80s, which drew upon existing norms and *Berne***,** two forums were held to establish new binding international norms.[499] Changes in the relationship between trade policies and IP standards meant that

---

[492] World Intellectual Property Organisation (n 487) 167.
[493] *Berne* (n 88) art 2 § 5 (emphasis added).
[494] Ibid art 5; World Intellectual Property Organisation (n 487) 262, 5.170. Also see *TRIPS* (n 90) art 1 § 3, art 3 § 1 and 2.
[495] *Berne* (n 88) art 5 § 2.
[496] *TRIPS* (n 90) art 3 § 1; Butt et al, (n 465) 290. Also see generally, Ragavi Ramesh, *Re-imagining the Principle of National Treatment: Addressing Private International Law Issues in Copyright Infringement in the Internet Era*, (Master of Laws Thesis, University of Western Ontario, 2015).
[497] World Intellectual Property Organisation (n 487) 262, 5.170.
[498] Ibid 262–3, 5.170.
[499] Ibid 269, 5.209–5.210. Also see generally Daniel Gervais, *The TRIPS Agreement: Drafting History and Analysis* (Sweet & Maxwell, 2nd ed, 2003); Laurence R Helfer, 'Regime Shifting: The TRIPS Agreement and New Dynamics of International Intellectual Property Lawmaking' (2004) 29(1) *Yale Journal of International Law* 1, 2–26.

Berne was becoming insufficient for emerging practices. After negotiations during the Uruguay Round within the General Agreement on Tariffs and Trade Framework (GATT) and at WIPO through expert committees,[500] the 'Agreement Establishing the World Trade Organisation' ('WTO Agreement') was adopted on 15 April 1994.[501] This binding agreement entered into force on 1 January 1995 and the WTO began operations the next day,[502] with developing nations having transition periods of four or ten years.[503] Annex 1C to the WTO Agreement is *TRIPS*, which is critical to facilitate cooperation in IP rights between the WTO and WIPO.[504]

TRIPS is a vital multilateral instrument behind the globalisation of IP laws because its ratification is mandated under WTO membership. This means that WTO countries wishing to access hard international markets must comply with the IP laws mandated by *TRIPS*, even if they are not signatories to *Berne*. *TRIPS* art 9(1) endorses compliance with arts 1 through 21 of *Berne*, apart from art 6bis (which pertains to restricting the scope of protection). In relation to compilations, art 10(2)[505] states that 'Compilations of data or other material, whether in machine readable or other form, *which by reason of the selection or arrangement of their contents constitute intellectual creations,* shall be protected as such'. It continues: 'Such protection, which shall not extend to the data or material itself, shall be without prejudice to any copyright subsisting in the data or material itself'. This embodies the idea/expression dichotomy, which is discussed in detail below in section 4.3.

Through the conferral and enforcement of IP rights, *TRIPS* aims to:

> [C]ontribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.[506]

---

[500] World Intellectual Property Organisation (n 487) 269, 5.210.
[501] Ibid 345, 5.671.
[502] World Intellectual Property Organisation (n 487) 345, 5.673.
[503] Shira Perlmutter, Jerome H Reichman and Whitmore Gray, 'Copyright and International TRIPS Compliance' (1997) 8 *Fordham Intellectual Property Media and Entertainment Law Journal* 83, 84.
[504] *TRIPS* (n 90) art 63.2 and 68. Also see generally, Ronald O'Leary, 'How Treaties and Technology Have Changed Intellectual Property Law' (2016) 16(1) *Journal of International Business and Law* 87; Eric H Smith, 'Worldwide Copyright Protection Under the TRIPS Agreement' (1996) 29 *Vanderbilt Journal of Transnational Law* 559.
[505] *TRIPS* (n 90) (emphasis added).
[506] Ibid art 7.

TRIPS promotes trading in knowledge and creativity by formally acknowledging the significance between IP and trade.[507] In addition to national treatment, *TRIPS* utilises 'most favoured nation' (hereafter 'MFN'). This states that any advantage, favour, immunity or privilege granted by a Member to the nationals of any other country shall be granted immediately and unconditionally to the nationals of other Members.[508] MFN has not been traditionally afforded in the context of IP rights on a multilateral level. Members may determine the method by which they will implement *TRIPS* nationally.[509] **Significantly, *TRIPS* sets minimum IP standards,[510] which means in the context of database protection that members are permitted to implement more extensive database protection if desired.[511]** Some commentators have, however, argued that the minimum standards have led to a situation of overcompliance and a 'one-size fits all' standard which ignores the nuances of national needs.[512]

3.2.3 WIPO Copyright Treaty

In 1996, in response to technological developments and following a WIPO Conference,[513] the *WCT* was adopted.[514] It is a special agreement within art 20 of *Berne* and it must maintain the level of protection granted through *Berne*.[515] While it was implemented in response to changes in technology, it compliments *TRIPS* because it does not 'prejudice any other rights and obligations under any other treaties'.[516]

The *WCT*[517] provides protection for 'Compilations of Data (Databases)' by espousing a similar standard of protection to *Berne* and *TRIPS.* Article 5 states:

---

[507] WTO, 'Intellectual Property: Protection and Enforcement', *World Trade Organisation* (Web Page, 2020) <https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm>.
[508] *TRIPS* (n 90) art 4; World Intellectual Property Organisation (n 487) 348, 5.688.
[509] *TRIPS* (n 90) art 1 § 1.
[510] J H Reichman, 'The TRIPS Agreement Comes of Age: Conflict or Cooperation with the Developing Countries?' (2000) 32 *Case Western Reserve Journal of International Law* 441, 442–44; Peter K Yu, 'The TRIPS Enforcement Dispute' (2011) 89 *Nebraska Law Review* 1046, 1049.
[511] World Intellectual Property Organisation (n 487) 348, 5.688.
[512] Molly Land, 'Rebalancing TRIPS' (2012) 33 *Michigan Journal of International Law* 433, 435–39.
[513] World Intellectual Property Organisation (n 487) 269, 5.211.
[514] *WCT* (n 448) art 1 §1. Also see generally, Mihály Ficsor, *The Law of Copyright and the Internet: The 1996 WIPO Treaties, their Interpretation and Implementation* (Oxford University Press, 2002).
[515] World Intellectual Property Organisation (n 487) 269–70, 5.212; World Intellectual Property Organisation, *Conventions, Treaties and Agreements Administered by WIPO* (WIPO Publication, 2013) 45.
[516] *WCT* (n 448) art 1 § 1.
[517] Ibid.

> Compilations of data or other material, in any form, *which by reason of the selection or arrangement of their contents constitute intellectual creations, are protected as such*. This protection does not extend to the data or the material itself and is without prejudice to any copyright subsisting in the data or material contained in the compilation.[518]

Article 2 affirms the idea/expression dichotomy, providing that the scope of copyright protection 'only extends expressions and not to ideas, procedures, methods of operation or mathematical concepts as such'. The *Agreed Statement Concerning Article 5* is a clear attempt at international harmonisation for compilations of data. It states: 'The scope of protection for compilations of data (databases) under art 5 of this Treaty, read with art 2, is consistent with art 2 of the *Berne Convention* and on a par with the relevant provisions of the *TRIPS Agreement'*. Having discussed the way that these international treaties define a database, the next section will engage in a comparative analysis of these definitions to ultimately argue that international law clearly favours the creativity standard of originality.

3.2.4 International Law Favours the Creativity Originality Standard

The last section stated that there is no universal legal definition for a database. Instead, a database may be classified as a compilation under international law. Signatory countries must enact national laws which protect compilations of data or other material. Through emphasising 'the selection or arrangement' of the contents, *Berne* relies upon TCS of originality, requiring authorial creativity in the selection or arrangement of the data. Likewise, through emphasising 'the selection or arrangement' of the contents, art 10(2) of *TRIPS* reflects a similar standard. It must be remembered that it provides a *minimum* standard of protection that must be complied with by members of the WTO.[519] Similarly, the *WCT*[520] provides protection for 'Compilations of Data (Databases)' through TCS. So, international law clearly favours TCS as a minimum originality standard.[521] For this reason it can be argued that a type of quasi-international harmonisation has occurred through the focus upon the selection and arrangement of compilation contents in these treaties.

---

[518] *WCT* (n 448) art 5 (emphasis added).
[519] Greenhalgh and Dixon (n 401) 45.
[520] *WCT* (n 448).
[521] *TRIPS* (n 90) art 10 (2); *WCT* (n 448) art 5. This is similar to the first right granted under *the Directive 96/9/EC of the European Parliament and the Council of 11 March 1996 on the Legal Protection of* (n 19) art 3, § 1. Also see Bryce Clayton Newell, 'Discounting the Sweat of the Brow: Converging International Standards for Electronic Database Protection' (2011) 15 *Intellectual Property Law Bulletin* 111, 112.

Databases normally qualify for copyright protection as literary work compilations in WIPO and WTO signatory countries. While these treaties influence national laws by providing minimum standards of protection, it must be remembered that IP rights and copyright are territorial in nature[522] and are only binding within the jurisdiction granting them.[523] This is relevant to database protection because there is no uniform right; instead, databases are 'subject to a bundle of possibly more than 150 territorial rights of national or regional provenance'.[524] The territoriality of copyright is, therefore, challenging when applied to database subject matter because of their intangible nature and the fact that their use via the internet often transverses national borders. Clearly, international law does not extend protection to non-original databases which fall below the minimum originality threshold.[525] This is because such a database would not meet the requisite threshold of an 'intellectual creation' in the selection or arrangement of its contents.

As many countries are signatories to these international treaties, their national copyright laws define and classify databases as factual compilations for the purpose of copyright protection. This is the situation in Australia and the US. Nationally, the copyright subsistence of a database is subject to the fulfilment of all requisite subsistence criteria, with the two most contentious being originality and authorship. Authorship under international law will be analysed in the next section.

3.2.5 Authorship Under International Law

Although the concept of authorship is a major underlying principle of copyright subsistence around the world, interestingly, it is not specifically defined under international law.[526] It is, however, customary for authorship to be attributed to a human being. Although international law provides no provisions which specifically define authorship, whether singular or joint, several provisions are underpinned by or refer to the concept, with the assumption that authorship refers to a natural person who has reduced the work to tangible

---

[522] LTC Harms (ed), *The Enforcement of Intellectual Property Rights: A Case Book* (WIPO Publication, 3rd ed, 2012) 19; *Lucasfilm Ltd v Ainsworth* [2009] EWCA Civ 1328, [2011] UKSC 11.
[523] Harms (n 522) 19.
[524] Alexander Peukert, 'Territoriality and Extraterritoriality in Intellectual Property Law' in Günter Handl, Joachim Zekill and Peer Zumbansen (eds), *Beyond Territoriality: Transnational Legal Authority in an Age of Globalization* (Brill Academic Publishing, 2012) 189, 190.
[525] Fernández-Molina (n 469) 331.
[526] Paul Goldstein and Bernt Hugenholtz, *International Copyright: Principles, Law and Practice* (Oxford University Press, 2nd ed, 2010) 246.

form. This is relevant to database protection due to the changing nature of people's involvement in database creation. This will be discussed in Chapter 6:.

Under *Berne*, the purpose of authorship is mentioned under art 2 § 6, which provides 'The works mentioned in this Article shall enjoy protection in all countries of the Union. This **protection shall operate for the benefit of the author** and his successors in title'. Article 3 outlines the criteria of eligibility for protection under *Berne*. It extends the scope of protection to an author, subject to their nationality and country of residence.[527] Article 6 § 1 grants the term of copyright protection to literary work compilations as being for 'life of the author plus fifty years' after their death. Joint authorship is briefly mentioned under art 7, in relation to the term of protection of works. Of significance is that joint authorship is not addressed under *TRIPS* or the *WCT*.[528]

Under *TRIPS*, the notion of an author is briefly mentioned under art 11 in relation to rental rights and art 12 in relation to the term of protection, however, the concept is not defined, nor is joint authorship. Instead, as previously mentioned, art 9 § 1 *TRIPS* states that members shall rely upon art 1-21 and the Appendix of *Berne*.

Likewise, the *WCT* does not define authorship. Rather the preamble states that the treaty desires 'to develop and maintain the protection of the rights of authors in their literary and artistic works in a manner as effective and uniform as possible'.[529] It also expresses a need to 'maintain a balance between the rights of authors and the larger public interest, particularly education, research and access to information, as reflected in the *Berne* Convention'. Article 6, which pertains to the right of distribution, specifically mentions authors of literary works and confers the exclusive right of authorising the sale or transfer of their original work and copies to the public.

Of interest is that in 1992, a prominent IP scholar posited that the lack of authorship definition under *Berne* was due to the fact that this was considered unnecessary when it was drafted.[530] This scholar was of the belief that an informal consensus existed between

---

[527] *Berne* (n 88) art 3 § 1.
[528] Mark Perry and Thomas Margoni, 'Ownership in Complex Authorship: A Comparative Study of Joint Works' (2012) 34(1) *European Intellectual Property Review* 22, 22.
[529] *WCT* (n 448) preamble.
[530] Sam Ricketson, 'The 1992 Horace S Manges Lecture - People or Machines: The Berne Convention and the Changing Concept of Authorship,' (1991) 16(1) *Columbia-VLA Journal of Law & the Arts* 1, 8.

member countries which inferred that authorship pertained to natural persons.[531] In 1992, it was argued that the 'role and rationale' of copyright was then under threat and this was underpinned by conflicting views on the definition of authorship – the emergence of a crossroads between man and machine. Ultimately, it was argued that people and not machines were the focal point of *Berne* and from a doctrinal and practical point of view, this needed to continue.[532] Such foresight has shown to be warranted in light of the changing role of humans in recent database creation.

Now, almost 30 years later, in spite of substantial changes in the role of technology, the authorship construct remains undefined under international law. Instead, the definition, role and purpose of an author continues to be assumed and decided nationally through judicial application. It is argued here that the changes in technology which were discussed in 2.3 elevate the issues identified in 1992 to be of even greater relevance today. This is because changing technology raises issues about the competing interests between authors and users and pressurises the ongoing role of copyright in information economies.

A significant factor contributing to the assumptions under international law about authorship is that the notion of the 'Romantic author' has deep historical roots in legal jurisprudence. There appears to be a reluctance on the part of international law makers to attempt to define the concept, perhaps for fear of defining it too stringently. This lack of definition has led to a heavy reliance upon judicial interpretation, which, in the context of databases, has led to a failure to establish authorship in recent Australian cases, which will be examined in Chapter 5: and Chapter 6:. Before this, the common law historical origins of Australian authorship will be discussed in Chapter 4:.

Having analysed how authorship is treated under international law, the next section will explain the protection of databases under the EU Database Directive. The EU is unique from other jurisdictions around the world because it reconciles both SOTB and TCS, to encompass so-called 'non-original' databases through a sui generis database right.

---

[531] Ibid.
[532] Ibid 27–37.

3.3 The EU Database Directive

3.3.1 Definition of a Database Under the Directive

The Database Directive[533] is not a Community-wide right; rather, it has been enacted nationally with the introduction of correlative legislation within each EU Member State.[534] It is one of the few sources of law worldwide that expressly defines the term 'database' and it uses a very broad definition. As stated in Chapter 1:, art 1 § 2 of *the Directive* defines a database as '**a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means'.** Recital 17 (which justifies a reason for implementing *the Directive*) reinforces the breadth of the definition.[535]

The legislative history of *the Directive* was long and complex and will be discussed at 7.3.4. What can be emphasised here is that during the early stages of its legislative history, *the Directive* was initially intended to only apply to electronic databases.[536] However, after the ratification of *TRIPS* and the *WCT*, which make no distinction between electronic and manual databases, *the Directive's* definition was broadened to encompass all databases.[537] Such a broad definition was also enacted to specifically allow sui generis protection to extend to databases that had substantial money invested in their creation but were unable to be copyright protected due to failing the subsistence criteria (so-called non-original databases).[538]

The Directive came into force by 1 January 1998 in all EU Member States and three countries (Iceland, Liechtenstein and Norway) that were members of the European Economic Area.[539] It involves a bifurcated approach. This consists of a hybrid standard of protection, which draws upon:

---

[533] See (n 19).
[534] *Football Dataco Ltd and Others v Sportradar GmbH and Others* (n 79) [13] (Laws, Jacob and Wilson LJ). See, eg, in the UK the *Copyright and Rights in Databases Regulations 1997* (UK) SI 1997/3032.
[535] *EU Directive* (n 19) recital 17.
[536] Annemarie Beunen, 'A Drafting History and General Overview of the Database Directive' in Annemarie Beunen (ed), *Protection for Databases: The European Database Directive and its Effects in the Netherlands, France and the United Kingdom* (Universiteit Leiden, 2007) 3, 11.
[537] Common Position (EC) No 20/95 with a view to adopting Directive 95/ /EC of the European Parliament and of the Council of the European Union on the legal protection of databases [30 October 1995] OJ C 288/14.
[538] *EU Directive* (n 19) recitals 1, 7 and 8.
[539] Hugenholtz, 'Implementing the European Database Directive' (n 458) 184.

(a) Principles of copyright[540] and

(b) A sui generis right, which is underpinned by principles of competition law and seeks to protect the 'substantial investment in the development of a database'.[541] The significance of the rationale behind this right is to protect investment in the process of creating the database.[542]

Under *the Directive*, copyright protects a database where it has been demonstrated that there has been sufficient creation in the selection or arrangement of the data.[543] This does not extend to the contents of the database, and is without prejudice to any rights subsisting in its contents.[544] The sui generis right applies when it is demonstrated that: there has been 'substantial investment' involved in obtaining, verifying or presenting of the contents to prevent extraction; and/or the re-utilisation of the whole or a substantial part of the contents of the database.[545] This sui generis right exists independently to eligibility of the database or its contents for copyright protection.[546]

Therefore, under *the Directive*, protection is granted for a database where:

1. It is demonstrated that there has been creativity in the selection or arrangement of the data (this is the copyright scope of protection);[547] or
2. There has been substantial investment involved in obtaining, verifying or the presenting of the contents to prevent extraction and/or the reutilisation of the whole or a substantial part of the contents of the database (this is the sui generis right).[548]

Importantly, if sui generis protection is satisfactorily established in a database, it 'exists irrespectively of the subsistence of copyright in the database'.[549] This means that if a database meets the requirements for both types of protection, copyright and sui generis protection may exist concurrently in the same work; they are not pre-requisites of each

---

[540] Davison, *The Legal Protection of Databases* (n 22) 11.
[541] Reichman and Samuelson, (n 133) 55.
[542] *EU Directive* (n 19), recital 40.
[543] Ibid art 3, § 1.
[544] Ibid art 3, § 2.
[545] Ibid art 7, § 1.
[546] Ibid art 7, § 4.
[547] Ibid art 3, § 1.
[548] Ibid art 7, § 1.
[549] Peter Carey, *Media Law* (Sweet and Maxwell, 2nd ed, 1999) 202; David Bainbridge, *Intellectual Property* (Pearson Education, 8th ed, 2010) 280.

other.[550] Subsequently, this extends an extraordinarily wide scope of two different types of protection upon an eligible database. This is significant because protection may be extended to some databases which would otherwise be under-protected through copyright alone.

It has been surmised that the scope of protection reflects the complex history surrounding *the Directive's* implementation.[551] This context and history is discussed in section 7.3. What is apparent is that *the Directive's* implementation process was influenced by the US's landmark case of *Feist* and its favouring of TCS.[552] *Feist* will be discussed extensively in the next section. The decision was described as 'upsetting a settled, if uneasy, understanding of the scope of copyright protection for databases',[553] through its rejection of SOTB.[554] It was also significant that the standard of originality in *the Directive* mirrored the language used in the definition of a compilation under the US's *Copyright Act*.[555] Finally, prominent EU database rights-holders, such as those in digital music, also influenced *the Directive* by seeking elevated levels of database protection to suit their interests.[556]

At first glance, the extraordinarily wide scope of protection offered under *the Directive* results in it being very difficult to find a database that would fall outside its coverage. It appears that in creating a regime that is underpinned by both copyright and competition law, the result has been a broad and aggressive scheme of protection in which most databases would qualify. There were serious concerns expressed by scholars that the regime provided a much more aggressive scope of protection by the monopoly right conferred than was required to prevent market failures.[557] It was predicted that the implications of this would be devastating, leading to the restriction of scientific research and the impediment of competition in markets.[558] However, in recent years, the CJEU have considerably narrowed

---

[550] *EU Directive*, (n 19) art 7, § 4.
[551] Davison, *The Legal Protection of Databases* (n 22) 51.
[552] *Feist* (n 38); Beunen, 'A Drafting History and General Overview of the Database Directive' (n 536) 5–7; Philip J Cardinale, '*Sui Generis* Database Protection: Second Thoughts in the European Union and What it Means for the United States' (2007) 6 *Chicago-Kent Journal of Intellectual Property* 157, 157–168; Gervais, 'The Protection of Databases' (n 143) 1120; Hasan (n 141) 482. Also see generally, Mark Powell, 'The European Union Database Directive: An International Antidote to the Side Effects of Feist?' (1996) 20(4) *Fordham International Law Journal* 1215.
[553] Jessica Litman, 'After Feist' (1992) 17 *University of Dayton Law Review* 607, 607.
[554] Sherrie Callis, 'Copyright Protection in Factual Compilations: Feist Publications v. Rural Telephone Service Company "Altruism Expressed in Copyright Law"' (1992) 22 *Golden Gate University Law Review* 529, 530.
[555] 17 USC § 101 (1976).
[556] *EU Directive* (n 19) recital 38.
[557] Reichman and Samuelson (n 133) 55–6.
[558] Ibid 113–136.

the scope of *the Directive* through their judicial application of the scope of the right. This will be analysed in Chapter 8:.

It can be argued that the EU Directive creates a situation whereby three sets of rights may be applicable to a single database:[559]

1. Through the selection and arrangement of the data, copyright may subsist in the structure of the database;[560]
2. Copyright may also subsist in the 'individual items constituting the content of the database';[561] and
3. The contents of the database may also be protected by the sui generis right[562] although this has the potential to cause mischief by violating the idea/expression dichotomy (see 4.3).

A conceptual difficulty arises in distinguishing between the sui generis right in (3) and the other two sets of rights of (1) and (2). From a practical perspective, this concept may be confusing to database owners, particularly those who have little understanding of the application of the law[563] during these times of changing technology. Changing technology also has the potential to be problematic to identifying a human author under the concept of authorship.

The issue of authorship and the individual rights that are available under *the Directive* will now be discussed.

3.3.2 Authorship/Joint Authorship Under *the Directive*

Article 4 of *the Directive* contains sparse provisions pertaining to authorship. It is the author's opinion that this follows the assumptions made about authorship under international law and allows judicial interpretation at a national level. A database author is considered the 'natural person or group of natural persons who created the database'.[564]

---

[559] Davison, *The Legal Protection of Databases* (n 22) 50.
[560] Ibid.
[561] Ibid.
[562] Ibid 51.
[563] Davison (n 22) 51.
[564] *EU Directive* (n 19) art 4 § 1.

When national legislation permits, a legal person can be designated as the database rights-holder.[565]

The Directive also makes provision for joint authorship, in the situation where a database is 'created by a group of natural persons jointly'.[566] In such a case, 'the exclusive rights shall be owned jointly'.[567] Under national laws which recognise collective works, economic rights are to be owned by the copyright holder.[568] Moral rights vest in the author, are extraneous to the scope of *the Directive*[569] and will be discussed in 4.5.4.

Under point (1) of the above list, it was stated that copyright may subsist in a database's structure through the selection and arrangement of data and this right will now be discussed.

3.3.3 The First Right - Copyright

Databases that are considered 'original' via an author's *own intellectual creation* are catered for by the first right. In doing so, this grants a high level of copyright protection to such databases. Specifically, the first right grants copyright protection to 'original' databases where '**the selection or arrangement of … [the] contents constitute the author's own intellectual creation'.**[570]

In highlighting the intellectual creation of the author as the requisite threshold, a database must demonstrate a sufficient degree of creativity, either within the selection or arrangement of the data.[571] The degree of creativity required harmonises with the standard articulated in the three international treaties discussed at 3.2 and is similar to the creativity standard of originality.[572] The emphasis is directed towards the creativity in the selection or arrangement of the data because, as an extension of a traditional compilation, the economic value of the database is solely derived from the assemblage of its data.[573] Databases that do not meet this threshold fall outside of copyright protection.

---

[565] Ibid art 4 § 1.
[566] Ibid art 4 § 3.
[567] Ibid.
[568] Ibid art 4 § 2.
[569] Ibid recital 28.
[570] Ibid art 3, § 1.
[571] See, eg, *Feist* (n 38).
[572] Ibid; *Tele-Direct (Publications) Inc v American Business Information Inc* (n 455).
[573] Irini Stamatoudi, *Copyright and Multimedia Products: A Comparative Analysis* (Cambridge University Press, 2002) 94.

3.3.4 The Second Right – Sui Generis Protection

In relation to point (2) above, copyright may also subsist in the 'individual items constituting the content of the database'.[574] This separate sui generis right seeks to protect databases which are 'non-original' (databases that would have previously been protected under SOTB). To qualify for sui generis protection, the maker of the database must demonstrate that there has been '**qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or re-utilization of the whole or of a substantial part'** of the database.[575]

The emphasis of this sui generis right considers the substantial investment in the collation of the database. This is underpinned by the belief that there may be 'potential serious economic and technical consequences [of the] unauthorized extraction and/or re-utilization of the contents of a database'.[576] Therefore, no creativity need have occurred; the aesthetics and design of a database cannot be taken into consideration.[577] Emphasis is on the economic *investment* in the work, instead of any intellectual creation.[578]

This lack of creativity and the emphasis on the quantitative/qualitative investment is similar to SOTB. The quid pro quo of sui generis protection is economic investment; as such, this reflects 'an unfair competition rule conceptualized and transformed into a positive intellectual property right'.[579] Also, in emphasising the protection of investment through authorial labour, this test reflects the philosophical underpinnings of SOTB.[580]

Because *the Directive* does not define the type of investment required, the issue of what constitutes 'a substantial investment' has been left open to judicial interpretation. The issue has been particularly vexing in cases involving databases which are produced as the by-product of other activities.[581] Such databases have been the subject of what has been termed

---

[574] Davison, *The Legal Protection of Databases* (n 22) 50.
[575] *EU Directive* (n 19) art 7, § 1.
[576] Ibid recital 8.
[577] Ibid recital 40.
[578] Ibid recitals 39, 40, 42.
[579] Stamatoudi (n 573) 96.
[580] Grosheide (n 147) 42–3.
[581] Charles Gielen, 'Netherlands: Database Rights – Unlicensed Data Mining' (2002) 24(8) *European Intellectual Property Review* N131, N131–N132; P Bernt Hugenholtz, 'Program Schedules, Event Data and Telephone Subscriber Listings under the Database Directive – The 'Spin-Off' Doctrine in the Netherlands and Elsewhere in Europe' (Paper presented at the 11th Annual Conference on International Intellectual Property Law and Policy, 14-25 April 2003).

'the spin-off doctrine'.[582] Issues for consideration have included whether the labour and cost expended in the activities which have produced the data could be considered a sufficient 'investment'. In the alternative, the question is whether it is only the investments which have been directly linked to the production of the database which are covered by *the Directive*.[583] Such ambiguities have led to a diverse range of findings in national European courts until cases were referred to the CJEU.[584] These will be examined at 8.2 which seeks further insight by analysing the protection of databases in the UK as a case study.

3.3.4.1 Infringement of the Sui Generis Right

If the requisite subsistence criterion is met, the database right subsists automatically. It prohibits the re-utilisation or extraction of the data from within the database for 15 years, from the first day of January of the year following the date of database completion.[585] Due to the intangible and easily renewable subject matter of data, the duration was substantially less than the minimum duration of copyright under *Berne*, which lasts for 'life of the author plus fifty years'.[586] In many countries around the world, copyright duration is currently 'life plus seventy years'.[587] The judicial application of 'reutilisation and extraction' in several cases before the CJEU will be discussed in further detail at 8.3.3 and 8.3.4.

There are some exceptions to the database right, with one such example being the extraction, (but not re-utilisation) of data or educational/scientific research, which is justified by a non-commercial purpose.[588] The 15-year duration also applies to databases that are made available to the public prior to the expiry of the 15-year term.[589] However, if a 'substantial change' to the contents of the database can be established, this may result in the database being classified as a 'substantial new investment'. The consequence of this is that a new term of 15 years will be granted to the database.[590] There are stipulations to this, with the measurement occurring quantitatively or qualitatively and including changes made because of 'the accumulation of successive additions, deletions or alterations'.

---

[582] See generally, Estelle Derclaye, 'Database '*Sui Generis*' Right: Should We Adopt the Spin-Off Theory?' (2004) 26(9) *European Intellectual Property Review* 402; and Davison and Hugenholtz, (n 142).
[583] Hugenholtz, (n 581).
[584] See Chapter 8:.
[585] *EU Directive* (n 19) art 10, § 1.
[586] *Berne* (n 88) art 7.
[587] See, eg, Australia, the US and EU Member States.
[588] *EU Directive* (n 19) art 9(b).
[589] Ibid art 10, § 2.
[590] Ibid art 10, § 3.

There have been several criticisms levelled at the renewable term of protection. It has been argued that due to the nature of databases (which may be substantially manipulated, verified, refreshed or live-streamed within seconds), renewal can be infinite[591] which has the potential to be problematic. However, there is the possibility that the actual relevance of the data may fade and be superseded within a much shorter duration, so this issue may not be as pertinent as was first speculated. For example, a database of telephone numbers may lose its relevance as people change their details over time.

3.3.5 Protection for a Wide Scope of Content

As noted above, *the Directive's* definition of 'database' is deliberately broad,[592] extending to non-digitalised databases[593] and extraneous materials required to operate certain databases, such as indexes.[594] Protection extends across a wide spectrum of originality, spanning from databases that have had substantial investment demonstrated in their creation to those which are considered original via an author's 'intellectual creation'. From an originality perspective, this situation is unusual because it combines the SOTB and TCS. In doing so, it can be argued that the EU Directive has reconciled the industrious labour standard favoured in common law countries with the creativity standard favoured in civil law countries.[595]

In this way, *the Directive* has the capacity to protect an enormous spectrum of databases[596] containing extremely varied content. Database content may include: 'literary, artistic, musical or other collections of works or collections of other material such as texts, sound, images, numbers, facts, and data'.[597] Collections or compilations that qualify for protection may include 'works, data or other materials which are arranged, stored and accessed by means which include electronic, electromagnetic, electro-optical or analogous processes'.[598] Under *the Directive*, protection excludes 'several recordings of musical

---

[591] Davison and Hugenholtz (n 142) 118. Also see Isabella Alexander and Marlena Jankowska, 'Rights in Geospatial Information: A Shifting Legal Terrain' (2018) 41(3) *Melbourne University Law Review* (advance) 2, 39.
[592] *EU Directive* (n 19) art 1, § 2.
[593] Ibid recital 14 and art 1, § 1.
[594] Ibid recital 20.
[595] Grosheide (n 147) 42-3.
[596] *EU Directive* (n 19) recital 14.
[597] Ibid recital 17.
[598] Ibid recital 13.

performances on a CD'[599] and 'a recording or an audio-visual, cinematographic, literary or musical work'.[600] Also, the mere digitalised collection of a vast quantity of data is excluded,[601] as is software 'used in the making or operation of a database'.[602] This is because software is protectable under its own Directive.[603] Although it may be applicable to a wide spectrum of databases, in recent years its scope has been considerably narrowed by the CJEU and this will be analysed at 8.2.

Having discussed the EU Directive, the next section will discuss the protection of databases in the US.

3.4 Protection of Databases in the US

3.4.1 Definition of a Database

As in Australia, copyright law in the US is primarily federal statute-based.[604] A database is classified as a literary work compilation.[605] Under the *Copyright Act*, 17 USC § 101 (1976), a 'compilation' is defined as 'a work formed by **the collection and assembling of pre-existing materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship. The term "compilation" includes collective works'.**[606]

With its explicit focus on the promotion of the sciences and arts, copyright protection of compilations in the US is grounded in utilitarianism.[607] This approach dates back to the 18th century[608] where, under Federal statute, compilations were originally protectable as 'books'.[609] In 1909, s 5 of the *Copyright Act 1909* (US) included compilations with

---

[599] Ibid art 19.
[600] Ibid recital 17.
[601] *Proposal for a Council Directive on the Legal Protection of Databases* COM (92) 24 final – SYN 393 Brussels 13 May 1992 [23 June 1992] OJ C 156/4, 41 [1.1.1], Explanatory Memorandum.
[602] *EU Directive* (n 19) art 23.
[603] *Directive 2009/24/EC of the European Parliament and the Council of 23 April 2009 on the Legal Protection of Computer Programs* [2009] OJ L 111/16 ('*EU Software Directive*').
[604] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 152 [66] (Finkelstein J).
[605] *Copyright Act 1976* (n 555) § 101.
[606] Ibid (emphasis added).
[607] *United States Constitution* art 1 § 8, cl 8; Fischman-Afori, 'Human Rights and Copyright: The Introduction of Natural Law Considerations into American Copyright Law' (2004) 14 *Fordham Intellectual Property, Media and Entertainment Law Journal* 497, 498–9.
[608] See eg, *Kilty v Green* 4 H & McH 345 (Gen Ct Md 1799).
[609] *US Copyright Act*, 31 May 1790, ch 15, 1 statute 124.

directories and gazetteers. With such historical underpinnings, compilations are one of the oldest types of protectable works under US law.[610]

When Congress passed the current *Copyright Act* in 1976, it confirmed that databases were protectable as compilations and fell within the definition of 'compilation'.[611] The House Report about the 1976 Act stated that 'the term 'literary works' does not connote any criterion of literary merit or qualitative value: it includes catalogues, directories, and similar factual, reference or instructional works and compilations of data'.[612]

Later, computer databases and programs were also included as compilations provided they incorporated authorship via the programmer's expression of original ideas.[613] Upon examining the definition of a 'compilation' under the 1976 Act, there is a focus upon the collection and assemblage of data and its arrangement by an author. The emphasis on how an author reduces a compilation into material form prompted examination about the standard of originality and authorship required by the US Supreme Court in the famous case of *Feist*. As a foundation for discussing *Feist*, the next section will discuss how originality and authorship are treated under the US *Copyright Act*.

3.4.2 Originality and Authorship Under the US Copyright Act

Section 102 of the US *Copyright Act (1976)* incorporates originality by discussing copyright through 'original works of authorship'. Such works must be 'fixed in any tangible medium of expression', and include literary work compilations.[614] By focusing on authorship fixation,[615] this section embodies the idea/expression dichotomy.[616] Copyright protection extends to databases as compilations, but excludes any pre-existing copyright-protected

---

[610] US Copyright Office, 'Copyright Protection for Databases in the United States' (n 466) 3; See Schatz, Anderson and Garland Langworthy (n 204) 424–27; also see generally, Amy C Sullivan, 'When the Creative is the Enemy of the True: Database Protection in the US and Abroad' (2001) 29(3) *AIPLA Quarterly Journal* 317.

[611] United States House of Representatives, Committee on the Judiciary, *Copyright Law Revision*, House Report Number 1476, 94th Congress, 2d Session 54 (1976), 2.

[612] Ibid 54.

[613] Ibid.

[614] *Copyright Act 1976* (n 555) § 102(a).

[615] Megan Carpenter and Steven Hetcher, 'Function Over Form: Bringing the Fixation Requirement into the Modern Era' (2014) 82 *Fordham Law Review* 2221, 2226; Joseph P Liu, 'What Belongs in Copyright' (2016) 39(3) *Columbia Journal of Law & the Arts* 325, 326–7.

[616] *Baker v Selden*, 101 US 99, 102 (1879); Jack B Hicks, 'Copyright and Computer Databases: Is Traditional Compilation Law Adequate?' (1986–1987) 65 *Texas Law Review* 993, 999; Peter Martino, 'Clarifying Copyrightability in Databases' (2006) 4 *The Georgetown Journal of Law & Public Policy* 557, 558.

information incorporated in the compilation.[617] Protection in a compilation only extends to the material which is contributed by the author of such a work.[618] In accordance with the idea/expression dichotomy, a compilation author may not copyright ideas or facts.[619] The copyright which subsists in the database is separate to the underlying information and does not create any rights in it.[620]

As in international law, the US Act does not expressly define 'author';[621] 'anonymous work', however, is defined as a work 'of which no natural person is identified as author'.[622] From this definition and long-standing precedent it can be inferred that an author must be an identifiable natural person[623] – the person responsible for originating the work[624] – and this aligns with the assumptions about authorship which underpin international law (See section 3.2). The US Act also defines a 'copyright owner' with respect to any of the exclusive rights comprised in copyright as referring 'to the owner of that particular right.'[625] With respect to joint authorship, this is statutorily defined as a 'joint work', being a work which has been 'prepared by two or more authors with the intention that their contributions be merged into inseparable or independent parts of a unitary whole'.[626] This weakness regarding authorship has meant it is necessary to rely upon the common law for judicial application. The landmark case of *Feist* provides much guidance about the interpretation of originality and authorship in the US.

3.4.3 SOTB and the Landmark Case of Feist

Under common law, authorship is closely tied to originality because there is a need for the author to demonstrate a minimal degree of creative originality or 'spark' in the

---

[617] *Copyright Act 1976* (n 555) § 103(a).
[618] Ibid § 103(b).
[619] *Harper & Row Publishers Inc v Nation Enterprises* 471 US 539, 556 (1985).
[620] *Copyright Act 1976* (n 555) § 103(b).
[621] Robert Kasunic, 'Copyright from Inside the Box: A View From the US Copyright Office' (2016) 39(3) *Columbia Journal of Law & the Arts* 311, 311.
[622] *Copyright Act 1976* (n 555) § 101.
[623] *Burrow-Giles Lithographic Company v Sarony*, 111 US 53, 58 (1884). Also see *Naruto v Slater* No 16-15469 (9th Cir, 2018); Holly C Lynch, 'What Do an Orangutan and a Corporation Have in Common? Whether the Copyright Protection Afforded to Corporations Should Extend to Works Created by Animals' (2015) 42(1) *Ohio Northern University Law Review* 267, 268–281; Jonathan Siderits, 'The Case for Copyrighting Monkey Selfies' [2016] (84) *University of Cincinnati Law Review* 327, 331–2.
[624] *Aalmuhammed v Lee*, 202 F 3d 1227, 1232 (9th Cir, 2000).
[625] *Copyright Act 1976* (n 555) § 101.
[626] Ibid.

compilation.[627] An example is through the independent choices made in the selection or arrangement of the data.[628] The 1991 case of *Feist*[629] considered copyright subsistence in a telephone directory. In this case, a telephone utility company argued that copyright subsisted in their directory and sought to prevent their work from being copied.[630] The Supreme Court found that the directory constituted a 'compilation', finding that the telephone company had collected and assembled the factual data.[631]

In determining whether copyright subsisted, the Supreme Court analysed whether the white pages satisfied originality,[632] and found that the actions of collecting and assembling the factual data were insufficient to constitute an original work.[633] Rather, the work had to originate with the author and display 'at least some minimal degree of creativity'[634] — a 'modicum of creativity'[635] which needed to display 'intellectual production … thought and conception'.[636] The Supreme Court clarified the extent of creativity required, deeming it a very low threshold.[637] It was described as 'extremely low; even a slight amount will suffice. Most works satisfy this quite easily, as they possess some creative spark, no matter how crude, humble or obvious it might be'.[638] Because there was no degree of creativity in the alphabetical arrangement of the telephone directory, the 'minimal degree' of creativity was not established.[639] The creative spark demonstrated in its compilation was 'utterly lacking or so trivial as to be virtually non-existent'.[640]

---

[627] Bryce Clayton Newell, 'Independent Creation and Originality in the Age of Imitated Reality: A Comparative Analysis of Copyright and Database Protection for Digital Models of Real People' (2010) 6 *International Law and Management Review* 93, 105–6.

[628] *Feist* (n 38) followed by *Skidmore v Led Zeppelin* 905 F 3d 1116, 1125, 1129 (9th Cir, 2018); *Media.net Adver FZ-LLC v NetSeer Inc* 156 F 3d 1052, 1061 (ND Cal, 2016); *Blizzard Entertainment Inc v Lilith Games (Shanghai) Co* 149 F 3d 1167, 1172 (ND Cal, 2015).

[629] *Feist* (n 38).

[630] Ibid 344.

[631] Ibid 344–6.

[632] Ibid 345.

[633] Ibid 346.

[634] Ibid 345.

[635] Ibid 358. Also see Beth Ford, 'Open Wide the Gates of Legal Access' (2014) 93(2) *Oregon Law Review* 539, 545–6; Jeanne C Fromer, 'A Psychology of Intellectual Property' (2010) 104 *Northwestern University Law Review* 1441, 1493–4; Jeanne C Fromer, 'An Information Theory of Copyright Law' (2014) 64(1) *Emory Law Journal* 71, 102–7.

[636] *Feist* (n 38) 347.

[637] Ibid 345.

[638] Ibid

[639] Ibid 363–4.

[640] Ibid 359.

Feist is notorious for repudiating the SOTB standard and replacing it with TCS.[641] The Supreme Court asserted that SOTB undermined the fundamental constitutional right of promoting the arts and sciences[642] because it created monopoly rights over public domain materials without adequate justification.[643] This affirmed the Lockean foundations of SOTB, as discussed at 2.1.

Although the Supreme Court subsequently proclaimed to have denounced a century of SOTB originality standard under US copyright infringement cases,[644] this was not strictly true. Rather, prior to *Feist*, a complex legal landscape existed in relation to the standard of originality found in compilations. Judicial tests deviated between the SOTB and TCS on many occasions.[645] The US Second, Fifth, Ninth and Eleventh Circuits had applied a 'creative selection' right, which focused on an author's creativity, whereas the other Circuits, particularly the Seventh and Eighth, applied SOTB.[646] In essence, the rejection of SOTB finally resolved the split in legal reasoning between the US Circuit courts referred to above.[647]

3.4.4 The Legacy of *Feist* and Criticisms Against SOTB

Throughout the unanimous *Feist* judgement,[648] various flaws with SOTB were cited, including a perceived violation of the idea/expression dichotomy (see 4.3).[649] This was due to the extension of copyright protection beyond the selection and arrangement of the data to the facts themselves.[650] As stated by the Supreme Court: 'no one may copyright facts or ideas'.[651] This argument has also been echoed by legal scholars, who have argued that

---

[641] Ibid 352–3.

[642] *United States Constitution* art I § 8 cl 8. Affirmed in *Berlin v EC Publications Inc* 379 US 822, 544 [1964]. Also see Thomas B Nachbar, 'Judicial Review and the Quest to Keep Copyright Pure' (2003) 2 *Journal on Telecommunications and High Technology Law* 33, 37–8.

[643] *Feist* (n 38).

[644] Henry Beck, 'Copyright Protection for Compilations and Databases After Feist' (1991) 8 *Computer Lawyer* 1, 2.

[645] Miriam Bitton, 'Trends in Protection for Informational Works Under Copyright Law During the 19th and 20th Centuries' (2006) 13 *Michigan Telecommunications and Technology Law Review* 115, 115–17.

[646] Edward J Baba, 'From Conflict to Confluence: Protection of Databases Containing Genetic Information' (2003) 30 *Syracuse Journal of International Law and Commerce* 121, 132–4; Craig Joyce and Tyler T Ochoa, 'Reach Out and Touch Someone: Reflections on the 25th Anniversary of Feist Publications Inc. v Rural Telephone Service Co.' (2016) 54(2) *Houston Law Review* 257, 260–82; Gervais, 'The Protection of Databases' (n 143) 1133.

[647] Bryce Clayton Newell, 'Discounting the Sweat of the Brow' (n 521) 113.

[648] O'Connor J delivered the opinion of the Supreme Court and was joined by Rehnquist CJ, White, Marshall, Stevens, Scalia, Kennedy and Souter JJ. Blackmun J concurred in the judgment.

[649] *Feist* (n 38) 353.

[650] Ibid.

[651] Ibid 344–5, 353 citing *Harper & Row Publishers Inc v Nation Enterprises* (n 619) 556.

SOTB may undermine the idea/expression dichotomy in heavily factual works.[652] This has been found to violate 'a basic premise of the mature copyright paradigm, which claims to protect only the original expression that authors embody in information products'.[653]

Because SOTB permits a wide scope for originality to subsist, a copyright owner is granted copyright (and therefore control) over factual works that contain relatively little expression. SOTB grants protection due to the time, labour and cost invested in the collection of data within factual compilations, so its application has the capacity to impede upon the dissemination/public availability of information. It may also extend copyright protection over data/facts, because the expression of such data/facts in a database is often extremely limited.[654] SOTB has been criticised because it imposes no actual requirement for originality: an author merely discovers a fact, instead of creating it.[655] The Supreme Court affirmed that 'one who discovers a fact is not its "maker" or "originator"'.[656]

Because TCS favoured in *Feist* provided a 'thinner' level of protection[657] which left some databases outside of copyright protection,[658] there were predictions that the US would eventually follow in the footsteps of the EU and introduce sui generis database protection.[659] As of early 2020, this has not occurred. Instead, over 1,500 national cases have affirmed *Feist's* TCS. Also, in the almost 30 years since *Feist*, the implications from rejecting SOTB has generated much debate and discussion by scholars and lawyers alike.[660] Some of the major arguments against SOTB are as follows.

---

[652] Gosnell (n 18) 645.
[653] Reichman and Samuelson (n 133) 62.
[654] Gosnell (n 18) 645.
[655] *Feist* (n 38) 347.
[656] Affirming *Burrow-Giles Lithographic Company v Sarony* (n 623).
[657] Martino (n 616) 559–560; Victoria S Ekstrand, 'Drawing Swords After Feist: Efforts to Legislate the Database Pirate' (2002) 7 *Communication Law & Policy* 317, 324–5.
[658] Examples include *Southco Inc v Kanebridge Corporation*, 258 F 3d 148 (3rd Cir 2001); *EF Cultural Travel BV v Zefer Corporation*, 318 F 3d 58 (1st Cir, 2003).
[659] Litman, 'After Feist' (n 553) 607–8.
[660] See generally, Boyarski (n 131); Callis (n 554); Eaddy (n 459) 300–319; Jane C Ginsburg, 'No "Sweat?" Copyright and Other Protection of Works of Information After Feist v. Rural Telephone' (1992) 92 *Columbia Law Review* 338; Wendy J Gordon, 'Reality as Artifact: From Feist to Fair Use' (1992) 55(2) *Law and Contemporary Problems* 93; Robert A Gorman, 'The Feist Case: Reflections on a Path Breaking Copyright Decision' (1992) 18 *Rutgers Computer and Technology Law Journal* 731; Michael Green, 'Copyrighting Facts' (2003) 78 *Indiana Law Journal* 919, 957-64; Hayden, 'Copyright Protection of Computer Databases After Feist' (n 127); Charles C Huse, 'Database Protection in Theory and Practice: Three Recent Cases' (2005) 20(1) *Berkeley Technology Law Journal* 23; Litman, 'After Feist' (n 553); Steven J Metalitz, 'Copyright Registration After Feist: New Rules and New Roles?' (1992) 17 *Dayton Law Review* 763; Jennifer L Muse, 'Monkeys and Elephants and Koalas, Oh My! Is Originality Still The

Firstly, SOTB is criticised on the basis that it prohibits any re-use of data and thereby precludes the process of 'building upon' an author's work. This can be particularly difficult if the copyright holder is the only person who has access to the data required:[661] a second-comer may be disadvantaged. This is because, instead of being able to build upon the work of the previous author, under SOTB, the second-comer must instead repeat the entire process of gathering the data and developing it, thereby investing their own skill, labour and expense.

Secondly, SOTB is criticised because it provides over-protection for databases.[662] This is because most databases that satisfy SOTB would also be sufficiently protected by other measures outside of copyright law.[663] Such avenues include contracts;[664] confidential information;[665] passing off;[666] cybercrime provisions;[667] technological protection measures;[668] shrink-wrap licences;[669] market-based approaches;[670] unjust enrichment and consumer laws[671] (including misleading and deceptive conduct, as legislated in the

---

Touchstone of Authorship in United States Copyright Law?' (2015) 97(4) *Official Journal of the Patent and Trademark Society* 736; Anant S Narayanan, 'Standards of Protection for Databases in the European Community and the United States: Feist and the Myth of Creative Originality' (1993–1994) 27 *George Washington Journal of International Law & Economics* 457; Denise Polivy, 'Feist Applied: Imagination Protects, But Perspiration Persists: The Bases of Copyright Protection for Factual Compilations' (1998) 8 *Fordham Intellectual Property Media & Entertainment Law Journal* 773; Mark Powell (n 552); Paul Sheils and Robert Penchina, 'What's All the Fuss About Feist? The Sky is Not Falling on the Intellectual Property Rights of Online Database Proprietors' (1992) 17 *Dayton Law Review* 563; Benjamin B Thorner, 'Copyright Protection for Computer Databases: The Threat of Feist and a Proposed Solution' (1997) 1 *Virginia Journal of Law and Technology* 1522; Von Simson (n 139); Ethan L Wood, 'Copyrighting the Yellow Pages: Finding Originality in Factual Compilations' (1994) 78 *Minnesota Law Review* 1319, 1319–44.

[661] Gosnell (n 18) 646.

[662] Baron (n 137) 911.

[663] Gosnell (n 18) 641.

[664] Ibid 649–51; Hunsucker (n 287) 715–22.

[665] Gosnell (n 18) 652; also see generally, *Coco v AN Clark (Engineers) Ltd* (n 319).

[666] Gosnell (n 18) 652; see generally *Conagra Inc v McCain Foods (Aust) Pty Ltd* (n 322).

[667] Gosnell (n 18) 653.

[668] Derclaye, *The Legal Protection of Databases* (n 92) ch 5; Gosnell (n 18) 653–5; Lipton, 'Balancing Private Rights and Public Policies' (n 116) 787. Also see generally, Elouise Dellit and Christopher Kendall, 'Technological Protection Measures and Fair Dealing: Maintaining the Balance Between Copyright Protection and the Right to Access Information' (2003) 1 *Digital Technology Law Journal* <http://www.austlii.edu.au/au/journals/DTLJ/2003/1.html>.

[669] Jennett M Hill, 'The State of Copyright Protection for Electronic Databases Beyond ProCD v Zeidenberg: Are Shrinkwrap Licenses a Viable Alternative for Database Protection?' (1998) 31(1) *Indiana Law Review* 143, 158–72.

[670] Gosnell (n 18) 655.

[671] *Competition and Consumer Act 2010* (Cth). Also see Fitzgerald, Fitzgerald, Cifuentes and Cook (n 320) 14–15.

Competition and Consumer Act 2010 (Cth)).[672] It has been suggested that competition laws would be just as effective in easing database access concerns of these particular works.[673]

Thirdly, it is argued that under SOTB, the originality threshold accepted by the court is so low that it might be difficult to find a database that would not qualify for copyright protection.[674] This is because in the process of creating any original compilation, the author is required to gather or collect data in some form or another. With such disregard for 'ingenuity in the arrangement or presentation of the data',[675] most databases would qualify for protection.

Having discussed the major arguments against SOTB, the next section will summarise the key points about database authorship and originality under international law, the EU and US, which will be used in Chapter 4: to Chapter 6: for comparative purposes against the protection of authorship and originality under Australian law.

3.5 Conclusion

This chapter has examined the treatment of databases under international law, the EU and the US and has found that there is no universal standard of copyright protection for databases. Discussion began by examining the three standards of originality that are used around the world and the notion of a 'sliding scale of originality'. It was found that originality pertains to the standard demonstrated by the author in the creation, selection or arrangement of the database contents. The three standards that are used globally to determine the original expression of data within a database were introduced:

1. SOTB, which applies a lower standard and is underpinned by Lockean philosophy;

2. TCS, which applies a higher standard and is underpinned by Hegelian philosophy; and

---

[672] Sch 2, ch 2.
[673] Lim Tze Wei (n 351).
[674] Jill McKeough, Andrew Stewart and Philip Griffith, *Intellectual Property in Australia* (LexisNexis Butterworths, 3rd ed, 2004) 161.
[675] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 137 [9] (Finkelstein J).

3. A hybrid standard, which incorporates copyright and a sui generis database right, as encapsulated in the EU Database Directive.

Analysis then examined the treatment of databases as compilations under three international treaties - *Berne*, *TRIPS* and the *WCT*. In relation to the definition of 'database', these treaties provide no definition, but rather define a 'compilation', which may be applicable to a database. This lack of definition of 'database' at international law opens the door to variation at a national level. As was discussed, the definition of what constitutes a database under these treaties is closely linked to the standard of originality that is found to subsist within them, with a focus on the 'selection and arrangement' of data. **This favours TCS in the establishment of originality as a minimum standard of protection under international law.**

Although several provisions are premised on the concepts of authorship/joint authorship, these issues remain undefined at international law. **Rather, there remains a long-standing assumption that authorship refers to the natural person who has reduced the work to tangible form.** In treaty Member States, national laws (common and civil law) have been used to define authorship and to factually determine subsistence.

The *EU Directive* was then analysed because it incorporates a bifurcated approach, involving copyright and a sui generis right which protects the 'substantial investment in the development of the database'. It offers a very broad definition for 'database' and is one of the few sources which expressly defines the term. By reconciling the SOTB and TCS it offers a very wide scope of protection to databases, to the extent that commentators were initially concerned that it would over-protect databases because none would fall outside of protection under the right. However, in recent years the CJEU has narrowed the scope of protection and this will be discussed in Chapter 8: after the UK is examined as a case study in Chapter 7:.

Turning to the treatment of originality and authorship in US databases, the statutory definition of a compilation correlates with the notion of the original selection, coordination and arrangement of the data by an author. In an identical situation to international law, the US *Copyright Act* does not define an author, nor joint authorship. Instead, it relies upon long-standing precedent and assumptions that authorship must be an identifiable natural person who is responsible for originating the work. *Feist* solidified the authorship notion and re-orientated the national standard of originality required for copyright to subsist within

a compilation. It was found that a compilation had to originate with an author and display a 'minimal degree of creativity' to constitute originality. This case gained notoriety for repudiating SOTB under US law and replacing it with TCS, although this was not strictly true. The application of TCS did, however, align the US with the TCS espoused under international law. Overall, such quasi-international harmonisation which orientates to TCS is most likely due to the influence of the minimum standards imposed by international treaties.

Having explored the protection of databases in an international context, PART TWO of this dissertation will discuss Australian copyright jurisprudence as applicable to databases. Throughout the three chapters of PART TWO, the third question will be analysed. It asks what the Australian copyright subsistence criteria are and how authorship and originality have evolved judicially over the last 200 years to regulate database protection. To begin the analysis, Chapter 4: will introduce the statutory requirements from the *Copyright Act 1968* (Cth). Chapter 4: and Chapter 5: will undertake a literature review by examining the judicial application of the Australian copyright subsistence criteria to databases throughout the last 200 years. Although all subsistence criteria will be mentioned, authorship and originality will be the main focus because they are the most judicially contentious. As will be seen, their judicial interpretation has a colourful history in Australian jurisprudence. Finally, Chapter 6: will address the central thesis and fourth question by explaining why some database owners purport that some databases are currently under-protected in Australian law.

PART TWO – THE COPYRIGHT PROTECTION OF AUSTRALIAN DATABASES

CHAPTER 4: DATABASE ORIGINALITY AND AUTHORSHIP UNDER AUSTRALIAN LAW

4.1 Introduction

Chapter 3: examined originality and authorship of databases under International law, the EU and US. This chapter will examine the third question, which pertains to Australian databases:

Issue 3 – Database Originality and Authorship in Australia

> 3. What are the Australian copyright subsistence criteria and over the last two-hundred years, how has originality and authorship judicially evolved to regulate the protection of databases?

Answering these questions will assist the reader to (1) understand the Australian subsistence criteria and their applicability to databases; and (2) understand precedent as relevant to originality and authorship in databases, pre-2000. This chapter examines precedent pre-2000 and Chapter 5: examines precedent post-2000. Then Chapter 6: will explain the central thesis that some database owners purport that copyright currently under-protects some databases by contrasting and analysing precedent from Chapter 5: and Chapter 6:.

First, though, this section will introduce the Australian copyright subsistence criteria as relevant to databases. Being primarily legislative in nature,[676] *The Act* outlines five criteria which must be satisfied for subsistence to automatically vest in a database:

1. Identification as a literary work;
2. Reduction to material form (which encapsulates the idea/expression dichotomy);
3. Sufficient originality;
4. A territorial connection to Australia; and
5. Establishment of identifiable authorship/joint authorship, which also confers separate moral rights;

[676] *Australian Constitution* s 51 (xviii). Also see Brian Fitzgerald, 'Digital Property: The Ultimate Boundary?' (2001) 7 *Roger Williams University Law Journal* 47, 47–8.

This chapter will discuss this criteria in-turn. To aid in the understanding of the statutory development and judicial application of the criteria, historical context will be provided where relevant. This will incorporate some socio-cultural context as well as analysis of early UK statute and precedent. It is important to understand the context and application of this early precedent because, as stated by a prominent Australian copyright scholar, 'Understanding nineteenth century UK case law is fundamental to understanding the long history [in Australia] of controversies surrounding copyright'.[677]

However, the judicial application of copyright subsistence in Australian precedent must be considered cautiously. This is because there has been a substantial transformation in both the legal and social contexts throughout the centuries. As articulated by Sackville J: 'There are significant differences between the nineteenth century law of copyright and more modern law.'[678] The most striking difference is that the legislation underpinning historical jurisprudence often contained 'provisions that have no exact counterpart in modern legislation'.[679] Keeping this in mind, examination of early statute will begin in the next section, which pertains to the identification of a database or compilation as a literary work.

4.2 Identification as a Literary Work

Identification of the work is a necessity.[680] The classification of a database as a literary work compilation has a deep-rooted statutory history, with its legal origins in UK copyright statute. Following the colonisation of Australia in 1788, in 1828, the *Australian Courts Act 1828* (UK) held that any UK statutes that were currently in force were valid Australian law. These included the *Statute of Anne 1710* (UK)[681] and the *Copyright Amendment Act 1842* (UK).[682] The 1842 Act had been the first to codify the definition of copyright and classify it as personal property. It defined copyright as being 'construed to mean the sole and exclusive liberty of printing or otherwise multiplying Copies of any Subject to which the

[677] Kathy Bowrey, 'On Clarifying the Role of Originality and Fair Use in 19th Century UK Jurisprudence: Appreciating "The Humble Grey Which Emerges as the Result of Long Controversy"' (Working Paper 58, University of New South Wales Faculty of Law Research Series, 2008) 6.
[678] *Desktop Marketing* (n 44) 572 [337].
[679] Ibid (Sackville J).
[680] Kevin Lindgren, 'Musings on Copyright Law - Some Current Issues Touching the Basic Principles' (2009) *Federal Judicial Scholarship* 16, 16–17.
[681] 8 Anne, c 19.
[682] *Copyright Amendment Act 1842* (UK) 5 & 6 Vict, c 45.

said Word is herein applied'.[683] It deemed that 'all copyright shall be deemed personal property, and … in Scotland shall be deemed to be personal and movable estate'.[684]

Under s 2 of the *Copyright Amendment Act 1842* (UK), database compilations were initially classified as 'books' ('every Volume, Part or Division of a Volume, Sheet, of Letter-press …'). Later, a book was judicially affirmed to include 'every sheet of letterpress separately published'.[685] The *Copyright Act 1905* (Cth) was the first federal copyright act. It existed alongside numerous Imperial[686] and State legislations.[687] The 1905 Act sought to ensure unity with the British Empire and the US and was underpinned by Lockean theory.[688] It sought to recognise labour through the establishment of property in an author's 'reason, intellect and imagination'.[689] The chosen language and principles espoused in this Act demonstrated a degree of independence from Imperial law and innovation on the part of the legislators.[690] Because of this, in the following years there was bias towards the traditional concept of copyright as sole literary property.[691]

Subsequently, some parts of the *Copyright Act 1905* (Cth) were impossible to reconcile with the developments of the industrial revolution and mechanical reproduction.[692] As the world enters the fourth industrial era, there is a sense of history repeating itself, with the resurrection of old debates such as the role of authors in cultural development, what private property is and the application of copyright law to innovative works such as databases.[693] The incongruence which emerges between the application of copyright law and industrial practice is echoed in the current situation when copyright is applied to modern databases, as will be discussed in Chapter 6:.

---

[683] Ibid s 2.
[684] Ibid s 25.
[685] *Walter v Lane* [1900] (n 212) 540.
[686] Imperial Acts included: *Print Copyright Act (1777)*; *Engraving Copyright Act (1734)*; *Sculpture Copyright Act (1798)*; *Dramatic Copyright Act (1833)*; *Copyright Act (1842)*; *Lectures Copyright Act (1835)*; *Fine Arts Copyright Act (1862*); *An Act to Amend the Law in Relation to International Copyright (1844)*; *International Copyright Act 1886 (Imp)*: Ben Atkinson, *The True History of Copyright: the Australian Experience 1905–2005* (Sydney University Press, 2007) 14.
[687] *Copyright Act 1852* (NSW); *Copyright Act 1879* (NSW); *Copyright Act 1869* (Vic); *Copyright Act 1878* (SA); *Copyright Act 1887* (Qld); *Copyright Act 1895* (WA): Atkinson (n 686) 14.
[688] Atkinson (n 686) 13, 19–20.
[689] Ibid 19.
[690] Ibid 13, 20–5.
[691] Ibid 41–2.
[692] Ibid 25–42.
[693] Timothy K Armstrong, 'Two Comparative Perspectives on Copyright's Past and Future in the Digital Age' (2016) 15(4) *John Marshall Review of Intellectual Property Law* 698, 702.

Harmonisation with the minimum standards in international treaties was apparent in early Australian legislation. In 1912, the 1905 Act and State legislation was repealed by the *Copyright Act 1912* (Cth),[694] which, instead, in its Schedule utilised most of the UK's *Copyright Act 1911* (UK).[695] The Imperial Act was underpinned by three aims: (1) harmonisation with *Berne* and European laws; (2) the replacement of 22 national UK statutes which dated back to 1735;[696] and (3) Commonwealth uniformity.[697]

Of relevance to databases was that the 1912 Act was the first to expressly protect factual compilations under the definition of a literary work.[698] Section 35(1) defined a literary work as encompassing 'maps, charts, plans, tables and compilations'.[699] Notably, the classification of compilations as 'books' prior to 1912 and 'literary works' after this time did not in any way depart from the other subsistence requirements, including originality and authorship.[700]

Decades later, the 1912 Act was repealed by *The Act*. This Act remains in force today and draws upon the *Copyright Act 1956* (UK), as well as reforms recommended by the *Report of the Copyright Law Review Committee 1959* ('*Spicer Report*').[701] It makes provision for two major categories and subcategories of subject matter, with protection extending to a diverse range of material, encompassing:

- Part III Works (incorporating literary, dramatic, musical and artistic works,[702] which are more historically 'traditional' creative works that fall within the scope of *Berne*;[703] and

---

[694] *Copyright Act 1912* (Cth) s 8.
[695] (1 & 2 Geo 5, ch 46).
[696] *IceTV* (n 38) 486 [73] (Gummow, Hayne and Heydon JJ) citing UK, *Parliamentary Debates*, House of Commons, 7 April 1911, vol 23, 5th series, 2587–2593; Bowrey, 'On Clarifying the Role of Originality and Fair Use in 19th Century UK Jurisprudence' (n 677) 3.
[697] Bowrey, 'On Clarifying the Role of Originality and Fair Use in 19th Century UK Jurisprudence: (n 677) 5.
[698] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 150 [59] (Finkelstein J); *Desktop Marketing* (2002) (n 44) [376] (Sackville J).
[699] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 150 [59] (Finkelstein J).
[700] *Sands & McDougall Pty Ltd v Robinson* (n 212) 53 (Issacs J).
[701] Craig Collins and Heather Forrest, *Intellectual Property: LexisNexis Study Guide Series* (LexisNexis Butterworths, 2008) 10. Also see *Desktop Marketing* (n 44) [376] (Sackville J).
[702] *The Act* (n 168) s 32.
[703] *Berne* (n 88).

- Part IV Subject Matter Other Than Works (incorporating sound recordings,[704] cinematographic films,[705] television and sound broadcasts[706] and published editions of works)[707] which are more 'modern' creations;

As a literary work compilation, a database must satisfy the same subsistence criteria as other Part III works, such as dramatic or musical works. Logistically, it is, therefore, impossible to have a 'one size fits all' approach in terms of copyright protection, so judicial interpretation and modification is required. As stated by Sackville J: 'It ought not to be assumed that the concepts applicable to one form of copyright work necessarily apply, *without modification*, to others'.[708]

To aid judicial interpretation, throughout the legislative history of Australian copyright, there has been an avoidance of defining works.[709] In the rare instances where definitions have been stated, they tend to lack precision. This is likely due to hesitation on the part of the legislature to limit the scope of works in which copyright can subsist. Although factual compilations have been classified as literary works since 1912, the term 'compilation' has remained undefined. Instead, as stated at 1.1, a database compilation may be encompassed under the definition of a literary work, which is defined as a table or compilation expressed in words, figures or symbols, or a computer program.[710]

The necessary judicial interpretation of literary works has led to a constant expansion of copyright's application to new works and technologies.[711] This has resulted in a trade-off in drafting clarity for certainty in application, which has allowed past beneficiaries of legislation to remain unscathed through various reforms.[712] This has also resulted in an ever-broadening expansion of protection, where there is a distinct 'commitment to a kind of neutrality in industrial patronage and technological treatment'.[713] The overall result is that

---

[704] *The Act* (n 168) ss 85 and 89.
[705] Ibid ss 86 and 90.
[706] Ibid ss 87 and 91.
[707] Ibid ss 88 and 92.
[708] *Desktop Marketing* (n 44) 573 [338] (Sackville J) (emphasis added).
[709] For example, *the Act* (n 168) s 10 does not define a 'musical work'.
[710] Ibid s 10.
[711] Kathy Bowrey, 'The Outer Limits of Copyright Law' (n 210) 85; Laura A Heymann, 'A Tale of (At Least) Two Authors: Focusing Copyright Law on Process Over Product' (2009) 34(4) *Journal of Corporate Law* 1009, 1012.
[712] Bowrey, 'The Outer Limits of Copyright Law' (n 210) 85.
[713] Ibid.

copyright has been judicially held applicable to new technologies without requiring constant re-drafting of statute.

So, ss 32 and 33 currently classify compilations as literary works.[714] If all subsistence criteria are fulfilled, copyright vests even though a database may not be particularly readable or of 'literary quality'.[715] Judicially, a literary work may comprise 'mathematical tables, codes, and, in general, alphanumerical works'; however, it must 'have had some [authorial] skill, even if very small, applied to its preparation. Meaningless rubbish would plainly be excluded'.[716] Innovative technology has the potential to draw relationships between seemingly 'meaningless' data, particularly for consumers.[717] A fine line sometimes exists as to what is 'meaningless rubbish' and what constitutes a literary work, especially as new uses for information emerge in new types of databases. A database must also be reduced to material form and this will be discussed next.

4.3 Material Form and the Idea/Expression Dichotomy

A database must be created in a tangible form.[718] This is because, as stated by Finkelstein J, it is insufficient for the work to purely be 'in the mind of its creator'.[719] Under *The Act*, this includes 'any form (whether visible or not) of storage from which the work … can be reproduced'.[720] Reduction to tangible form (the process of being 'made')[721] may be in writing, print or digitally, such as storage within a hard drive/relational database or cloud for later reproduction. Being 'made' has been found to be the moment that the work is recorded on the hard drive of a word processor[722] and, presumably, this would apply to a cloud or off-site storage.[723] Additionally, computerised 'storage … from which the work can be reproduced' may include the random-access memory (RAM) of a computer.[724] There is no distinction under *The Act* between the media under which data is reduced to tangible

---

[714] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 136 [5] (Finkelstein J).
[715] *Apple Computer Inc v Computer Edge Pty Ltd* (1984) 1 FCR 549, 558 (Fox J).
[716] Ibid.
[717] Australian Government Productivity Commission, *Data Availability and Use* (n 6) 61.
[718] *The Act* (n 168) s 22(1).
[719] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 144 [40] (Finkelstein J).
[720] *The Act* (n 168) s 10(1). This definition was introduced through the *Copyright Amendment Act 1984* (Cth).
[721] *The Act* (n 168) s 22(1).
[722] *Roland Corporation v Lorenzo & Sons Pty Ltd* (1991) 22 IPR 245, 252 (Pincus J).
[723] See generally, Daniel Gervais and Daniel J Hyndman 'Cloud Control: Copyright, Global Memes and Privacy' (2012) 10 *Journal on Telecommunications and High Technology Law* 53.
[724] *Microsoft Corporation v Business Boost Pty Ltd* (2000) 49 IPR 573.

form, but tangible expression is paramount. Of importance is a distinction between copyright which vests in a database itself and the copyright which subsists in any software used in the compilation process. In a similar situation to compilations, however, software is also classified as a literary work under *The Act*.[725]

When considering database reduction to material form, the idea/expression dichotomy is raised. The dichotomy distinguishes what is protected and what falls outside of copyright, espousing that copyright does not protect an underlying idea itself, but only the tangible expression of the idea.[726] In early jurisprudence, this doctrine was called 'the sole right of multiplying copies',[727] and it is also reflected in international treaties and US law (see 3.2.4).[728]

Sackville J stated: 'there is an "undeniable tension" between the "fundamental axiom" of copyright law, that no author may have copyright in the facts narrated and the principle, enshrined in statute in Australia as elsewhere, that compilations of facts may be the subject-matter of copyright'.[729] This dichotomy impacts the dissemination of ideas[730] and, therefore, is of particular relevance to databases because, as explained in Chapter 1:, they often comprise the sole expression of factual data. This means that when a database is found to

---

[725] *Copyright Amendment Act* (n 720); *Copyright Amendment (Digital Agenda) Act* (n 188); *The Act* (n 168) ss 10; *Computer Edge Pty Ltd v Apple Computer Inc* (n 38); *Data Access Corporation v Powerflex Services Pty Ltd* (1999) 202 CLR 1. Also see generally, Bridy, 'The Evolution of Authorship' (n 316); Andrew Christie, 'Rewriting the Rules on the Form of Protection for Computer Software' (1993) 4 *Journal of Law and Information Science* 224; Samantha Christie, 'Copyright Protection of Computer Program Structure in Australia: Does it Exist?' (2008) 19 *Australian Intellectual Property Journal* 163; Anne Fitzgerald, 'Computer Software Copyright in Australia: A Review of Recent Developments' (1993) 4(2) *Journal of Law and Information Science* 201; Jane C Ginsburg, 'Four Reasons and a Paradox: The Manifest Superiority of Copyright Over Sui Generis Protection of Computer Software' (1994) 94 *Columbia Law Review* 2559; Lawrence Graham, *Legal Battles That Shaped the Computer Industry* (Praeger, 1999); Sibylle I Krieger, 'Apple v Wombat: Australian Developments in the Copyright Protection of Computer Software' (1984–1985) 9 *Columbia Journal of Art and the Law* 455, 465; Alex Jones, 'The Protection of Computer Programs Under TRIPS: The Subject Matter Issue' (1999) 10(1) *Journal of Law and Information Science* 7; Jill McKeough, 'Note: Apple Computer Inc v Computer Edge Pty Ltd' (1984) *University of New South Wales Law Journal Special Issue* 161; and Judith Thomson, 'Square Pegs in Round Holes: Are Computer Programs Really Literary Works?' (2010) *84 Australian Law Journal* 50.

[726] *TRIPS* (n 90) art 9 § 2. Also see Omri Rachum-Twaig, 'A Genre Theory of Copyright' (2016) 33(1) *Santa Clara High Technology Law Journal* 34, 78–82.

[727] *Jeffreys v Boosey* (n 193) (Cranworth L).

[728] *TRIPS* (n 90) art 9 § 2; *WCT* (n 448) art 2.

[729] *Desktop Marketing* (n 44) 574 [340], affirming *Victoria Park* (n 38) 498 (Latham CJ).

[730] See generally, Patricia Loughlan, 'The Marketplace of Ideas and the Idea-Expression Distinction of Copyright Law' (2002) 23 *Adelaide Law Review* 29.

meet the subsistence criteria, **a monopoly right is conferred to the author for the expression of information and not upon the facts themselves.**[731]

The Act, therefore, protects the form of the expression of data within a database,[732] because no author may hold copyright over facts.[733] Finkelstein J expressed: 'An author may record a fact but he does not create it. That an author has recorded a fact does not prevent any other author from recording the same fact'.[734] The judicial application of this principle is that the identical expression of facts in material form from independent authors via separate processes is acceptable if no copying has occurred.[735] In such a situation, copyright separately subsists in each of the identical works produced through independent processes and reduced to material form. This principle was judicially enunciated early in *Spiers v Brown* (1858).[736] There, an application for an injunction was dismissed when the author of a dictionary alleged copyright infringement. Wood VC acknowledged the conundrum and the condition which underlies subsistence when two authors choose an identical selection and arrangement in material form from a factual work which must be expressed in a limited way. '[T]wo men might perhaps make the same selection; but that must be by resorting to the original authors, not by taking advantage of the selection already made by another.[737]

The notion of reduction to material form crosses over with the idea/expression dichotomy, with material form being the tangible expression of an author's idea. If the idea/expression dichotomy did not exist, there would be a major problem. This is because private monopoly rights would be granted over the expression of information which belonged in the public

---

[731] *Kenrick & Company v Lawrence & Company* (1890) 25 QBD 99; *Donoghue v Allied Newspapers Limited* (1937) ch 106; *Feist* (n 38) 347-8; Van Caenegem, 'Copyright, Communication and New Technologies' (n 185) 327.

[732] *Hollinrake v Truswell* [1894] 3 Ch 420, 424 (Herschell LC); *Victoria v Pacific Technologies (Australia) Pty Ltd (No 2)* (2009) 177 FCR 61, 64 [17] (Emmett J); *IceTV* (n 38) 471 [26], 472 [28], 476 [40], 485 [70], 495 [102] and 510 [160]; *Larrikin Music Publishing Pty Ltd v EMI Songs Australia Pty Ltd* (2010) 263 ALR 155, 160 [40]-[41] and 179 [212] (Jacobson J).

[733] *IceTV* (n 38) 472 [28] (French CJ, Crennan and Kiefel JJ), applying the principle from *Blackie & Sons Ltd v Lothian Book Publishing Co Pty Ltd* (n 38) 400 (Starke J); *Victoria Park* (n 38) 497 (Latham CJ), 511 (Dixon J); *Computer Edge Pty Ltd v Apple Computer Inc* (n 38) 181 (Gibbs CJ). See also *Walter v Steinkopff* (n 38); *Chilton v Progress Printing & Publishing Co* (n 38); *Odhams Press Ltd v London & Provincial Sporting News Agency* (n 38), 654, 651–2 (Upjohn J); *Fraser v Evans* (n 38) 362 (Lord Denning MR); *Elanco Products Ltd v Mandops (Agrochemical Specialists) Ltd* (n 38) 52 (Goff LJ); *Sawkins v Hyperion Records Ltd* (n 38) 642-3 (Mummery LJ).

[734] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 145 [46].

[735] John I Gallin and Frederick P Ognibene (eds), *Principles and Practice of Clinical Research* (Academic Press, 2012) 446.

[736] (1858) 6 WR 352.

[737] Ibid 363.

domain.[738] The monopoly rights granted to the author would restrict all others from accessing and using this factual data for the duration of copyright.[739] Vital facts could be restricted by copyright to the extent that creative and scientific progress could be inhibited, particularly in light of the necessity of modern integrated scientific research methods.[740]

Hill J observed in *Skybase Nominees Pty Ltd v Fortuity Pty Ltd*[741] that if it was not possible for a work to express the same data without infringing copyright, then 'the copyright laws would be an impediment to free speech, rather than an encouragement of original expression'.[742] Although with some forms of modern technology it can be difficult to differentiate an idea from its expression in material form,[743] this doctrine exists so that everyone can use facts as necessary 'building blocks' to all.[744] Facts or ideas are considered too valuable for authors to be granted restrictive proprietary rights over them when they are expressed.[745] They are 'non-rivalrous and do not preclude others from using, utilizing or expressing them'.[746]

In recent years, however, the idea/expression doctrine is blurring due to the advancement of technology[747] and 'new ways of storing, retrieving and disseminating information'.[748] Such factors have prompted some to reject traditional concepts of protection.[749] In past tangible databases, 'facts were usually displayed narratively or in tables, [and] authors generally made enough decisions concerning presentation, selection, and arrangement to protect their factual works against wholesale appropriation'.[750] There was a functional

---

[738] Mazumder, 'Information, Copyright and the Future' (n 396) 180.
[739] See generally, *Harper & Row Publishers Inc v Nation Enters* (n 619); *Feist* (n 38).
[740] See generally, Reichman and Okediji (n 154).
[741] (n 195).
[742] Ibid 531 (Hill J).
[743] *Autodesk Inc v Dyason* (1992) 173 CLR 330, 344 (Dawson J).
[744] Jane C Ginsburg, 'Copyright, Common Law and *Sui Generis* Protection of Databases in the United States and Abroad' (1997) 66 *University of Cincinnati Law Review* 151, 154.
[745] Michael Green (n 660) 921.
[746] Lior Zemer, 'What Copyright Is' (n 178) 61.
[747] See generally, Lucas S Osborn, 'The Limits of Creativity in Copyright: Digital Manufacturing Files and Lockout Codes' (2017) 4 *Texas A&M Journal of Property Law* 25; Lucas S Osborn, 'Intellectual Property Channeling for Digital Works' (2018) 39 *Cardozo Law Review* 1303.
[748] Robertson Wright and Julia Baird, 'Competition and Intellectual Property: The Intersection of Competition and Intellectual Property Law and the "New Economy" (2008) 16 *Competition & Consumer Law Journal* 143, [90].
[749] John R Kettle III, 'Conceptual Expression in a Copyright World: Protecting Ideas from the Shadow of Preemption' (2017) 17(1) *The John Marshall Review of Intellectual Property Law* 1, 7–19.
[750] Michael Green (n 660) 920.

rigidity about the decisions that authors of databases made in order to tangibly express them materially.

New technologies, however, challenge this rigidity because they have the capacity to make the form of expression (ie, that which is traditionally protected by copyright) the material expression of the idea. This blurs the boundaries and grants freedom upon the expression in material form for others' utilisation.[751] Users have the capacity and flexibility to change, order and extract information. This evident flexibility in the manipulation of information has the capacity to blur its expression. The lack of definition in the expression of information is likely a catalyst for the increasingly atomistic judicial analysis of the authorial processes involved in database collation. This atomistic analysis of peoples' involvement within the database compilation process has been demonstrated in recent copyright infringement litigation. This will be analysed in Chapter 5: after examining early Australian and UK originality and authorship precedent throughout this chapter.

4.4 Originality

4.4.1 Statutory Originality

Originality is vital for copyright to subsist in a database. This is because, as stated in Chapter 3:, an author's expression of a database must be deemed sufficiently 'original'. The concept of originality was not codified in early copyright statute. This may have been because, judicially, throughout the late 18th and early 19th centuries, there was a greater focus upon pirating and unfair competition principles. In stark contrast to modern database infringement cases, the courts often examined the potential public benefits of pirating behaviour in favour of the original expression of an author's work.

In 1911 originality was codified for the first time in legislation. The Imperial *Copyright Act 1911*[752] was the first to codify the concept of an 'original' work, after debates to abolish the term in the House of Commons had failed.[753] Sir John Simon, the Solicitor General, was a pivotal actor in strengthening originality because he lobbied for its codification. He

[751] Wright and Baird (n 748) [90].
[752] (Imp) (1 & 2 Geo 5, ch 46).
[753] David Lindsey, 'Copyright Protection of Broadcast Program Schedules: IceTV before the High Court' (2008) 19 *Australian Intellectual Property Law Journal* 196, 214.

successfully delivered a speech where he distinguished originality from novelty and this heavily influenced against the proposed abolishment of the term.[754]

The originality criterion is codified in s 32, although *The Act* itself does not provide a definition. Rather, the standard is determined through judicial interpretation. 'Original' has been interpreted to mean 'that the work must be the expression of original or inventive thought'.[755] This is because *The Act* is 'not concerned with the originality of ideas, but with the expression of thought'.[756] This differentiation reflects the idea/expression dichotomy discussed at 4.3. The threshold of originality is of critical importance.[757] As a common law country, Australia has a long history of the judicial application of SOTB due to UK precedent. For over 200 years, SOTB was favoured by English courts and it came to be consistently applied to works including databases.[758] Eventually however, this standard was made redundant in the UK, following the introduction of the 1996 *EU Directive*,[759] the judicial interpretation of which will be discussed in Chapter 8:.

The historical context of SOTB is an important factor when considering its development in Australian law in relation to modern database protection. Throughout time, the courts have tested an array of compilations and analysed the methods of an author's selection and arrangement against this doctrine. It was, however, after the 1911 codification of originality when a noticeable shift occurred in Australian jurisprudence, with originality slowly becoming synonymous with authorship. This shall be examined in the next section.

4.4.2 SOTB in Early Australian Precedent

4.4.2.1 1800s – Labour, Expense and Skill

During the early 1800s, SOTB was in an infancy of judicial consideration. Disputes usually involved the alleged pirating of another's work. Significantly, these early pirating cases were underpinned by unfair competition principles,[760] which aimed to prevent a second-comer from pirating an author's skill and labour. Judicial assessment subsequently occurred

---

[754] Ibid.
[755] *London Press* (n 447) 608 (Peterson J).
[756] Ibid 608 (Peterson J).
[757] Ann Monotti, 'Works Stored in Computer Memory: Databases and the CLRC Draft Report' (1993) 4 *Journal of Law and Information Science* 265, 270.
[758] Derclaye, *The Legal Protection of Databases* (n 92) 9.
[759] *EU Directive* (n 19).
[760] Bowrey, 'On Clarifying the Role of Originality and Fair Use in 19th Century UK Jurisprudence' (n 677) 10.

which not only examined the author's labour, but also the alleged pirating by the defendant.[761] This assessment evaluated the effect of the pirating on the public interest and general market, with piracy more likely to be found in cases where such action could not be justified.[762]

For example, such pirate-centric assessment occurred in the 1799 case of *Cary v Faden*,[763] which concerned a road directory. Ironically, the plaintiff's directory had been created through the pirating of a pre-existing directory, known as Patterson's, which was not a party to the case.[764] The plaintiff had made amendments to reproduced, pirated maps.[765] The plaintiffs argued that their work was originality due to the labour involved – actual measurements were taken, in conjunction with the Post Master General.[766] They also argued that the introduction of new material and the method of measurement entitled them to copyright on their work.[767] Further, the plaintiff alleged that the defendant's work was unoriginal due to wholly or partially copying the plaintiff's work.[768] This argument was supported through the tendering of evidence, which showed that errors were copied from the plaintiff's work.[769]

The defendants did not deny copying the plaintiff's work.[770] Instead they argued that the plaintiff was himself a pirate and they provided evidence of this in the form of an affidavit sworn by Patterson.[771] Loughborough LC inspected all works and found that while Patterson's was an original work, the plaintiff had taken a 'different line' with a 'survey made for the purpose'.[772] The Court questioned the plaintiff's right to pirate Patterson's work, stating that if strict justice were to be served, all infringing parties would be ordered

---

[761] See, eg, *Cary v Faden* (n 212); *Matthewson v Stockdale* (n 212); *Longman v Winchester* (1809) 16 Ves Jr 269; 33 ER 987; *Kelly v Morris* (n 212); *Morris v Ashbee* (n 212); *Morris v Wright* (n 212); *TM Hall & Company v Whittington & Company* (1892) 18 VLR 525 ('*TM Hall*'); and *Leslie v Young & Sons* (1894) 31 SLR 693.

[762] See, eg, *Roworth v Wilkes* [1807] 1 CAMP 94; *Mawman v Tegg* (1826) 2 Russ 385; 38 ER 380; *D'Almaine and Another v Boosey* [1835] 1 Y & C Ex 297; *Bell v Whitehead* [1839] Ch 8 LJ (NS) Ch 141; *Scott v Stanford* [1867] LR Vol 3 718; and *Spiers v Brown* (n 736) as cited in Kathy Bowrey, 'On Clarifying the Role of Originality and Fair Use in 19th Century UK Jurisprudence' (n 677) 10–11.

[763] (n 212).

[764] Ibid 453.

[765] Ibid.

[766] Ibid 454.

[767] Ibid.

[768] Ibid 453.

[769] Ibid 454.

[770] Ibid 454.

[771] Ibid 453–4.

[772] Ibid 454.

to destroy their pirated work. As Patterson was not a party to the case, however, the case was dismissed.

The 1806 case of *Matthewson v Stockdale*[773] involved a directory. This case moved away from an assessment of pirating and towards evaluating the cost and labour of an author in producing a work. Erskine L found that an author 'has a copyright in that individual work; which has cost him **considerable expence** [sic] and **labour**; and employed him at a loss in other respects'.[774] Whereas the 1809 case of *Longman v Winchester*[775] determined that the plaintiff's court calendar had been pirated by the defendant because identical 'inaccuracies' were identifiable in both works.[776] The court found it necessary to 'interpose to prevent a mere republication of a work, which the **labour and skill** of another person had supplied to the world'.[777] The jurisprudence affirmed Lockean theory, stating that if a second work had been created as a result of the 'fair fruit of the original labour' of the author (in other words SOTB) the publication would not have been judicially prevented.[778]

In an examination of a work which combined copied and original material, the 1839 case of *Lewis v Fullarton*[779] considered originality by focusing on the actions of an author. Langdale L stated that no author was 'entitled to save themselves **trouble** and **expense** by availing themselves, for their own profit, of other men's works still subject to copyright and entitled to protection'.[780] Similarly, the 1866 directory case of *Kelly v Morris*[781] acknowledged that the authorial '**expense** of procuring information in a legitimate way is very great'.[782] The court upheld the proposition that in the creation of identical compilations, it was impermissible for the second-comer to republish the information compiled by the owner of the first directory **to save the labour and expense** of the creation of the original work.[783] SOTB was enunciated by Sir W Page Wood: 'a subsequent compiler is bound to set about doing for himself that which the first compiler has done'.[784]

---

[773] (1806) 12 Ves Jr 270; 33 ER 103.
[774] *Matthewson v Stockdale* (n 212) 105-6 (Erskine L).
[775] *Longman v Winchester* (n 761).
[776] Ibid 988.
[777] Ibid 987.
[778] Ibid 988.
[779] (1839) 2 Beav 6; 48 ER 1080.
[780] Ibid 1081 (Langdale L).
[781] *Kelly v Morris* (n 212).
[782] Ibid 702 (Sir W Page Wood).
[783] Ibid 702-3.
[784] Ibid 701.

This authorial assessment in SOTB continued. Two years later *Morris v Ashbee*[785] also involved a suit for alleged piracy of a London directory. Significantly, inaccuracies in the plaintiff's work had been reproduced in the defendant's directory[786] and the plaintiff's directory was found to be the source of the material.[787] The defendant had therefore benefited from the results of the **labour and expense** of the rival publication, **saving the expense and labour** of independently arriving at the same results.[788] Similarly, the emphasis in the 1870 English case of *Morris v Wright*[789] was upon authorial industriousness, through consideration of **labour and expense**.[790] In relation to gaining an unfair advantage from the use of the plaintiff's business directory, Giffard LJ stated that 'No one has a right to take the results of the labour and expense incurred by another … and thereby save himself the **expense and labour** of working out and arriving at those results by some independent road'.[791] Likewise in *TM Hall*[792] copyright was found to subsist in pamphlets containing compilations such as deeds of arrangement, stock mortgages, etc due to the authorial **time**, **labour** and appreciable minor **skill** that went into their creation.

The House of Lords in *Leslie v Young & Sons*[793] considered the alleged pirating of monthly timetables. The court examined the source of the information.[794] It found that copyright could only be claimed if '**independent work**' or '**labour**' could be demonstrated on the part of the appellant if the respondents had substantially taken advantage of this.[795] There had been a certain degree of original work demonstrated in the creation of the compilations;[796] however, the appropriation of the timetables was insufficient to establish piracy.[797]

---

[785] (n 212).
[786] Ibid 38 (Sir G M Giffard VC).
[787] Ibid.
[788] Ibid 401 (Sir G M Giffard VC), applying the standard from *Lewis v Fullarton* (n 779) and *Kelly v Morris* (n 212).
[789] (n 212).
[790] Joellen Riley, 'Use and Abuse of Copyright: the "Sweat of the Brow" Theory Gone Mad' (2005) 30(3) *Alternative Law Journal* 109, 109.
[791] *Morris v Wright* (n 212) 286.
[792] *TM Hall* (n 761).
[793] (n 761).
[794] Ibid 693 (Herschell LC)
[795] Ibid 694 (Herschell LC).
[796] Ibid.
[797] Ibid.

In *Collis v Cater, Stoffel & Fortt Ltd* [1898][798] it was argued that copyright did not subsist in a chemist's catalogue. Here the defendant had admitted to copying the list. North J stated: 'The question is whether a man has a right to appropriate to himself without payment or recognition in any way what it has cost his neighbour [sic] expense and trouble to make out. In my opinion, he has not'.[799] This decision was subsequently cited in the 1960s by the House of Lords and later Australian jurisprudence[800] as being one which had 'never been doubted', even though it pertained to a simple compilation.[801] The House of Lords affirmed the relevance of the '**skill**, **judgment** and **labour**' that was demonstrated in the author's preparatory work in reducing the expression of a mundane compilation to material form.[802]

In summation, the judicial application of originality in compilations during the late 1700s and 1800s often focused upon the fair use doctrine and for this reason it is relevant to this study. The fair use doctrine was used as a social balancing mechanism and weighed the author's original efforts against the effect of the alleged pirating upon the potential market.[803] However, the application of fair use in 19th century UK originality precedent must be distinguished from its contemporary understanding and use.

Today the concept is utilised in the US and may be applicable as a defence to infringement.[804] Depending on the purpose and nature, the US doctrine of fair use allows the unlicenced reuse of a work in particular situations by examining four factors: (1) purpose and character;[805] (2) non-expressive use/commercial character;[806] (3) substantiality of the

---

[798] 78 LT 613.

[799] *Collis v Cater, Stoffel & Fortt Ltd* [1898] 78 LT 613, 615.

[800] *A-One Accessory Imports Pty Ltd v Off Road Imports Pty Ltd* (1996) 65 FCR 478, 487 (Drummond J) ('*A-One Accessory Imports*'); *Autocaps (Aust) Pty Ltd v Pro-Kit Pty Ltd* [1999] FCA 1315 [39] (Finkelstein J); *T R Flanagan Smash Repairs Pty Ltd v Jones* (2000) 102 FCR 181, 188 [31] (Hely J) ('*T R Flannagan Smash Repairs*').

[801] *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 278 (Reid L).

[802] Ibid 287 (Hodson L).

[803] See generally, *Sayer v Moore* (n 192); *Carnan v Bowles* [Ch 1786] 29 ER 45; *Cary v Kearsley* [KB 1802] 170 ER 679; *Wilkins v Aiken* [1810] 17 Ves Jun 424, 426; *Mawman v Tegg* (n 762); *Martin v Wright* (Ch 1833) 58 ER 605; *D'Alamaine v Boosey* (n 762); *Spiers v Brown* (n 736); *Scott v Stanford* (n 762) 722; *Leslie v Young & Sons* (n 761); *Hanfstaengl v Baines* [1895] AC 20; *McCrum v Eisner* [1918] 87 LJ Ch 99, as cited in Bowrey, 'On Clarifying the Role of Originality and Fair Use in 19th Century UK Jurisprudence' (n 677) 9.

[804] *Copyright Act* 17 USC (n 555) § 107. See *Campbell v Acuff-Rose Music Inc* 510 US 569 (1994). Also see generally, Angel Siegfried Diaz, 'Fair Use and Mass Digitization: The Future of Copy-Dependent Technologies after Authors Guild v HathiTrust' (2013) 28 *Berkeley Technology Law Journal* 683; Samuelson, 'Copyright and Freedom of Expression in Historical Perspective' (2003) 10 *Journal of Intellectual Property Law* 319, 320-1.

[805] *Copyright Act* 17 USC (n 555) § 107(1).

[806] *Harper & Row Publishers Inc v Nation Enterprises* (n 619); *Sony Corporation of America v Universal City Studios Inc* 464 US 417, 449 (1984).

used portion;[807] and (4) effect upon market value.[808] Examples of fair use may include reporting news or for educational purposes, with 'transformative' use more likely to qualify as being fair.[809]

There has been recent debate as to whether Australia should implement a US-style fair use doctrine,[810] with a 2012 Australian Law Reform Commission (ALRC) report into *Copyright and the Digital Economy* ultimately recommending a fair use exception under *The Act*.[811] Currently, a variant known as 'fair dealing' is codified in *The Act* and may be used as an exception to copyright infringement.[812] The application of fair dealing will not be examined in any further depth throughout this dissertation because it lies outside of the scope of subsistence. The issue has been raised here because of its differing application in the context of 19th century UK originality jurisprudence. An understanding of this issue contextualises modern database originality jurisprudence.

The purpose of 19th century UK fair use precedent was twofold. Firstly, it sought to protect an individual author from the unfair use of their work. Secondly, it sought to prevent others from gaining an unfair advantage from the labour invested in their work.[813] Injunctive relief was often sought.[814] Consideration of whether the reproduction of all or part of a work constituted fair use led 'to a relative consideration of the original efforts and corresponding

---

[807] *Copyright Act* 17 USC (n 555) § 107(3).

[808] Ibid § 107(4). Also see Matthew Sag, 'Copyright and Copy-Reliant Technology' (2009) 103(4) *Northwestern University Law Review* 1607, 1645–56.

[809] *Campbell v Acuff-Rose Music Inc* (n 804) 579. Also see, Pierre N Leval, 'Commentary: Toward a Fair Use Standard' (1990) 103 *Harvard Law Review* 1105, 1111.

[810] See, eg, Matthew Rimmer, Submission to the Australian Law Reform Commission – Copyright and the Digital Economy Inquiry, *Copyright and the Digital Economy: The Progress of Science* (2012) 6; Kimberley Weatherall and Emily Hudson, 'Response to the Issues Paper: Fair Use and Other Copyright Exceptions in the Digital Age' (2005), *Intellectual Property Research Institute of Australia (IPRIA) and Centre for Media and Communications Law (CMCL) - The University of Melbourne*.

[811] Australian Law Reform Commission, *Copyright and the Digital Economy*, Issues Paper No 42 (August 2012), 13-14, recommendations 4–1, and 5–1 to 5–4.

[812] *The Act* (n 168) ss 40–43 (Part III Works); ss 103A-103C (Part IV Subject Matter Other Than Works). Also see s 113 (Fair dealing for access by or for persons with a disability).

[813] Reginald W Curtis, 'Compilations and Copyright: Principles and Policy' (1984 – 1986) 8 *University of Tasmania Law Review* 277, 277.

[814] Tomas Gomez-Arostegui, 'What History Teaches Us About Copyright Injunctions and the Inadequate-Remedy-At-Law Requirement' (2008) 81 *Southern California Law Review* 1197, 1210-80.

markets of the plaintiff and defendant'.[815] A second-comer was prohibited from simply appropriating the work of the first author, thereby saving labour and expense.[816]

As such, these cases considered not only copyright subsistence through an author's efforts but also what would be considered a 'legitimate taking' of the work.[817] Consequently, the longstanding challenge faced by the courts was the determination of whether an unfair appropriation of another author's work had occurred. It was necessary to determine whether such use would be considered fair.[818] The next section shall examine the judicial application of originality throughout the 1900s.

1900s – Skill, Labour and Experience

In 1916, *London*[819] was one of the first cases to consider the meaning of 'original' under *Copyright Act 1911*, which had repealed the *Copyright Amendment Act 1842*.[820] The codification of originality in 1911 influenced the judiciary from this point onwards. It necessitated the courts undertake rigorous assessment of an author's efforts in determining whether the work was sufficiently original.[821] The codification of originality appeared to shift the judicial tone of judgements thereafter, with the judicature's attention directed upon an author's efforts, away from stronger misappropriation principles and what was considered a fair taking in the public interest (as demonstrated in earlier pirating cases).[822]

London Press examined whether some mathematic examination papers were original works. It was found that, although some exams utilised essential material that was common to many mathematicians, the questions in those papers had not been copied from other papers. The questions had been thought out with the use of notes or memoranda by those setting the exams.[823] In composing the questions set for examination, the mathematician

---

[815] Bowrey, 'On Clarifying the Role of Originality and Fair Use in 19th Century UK Jurisprudence' (n 677) 3.
[816] *Matthewson v Stockdale* (n 212); *Roworth v Wilkes* (n 762); *Scott v Stanford* (n 762); *Walter v Steinkopff* (n 38).
[817] Bowrey, 'On Clarifying the Role of Originality and Fair Use in 19th Century UK Jurisprudence' (n 677) 9.
[818] Reginald Curtis (n 813) 277.
[819] *London Press* (n 447).
[820] Estelle Derclaye, 'Debunking Some of UK Copyright Law's Longstanding Myths and Misunderstandings' (2013) 1 *Intellectual Property Quarterly* 1, 8.
[821] Bowrey, 'On Clarifying the Role of Originality and Fair Use in 19th Century UK Jurisprudence' (n 677) 13–14.
[822] Ibid 13.
[823] *London Press* (n 477) 609 (Peterson J).

authors had engaged in a process of selection and judgement by drawing on their prior experience.[824] The exams therefore constituted original works through their expression: [825]

> The term 'original' does not in this connection mean that the work must be the expression of original or inventive thought. Copyright Acts are not concerned with the originality of ideas, but with the expression of thought … The originality which is required relates to the expression of the thought. But the Act does not require that the expression must be in an original or novel form, but that the work must not be copied from another work – that it should **originate from the author**.[826]

Subsequent literary work cases throughout the decades found that authorial **'independent labour and research'**;[827] **'mental effort and industry'**;[828] and **'labour, skill and capital'**[829] were required for originality to subsist. Likewise, the degree of **'knowledge, labour, judgement or literary skill or taste'**[830] in an author's selection of facts were not always sufficient in establishing originality. [831]

The 1964 UK case of *Ladbroke (Football) Ltd v William Hill (Football) Ltd*[832] involved the alleged infringement of a betting coupon, which had been created with a '**vast amount** of **skill, judgment**, **experience** and **work'**.[833] The argument submitted against establishment of subsistence in the coupons was that they had been created in two separate stages: (1) the deciding of the bets; and (2) the release of the results. It was further argued that in consideration of originality, only the second stage should be weighed against the criteria of skill, labour and judgment.

The House of Lords rejected this, with four of the five Lords finding that the work could not be split when assessing originality. Hodson L, for example, opined: 'I cannot accept that preparatory work must be excluded in this case so as to draw a line between the effort

---

[824] Ibid 609–10 (Peterson J).
[825] Ibid 609 (Peterson J).
[826] *London Press* (n 447) 608 (Peterson J), applied in *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 291 (Pearce L); *Computer Edge Pty Ltd v Apple Computer Inc* (n 38) 182–3 (Gibbs CJ) and *IceTV* (n 38) 474 [33].
[827] *Blackie & Sons Ltd v Lothian Book Publishing Co Pty Ltd* (n 38) 398 (Starke J).
[828] *Real Estate Institute of New South Wales v Wood* (1923) 23 SR (NSW) 349, 352 (Street CJ).
[829] *MacMillan & Company v Cooper* (1924) 93 LJPC 113, [17] (Atkinson J) ('*MacMillan*'), citing *Walter v Lane* (n 212) 545 (Halsbury L).
[830] *GA Cramp & Sons Ltd v Frank Smythson Ltd* (n 212) 335 (Simon LC), citing *MacMillan* (n 829) 113, 121 (Atkinson L).
[831] Ibid 337–38 (Macmillan L).
[832] (n 212).
[833] Ibid 275 (Reid L).

involved in developing ideas and that minimal effort required in setting those ideas down on paper'.[834] Rather, consideration of the overall process of creation – from the preparatory work to the final product – was significant. This finding is significant and relevant to modern databases, where, instead, a shift has occurred towards an atomistic judicial assessment of an author's involvement in reducing the work to material form rather than assessment of the overall process of creation. In 1964, though, consideration of the whole creation process demonstrated judicial acceptance that the preliminary acts in the process of selection went towards establishment of the authorial intention and overall subsistence of the work.[835]

In assessing originality, *London Press* was applied.[836] The standard was described as originating with an author[837] and being a 'result of a ***substantial*** **degree of skill, industry or experience** employed by him.[838] Hodson L described it as the 'exercise of ***more than negligible*** **work, labour and skill**'.[839] It was a question of fact and degree[840] and needed to **originate with an author**, without being copied from another work.[841]

Similarly, in the 1984 case of *Kalamazoo*,[842] originality was found to be a question of fact and degree[843] needing to **originate with an author** without being copied from another work.[844] There, the Federal Court considered two possibilities: (1) whether the plaintiff was required to demonstrate that they had used 'more than negligible'[845] **skill** and **labour** in the

---

[834] Ibid 278 (Reid L), 287–88 (Hodson L), 290 (Devlin L), 292–3 (Pearce L).
[835] Ibid 277–8 (Reid L), 286–7 (Hodson L), 289–90 (Devlin L); 292–3 (Pearce L).
[836] Ibid 277 (Reid L), 291–2 (Pearce L).
[837] Ibid 291 (Pearce L), affirming *Robinson v Sands & McDougall Pty Ltd* (1916) 22 CLR 124, 132–3; *Sands & McDougall Pty Ltd v Robinson* (n 212) and *London Press* (n 447) 608 (Peterson J).
[838] *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 289 (Devlin L) (emphasis added).
[839] Ibid 287 (Hodson L) (emphasis added).
[840] *Kalamazoo (Australia) Pty Ltd v Compact Business Systems Pty Ltd* (1984) 84 FLR 101, 120 ('*Kalamazoo*'), applying *MacMillan* (n 829) 117–8*; Football League Limited v Littlewoods Pools Ltd* (n 38) 651; *GA Cramp & Sons v Frank Smythson Ltd* (n 212) 335 (Simon LC).
[841] *Kalamazoo* (n 840) 120, applying *London Press* (n 447) 608–09; *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 289; *Mirror Newspapers Ltd v Queensland Newspapers Pty Ltd* (1982) Qd R 305 ('*Mirror Newspapers*'); *Ogden Industries (Australia) Pty Ltd v Kis* (1982) 62 FLR 241, 246; *Victoria Park* (n 38) 511.
[842] *Kalamazoo* (n 840).
[843] Ibid 120, applying *MacMillan* (n 829) 117–8; *Football League Limited v Littlewoods Pools Ltd* (n 38) 651; *GA Cramp & Sons v Frank Smythson Ltd* (n 212) 335 (Simon LC).
[844] *Kalamazoo* (n 840) 120, applying *London Press* (n 447) 608–09; *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 289; *Mirror Newspapers* (n 841); *Ogden Industries (Australia) Pty Ltd v Kis* (n 841) 246; *Victoria Park* (n 38) 511.
[845] Applying the test from *GA Cramp & Sons v Frank Smythson Ltd* (n 212).

selection of their words and content;[846] or (2) whether they had demonstrated a '**substantial degree of skill**, **industry** or **experience**'.[847] The latter approach was chosen so there was sufficient originality in the 'expression, shape and content' of the set of forms as a whole so as to comprise an originality literary work.[848]

Although skill and labour were acceptable originality thresholds, the 1989 case of *Interlego AG*[849] warned about the need to engage in a thorough evaluation of the compilation process. Assessment was crucial, because rewarding **skill** and **labour** without doing so could lead to serious error,[850] such as under-protection of some databases. In 1992, the accepted degree of originality was described as a '***significant amount*' of skill and labour**.[851] *A-One Accessory Imports*[852] considered copyright infringement in a motorcycle parts catalogue. It was found to be an original compilation even though, during the compilation process, the authors had copied a substantial part of another catalogue.[853] The reason for the finding of subsistence was that there was 'no doubt that the **skill**, **judgment** and **labour** expended by them in selecting the information' was sufficient to establish an original compilation,[854] thereby finding subsistence in a majority of databases.

Milwell Pty Ltd v Olympic Amusements Pty Ltd[855] considered originality in poker prize scales (as literary compilations). Originality was found to be directed to the expression of the ideas and not the ideas themselves.[856] Furthermore, no original or inventive thought was required.[857] Rather, originality would be assessed as a matter of degree, depending on the level of '**skill, judgment** or **labour**' that had been demonstrated.[858] Similarly, in *TR Flanagan Smash Repairs*[859] it was found that originality may subsist in a compilation that

---

[846] *Kalamazoo* (n 840) 120, applying *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 287; *Apple Computer Inc v Computer Edge Pty Ltd* (n 715) 558 (Fox J), 576 (Lockhart J).
[847] *Kalamazoo* (n 840) 120, applying *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 289.
[848] *Kalamazoo* (n 840) 124.
[849] *Interlego AG v Tyco Industries Inc* [1989] AC 217, 260–1 (Oliver L) ('*Interlego*').
[850] Ibid 263 (Oliver L).
[851] *Interlego AG v Croner Trading Pty Ltd* (1992) 39 FCR 348, 379 (Gummow J).
[852] (n 800).
[853] Ibid 286 (Drummond J).
[854] Ibid.
[855] (n 212).
[856] *Milwell Pty Ltd* (n 212) 442 [17] (Lee, von Doussa & Heerey JJ), affirming *London Press* (n 447) 608–09 and *Victoria Park* (n 38) 498.
[857] Ibid 443 [17] (Lee, von Doussa & Heerey JJ), affirming *Computer Edge Pty Ltd v Apple Computer Inc* (n 38) 182 and *Interlego AG v Croner Trading Pty Ltd* (1992) (n 851) 378–9.
[858] Ibid 443 [17] (Lee, von Doussa & Heerey JJ), affirming *Computer Edge Pty Ltd v Apple Computer Inc* (n 38) 182–3 *and Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 277–8, 282, 285 and 289.
[859] *T R Flanagan Smash Repairs* (n 800).

consisted entirely of pre-existing material, by reason of the author's selection or arrangement of the material.[860] The pivotal question was '[w]hether the amount of **skill**, **judgment** or **labour** that was involved [in the selection of the material was] sufficient to impart to the compilation the quality of originality'.[861] This was ultimately a question of 'fact and degree' — some authorial effort was required, even if it was very small.[862] In determining subsistence, the court also emphasised the importance of assessing the compilation as a whole.[863]

These cases affirmed SOTB was applicable to databases, as long as an author had demonstrated a sufficient degree of **'skill, judgement or labour',** which would turn on the factual evidence presented. Historically, the criteria of originality and authorship have been found to be intrinsically linked.[864] This means that a database **must originate with an identifiable author for copyright to subsist.**[865] The next section will extensively examine the authorship construct, along with the territorial connection to Australia, the moral rights criteria and their applicability to databases.

4.5 Authorship, Territorial Connection to Australia and Moral Rights

Critical to establishing subsistence in databases is the necessity for an identifiable human being — an author. Authorship lies at the heart of subsistence and this is because if no author can be identified in a database then subsistence and copyright ultimately fails. Under *The Act*, three criteria are related to this: authorship, a territorial connection to Australia and the vesting of authorial moral rights. Each criterion will be separately discussed in this section.

As a literary work, a database may be unpublished[866] or published.[867] The territorial nexus must occur either by the first publication occurring in Australia[868] or via the notion of a

---

[860] Ibid 187 [29] (Hely J).
[861] Ibid.
[862] Ibid citing *Apple Computer Inc v Computer Edge Pty Ltd* (n 715) 558 (Fox J).
[863] Ibid 189 [31] (Hely J).
[864] *Desktop Marketing* (n 44) 532 [160(2)] (Lindgren J), applying precedent from *Sands & McDougall Pty Ltd v Robinson* (n 212).
[865] Mark Davison, *The Legal Protection of Databases* (n 22) 21.
[866] *The Act* (n 168) s 32(1).
[867] Ibid s 29(1)(a).
[868] Ibid s 32(2)(c).

'qualified person'.[869] An author must be a 'qualified person' at the time the work is made.[870] This is 'an Australian citizen or a person [who is a] resident in Australia'.[871] This criterion is problematic, however, if authorship cannot be judicially determined, for example, in the case of a modern database that is primarily electronically generated with antecedent input by many people. This issue will be analysed in Chapter 6:. Before this, the criterion of authorship will be examined in the next section to gain an understanding of its robust context and colourful history.

4.5.1 Authorship and its Romantic Construct

As stated, authorship is essential for the vesting of copyright protection in databases.[872] It specifically pertains to the person (or people) who engage in the process of originating or creating a database to material form; originating from those who had 'authority' to act.[873] Authorship has judicially been found to be correlative with originality because it is the author who reduces the original expression of the work to material, tangible form.[874] As discussed in 2.1, authorship reflects one of the fundamental axioms of copyright law, which is to protect an author against unwarranted financial gain by others who have not invested in a work.[875]

The Romantic authorship construct has a deep-rooted and parallel basis in both literature and legal history.[876] During the late 1500s to early 1600s in the UK, a transitionary period pertaining to status, proprietary rights, plagiarism and authorial branding occurred, with some authors identifying with these issues and others choosing pseudonyms or anonymity.[877] Collaborative works were common, particularly in the theatre, and plays were

---

[869] Ibid s 32(4).
[870] Ibid s 32(1)(a).
[871] Ibid s 32(4).
[872] Buccafusco (n 382) 1231.
[873] David Nimmer, 'Copyright in the Dead Sea Scrolls: Authorship and Originality' (2001) 38(1) *Houston Law Review* 1, 9.
[874] *Sands & McDougall Pty Ltd v Robinson* (n 212) 55 (Issacs J); *Desktop Marketing* (n 44) 532 [160(2)] (Lindgren J), 593 [409] (Sackville J); *IceTV* (n 38) 474 [33]–[34] (French CJ, Crennan and Kiefel JJ); *Telstra Corporation Limited v Phone Directories Company Pty Ltd* (2010) 194 FCR 142, 172 [100] (Perram J) ('*Telstra Appeal*'). Also see, Jane C Ginsburg, 'The Concept of Authorship in Comparative Copyright Law' (2003) 52 *DePaul Law Review* 1063, 1072, 1078–85.
[875] *Telstra Corporation Limited v Phone Directories Company Pty Ltd* (n 128) 623 [20(1)] (Gordon J).
[876] Peter Jaszi, 'Towards a Theory of Copyright: The Metamorphoses of "Authorship"' (1991) *Duke Law Journal* 455, 455.
[877] Janet Clare, 'Shakespeare and Paradigms of Early Modern Authorship' (2012) 1(1) *Journal of Early Modern Studies* 137, 137-45.

often published anonymously.[878] By the late-1600s, a shift had emerged. English writers had begun to call themselves 'authors' and asserted an elevated status.[879] There was concern about State censorship of publishing and authors heavily relied upon patronage, with William Shakespeare being one such example.[880] Such authors relied upon incentivisation through approaches underpinned by the labour theory, as discussed at 2.1. During the 18th century, the concept of 'authorship' in the fields of literature and art began to espouse ideals of transcendence and infinity, projected through the innate value of an individual's reflection of their self.[881]

In law, this Romantic principle of authorship had its basis in 18th century UK laws.[882] Before this, as explored at 2.2.2, the genesis of copyright began as a publishers' (Stationers') monopoly right.[883] The Crown wielded formal control over printing/distribution and established the Stationers' Company through charter in 1557.[884] Although various Acts were enacted by the Crown to tightly reign printing via registration through the Stationers' Company,[885] in 1692, *Licensing of the Press Act 1662* (UK) expired and the House of Commons refused its renewal.[886] This led to the London Stationer's Company petitioning Parliament in 1707, due to ongoing and widespread piracy of their books.[887] Their petition was expressed on behalf of not only themselves but also of all authors under the belief that this would strengthen their cause against book cartels.[888] After much Parliamentary debate, to the consternation of book cartels, Parliament subsequently responded by permitting

---

[878] Ibid 140-1.
[879] Jaszi (n 876) 455.
[880] Alina Ng, 'The Social Contract and Authorship: Allocating Entitlements in the Copyright System' (2009) 19 *Fordham Intellectual Property Media & Entertainment Law Journal* 413, 414–18.
[881] Jaszi (n 876) 455. Also see generally, Ronan Deazley, *On the Origin of the Right to Copy: Charting the Movement of Copyright Law in Eighteenth-Century Britain (1695-1775)* (Hart Publishing, 2004).
[882] Enshrined in the *Statute of Anne* (n 49). Also see *IceTV* (n 38) 471 [25]; Zemer, *The Idea of Authorship in Copyright* (n 95) 74.
[883] Khong, 'The Historical Law and Economics of the First Copyright Act' (n 200) 60.
[884] Jessica Litman, 'What Notice Did' (2016) 96 *Boston University Law Review* 717, 720–1; Mark Perry, 'The Legacy of the Seasons: Confusion and Misdirection' in Shubha Ghosh (ed), *Forgotten Intellectual Property Lore: Creativity, Entrepreneurship and Intellectual Property* (Elgar Law and Entrepreneurship Series, forthcoming October 2020).
[885] For example, *Licensing of the Press Act 1662* (UK) 14 Car II, c 33; Karen Nipps, 'Cum Privilegio: Licensing of the Press Act of 1662' (2014) 84(4) *The Library Quarterly: Information, Community, Policy* 494, 495; Perry, 'The Legacy of the Seasons' (n 884).
[886] Nipps (n 885) 500.
[887] Diane Leenher Zimmerman, 'The Statute of Anne and Its Progeny: Variations Without a Theme' (New York University Law and Economics Working Papers, Paper 238, 2010) 6. Also see generally, Tomás Gómez-Arostegui, 'What is the Point of Copyright History? Reflections on Copyright at Common Law in 1774' (CREATe Working Paper 2016/04, March 2016).
[888] Zimmerman, 'The Statute of Anne and Its Progeny' (n 887) 6.

copyright to 'all authors or purchasers of such copies'[889] and the *Statute of Anne*[890] came into force in 1710.

Apart from being the first official copyright Act, this was also the first to protect publishers and authors as rights-holders.[891] It emphasised a common 18th century utilitarian justification (see 2.1.1) — the encouragement of learning[892] — through the protection of an author's right 'by Vesting the Copies of Printed Books in the Authors.'[893] This solidified the authorship criterion in statute and the emphasis upon learning through the securing of copies of books to authors continued throughout the decades. However, in consideration of the social context of the time, this philosophical justification would have only been beneficial to a very small and elite group of educated persons. Most people, such as the poor, farmers and the working class, were illiterate.[894] Social policy regarding mass literacy in England did not become prevalent until well into the 19th century.[895]

At the time the *Statute of Anne* came into force, the decision to include authors as a focal point alongside publishers was mere 'rhetorical flourish', because statutory copyright only applied to published books.[896] The cost of publishing books was extremely expensive, which meant that authors could only print their works through publishers.[897] Thus, publication was achieved through the transfer of copyright to publishers,[898] through a single transfer of authorial rights.[899] It was highly unusual that a publisher agreed that an individual author hold copyright.[900] Despite a greater focus upon the authorship construct, authors often found themselves being exploited by publishers to further economic interests.[901] In 1725, publishers were described as being the 'Master Manufacturers' with authors being

---

[889] Ibid 7.
[890] (n 49).
[891] Goodenough (n 216) 36.
[892] Treiger-Bar-Am (n 101) 1060.
[893] *Statute of Anne* (n 49).
[894] Zimmerman, 'The Statute of Anne and Its Progeny' (n 887) 8; Diane Leenher Zimmerman, 'Authorship Without Ownership: Reconsidering Incentives in a Digital Age' (2003) 52(4) *De Paul Law Review* 1121, 1130.
[895] Zimmerman, 'Authorship Without Ownership' (n 894) 1130–2.
[896] Zimmerman, 'The Statute of Anne and Its Progeny' (n 887) 8.
[897] Ibid.
[898] Shaffer Van Houweling, 'Authors Versus Owners' (n 382) 374.
[899] Simon Stern, 'From Author's Right to Property Right' (2012) 62 *University of Toronto Law Journal* 29, 31–2.
[900] Zimmerman, 'Authorship Without Ownership' (n 894) 1137; Zimmerman, 'The Statute of Anne and Its Progeny' (n 887) 8.
[901] Zimmerman, 'The Statute of Anne and Its Progeny' (n 887) 12.

their 'workmen'.[902] However, the encouragement of learning through the granting of monopoly rights to authors has been so well enshrined in copyright, that it underpins the *US Constitution*,[903] as well as modern Australian law.[904]

In tandem with the focal point upon the authorship construct, from 1710 onwards, statutory copyright espoused the protection of an author from the unauthorised reproduction (making copies) of their work.[905] It did this by permitting registration of a limited-term monopoly over the work, which could be renewed for another term if an author remained alive.[906] This was an important social and economic contract, where the 'author could obtain a limited economic monopoly, in return for making a work available to the reading public'.[907] Significantly, the statute also extensively addressed the issue of publisher price-gouging and provided remedies for aggrieved persons; however, this fact is often overlooked by legal theorists.[908]

As time progressed, the publishing marketplace became more competitive.[909] Authors gained bargaining power and leverage, while the publishers lost their struggle to maintain control over statutory copyright.[910] Socially, the environment was heavy with 'author-centric rhetoric'.[911] The author was branded as an autonomous and industrious labourer, toiling over the creation of their work as a material expression of their transcendent genius.[912] This rhetoric and notions of authorship[913] have become so entrenched in precedent that they remain highly relevant to modern database creation today, because if authorship cannot be determined then copyright ultimately fails.

---

[902] Goodenough (n 216) 36, quoting Daniel Dafoe, author of *Robinson Crusoe*.
[903] *United States Constitution* art I § 8 cl 8. Affirmed in *Berlin v EC Publications Inc* (n 642). Also see Buccafusco (n 382) 1234–35; Samuelson, 'Toward a "New Deal" for Copyright in the Information Age' (2002) 100 *Michigan Law Review* 1488, 1503-4.
[904] *IceTV* (n 38) [24]–[25] (French CJ, Crennan and Kiefel JJ); *Fairfax Media Publications Pty Ltd v Reed International Books Australia Pty Ltd* (2010) 189 FCR 109, 113 [9] (Bennett J) ('*Fairfax v Reed*'). Also see Van Caenegem, 'Copyright, Communication and New Technologies' (n 185) 323.
[905] *Statute of Anne* (n 49) § II.
[906] Ibid; *Telstra* (n 128), 623 [20(1)] (Gordon J).
[907] *IceTV* (n 38) 471 [25] (French CJ, Crennan and Kiefel JJ).
[908] Zimmerman, 'The Statute of Anne and Its Progeny' (n 887) 10.
[909] Shaffer Van Houweling, 'Authors Versus Owners' (n 382) 375.
[910] Zimmerman, 'The Statute of Anne and Its Progeny' (n 887) 14. Also see *Donaldson v Beckett* (n 190).
[911] Shaffer Van Houweling, 'Authors Versus Owners' (n 382) 372–7.
[912] Bruton (n 316) 266.
[913] Stewart E Sterk, 'Rhetoric and Reality in Copyright Law' (1996) 94 *Michigan Law Review* 1197, 1197–1204.

In 1801[914] and 1814,[915] subsequent Acts in their long titles reflected this shift in consciousness pertaining to authors. The 1801 UK Act was made 'for the further Encouragement of Learning, in the United Kingdom … by securing the Copies and Copyright of printed Books to the Authors of such Books.' In 1802 William Wordsworth perpetuated the ideal of the author-genius as an individual who could express themselves powerfully beyond their being.[916] In addition to Romantic authorship theory in literature and art, this imagery was underpinned by natural rights theories, such as Locke's labour theory[917] and Hegel's personality theory (see 2.1.2). These underlying philosophies significantly influenced the development of copyright in the UK and Europe with an underlying focus upon authorial incentivisation. Eventually, these philosophies influenced the rest of the world, particularly through international treaties such as *Berne* (see 3.2.1). The 1814 Act was described as 'An Act to amend several Acts for the Encouragement of Learning, by securing the Copies and Copyright of Printed Books, to the Authors of such Books or their Assigns'.

In the accompanying Romantic philosophy,[918] an author was often represented as a sole creative genius whose brilliance in creating the work warranted copyright protection.[919] They were described as an 'autonomous individual who create[d] fictions with an imagination free of all constraint'.[920] This Romantic authorship imagery was projected to encourage further labour, or to do so indirectly, through the extension of an author's individual expression. Publishers perpetuated Romantic ideology[921] of an author as a creative genius,[922] with the publishing labour and the labour of authors' minds becoming

---

[914] *Copyright Act 1801* (n 167).
[915] *Copyright Act 1814* (n 167).
[916] William Wordsworth, *Preface to Lyrical Ballads* (Published 1802, Cambridge University Press, 1968) 241–72.
[917] Craig, 'Locke, Labour and Limiting the Author's Right' (n 100) 8–17.
[918] Lemley, 'Book Review' (n 105) 890.
[919] Jack Stillinger, *Multiple Authorship and the Myth of Solitary Genius* (Oxford University Press, 1991) 183; Zemer, *The Idea of Authorship in Copyright* (n 95) 73–7.
[920] Rosemary J Coombe, *The Cultural Life of Intellectual Properties: Authorship, Appropriation and the Law* (Duke University Press, 1998) 219–20.
[921] Lior Zemer,'"We-Intention" and the Limits of Copyright' (2006) 24 *Cardozo Journal of Arts and Entertainment* 99, 99-100.
[922] Zimmerman, 'The Statute of Anne and Its Progeny' (n 887) 13.

synonymous.[923] The authorship construct remains highly relevant to modern databases because if no author can be established then subsistence ultimately fails.

4.5.2 Statutory Authorship and Joint Authorship

Of significance is that the concept of authorship has never been codified in Australia as pertaining to a person or human being – rather, it has always been assumed. The *1842 Copyright Amendment Act* (UK)[924] did not define the term, although the concept of authorship underpinned the entire Act. For example, this was expressed through its purpose, by 'securing the Copies and Copyright of printed Books to the Authors of such Books, or their Assigns, for the Time therein mentioned'.[925]

The *Copyright Act 1905* (Cth) provided that an 'author' included 'the personal representatives of an author';[926] however, it did not specifically define the term as pertaining to a person who originated an idea by reducing it to material form. Similarly, the *Copyright Act 1912* did not provide a definition, although it defined the term of copyright, which at the time directly related to the 'life of the author plus 50 years.'[927] By referring to a lifespan, there is the assumption that this pertains to a human life.

Today, s 10 of *The Act* merely defines an author in relation to a photograph, stating that it is the person who physically captured the photo. There are no definitions provided for the author of other classes of works, although the emphasis is on a singular, individual author. French CJ, Crennan and Kiefel JJ stated in *IceTV*, that 'the classical notion of an *individual* author was linked to the invention of printing and the technical possibilities thereafter for the production of texts otherwise than by collective efforts, such as those made in mediaeval monasteries'.[929]

Section 35 (1)[930] provides that the author of a literary work is the owner of any copyright subsisting in the work. As databases are considered literary works, it is usually argued that the author of an original compilation is the owner of the copyright subsisting in the work,

---

[923] Lionel Bently and Brad Sherman, *The Making of Modern Intellectual Property Law: The British Experience 1760–1911* (Cambridge University Press, 2002) 15*; Millar v Taylor* (n 191) (Yates J, quoting counsel Blackstone).
[924] (n 682).
[925] Ibid c 45, s 1.
[926] *Copyright Act 1905* (n 167) s 4.
[927] *Copyright Act 1912* (n 694) Schedule, which reproduced *Copyright Act 1911* (n 752) s 3.
[929] *IceTV* (n 38), 470 [23] (French CJ, Crennan and Kiefel JJ) (emphasis added).
[930] *The Act* (n 168).

unless altered by license.[931] The only exception to this is if an author creates a literary work during employment. If this occurs, then under s 35(6)[932] the ownership of the work passes to the employer, unless modified by agreement.[933]

Section 10[934] of *The Act* defines a work of joint authorship as 'a work that has been produced by the collaboration of two or more authors and in which the contribution of each author is not separate from the contribution of the other author or the contributions of the other authors'. This closely mirrors the wording of the Imperial *Copyright Act 1911*, which, in 1912 defined joint authorship as being 'a work produced by the collaboration of two or more authors in which the contribution of one author is not distinct from the contribution of the other author or authors'.[935]

Importantly, to currently establish joint authorship, the work of each contributor must not be distinct from the other; the skill and labour contributed to the work by each individual person must be significant.[936] In the creation of modern databases, this requirement presents some challenges due to the changing behaviour of people through working with computers. Recent Australian cases have found it difficult to judicially establish joint authorship in modern databases. This is particularly so when there is the requirement for the skill and labour of each contributor to not be distinct from the other and for their work to be significant.[937] This issue will be extensively analysed in Chapter 5: and Chapter 6:. But before this, the next section shall examine the historical evolution of the judicial interpretation of authorship in databases, to gain an appreciation and understanding of authorship precedent.

4.5.3 Historical Authorship Precedent

The concept of authorship was not particularly contested in 18th and 19th century English copyright cases. Socially, this may have been due to what has been stated above:[938] for

---

[931] *IceTV* (n 38) 502 [132] (French CJ, Crennan and Kiefel JJ).
[932] *The Act* (n 168). Also see *Redrock & Hotline Communications v Adam Hinkley* (2001) 50 IPR 565.
[933] *The Act 1968* (n 168) s 35(2).
[934] Ibid.
[935] *Copyright Act 1912* (n 694) Schedule, which reproduced *Copyright Act 1911* (n 752) s 16(3).
[936] See *Levy v Rutley* (1871) LR 6 CP 523, 529 (Keating J); *Prior v Lansdowne Press Pty Ltd* (1975) 12 ALR 685, 688 (Gowens J); *CBS Records Australia Ltd v Gross* (1989) 15 IPR 385, 394–5 (Davies J); *Cala Homes (South) Ltd v Alfred McAlpine Homes East Ltd (No. 1)* [1995] FSR 818, 835–6 (Laddie J) and *Hadley v Kemp* [1999] EMLR 589, 646 (Park J).
[937] Ibid.
[938] See 4.4.1.

many years, authors were virtually powerless, with publishers being powerful. After all, it was the publishers and not individual authors who held copyright as a monopoly right in early published works. Authors were poorly remunerated and publishers held the power and money. Another reason may have been due to the more limited categories of works that were codified and the primarily tangible methods through which they were created. For example, books and maps were drawn and artworks were painted, so arguments rarely occurred about the identity of the person reducing the expression of such works to material form.

Since then, however, the judicial interpretation of authorship has become synonymous with the criterion of originality in literary works and compilations. **In other words, a work must originate with an identifiable author and must not have been copied.**[939] The popular 1900 UK House of Lords case of *Walter v Lane*[940] addressed the meaning of the term 'author' and the subsequent need to protect the originality — that is, the labour, skill and experience — of a published author. The facts of this case are as follows: between 1896 and 1898, newspaper reporters used shorthand to notate five public lectures given by Lord Rosebery.[941] Importantly, Rosebery L had not previously reduced these lectures to a tangible form, and he made no claim to copyright during the legal proceedings.[942] It was for this reason that it was later suggested that precedent from this case be restricted to scenarios where reduction to material form had not already occurred.[943] The shorthand notes were used by *The Times* reporters to transcribe the speeches verbatim, which were subsequently edited and published. Prior to 1899, *The Times* reporters had formally assigned the copyright in the newspaper articles to Walter (the appellant), who was their employer.

---

[939] *London Press* (n 447) 608–9 (Peterson J), applied in *Robinson v Sands & McDougall Pty Ltd* (n 837) 132–3; *Sands & McDougall Pty Ltd v Robinson* (n 212), 52; *Macmillan* (n 829) 121 (Atkinson L); *Victoria Park* (n 38) 511 (Dixon J); *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 291; *Computer Edge Pty Ltd v Apple Computer Inc* (n 38) 182 (Gibbs CJ); *Autodesk Inc v Dyason* (n 743) 347 (Dawson J); *Bookmakers' Afternoon Greyhound Services Ltd v Wilf Gilbert (Staffordshire) Ltd* [1994] FSR 723, 731; *Baillieu v Australian Electoral Commission* (1996) 63 FCR 210, 222–3 (Sundberg J); *Data Access Corporation v Powerflex Services Pty Ltd* (n 725) 16 [22] (Gleeson CJ, McHugh, Gummow and Hayne JJ); *Desktop Marketing* (n 44) 517 [86], 521 [106], 529 [147], 532 [160(2)] (Lindgren J); 580 [363], 585 [379] (Sackville J); *Elwood Clothing Pty Ltd v Cotton On Clothing Pty Ltd* (2008) 76 IPR 83, 88 [19] (Gordon J); *IceTV* (n 38), 474 [33] (French CJ, Crennan and Kiefel JJ).

[940] (n 212).

[941] Ibid 539.

[942] Ibid 540.

[943] *Robertson v Lewis* [1976] RPC 169, 175 (Cross J) ('*Robertson*').

A book was published in 1899 by Lane, the respondent, containing reproductions of Lord Rosebery's speeches and additional notes.[944] The respondent admitted that the reproduction of the speeches had been copied from the reports in *The Times*.[945] Of issue was whether Walter was entitled to copyright in the newspaper articles. If so, the question was whether the established copyright had been infringed by Lane through the publication of the book.[946] Halsbury LC stated:

> If the producer of such a book can be an author within the meaning of the Act, I am unable to understand why the labour of reproducing spoken words into writing or print and first publishing it as a book does not make the person who has so acted as much an author as the person who writes down the names and addresses of the persons who live in a particular street.[947]

Walter argued that originality was satisfied through SOTB, and that no literary skill was required in the creation of the reports.[948] Lane's counter-argument was that for copyright to subsist, something more than the mere notation of a speaker's words must occur: 'Copyright has never been allowed in cases where no independent labour has existed'.[949]

The House of Lords considered whether the actions of the newspaper reporters in transcribing the lectures given by Lord Rosebery constituted authorship. They rejected the reasoning of the Court of Appeal (Chancery Division),[950] instead finding that the reporters could be considered individual authors under the definition of the *Copyright Amendment Act 1842*.[951] The reason for this pertained to the labour and skill demonstrated in the authorship of the reporters' transcription. The reporters' skill in transcription was distinguished by James LJ as being something more than a mechanical process because it: 'represents more than mere transcribing or writing from dictation … even amongst professional reporters many different degrees of skills exist'.[952] Originality was satisfied due to the reporters' 'brains and handiwork'.[953]

---

[944] *Walter v Lane* [1900] (n 212) 540.
[945] Ibid.
[946] Ibid 550 (Davey L).
[947] Ibid 546.
[948] Ibid 542.
[949] Ibid 543.
[950] *Walter v Lane* [1899] 2 Ch 749.
[951] *Walter v Lane* [1900] (n 212) 546.
[952] Ibid 554 (James L).
[953] Ibid 559 (Brampton L).

Halsbury LJ noted that originality was not stipulated as a subsistence requirement under the *Copyright Amendment Act 1842*, but copyright was found in the newspaper articles because of the importance of protecting the authors' skill, labour and expense.[954] Davey LJ enunciated this principle,[955] adding: 'it is a sound principle that a man shall not avail himself of another's skill, labour and expense by copying the written product thereof'.[956] Subsequently, the decision of the Court of Appeal[957] was reversed and an injunction against the book publication was made perpetual.[958]

Likewise, the 1917 High Court case of *Sands & McDougall v Robinson*[959] considered the concept of authorship and its relationship to originality. Here, the appellant argued that the respondent's map, which had been created by reference to other maps, could not be the subject of copyright because it lacked 'inventive originality' (a requisite under patent law). This argument was submitted on the incorrect basis that the term 'original' was a concept that had been newly established in 1911, instead of its codification for the first time in statute.[960]

The High Court rejected that novelty was required for originality,[961] thus decisively distinguishing copyright from patent. While being narrowed and focusing on an author's efforts, the originality requirement in the *Copyright Act 1911*[962] did not depart in any way from English precedent. Originality was to be assessed by questioning whether a work had **originated from an author**; that is, that an author had not engaged in copying from another.[963] Issacs J found that the appellant's argument:

> overlooks the obvious fact that in copyright law the **two expressions 'author' and 'original work' have always been correlative**; the one connotes the other, and there is no indication in the Act that the Legislature intended to depart from the accepted signification of the words as applied to the subject matter. Indeed, the circumstance of reciprocal connotation is the key to the meaning of the enactment. We find in the Oxford Dictionary,

---

[954] Ibid 545 (Earl of Halsbury LC), 552 (Davey L), 559 (Brampton L).
[955] Ibid 551 (Davey L).
[956] Ibid 552 (Davey L).
[957] *Walter v Lane* [1899] (n 950).
[958] *Walter v Lane* [1900] (n 212) 562 (Earl of Halsbury LC).
[959] *Sands & McDougall v Robinson* (n 212).
[960] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 158 [85] (Finkelstein J).
[961] *Sands & McDougall Pty Ltd v Robinson* (n 212) 53 (Issacs J), affirming *London Press* (n 38).
[962] (n 752).
[963] *Sands & McDougall Pty Ltd v Robinson* (n 212) 52 (Issacs J).

> vol. I., p. 571, col. 1, 'author' defined as 'the person who originates or gives existence to anything'.[964]

As has been contested in modern database cases, the notion of the identity of the author who gave existence to a work was disputed in the extraordinary 1927 case of *Cummins v Bond*.[965] There, Miss Cummins was a well-respected medium and Mr Bond was her client. In the defendant's presence, the plaintiff had conducted a séance, automatically transcribing a work to paper, the content of which was established to be the words of an ancient being.[966] The defendant argued that his contribution to the work was made through a process of telepathy.[967] At issue was whether any person could be considered the author. Both parties wished for the authorship of the work to be attributed to a non-living being.[968] In the alternative, the defendant argued that he should be held to be a joint author due to his silent 'contribution'.[969]

In accordance with the *Copyright Act* 1911,[970] the court found that a non-living being could not claim copyright in the work.[971] Despite this, the court mysteriously suggested in obiter that the 'true originator' of the work was 'no longer inhabiting this world'.[972] The notion that the defendant could be a joint author was rejected – rather, he was 'labouring under a complete delusion' in arguing so, due to lack of evidence and his questionable conduct.[973] It was suggested that the non-living being ought to be regarded as a joint author; however, this was precluded due to jurisdiction being limited to the living.[974] This case affirmed the need for a human author, as relevant to modern databases.

A High Court case which considered the extent of authorship was *Victoria Park*.[975] This 1937 case concerned a racecourse display board, which displayed 'names and figures' of both racing horses and scratchings.[976] It was argued that copyright subsisted in this board

---

[964] Ibid 55.
[965] *Cummins v Bond* [1927] 1 Ch 167.
[966] Ibid 172–3 (Eve J).
[967] Ibid 174 (Eve J).
[968] Ibid 172 (Eve J).
[969] Ibid 174 (Eve J).
[970] (n 752).
[971] *Cummins v Bond* (n 965) 173 (Eve J).
[972] Ibid.
[973] Ibid 175 (Eve J).
[974] Ibid 173 (Eve J).
[975] *Victoria Park* (n 38).
[976] Ibid 511 (Dixon J).

as authored by the corporation. The High Court rejected this argument, instead reaffirming that copyright protected the originality of the expression of thought.[977] The Court affirmed the importance of authorship originating from a 'human agency' rather than a corporation and observed:

> Perhaps from the facts a presumption arises that the plaintiff company is the owner of the copyright but, **as corporations must enlist human agencies to compose literary, dramatic, musical and artistic works, it cannot found its title on authorship.**[978]

There was, however, no need to show 'literary or other skill or judgement.'[979] The Court also emphasised the idea/expression dichotomy in relation to the board, stating that an author who records facts does not gain exclusive proprietary rights over the facts themselves, but over the expression of those facts. [980] These principles remain relevant to modern databases.

The notion of a database not requiring literary skill or other judgement was also explored in the 1959 case of *Football League v Littlewoods.*[981] This was an infringement dispute about a chronological list of football fixtures. The compilation process was described as 'automatic' but it nevertheless requiring 'painstaking accuracy'.[982] It was argued that the court should consider only the process of formulation from the fixtures list. This would assess the authorial skill and effort in formulating the chronological list from a pre-existing list, instead of the process underlying the creation of the fixtures list. The court ultimately rejected this argument, instead focusing upon the **authorial intent of the final work**, which involved an examination of all the acts that went towards the creation of the chronological list.[983]

Emphasis on authorial intent was significant because it required consideration of the preparation that went towards the final creation of the work. This paradigm has sometimes been overlooked in modern database cases, which has led to a failure of subsistence. It was found that it had been necessary for the author to firstly create the fixtures list to the highest

---

[977] Ibid 498 (Latham CJ).
[978] Ibid 510 (Dixon J).
[979] Ibid 511 (Dixon J).
[980] Ibid 498 (Latham CJ).
[981] (n 38).
[982] Ibid 649.
[983] Ibid 654 (Upjohn J).

possible standard, from which the chronological list was subsequently formulated.[984] The Court stated 'for copyright to subsist in a compilation it must be shown that **sufficient labour**, **skill**, **judgment** or **ingenuity** has been brought to bear in its creation.[985] This criteria was found in the fixtures list, so copyright subsisted.[986]

Similarly, in the 1982 infringement case of *Mirror Newspapers*,[987] the Queensland Supreme Court undertook a detailed assessment of the preparations that were necessary to produce a list of bingo numbers.[988] The author demonstrated '**mental effort** and **industry**'[989] and '**sufficient skill** and **ingenuity'**,[990] so copyright subsisted.

In relation to authorship of a compilation, the 1989 case of *Waterlow Publishers Ltd v Rose*[991] specifically defined an author to be 'the person who gathers or organises the collection of material and who selects, orders and arranges it'.[992] Authorship was found not to require novelty, inventiveness or creativity in the creation of a compilation.[993] Rather, it was the method of the author's expression of the material and not the material itself which is relevant.[994] The case of *Harpur v Lambourne*[995] emphasised this principle, finding that even pirated material may attract copyright.[996] What was required was sufficient **knowledge** and **skill** in the categorisation of the data, despite being compiled from pirated material.[997]

Similarly, the case of *Data Access Corporation v Powerflex Services*[998] stated that the issue was whether the work **emanate[d] from the person claiming to be its author**, in the sense that **he has originated it or brought it into existence and has not copied it from**

---

[984] Ibid 654 (Upjohn J).
[985] Ibid 651 (Upjohn J).
[986] Ibid 654 (Upjohn J).
[987] *Mirror Newspapers* (n 841).
[988] Ibid.
[989] Ibid 309 (Connolly J).
[990] Ibid 309–10 (Connolly J), affirming *London Press* (n 447) 608; *Victoria Park* (n 38) 498, 511; *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 292; and *DP Anderson and Company Ltd v Lieber Code Company* [1917] 2 KB 469.
[991] (1989) 17 IPR 493.
[992] Ibid 500 (Slade LJ). This was applied in *Desktop Marketing Systems Pty Ltd v Telstra Corporation Ltd* (n 44) 557 [272].
[993] *Walter v Lane* [1900] (n 212); *London Press* (n 447); *Sands & McDougall Pty Ltd v Robinson* (n 212); *Victoria Park* (n 38) 511; *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212).
[994] *Harpur v Lambourne* (1999) 45 IPR 213 [60] (Bergin J), citing *A-One Accessory Imports* (n 800) 487 (Drummond J).
[995] Ibid.
[996] Ibid [60] (Bergin J), citing *A-One Accessory Imports* (n 800) 487 (Drummond J).
[997] *Harpur v Lambourne* (n 994) [81] (Bergin J).
[998] (n 725).

another'.[999] It also cited the work of a prominent Australian IP professor and affirmed the correlative relationship between originality and authorship.[1000]

4.5.4 Moral Rights

When authorship subsists, it also bestows moral rights, which may exist in the work or to its author under *The Act*.[1001] Moral rights will be discussed in this study because they pertain to an author's personhood and are, therefore, unique, excluding intermediaries and end-users.[1002] *Berne* prescribes moral rights to creators.[1003] These rights have their origins in civil law, such as the French and Continental IP system,[1004] which is rooted in Hegel's personality theory (see 2.1.2).[1005] There is a focus upon the work being a personal expression of the author,[1006] with varying civil law interpretations, such as the 'work of the mind' ('*an oeuvre d l' esprit*') or 'author's law' ('*droit d'auteur'*) from France, a 'person's intellectual creation' ('*persönliche geistige Schöpfungen*') from Germany and creative character from Italy.[1007] However, moral rights in Australia appear to mostly be overlooked or ignored, particularly in relation to innovative works such as databases. Introduced in 2000,[1008] they are unique when compared to the rest of copyright law in that they centre upon an individual[1009] author's personal, non-economic interests.

There is also an underlying notion of fairness in moral rights, having recently been described in copyright policy as an 'expression of what is regarded as "fair"'.[1010] This notion of

---

[999] Ibid 16 [22] (Gleeson CJ, McHugh, Gummow and Hayne JJ).
[1000] See Sam Ricketson, *The Law of Intellectual Property* (Law Book Company, 2nd ed, 1984) 83.
[1001] *The Act* (n 168) s 192(1).
[1002] Roberta R Kwall, 'Commentary on "The Concept of Authorship in Comparative Copyright Law": A Brief Illustration' (2003) 52 *DePaul Law Review* 1229, 1229; Ginsburg, 'The Concept of Authorship in Comparative Copyright Law' (n 874) 1068.
[1003] *Berne* (n 88). Also see Brian Fitzgerald, 'Theoretical Underpinning of Intellectual Property: "I am a Pragmatist But Theory is my Rhetoric"' (2003) 16 *Canadian Journal of Law and Jurisprudence* 179, 182–3.
[1004] See, eg, Susan Liemer, 'On the Origins of le Droit Moral: How Non-Economic Rights Came to be Protected in French IP Law' (2011) 19(1) *Journal of Intellectual Property Law* 65; Aikaterini Pilichou, *Originality Under EU Copyright Law* (LLM Thesis, International Hellenic University, Thessaloniki, Greece, 2017) 9–10.
[1005] Hugh C Hansen, 'International Copyright: An Unorthodox Analysis' (2013) 23 *Fordham Intellectual Property Media & Entertainment Law Journal* 445, 448.
[1006] Thomas Margoni, 'The Harmonisation of EU Copyright Law: The Originality Standard' (29 June 2016) <https://ssrn.com/abstract=2802327> 6.
[1007] Pilichou (n 1004) 9; Andreas Rahmatian, 'Originality in UK Copyright Law: The Old "Skill and Labour" Doctrine Under Pressure (2013) 44(1) *International Review of Intellectual Property and Competition Law* 4, 17.
[1008] *Copyright Amendment (Moral Rights) Act 2000* (Cth).
[1009] *The Act* (n 168) s 190.
[1010] Australian Government Productivity Commission, *Intellectual Property Arrangements* (n 407) 119.

authorial fairness is also often overlooked. The overall aim underpinning this fairness is to protect an author's reputation by allowing them to control how their authorship is perceived by the world. Moral rights, therefore, seek to prevent the altering, damage or destruction of a work that causes prejudice towards an author.[1011] Under *The Act*, an author is granted three rights: attribution of authorship;[1012] against false attribution;[1013] and integrity of authorship.[1014]

When a court considers an action for infringement under these moral rights provisions, two presumptions are made. The first is that copyright is presumed to subsist in the work if the defendant does not raise this as an issue.[1015] The second is that if copyright is presumed or proven to have subsisted at the time of the alleged infringement, then moral rights are also presumed to have existed.[1016] Each of the three rights shall be discussed.

4.5.4.1 The Right of Attribution

The right of attribution grants an author personal attribution in respect of their work.[1017] *The Act* outlines certain acts in a literary work, which propound authorship attribution.[1018] The most relevant acts relating to databases as literary works include: reproducing the work in material form;[1019] publishing the work;[1020] communicating the work to the public;[1021] and making an adaptation of the work.[1022] Duration of attribution continues until copyright ceases to subsist in the work.[1023]

Infringement of attribution is defined as the doing or authorising of one of these attributable acts without the identification of the author.[1024] The identification of authorship may be made through any 'reasonable form of identification'[1025] and must be 'clear and reasonably

---

[1011] Ibid 104, 119.
[1012] *The Act* (n 168) pt IX div 2.
[1013] Ibid pt IX div 3.
[1014] Ibid pt IX div 4.
[1015] Ibid s 195AZD.
[1016] Ibid s 195AZE.
[1017] Ibid s 193(1).
[1018] Ibid s 193(2).
[1019] Ibid s 194(1)(a).
[1020] Ibid s 194(1)(b).
[1021] Ibid s 194(1)(d).
[1022] Ibid s 194(1)(e).
[1023] Ibid s 195AM(3).
[1024] Ibid s 195AO.
[1025] Ibid s 195(1).

prominent'.[1026] To be 'reasonably prominent', identification must occur on each reproduction of the literary work and in such a way which notifies the reader of the author's identity.[1027] An author is permitted to stipulate the way in which they wish to be identified and if it is reasonable, their stipulation must be followed.[1028] There is one defence to the infringement of this right. This is, that no infringement shall be found if it was reasonable in all the circumstances not to identify the author.[1029] *The Act* outlines certain matters to consider in relation to this defence.[1030]

4.5.4.2 The Right Against False Attribution

The right against false attribution[1031] states that attributors are prohibited from the following acts of false attribution[1032] in a literary work:[1033] to insert/affix a person's name to a work or a reproduction that:

1. Falsely implies that they are the author of the work;[1034]
2. Falsely implies that the work is an adaptation by the person;[1035]
3. To deal with the work or its affixed name, if the attributor knows that the person is not an author, or the work is not an adaptation;[1036]
4. To deal with a reproduction of the work or its affixed name, if the attributor knows that the person is not an author, or the work is not an adaptation;[1037]
5. To communicate the work to the public as being a work or adaptation by a person, if the attributor knows that they are not the author, or the work is not their adaptation;[1038]

It is also an act of false attribution of authorship for a person to alter a literary work[1039] and to:

[1026] Ibid s 195AA.
[1027] Ibid s 195AB.
[1028] Ibid ss 195(2)(a)-(b).
[1029] Ibid s 195AR(1).
[1030] Ibid s 195AR(2).
[1031] Ibid s 195AC(1).
[1032] Ibid s 195AC(2).
[1033] Ibid s 195AD.
[1034] Ibid s 195AD(a)(i).
[1035] Ibid s 195AD(a)(ii).
[1036] Ibid s 195AD(b).
[1037] Ibid s 195AD(c).
[1038] Ibid s 195AD(d).
[1039] Ibid s 195AG(1).

1. Deal with the altered work as though it was the unaltered work of the author.[1040] The exception to this is if the effect of the alteration is insubstantial;[1041] or the alteration was required in accordance with the law;[1042]

2. Deal with an altered reproduction of the work as though it was an unaltered reproduction of the author, if the attributor does not know that it is the unaltered work or a reproduction of it;[1043]

The duration of this right continues until copyright ceases to subsist in the work.[1044] Infringement against false attribution is defined as the doing of one of acts described above.[1045] There is a defence available against this right and it is outlined at s 195AS. If the derogatory treatment or other action against the right of integrity of authorship is found to be reasonable, then there is no infringement.[1046] To satisfy this, the defence must establish that it was reasonable in all the circumstances to subject the work to that treatment.[1047] Certain matters are outlined that may be taken into consideration by the court when relying upon this defence.[1048]

4.5.4.3 The Right of an Author's Integrity of Authorship

This right is outlined in s 195AI. It is the 'right not to have the work subjected to derogatory treatment'.[1049] Derogatory treatment is defined as doing anything to a literary work which results in the 'material distortion of, the mutilation of, or a material alteration to, the work that is prejudicial to the author's honour or reputation'.[1050] It is also defined as any other activity in relation to the work that is prejudicial to the author's honour or reputation.[1051]

Infringement of this right is stated as the doing of, or the authorisation of, subjecting a work to derogatory treatment.[1052] In relation to literary works, derogatory treatment may occur through: (a) reproduction in material form; (b) publishing; (c) performing in public; (d)

[1040] Ibid s 195AG(1)(a).
[1041] Ibid s 195AG(2)(a).
[1042] Ibid s 195AG(2)(b).
[1043] Ibid s 195AG(1)(b).
[1044] Ibid s 195AM(3).
[1045] Ibid s 195AP.
[1046] Ibid s 195AS.
[1047] Ibid s 195AS(1).
[1048] Ibid s 195AS(2).
[1049] Ibid s 195AI(2).
[1050] Ibid s 195AJ(a).
[1051] Ibid s 195AJ(b).
[1052] Ibid s 195AQ(2).

communication to the public; and (e) adaptation.[1053] The duration of the right of integrity of authorship in a work continues until copyright ceases to subsist in the work.[1054]

When considering the infringement of moral rights, the court may take into consideration certain matters, which are outlined at s 195AVA. These include the extent to which the infringement could have been prevented[1055] and the nature of the relationship between those parties involved.[1056]

Remedies that the court may grant for a finding of infringement include: (a) an injunction;[1057] (b) damages for loss incurred;[1058] (c) a declaration that the author's moral rights have been infringed;[1059] (d) an order that a public apology be issued by the defendant;[1060] (e) an order that the false attribution of authorship or derogatory treatment be removed or reversed.[1061]

Since the introduction of moral rights in Australia, there have been very few cases involving their assertion.[1062] There have been no moral rights cases involving databases as a literary work. This may be due to a lack of awareness on the part of some authors. The general lack of utilisation of moral rights may also be due to a lack of initiation within scientific discourse, as occurs in the US, where moral rights are not applicable to any literary works.[1063] The issue of moral rights must be weighted with importance, particularly for future copyright policymakers when striving to achieve balance between proprietary rights on one hand and moral rights on the other.[1064] Due to limited Australian judicial application, no further analysis shall occur about moral rights in this study.

[1053] Ibid s 195AQ(3).
[1054] Ibid s 195AM(2).
[1055] Ibid s 195AVA(a).
[1056] Ibid s 195AVA(b).
[1057] Ibid s 195AZA(1)(a).
[1058] Ibid s 195AZA(1)(b).
[1059] Ibid s 195AZA(1)(c).
[1060] Ibid s 195AZA(1)(d).
[1061] Ibid s 195AZA(1)(e).
[1062] See, eg, *Corby and Others v Allen & Unwin Pty Ltd* (2013) 297 ALR 761, 781–4 (Buchanan J); *Perez v Fernandez* [2012] FMCA 2 [90]-[110] (Driver FM).
[1063] Adeney, 'Research Collaborations and "Authorship"' (n 379) 135.
[1064] Gervais, 'The Compatibility of the Skill and Labour Originality Standard with the Berne Convention and the TRIPS Agreement' (n 423) 78.

4.6 Subsistence, Duration & Copyright Infringement

Successfully establishing subsistence is vital to database litigation. Otherwise, copyright fails and infringement cannot be pursued. When copyright subsists in published databases, it currently lasts for the life of the author plus 70 years after the end of the calendar year in which the work was first published.[1065] In cases of joint authorship, copyright protection is calculated from the date of the last surviving author.[1066] The duration of copyright for unpublished databases subsists until the end of 70 years after the end of the calendar year in which the database was first published or exposed for public sale.[1067]

The grant of a post-mortem duration of copyright protection began with the *Copyright Amendment Act 1842*.[1068] When it was introduced, it lasted for life of the author plus seven years, or for a total of 42 years from the first publication; whichever was longer.[1069] Since then, the duration of copyright has constantly expanded, in compliance with various expansive revisions to international treaties.[1070] This has largely been due to influence from overseas jurisdictions, such as the bilateral *Australia-United States Free Trade Agreement 2005*.[1071] A major revision to the duration of copyright protection in Australia subsequently occurred in 2005, through the *Copyright Legislation Amendment Act 2004* (Cth). Terms of copyright protection were expanded for all works, with retrospective coverage of existing works.

Infringement of a database as an original literary work occurs when a person who is not the author/owner of the work exercises any of the author/owner's exclusive rights without a license or authority;[1072] or they knowingly and without authorisation sell, distribute or exhibit the subject matter.[1073] The exclusive bundle of rights belonging to an author/owner are outlined in 31(1) of *The Act*. In relation to databases, they include the right to:

1. Reproduce the work in a material form;[1074]

[1065] *The Act* (n 168) s 33(2).
[1066] Ibid s 80.
[1067] Ibid s 33(3).
[1068] *Copyright Amendment Act 1842* (n 682).
[1069] Ibid.
[1070] Chapdelaine (n 420) 34.
[1071] Came into force 1 January 2005, as amended by the *Copyright Legislation Amendment Act 2006* (Cth).
[1072] *The Act* (n 168) s 36.
[1073] Ibid s 38.
[1074] Ibid s 31(1)(a)(i).

2. Publish the work;[1075]

3. Communicate the work to the public;[1076]

4. Make an adaptation of the work.[1077]

Adaptation is defined as 'an arrangement or transcription of the work'.[1078] Note, however, that the adaptation must meet the originality requirement.

When any or all these rights are infringed, it provides grounds for an author/owner to commence litigation. Having discussed the criteria necessary for subsistence of copyright under *The Act*, the next section will provide a summary of precedent examined.

4.7 Summary of Precedent

In conclusion, this chapter has analysed the statutory evolution of the copyright subsistence criteria by discussing key precedent from the 18th to 20th centuries. It has addressed the third question of this study by discussing how, over the last 200 years, the Australian copyright subsistence framework pertaining to originality and authorship has judicially evolved to regulate the protection of databases.

It found that the originality standard that the English judicature of the 1800s and early 1900s applied was SOTB. In considering the judicial application of originality and authorship in English precedent and early Australian cases, the following principles and trends were apparent:

- Throughout early jurisprudence, originality and authorship were considered against a diverse range of databases as literary work compilations. Such examples included: a poetry anthology;[1079] sea charts;[1080] a road book;[1081] an East-India calendar;[1082] a

[1075] Ibid s 31(1)(a)(ii).
[1076] Ibid s 31(1)(a)(iv).
[1077] Ibid s 31(1)(a)(vi).
[1078] Ibid (Cth) s 10.
[1079] *Mason v Murray* [1777] Dick 536; 21 ER 378.
[1080] *Sayer v Moore* (n 192).
[1081] *Cary v Faden* (n 212); *Cary v Longman & Rees* (1801) 1 East 358; 102 ER 138–40; *Cary v Kearsley* (n 803).
[1082] *Matthewson v Stockdale* (n 212).

court calendar;[1083] a cookbook;[1084] dictionaries;[1085] an encyclopedia;[1086] a science textbook;[1087] a shipping list;[1088] statistics about coal;[1089] a London street directory;[1090] a business directory;[1091] shorthand codes;[1092] codes for telegraphs;[1093] a pamphlet;[1094] stock exchange data;[1095] a map;[1096] a real estate contract;[1097] a textbook;[1098] a séance transcription;[1099] racing guides;[1100] a racecourse display board;[1101] a pocket diary;[1102] football fixtures;[1103] a birth/death list;[1104] betting coupons;[1105] a compilation of trust deeds;[1106] a list of bingo numbers;[1107] a set of accounting forms;[1108] a catalogue about motorbike parts;[1109] a compilation pertaining to weight-loss programs;[1110] a directory for the marine industry;[1111] and car descriptions.[1112]

- Early precedent was initially grounded in unfair competition principles to prevent the copying or 'pirating' of an author's work. The underlying aim led to consideration of the '**labour'** and **'skill'** invested by an author and the corresponding

---

[1083] *Longman v Winchester* (n 761).
[1084] *Rundell v Murray* (1821) Jacob 311; 37 ER 868.
[1085] *Barfield v Nicholson* (1824) 2 Siml St 1; 57 ER 245; *Spiers v Brown* (n 736).
[1086] *Mawman v Tegg* (n 762).
[1087] *Jarrold v Houlston* (1857) 3 K&J 708; 69 ER 1294.
[1088] *William Maclean and Ors v Andrew Moody* (1858) 20 Dunl (Ct of Sess) 1154.
[1089] *Scott v Stanford* (n 762).
[1090] *Morris v Ashbee* (n 212).
[1091] *Morris v Wright* (n 212).
[1092] *Pitman v Hine* (1884) 1 TLR 39 (QB 1994).
[1093] *Ager v Peninsular and Oriental Steam Navigation Company* (1884) LR 26 Ch D 637; *Ager v Collingridge* (1886) 2 TLR 291; *DP Anderson & Company Ltd v Lieber Code Company* (n 990).
[1094] *TM Hall & Company v Whittington & Company* (n 761).
[1095] *Exchange Telegraph Company Ltd v Gregory and Company* [1896] 1 QB 147 (CA 1895).
[1096] *Sands & McDougall v Robinson* (n 212).
[1097] *Real Estate Institute of New South Wales v Wood* (n 828).
[1098] *MacMillan* (n 829).
[1099] *Cummins v Bond* (n 965).
[1100] *Canterbury Park Racecourse Company Ltd v Hopkins* (1931) 49 WN(NSW) 27; *Mander v O'Brien* [1934] SASR 87; *Winterbottom for the Western Australian Turf Club v Wintle* (1947) 50 WALR 58.
[1101] *Victoria Park* (n 38).
[1102] *GA Cramp & Sons Ltd v Frank Smythson Ltd* (n 212).
[1103] *Football League Ltd v Littlewoods Pools Ltd* (n 38).
[1104] *John Fairfax & Sons Pty Ltd v Australian Consolidated Press Ltd* (1960) SR(NSW) 413.
[1105] *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212).
[1106] *O'Brien v Komesaroff* (1982) 150 CLR 310.
[1107] *Mirror Newspapers* (n 841).
[1108] *Kalamazoo* (n 840).
[1109] *A-One Accessory Imports* (n 800).
[1110] *Skybase Nominees Pty Ltd v Fortuity Pty Ltd* (n 195).
[1111] *Harpur v Lambourne* (n 994).
[1112] *T R Flanagan Smash Repairs Pty Ltd v Jones* (n 800).

unfair benefit by the second-comer.[1113] Such cases reflected the social context of the time, involving an unintentional assessment of the potential public benefits conferred through the granting of this right.[1114] They affirmed a need for balancing the private rights of authors against the public benefits of accessing the work.

- Throughout the 18th to 20th centuries, originality was determined through an examination of the degree to which an individual author demonstrated **'labour', 'skill'** and sometimes **'expense'** in producing the work.[1115] Each work turned on its facts and an author was found to be the person who 'originated' or created the original work by reducing it to material form.[1116]

- Throughout the 1800s, a gradual shift emerged away from unfair competition principles and the concept of pirating. Concurrently, the subsistence criteria were considered against a whole work, which could include preparatory work and consideration of authorial intent.[1117]

- From the early 1900s onwards, a more detailed examination of authorial labour and skill occurred. A likely catalyst for this was the first codification of originality in statute, which was underpinned by differing policy justifications than those which emerged through the judicature.[1118] As discussed, originality was codified in English legislation in 1911 and Australia in 1912.[1119]

- The effects of the codification of originality as its own right were subtle, but they became more noticeable in common law jurisprudence as time progressed. In 1916,

---

[1113] Bowrey, 'On Clarifying the Role of Originality and Fair Use in 19th Century UK Jurisprudence' (n 677) 3.

[1114] Ibid.

[1115] *Cary v Faden* (n 212); *Matthewson v Stockdale* (n 212) 105–6 (Erskine L); *Lewis v Fullarton* (n 779) 1081 (Langdale L); *Kelly v Morris* (n 212) 702-3; *Morris v Ashbee* (n 212) 40-1 (Sir G M Giffard VC); *Morris v Wright* (n 212) 286; *Walter v Lane* (n 212) 552 (Davey L); *Sands & McDougall Pty Ltd v Robinson* (n 212) 55 (Issacs J); *Victoria Park* (n 38) 511 (Dixon J); *GA Cramp & Sons Ltd v Frank Smythson Ltd* (n 212) 338 (Macmillan L); *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 275 (Reid L); *Kalamazoo* (n 840) 120.

[1116] *Sands & McDougall Pty Ltd v Robinson* (n 212) 55 (Isaacs J); *Express Newspapers Plc v News (UK) Ltd* [1990] 1 WLR 1320.

[1117] *Football League Ltd v Littlewoods Pools Ltd* (n 38) 654 (Upjohn J); *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 287–288 (Hodson L), 278 (Reid L), 290 (Devlin L), 292–3 (Pearce L).

[1118] Bowrey, 'On Clarifying the Role of Originality and Fair Use in 19th Century UK Jurisprudence' (n 677) 3.

[1119] The Schedule of the *Copyright Act 1912* (Cth) contained the *Copyright Act 1911* (UK) (1 & 2 Geo 5, ch 46).

for the first time in history, **originality became synonymous with authorship,** as articulated in *London Press.*[1120] Gradually the concepts of originality and authorship were deemed correlative.[1121]

- The focus shifted from the potential public policy benefits/detriments of pirating, onto precise establishment of an individual author's labour. This resulted in an unbalancing between public and private rights, with stronger favouring of private authorial rights through the control of and access to works. In correlation with this began a subtle but increasingly atomistic judicial process of analysing the efforts undertaken by authors in the compilation of their works.

- Apart from the divergence from unfair competition principles, another policy shift emerged. Consideration ceased about whether the alleged pirated use of a work was within the public interest. Instead, in later jurisprudence, there was a wider distinction between the establishment of subsistence and an examination of infringement, through analysis of the facts.[1122] So emerged a loss of balance in the discourse between any potential public interests from pirating a work, in favour of the enforcement of an author's rights.[1123] This reflected the underlying economic foundation of copyright which dominated the 20th century, premised on tangible restrictions in supply.[1124]

- Correlative to this was strengthening of the concept of 'authorship', which was demonstrated by the fact that very few 18th to 20th century cases challenged authorship or questioned precisely who authored a work. The authorship construct was, instead, solidified through the assertion of private interests, control and ownership in favour of any potential public interest through access to these works.[1125] This process has aptly been termed 'author-oriented' reasoning, with an exclusive focus upon the author-to-work connection through key concepts.[1126]

[1120] *London Press* (n 447).
[1121] *Sands & McDougall Pty Ltd v Robinson* (n 212) 55 (Issacs J); *IceTV* (n 38) 474 [33]-[34] (French CJ, Crennan and Kiefel JJ).
[1122] Bowrey, 'On Clarifying the Role of Originality and Fair Use in 19th Century UK Jurisprudence' (n 677) 16.
[1123] Ibid 17.
[1124] Trosow, 'The Illusive Search for Justificatory Theories' (n 184) 219.
[1125] Jaszi (n 876) 457.
[1126] Craig, 'Locke, Labour and Limiting the Author's Right' (n 100) 7.

These include: Romantic authorship principles, originality, the notion of independent works/private property and natural rights.[1127]

- Throughout the 20th century, inconsistency was demonstrated in the application of SOTB required for copyright to subsist in some works. The inconsistency pertained to the degree[1128] that was considered sufficient.[1129] It has therefore been argued:

> It is difficult, if not impossible, to define with precision what is and is not required to meet the relevant [originality] standard in any particular jurisdiction, although some works will clearly be within the standard while others will be questionable. What can be done is to identify the general standard within a particular jurisdiction and determine where the standard is on the spectrum [of originality]; this will provide some general guidance on the question.[1130]

- A precise threshold measurement for the authorial '**labour, skill** and **expense**' was not able to be precisely defined. Instead, SOTB was a 'question of degree' and every case was determined on its own facts,[1131] as demonstrated throughout 20th century jurisprudence.

- Throughout time, a strong emphasis emerged upon the private rights of databases, which focused on authorial entitlements regarding exclusive rights. In examining the jurisprudence, the private entitlements offered were increasingly tightened to cater for an author's economic investment in a work. In stringently focusing on the proprietary (commercial) investment of a database, there was a general expansion of copyright to cater to private (authorial) rights.[1132]

[1127] Ibid.

[1128] *MacMillan* (n 829) 117–18; *Football League Limited v Littlewoods Pools Ltd* (n 38) 651; *GA Cramp & Sons v Frank Smythson Ltd* (n 212) 335 (Simon LC); *Kalamazoo* (n 840) 120.

[1129] Gosnell (n 18) 643.

[1130] Davison, *The Legal Protection of Databases* (n 22) 17.

[1131] *Macmillan* (n 829) 113 [36] applied in *GA Cramp and Sons v Frank Smythson* (n 212) 335 (Simon L), 337 (Macmillan L), 340 (Porter L); *Football League Ltd v Littlewood Pools* (n 38) 651 (Upjohn J); *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 277–78 (Reid L); *Computer Edge Pty Ltd v Apple Computer Inc* (n 38) 182–3 (Gibbs CJ); *Milwell Pty Ltd v Olympic Amusements Pty Ltd* (n 212) 442 [17] (Lee, von Doussa & Heerey JJ); *Desktop Marketing* (n 44) 533 [160(7)] (Lindgren J), 593 [409] Sackville J.

[1132] Coombe, *The Cultural Life of Intellectual Properties* (n 920) 219–20; Coombe and Cohen (n 209) 1048; Lemley, 'Book Review' (n 105) 887–8; Zemer, *The Idea of Authorship in Copyright* (n 95) 73-4; Zemer, '"We-Intention" and the Limits of Copyright' (n 921) 99–100, citing Boyle, *Shamans, Software and Spleens* (n 60) 51–60.

- The parallel expansion of copyright duration for authors led to a conferral of perpetual authorship rights, as 'permanent and absolute' and to the exclusion of any potential public interest in works.[1133] In this way, copyright was used as a vehicle throughout the 20th century through which to assert private rights and ownership over any potential public interests in the use of works.

It was during the early 2000s where some commentators started to challenge the validity of SOTB.[1134] A partial catalyst for this were the changes overseas in relation to the standard of originality, with *Feist* occurring in 1991 and being declared 'deservedly famous',[1135] to the extent of being 'among the greatest opinions in all of US copyright history'.[1136] Another catalyst was the 1996 introduction of the *EU Directive*, which included a sui generis database right.[1137] It was argued by some commentators that Australia should have followed in the footsteps of its (very) northern (European) neighbours, by adopting a type of sui generis protection regime for databases.[1138]

With this context in mind, the judicial application of SOTB in early 21st century Australian cases will be considered in the next chapter, which will continue examining the third issue posited for analysis. The third question asks how, over the last 200 years, originality and authorship has judicially evolved to regulate the protection of databases. To achieve this, 5.2 onwards examines the judicial application of originality and authorship in 21st century Australian cases. This includes the landmark 2009 High Court decision of *IceTV* and later database cases. The precedent discussed in Chapter 5: is essential to understand because it underpins the central thesis which is analysed in Chapter 6:.

[1133] Lawrence Lessig, 'Copyright's First Amendment' (2001) 48(5) *UCLA Law Review* 1057, 1068.
[1134] See 5.2.
[1135] William W Fisher, 'Recalibrating Originality' (2016) 54(2) *Houston Law Review* 437, 439.
[1136] Joyce and Ochoa (n 646) 311.
[1137] Gervais, 'The Protection of Databases' (n 143) 1133; Newell, 'Discounting the Sweat of the Brow: Converging International Standards for Electronic Database Protection' (n 521) 112–15.
[1138] See generally, Gosnell (n 18).

CHAPTER 5: THE JUDICIAL APPLICATION OF ORIGINALITY AND AUTHORSHIP IN 21ST CENTURY AUSTRALIAN CASES

5.1 Introduction

Chapter 4: explained what the Australian copyright subsistence criteria are and contextualised originality and authorship precedent by examining their historical origins. It engaged in discussion about how the criteria pertaining to originality and authorship judicially evolved over the 18th to 20th centuries and how this is applicable to the protection of Australian databases. This chapter shall continue by examining the changes which have occurred to the judicial application of originality and authorship in the first years of the 21st century. In exploring this issue, precedent will be discussed which will be used to underpin the central thesis in Chapter 6:. This chapter, therefore, continues to address the third issue:

Issue 3 – Database Originality and Authorship in Australia

> 3. What are the Australian copyright subsistence criteria and over the last two-hundred years, how has originality and authorship judicially evolved to regulate the protection of databases?

To examine this, this chapter will firstly explore the application of originality and authorship in the database case of *Desktop Marketing*, by analysing the first instance and appeal decisions.[1140] Then the ramifications of the judicial application of originality and authorship in the 2009 landmark case of *IceTV*[1141] will be discussed.

[1140] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135); *Desktop Marketing v Telstra* (n 44).
[1141] *IceTV* (n 38).

Judicial Application of Originality and Authorship: Early 2000s

5.2.1 *Desktop Marketing*

Desktop Marketing[1142] was the first Australian case of significance regarding the judicial application of originality and authorship to databases in the 21st century.[1143] At first instance, Telstra Corporation (Telstra) alleged that telephone directories published between 1996 and 1998 had been copied without authorisation by a software marketing company called Desktop Marketing Systems Pty Ltd (Desktop).[1144] Desktop created three CD-ROM software products.[1145] They had obtained the data from Telstra's directories by engaging in a labour-intensive process, where many people re-typed the records into a database[1146] and changed it in various respects.[1147] The primary issue was whether copyright subsisted in Telstra's works.[1148] After undertaking an extensive analysis of English precedent,[1149] prior Australian cases[1150] and past legislation,[1151] the Court:

1. **Affirmed the idea/expression dichotomy**. No copyright subsisted in the facts displayed in any factual compilation[1152] but copyright subsisted in the form in which the facts were published.[1153] It was the author's expression of the facts that would attract copyright, not the facts themselves;[1154] and

2. Affirmed that SOTB originality subsisted if **sufficient 'intellectual effort', 'work' or 'expense'** was demonstrated in the selection or arrangement of the

---

[1142] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135).
[1143] Also see generally, Brian Fitzgerald and Cheranne Bartlett, 'Case Notes: Database Protection under Australian Copyright Law: Desktop Marketing Systems Pty Ltd v Telstra Corporation [2002] FCAFC 112' (2003) 7 *Southern Cross University Law Review* 308.
[1144] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 140 [19]–[20] (Finkelstein J).
[1145] Ibid.
[1146] Ibid 141 [25] (Finkelstein J).
[1147] Ibid 141–2 [26] (Finkelstein J).
[1148] Ibid 135 [1] (Finkelstein J).
[1149] Ibid 142–5 [29]-[41] (Finkelstein J).
[1150] Ibid 146–51 [50]–[64] (Finkelstein J). Cases referred to included: *Matthewson v Stockdale* (n 212) [51]; *Kelly v Morris* (n 212) [52]; *Morris v Ashbee* (n 212) and *Morris v Wright* (n 212) [53]; *Scott v Stanford* (n 762); *Ager v Peninsular & Oriental Steam Navigation Company* (n 1093); *Cox v Land & Water Journal Company* (1869) LR 9 Eq 324 [54]; *Walter v Lane* (n 212) [55]–[58]; *Leslie v J Young & Sons* (n 761) [62] and *GA Cramp & Sons Ltd v Frank Smythson Ltd* (n 212) [63].
[1151] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 145 [41] (Finkelstein J) citing the *Copyright Act 1912* (Cth), which in its Schedule contained the *Copyright Act 1911* (UK) (1 & 2 Geo 5, ch 46).
[1152] Ibid 151 [46] (Finkelstein J).
[1153] Ibid.
[1154] See Chapter 4:.

facts.[1155] The author was required to demonstrate some '**degree of creativity'** in the selection and arrangement of data;[1156] although it was difficult to determine whether this had to be 'more than negligible' or 'substantial'.[1157] Furthermore, it was impossible to define the exact degree of originality required to justify originality; this would vary in each case.[1158] It was affirmed that when copyright subsists in a compilation, a second-comer is free to publish the same facts, but they must engage in their own collection of the facts – copying from the first work was impermissible.[1159]

Obiter acknowledged that it was possible for a work to be created with 'so little in the process of selection or arrangement that copyright will be rejected'.[1160] As a first instance Court, it was deemed 'impossible' to jettison precedent by replacing it with the 'creativity' standard.[1161] The processes associated with SOTB in the selection and arrangement of the data, which was tendered and factually established, was held to satisfy originality.[1162] *Feist* was distinguished on the basis that it relied upon constitutional provisions unique to the US.[1163] Desktop appealed the first instance ruling[1164] and argued:

- The lower Court had erred in finding that copyright subsisted if an author had engaged in 'sufficient work or incurred sufficient expense in gathering the facts'.[1165] Rather, the English authorities only focused upon the cost and effort undertaken during the process of selection and arrangement of the data. Instead, 'some appreciable degree of skill or intellectual effort' in the selection, arrangement and organisation of the data should have been used;[1166]

[1155] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 151 [64] (Finkelstein J).
[1156] Ibid 145-6 [47] (Finkelstein J).
[1157] Ibid 151 [64] (Finkelstein J) citing *Kalamazoo* (n 840) 120–21.
[1158] Ibid 151 [64] (Finkelstein J), citing *Macmillan* (n 829).
[1159] Ibid 151 [64] (Finkelstein J).
[1160] Ibid 146 [48] (Finkelstein J).
[1161] Ibid 158 [85] (Finkelstein J).
[1162] Ibid 151 [64] (Finkelstein J).
[1163] Ibid 153 [70], 157 [83] (Finkelstein J). Also see Tanya Aplin, 'When Are Compilations Original? Telstra Corporation Ltd v Desktop Marketing Systems Pty Ltd' (2001) 3 *Digital Technology Law Journal*.
[1164] *Desktop Marketing* (n 44).
[1165] Ibid 570 [324].
[1166] Ibid.

- Even if copyright subsisted in Telstra's works, Desktop did not infringe it because their CD-ROMs were different products to the directories.[1167] The data taken from Telstra was 'not original', ie, it was purely factual. That the same factual data appeared in both products was irrelevant to infringement because objective similarity had not been satisfied. The primary judge had therefore failed to correctly apply the principal legal issues to the facts;[1168]

- Telstra should have been denied copyright protection of their 'whole of universe' databases.[1169] This was a compilation which encapsulated all subscribers in the region, apart from private ('silent') numbers.[1170] On policy grounds, it was argued that the statutory monopoly conferred on Telstra gave them the power to compel subscribers to provide the data used in the works.[1171] Therefore, if copyright was found to subsist in Telstra's works, from a practical and policy perspective Telstra would be given a monopoly over this data.[1172] It would prohibit other parties from accessing and manipulating the data, even if they did so in a creative way.[1173]

Telstra's counter-argument was:

- That the Court in the first instance had correctly found that Desktop had infringed copyright in their directories. Copyright existed due to the labour and expense incurred in the extensive compilation process; originality was not purely limited to selection, arrangement and presentation of the data.[1174] Therefore, the appropriation of Telstra's works had resulted in the appropriation of their labour and expense;[1175]

- Alternatively, even if SOTB was rejected, the evidence had established that sufficient skill, judgement and ingenuity had been demonstrated. The works had met the requirements for originality to subsist by virtue of TCS. For example, 'skill, judgement and ingenuity' had been demonstrated through the gathering of

---

[1167] Ibid 570 [327].
[1168] Ibid 570 [327].
[1169] Ibid 499 [21] (Lindgren J).
[1170] Ibid.
[1171] Ibid 570 [329].
[1172] Ibid
[1173] Ibid.
[1174] Ibid 571 [331].
[1175] Ibid.

> the data, the verification process undertaken for new data and the accuracy monitoring of the existing data and the reproduction of the data within the directories.[1176]

On 15 May 2002, the decision was handed down.[1177] Black CJ affirmed the findings of his fellow judges and agreed that the appeal should be dismissed with costs.[1178] Lindgren J undertook an extensive examination of the development of copyright law, with particular focus before and after the enactment of the *Copyright Act 1912* (Cth).[1179] Sackville J provided an extensive commentary which included analysis pertaining to the 'labour and expense' originality requirement that was at the centre of the dispute in this case.[1180] The analysis warrants deeper consideration:

5.2.2 Originality and Authorship in Desktop Marketing

Because all other issues apart from originality had been conceded,[1181] the issue of authorship was largely ignored.[1182] However, Lindgren J clarified that 'Authorship (likewise originality) does not require novelty, inventiveness or creativity, whether of thought or expression, or any form of literary merit'.[1183] He undertook analysis about the correct originality standard. It was essential to examine whether originality could be satisfied through SOTB or TCS (requiring 'intellectual effort' or a 'creative spark').[1184] If the first issue was found in Telstra's favour, then the next issue would be whether the labour and expense would qualify its directories as original works.[1185] Telstra's works were found to comprise 'intelligible information' and were considered factual compilations of a literary nature.[1186] Establishing originality required evaluation of an 'innovation threshold'.[1187] Telstra was required to prove SOTB, through sufficient labour

---

[1176] Ibid 571 [334].
[1177] Black CJ, Lindgren and Sackville JJ.
[1178] Ibid 496 [1] (Black CJ).
[1179] Ibid 498–535 [18]–[165] (Lindgren J). The Schedule of the *Copyright Act 1912* (Cth) contained s 35(1) *Copyright Act 1911* (UK) (1 & 2 Geo 5, ch 46).
[1180] Ibid [256]–[447].
[1181] *Telstra Corporation Limited v Phone Directories Company Pty Ltd* (n 135) 160 [46].
[1182] *Desktop Marketing* (n 44).
[1183] Ibid 532 [160 Point 2] (Lindgren J) applying *Sands & McDougall Pty Ltd v Robinson* (n 212) and *Victoria Park* (n 38).
[1184] Ibid 498 [18] (Lindgren J).
[1185] Ibid.
[1186] Ibid 532 [160 Point 4] (Lindgren J).
[1187] Ibid 572 [335] (Sackville CJ).

and expense in the collection of the facts.[1188] No precedent precluded establishing originality in the **labour and expense** involved in the collection, verification, recording and assembly of data.[1189]

Rather, **labour and expense** could be considered regardless of whether it was 'directly related to the preparation or presentation of the compilation in material form, provided it was for the purpose of producing the compilations'.[1190] Telstra's contribution was assessed, instead of an 'all or nothing' approach.[1191] The overall technological processes that Telstra undertook in compiling their works exceeded a minimum threshold.[1192] This was judged subjectively as a question of degree and fact.[1193]

Because Desktop's counter-argument heavily relied upon TCS,[1194] at issue was whether the term 'original' under s 32 of *The Act*[1195] required an 'intellectual effort or creative spark'.[1196] TCS was ultimately rejected, affirming that intellectual process was unnecessary in creating Telstra's directories.[1197] In tandem with this was a refusal to 'depart from the long course of Anglo-Australian authority referred to earlier'.[1198] Rather, a decision of such magnitude needed to be made by the High Court.[1199] In clarifying SOTB, Lindgren J provided ten numbered propositions.[1200] These pertained to 'whole of

---

[1188] Ibid.

[1189] Ibid 533 [160 Point 10] (Lindgren J) applying *Matthewson v Stockdale* (n 212); *Longman v Winchester* (n 761); *Kelly v Morris* (n 212); *Scott v Stanford* (n 762); *Morris v Ashbee* (n 212); *Cox v Land and Water Journal Company* (n 1150); *Morris v Wright* (n 212); *Hogg v Scott* (1874) LR 18 Eq 444; *Ager v Peninsular & Oriental Steam Navigation Co* (n 1093); *Collis v Cater, Stoffell & Fortt Ltd* (n 799); *Weatherby & Sons v International Horse Agency & Exchange Ltd* [1910] 2 Ch 297; *Australian Consolidated Press Ltd v Morgan* (1965) 112 CLR 483; *Autospin (Oil Seals) Ltd v Beehive Spinning (a firm)* [1995] RPC 683 and the Indian case of *Burlington's Home Shopping Ltd v Chibber* (1995) Patent & Trademark Cases 278.

[1190] Ibid 493 [409] (Sackville CJ) applying *Football League Ltd v Littlewoods Pools Ltd* (n 38) and *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212).

[1191] Ibid 533 [160 Point 7] (Lindgren J), 593 [409] (Sackville CJ), applying *Dicks v Yates* (1881) 18 Ch D 76; *London Press* (n 447); *Mander v O'Brien* (n 1100); *Victoria Park* (n 38); *Purefoy Engineering Co Ltd v Sykes Boxall & Co Ltd* (1955) 72 RPC 89; *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212); *Ogden Industries Pty Ltd v Kis (Aust) Pty Ltd* (n 841); *Computer Edge Pty Ltd v Apple Computer Inc* (n 38); *Kalamazoo* (n 840); *Erica Vale Pty Ltd v Thompson & Morgan (Ipswich) Ltd* (1994) AIPC 91-068; *Skybase Nominees Pty Ltd v Fortuity Pty Ltd* (n 195); *Harpur v Lambourne* (n 994) and *Data Access Corporation v Powerflex Services Pty Ltd* (n 725).

[1192] *GA Cramp & Sons Ltd v Frank Smythson Ltd* (n 212); *Victoria Park* (n 38).

[1193] *Desktop Marketing* (n 44) 572 [335] (Sackville CJ) applying *Macmillan* (n 829) 190 (Atkinson L).

[1194] Ibid 538 [181] (Lindgren J).

[1195] *The Act* (n 168).

[1196] *Desktop Marketing* (n 44) 543–6 [203]–[217] (Lindgren J) referring to *Feist* (n 38).

[1197] Ibid 546–7 [217].

[1198] Ibid.

[1199] Ibid.

[1200] Ibid 532–4 [160].

universe' compilations, which were databases that included all available data without engaging in selection of data.[1201] **The correlative nature of originality and authorship was emphasised**.[1202] Long-established originality principles were affirmed, including:

- **Originality must be applied to a work as a whole**;[1203]
- It was to be determined by **questioning whether the work originated from the author instead of being copied**;[1204] and
- This raised **questions of the fact and degree of authorial contribution**;[1205]

After considering factual evidence, substantial labour and expense was determined to have occurred in the process of compiling and presenting the directories.[1206] Copyright subsisted in Telstra's directories[1207] because, in compiling and presenting the data, they **had exceeded a minimum threshold** of **labour** and **expense**.[1208] However, precisely what constituted this threshold was not articulated. The decision of the lower Court was upheld in Telstra's favour and the proceedings were dismissed with costs.[1209]

At the time, the significance of *Desktop marketing* was that in applying SOTB it separated Australia from most jurisdictions around the world who, instead, used TCS.[1210] This also demonstrated a departure from the standard required under international copyright treaties (as discussed in 3.2.4).

[1201] Ibid 533 [160(9)] (Lindgren J), 593 [409 Point vi] (Sackville CJ).
[1202] Ibid 532 [160 Point 1] (Lindgren J), applying *Sands & McDougall Pty Ltd v Robinson* (n 212).
[1203] Ibid 533 [160(5)] (Lindgren J), applying *Cambridge University Press v University Tutorial Press* (1928) 45 RPC 335; *Ladbroke (Football) Ltd v William Hill (Football)* (n 212); *Warwick Film Productions v Eisinger* [1967] 3 All ER 367; *A-One Accessory Imports* (n 800).
[1204] Ibid 533 [160(6)] (Lindgren J), applying *Dicks v Yates* (n 1191); *London Press* (n 447); *Mander v O'Brien* (n 1100); *Victoria Park* (n 38); *Purefoy Engineering Co Ltd v Sykes Boxall & Co Ltd* (n 1190); *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212); *Ogden Industries Pty Ltd v Kis (Aust) Pty Ltd* (n 841); *Computer Edge Pty Ltd v Apple Computer Inc* (n 38); *Kalamazoo* (n 840); *Erica Vale Pty Ltd v Thompson & Morgan (Ipswich) Ltd* (n 1190; *Skybase Nominees Pty Ltd v Fortuity Pty Ltd* (n 195); *Harpur v Lambourne* (n 994); *Data Access Corporation v Powerflex Services Pty Ltd* (n 725).
[1205] Ibid 533 [160(7)] (Lindgren J) applying *Macmillan* (n 829); *G A Cramp & Sons Ltd v Frank Smythson Ltd* (n 212); *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212); *Computer Edge Pty Ltd v Apple Computer Inc* (n 38); *Interlego* (n 849); *T R Flanagan Smash Repairs Pty Ltd v Jones* (n 800).
[1206] Ibid 553 [253], 558 [276], 599 [431] (Sackville CJ).
[1207] Ibid 535–6 [166]-[171] (Lindgren J), 537 [179] (Lindgren J), 599–600 [431]–[436] (Sackville CJ).
[1208] Ibid 592 [407], 593 [409] (Sackville CJ), applying *Victoria Park* (n 38) (Dixon J) and *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212).
[1209] Ibid 495 [1] (Black CJ), 554 [255] (Lindgren J), 599 [436], 601 [447] (Sackville CJ).
[1210] Thomson (n 725) 50. See generally, *Feist* (n 38) and *Tele-Direct (Publications) Inc v American Business Information Inc* (n 455).

This difference in standards prompted a judicial examination as to whether Australia was breaching its international law obligations.[1211] The appellant argued that the application of originality in Australia should have been in conformity with art 2(5) of *Berne*, which specifically referenced 'intellectual creations'. The Court found that while *Berne* prescribed minimum standards, it was a matter for national legislation to decide the precise standard of originality.[1212] Furthermore, the context into which originality was introduced to English statute in 1911 was analysed. The sole requirement at the time was that 'collections of different works' required protection by the States.[1213] The 1909 *Gorell Report* was also examined, which analysed the compliance of English law with *Berne*; however, it was given little weight because complications were not specially addressed in that report.[1214] Overall, the conclusion was that, although SOTB went further than the requirements stipulated, Australia was not in breach of its international law obligations through its protection of databases.[1215] There was no need to modify the law at the time.[1216]

5.2.3 Refusal of Special Leave to the High Court

On 20 June 2003, special leave to appeal was refused with costs. The High Court were unwilling to consider departing from SOTB or possible implementation of a sui generis database right. Instead, this refusal endorsed SOTB, informally elevating it to the common law equivalent of a database right. For this reason, it was argued that in 2003 Australia did not require specific enactment of database rights.[1217] However, a mere six years later, the landmark High Court decision of *IceTV* would challenge 200 years of originality precedent (see 4.4.2) and would lead to the future under-protection of some private Australian databases. The next section will examine the judicial application of originality and authorship in Australia from 2009 onwards.

[1211] *Desktop Marketing* (n 44) 591 [400]–[403] (Sackville J).
[1212] Ibid 591 [401] (Sackville J) citing Sam Ricketson, *The Berne Convention for the Protection of Literary and Artistic Works: 1886-1986* (Centre for Commercial Law Studies, Queen Mary College, 1987) 303.
[1213] Ibid 591 [402] (Sackville J).
[1214] Ibid.
[1215] Ibid 591 [403] (Sackville J).
[1216] Ibid.
[1217] Gosnell (n 18) 642.

5.3 Judicial Application of Originality and Authorship: 2009 Onwards

5.3.1 *IceTV*

This High Court decision involved IceTV Pty Ltd, who created an electronic television guide called the 'IceGuide'. At the first instance, the Nine Network had commenced proceedings against IceTV Pty Ltd for alleged infringement of the IceGuide, which Bennett J rejected.[1218] On appeal to the Full Court of the Federal Court, this decision was reversed, with the ruling that IceTV had infringed Nine's copyright.[1219] IceTV appealed to the High Court.

Of contention was whether IceTV had indirectly infringed Nine's copyright by reproducing 'slivers of information' in their IceGuide. This information was the titles and broadcast times of television programs listed in Nine's television schedule. IceTV employees had created the guide by spending hours viewing Channel Nine television and writing down the schedule of programs. Future schedules were 'predicted' with the use of a database and the repetition of programs in certain time-slots. The only problem was that late programming changes would result in incorrect information being presented in the IceGuide. To counteract this, IceTV's draft guide was then cross-checked against other aggregates' schedules, which included indirect cross-checking against Nine's television schedule.

To determine infringement, it was necessary to establish whether copyright subsisted in the titles and broadcast times. If so, then consideration would turn to whether IceTV had infringed a substantial part of Nine's schedule. Six judges of the High Court handed down a plurality judgement which was reasoned differently but was unanimous. The first judgment was by French CJ, Crennan and Kiefel JJ and the second by Gummow, Hayne and Heydon JJ. Infringement was unanimously rejected because:

- The 'slivers of information' (slivers) were not deemed sufficiently original to constitute a substantial reproduction of Nine's schedule due to their limited expression;[1220]

[1218] *Nine Network Australia Pty Ltd v IceTV Pty Ltd* (2007) 73 IPR 99.
[1219] *Nine Network Australia Pty Ltd v IceTV Pty Ltd* (2008) 168 FCR 14 (Black CJ, Lindgren and Sackville J).
[1220] *IceTV* (n 38) (French CJ, Crennan and Kiefel JJ).

- The limited form of expression in the time and title slivers **resulted in the expression of minimal skill and labour** by Nine's employees. Critically, the **skill and labour** of the employees made in the programming decisions was **very low** and ***were not directed to the originality of the particular form of expression*** of the time and title information;[1221]

- The reproduction of the slivers by IceTV failed the infringement test of substantiality.[1222]

This case was predicated on the fact that copyright subsisted in Nine's schedule as a literary work compilation. IceTV conceded subsistence in Nine's work but denied infringement.[1223] In important obiter, the extent to which copyright could subsist in such creations due to an apparent lack of authorship was questioned.[1224] Several authorship principles were discussed, including: the notion of an individual author;[1225] the essential balance between authors' interests and policy considerations;[1226] the fact that copyright subsists in an author's expression of an idea;[1227] and reduction to material form by an author.[1228] Significantly, in a departure from the authorial assumptions made in *Desktop Marketing*, the High Court **acknowledged the necessity to fixate upon human authorship**, through the notion of a qualified person, by reference to the author's death or through employment**.**[1229] The centrality of authorship was therefore emphasised.[1230] It was recognised that new technology raises fresh challenges relating to 'the paradigm of the individual author'[1231] and assumptions made in *Desktop Marketing*[1232] were challenged. The High Court emphasised that copyright subsists in an original work by

---

[1221] Ibid 481 [54] (French CJ, Crennan and Kiefel JJ) (emphasis added). Also see Glenn McGowan, 'IceTV v Nine Network and the Copyright in Factual Compilations in Australia' (2009) 83 *Australian Law Journal* 840, 840.
[1222] *IceTV* (n 38) 481 [56] French CJ, Crennan and Kiefel JJ).
[1223] Ibid 467 [8] (French CJ, Crennan and Kiefel JJ).
[1224] Ibid 504-5 [135]-[139] (Gummow, Hayne and Heydon JJ).
[1225] Ibid 470 [23] (French CJ, Crennan and Kiefel JJ).
[1226] Ibid 470 [24] (French CJ, Crennan and Kiefel JJ).
[1227] Ibid 471 [26]-[27] (French CJ, Crennan and Kiefel JJ).
[1228] Ibid 493-5 [94]-[101] (Gummow, Hayne and Heydon JJ).
[1229] Ibid 494 [97] (Gummow, Hayne and Heydon JJ). Affirmed by *Telstra* (n 128) 747 [72] (Keane CJ), 753 [100] (Perram J) and 763 [134] (Yates J); *Australasian Performing Right Association Ltd v Telstra Corporation Ltd* (2019) 369 ALR 529, 531 [5] (Perram J).
[1230] *IceTV* (n 38) 470, [22], 474 [34] (French CJ, Crennan and Kiefel JJ).
[1231] Ibid 470–1 [23] (French CJ, Crennan and Kiefel JJ).
[1232] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 136 [4] (Finkelstein J).

virtue of the 'relevant fixation of the original work of the author in a material form' and that without identifiable authorship, the issues presented to the Court could 'go awry'.[1233]

It was affirmed that under s 10(1)[1234] joint authorship fails when no authors can be identified.[1235] A question of fact and degree is essential to determine whether each author had '**expended sufficient effort of a literary nature to be considered an author of that work** within the meaning of the Act'.[1236] In relation to databases, it was stated that authorship may be **satisfied by the person (or people) who gathered or organised the collection of material** and who **'select, order or arrange its fixation in material form'**.[1237]

The High Court was also asked to 'consider the Full Court's decision in Desktop … and, to the contrary … affirm that there must be some "creative spark" or exercise of "skill and judgment" before a work is sufficiently "original" for the subsistence of copyright'.[1238] In response, the joint judgment of JJ Gummow Hayne and Heydon JJ **emphasised the need to treat SOTB with caution**:[1239]

> Much has been written about differing standards of originality in the context of the degree or kind of 'skill and labour' said to be required before a work can be considered an 'original' work in which copyright will subsist. 'Industrious collection' or 'sweat of the brow', on the one hand, and 'creativity', on the other, have been treated as antinomies in some sort of mutually exclusive relationship in the mental processes of an author or joint authors. They are, however, **kindred aspects of a mental process** which produces an object, a literary work, a particular form of expression which copyright protects. A complex compilation or a narrative history will almost certainly require considerable **skill and labour, which involve both 'industrious collection' and 'creativity', in the sense of requiring original productive thought to produce the expression**, including selection and arrangement, of the material. It may be that too much has been made, in the context of subsistence, of the kind of skill and labour which must be expended by an author for a work to be an 'original' work. The requirement of the Act is only that the

[1233] Ibid 496 [105] (Gummow, Hayne and Heydon JJ).
[1234] *The Act* (n 168).
[1235] *IceTV* (n 44) 507 [151] (Gummow, Hayne and Heydon JJ).
[1236] Ibid 494–5 [99] (Gummow, Hayne and Heydon JJ).
[1237] Ibid.
[1238] Ibid 516 [187] (Gummow, Hayne and Heydon JJ).
[1239] Ibid 516 [188] (Gummow, Hayne and Haydon JJ).

> work **originates with an author or joint authors from some independent intellectual effort**.[1240]

Because originality was not contested in this case, it was considered inappropriate to discuss this issue further.[1241] In conclusion, the High Court took the opportunity to suggest caution in applying SOTB. Further guidance was provided about determining subsistence. This necessitates defining a work, identifying the exact author/s and explaining their role in the creation of the original expression of the work.[1242] The impact of the caution advocated against SOTB in *IceTV* was profound in later database cases and cases involving other works. This jurisprudence will now be considered, beginning with *Telstra*.

5.3.2 Telstra

On 8 February 2010 *Telstra*[1243] was the first major database case after *IceTV* and the Federal Court took the opportunity to re-orientate SOTB originality precedent. Significantly, the legal proceedings for this case began on 5 April 2007, prior to the *IceTV* ruling on 22 April 2009.[1244] Because of this, interested parties had speculated that many of the issues presented in *Telstra* would have been resolved by *IceTV*. However, this was not so.[1245] Instead, the obiter pertaining to subsistence from *IceTV* was of significant influence.

Here, the Telstra and its subsidiary, Sensis, alleged that six respondents, including Phone Directories Company Pty Ltd, had infringed copyright of their published directories by reproducing entries from them.[1246] Telstra's directories were created through a relational database owned by Telstra/Sensis[1247] and were published and distributed from 2000 to 2009 throughout Australia.[1248] They were highly profitable, with a combined revenue of

---

[1240] Ibid 478–9 [47]–[48] (emphasis added).
[1241] Ibid 516 [188] (Gummow, Hayne and Haydon JJ).
[1242] Ibid 496 [105], 503 [132] (Gummow, Hayne and Heydon JJ).
[1243] *Telstra* (n 128).
[1244] Ibid 620–1 [1] (Gordon J).
[1245] Ibid 621 [2] (Gordon J).
[1246] Ibid 620–1 [1] (Gordon J).
[1247] Ibid 627–8 [29] (Gordon J).
[1248] Ibid 620–1 [1] (Gordon J).

more than $1.3 billion.[1249] Telstra submitted that each hardcopy directory constituted a separate, original literary work under s 32 of *The Act*.[1250]

To determine infringement, firstly it was deemed necessary to establish copyright subsistence in the directories as works of original authorship under *The Act*.[1251] This issue would likely have been resolved by *Desktop Marketing*, had it not been for *IceTV*. Telstra submitted that *Desktop Marketing* was binding precedent[1252] and that *IceTV* should merely be considered obiter.[1253] Before discussing originality, the Court emphasised its centrality as a concept and relied upon a long line of precedent (see 4.4.2) which found that a work must originate with an identifiable author.[1254] It was stated that:

- *IceTV* was binding authority and established principles through the correct interpretation of *The Act*;[1255]
- *IceTV* had cautioned against placing emphasis on *Desktop* precedent;[1256]
- Authorship was not an issue directly contested in *Desktop*, because it had been assumed from the first instance decision;[1257]
- The facts of *Desktop* and the current case significantly differed, as did the actual telephone directories involved;[1258]

Telstra's submissions were rejected and instead *The Act* was declared 'the proper starting point'.[1259] Fundamental common law doctrines were reiterated.[1260] These included a

---

[1249] Ibid 634 [52] (Gordon J).
[1250] Ibid 621 [3] (Gordon J).
[1251] Ibid 621 [4] (Gordon J).
[1252] Ibid 633 [46] (Gordon J).
[1253] Ibid 633.
[1254] Ibid 624 [20(6)], [21], [344] (Gordon J), applying *London Press* (n 447), 608–09 (Peterson J); *Robinson v Sands & McDougall Pty Ltd* (n 837) 123–133 (Barton J); *Sands & McDougall Pty Ltd v Robinson* (n 212) 52 (Isaacs J); *Victoria Park* (n 38), 511 (Dixon J); *Football League Ltd v Littlewoods Pools Ltd* (n 38) 651 (Upjohn J); *Autodesk Inc v Dyason* (n 743) 347 (Dawson J); *Interlego AG v Croner Trading Pty Ltd* (n 851) 379 (Gummow J); *Data Access Corporation v Powerflex Services Pty Ltd* (n 725) 16 [22], 35 [95], 41–2 [122] (Gleeson CJ, McHugh, Gummow and Hayne JJ); *Desktop Marketing* (n 44) 532 [160(1)] (Lindgren J); *Sawkins v Hyperion Records Ltd* (n 38) 633 [31] (Mummery LJ); *Victoria v Pacific Technologies (Australia) Pty Ltd (No 2)* (n 732) 64–5 [18] (Emmett J).
[1255] *Telstra* (n 128) 633 [46] (Gordon J).
[1256] Ibid; See *IceTV* (n 38) 480 [52], 503 [134], 509 [157] and 516 [188].
[1257] *Telstra* (n 128) 633 [46] (Gordon J).
[1258] Ibid 633 [46] (Gordon J).
[1259] Ibid 622 [7] (Gordon J).
[1260] Ibid 622 [8]–[10] (Gordon J).

reaffirmation of the idea/expression dichotomy and the fact that copyright is a form of statutory monopoly[1261] which requires a balance between the monopoly and protection of originality.[1262] Also emphasised was the fact that in attempting to achieve this balance, imprecise language has often been used in statute.[1263] Sometimes, such language has referred to metaphor and rhetoric,[1264] which were described as having 'no support' in *The Act*.[1265] An example was given which compared 'authors and inventors to farmers who 'reap' and 'sow' and deserve the 'fruits' of their labours'.[1266] Such references to reaping and sowing also occur in the US.[1267] As discussed at 2.1, this language reflects Lockean philosophy. In determining subsistence in a database, four steps were provided:[1268]

1. **Identification (or fixation) of the work[1269] (a literary work)[1270] which included the factual establishment of the work taking material form;[1271]** Principles relating to a literary work and various sections of *The Act* were emphasised;[1272]

2. **Identification of the author/s,[1273]** which involved factually determining[1274] the precise person/s who brought the work into material form[1275] via demonstration of 'independent intellectual effort' and/or 'sufficient effort of a literary nature';[1276]

[1261] *The Act* (n 168) s 8; stated in *IceTV* (n 38) 467 [11], 469 [15], 470 [22], 472 [28] and 483–5 [65]-[71].
[1262] *Telstra* (n 128) 622 [8] (Gordon J); *IceTV* (n 38) 471 [24]–[26] and 485 [71].
[1263] *IceTV* (n 128) 239 CLR 458, 484–5, [68]–[69].
[1264] Ibid 473–4 [31], 484–5 [69]–[70].
[1265] *Telstra* (n 128), 622 [10] (Gordon J).
[1266] Patricia Loughlan, 'Pirates, Parasites, Reapers, Sowers, Fruits, Foxes' (n 138) 211. Also see Hayley Bosher, *Framework Using the Internal and External Perspectives and its Application to Online Copyright Infringement: An Analysis of Copying and Communication to the Public* (PhD Thesis, Centre for Intellectual Property Policy and Management, Bournemouth University 2016) 69–70.
[1267] Wendy J Gordon, 'On Owning Information: Intellectual Property and the Restitutionary Impulse' (1992) 78 *Virginia Law Review* 149, 156.
[1268] *Telstra* (n 128), 627 [28] (Gordon J).
[1269] Applying *IceTV* (n 38) 469 [15], 471–2 [24]–[28], 495–6 [102]–[105] and *The Act* (n 168) ss 8 and 31-5.
[1270] *Telstra* (n 128) 622-3 [13]–[19] (Gordon J).
[1271] *Telstra* (n 128) 625 [20(10)], [27] (Gordon J), citing *IceTV* (n 38) 471 [26] and 495 [103].
[1272] *The Act* (n 168) ss 32(1) and 32(2) – subsistence of copyright; 10(1) – definition of a 'literary work'; 35(6) – authorship; 31 – exclusive rights of the author and 10(1) – definition of 'material form'.
[1273] *Telstra* (n 128), 622 [12], [20(1)–(6)], [21], [25] (Gordon J).
[1274] Ibid 626 [25] (Gordon J) applying the tests from *Macmillan* (n 829) (Atkinson L) and *Autocaps (Aust) Pty Ltd v Pro-Kit Pty Ltd* (n 800) 352–3 [38] (Finkelstein J).
[1275] *IceTV* (n 38) 474 [33], 479 [48].
[1276] *Telstra* (n 128) 625 [21] (Gordon J), applying *IceTV* (n 38) 494–5 [99].

3. **Establishment of the first publication date of the work;**[1277]

4. **Identification of originality within the work.**[1278] This necessitated establishing whether the work emanated from an identifiable author,[1279] and determining whether more than 'substantial labour' and/or 'substantial expense' had gone into the creation of the work.[1280] Of focus is the 'nature and skill required to create the work and determine whether it was directed to the originality of the particular form of expression'.[1281]

Telstra argued that precise authorial identification was unnecessary. This argument was likely relied upon due to the authorial assumptions that had been made in the first instance and appeal decisions of *Desktop Marketing*. Rather, it was submitted that all that was required was identification of the work and a contribution of 'some intellectual effort' in creating the work.[1282] '[O]ne is concerned with the activities which have been performed, not the precise identity of the persons who have performed them'.[1283] However, in the alternative, 91 affidavits were submitted to establish joint authorship within the directories.[1284] Employees who contributed to the process of the creation of the directories were identified in these affidavits.[1285]

Overall, Telstra's authorship arguments were judicially reprimanded, because they ignored the fact 'that it is the *original work of an author or authors* who contribute to the particular form of expression of the work and reduce the work to a material form'.[1286] Telstra's submission was bluntly described as 'surprising and untenable … contrary to the express words of the *Copyright Act* and the copyright regime described by all judges of the High Court in *IceTV*'.[1287] Instead, the centrality of establishing a precise human

---

[1277] Ibid 625 [20(10)] (Gordon J) relying upon s 32 (2) (c) *The Act* (n 168) and *IceTV* (n 38) at 469 [15], 471–2 [24]–[28] and 495–6 [102]–[105].
[1278] *Telstra* (n 128) 624–5 [20(6)–(9)], [21]–[24], [26] (Gordon J).
[1279] *The Act 1968* (n 168) ss 32, 33 and 35; *IceTV* (n 38) 470 [22], 471 [24], 474 [33], 479 [48] and 493-4 [96].
[1280] *Telstra* (n 128) 624 [20(6)] (Gordon J).
[1281] Ibid 625 [20(9)] (Gordon J), citing *IceTV* (n 38) 473–4 [31], 474 [33], 478–9 [47]–[48], 480 [52] and 481 [54].
[1282] Ibid 628 [32]–[33] (Gordon J).
[1283] Ibid 628 [32] (Gordon J).
[1284] Ibid 621 [4] (Gordon J).
[1285] Ibid 657 [167] (Gordon J).
[1286] Ibid 628–9 [34]-[35] (Gordon J) (emphasis added).
[1287] Ibid 628–9 [35] (Gordon J).

author in the process of database creation was affirmed,[1288] with the necessary identification of an actual individual author/s.[1289] Authorship could not subsist because:

> Telstra did not and could not identify who provided a 'necessary authorial contribution to each work.'[1290] Instead, they conceded that numerous 'non-identified persons' (including third party sources) 'contributed' to each work;[1291] and

- Even if it were possible to identify authorial contribution,[1292] the actual contributions did not display original **'independent intellectual effort'**[1293] or alternatively, '**sufficient effort of a literary nature'**[1294] to satisfy the meaning of an 'author' within *The Act*.[1295] This was because the computer work throughout the compilation process was heavily automated. Further or alternatively, the contributions made by the employees were **'anterior to the work first taking its 'material form'**.[1296] The contributions were not authored by humans but were computer-generated.[1297]

While it was determined that the directories' production required substantial labour and expense, this was insufficient to establish originality.[1298] SOTB was rejected, with application of the *IceTV* standard.[1299] This required reduction to material form through an author: 'the creation (that is the production) of the work [needed] **some independent intellectual effort**, but neither literary merit nor novelty or inventiveness as required in patent law'.[1300] The Court clearly distinguished the test from that required under patent. Instead, for originality to subsist, Telstra were required to **demonstrate that identifiable authors showed 'independent intellectual effort' and/or 'sufficient effort of a**

[1288] Ibid.
[1289] Ibid 622–33 [7]–[45] (Gordon J).
[1290] Ibid 621 [5(1)] (Gordon J).
[1291] Ibid.
[1292] Ibid 621 [5 (2)] (Gordon J).
[1293] Affirming *IceTV* (n 38) 474 [33].
[1294] *IceTV* (n 38) 494–5 [99].
[1295] *Telstra* (n 128) 621 [5(2.1)] (Gordon J).
[1296] Ibid 621 [5 (2.2)] (Gordon J), relying upon the test from *IceTV* (n 38) 495 [102].
[1297] Ibid 621 [5 (2.3)] (Gordon J).
[1298] Ibid 684–5 [341] (Gordon J).
[1299] *IceTV* (n 38) 474 [33], 479 [48].
[1300] *Telstra* (n 128) 625 [21] (Gordon J), citing *IceTV* (n 38) 474 [33], 479 [48].

literary nature' or involve a 'creative spark' or the exercise of 'skill and judgement'.[1301]

The directories were found to be primarily created by an automated computerised system that precluded these intellectual processes from human contributors.[1302] No 'creative spark' or requisite level of 'skill and judgment'[1303] was demonstrated by people involved in the form of expression/creation of the telephone directories. Also, the form of the directories' expression did not involve **'independent intellectual effort' and/or the exercise of 'sufficient effort of a literary nature'.[1304]** Rather, it was the relational database rules that dictated the form of expression[1305] and reduced the directories to tangible form.[1306] *IceTV* was affirmed, with further guidance about establishing subsistence:[1307]

> The question of whether copyright subsists is concerned with the particular form of expression of the work. You must **identify authors**, and those authors must direct their contribution (assessed as either an **'independent intellectual effort'** of a '**sufficient effort of a literary nature'**) to the particular form of expression of the work. Start with the work. Find its authors. They must have done something, howsoever defined, that can be considered original. The Applicants have failed to satisfy these conditions. Whether originality be the product of some **'independent intellectual effort'** and/or the exercise of **'sufficient effort of a literary nature'**, or involve a **'creative spark'** or the exercise of **'skill and judgment'**, it is not evident in the claim made by the Applicants.[1308]

Because subsistence failed due to insufficient establishment of originality and authorship, infringement was not considered.[1309] Telstra appealed the ruling in *Telstra Corporation Limited v Phone Directories Company Pty Ltd* (2010) 194 FCR 142 ('*Telstra Appeal*').

[1301] Ibid 685 [344] (Gordon J).
[1302] Ibid 657 [162] (Gordon J).
[1303] Ibid 684 [340] (Gordon J).
[1304] Ibid 622 [5(3)] (Gordon J) applying the principles from *IceTV* (n 38) 494–5 [99] and 516 [187]–[188].
[1305] Ibid 657 [163]–[164] (Gordon J).
[1306] Ibid.
[1307] *IceTV* (n 38) 474 [33], 494–5 [99] (Gummow, Hayne and Heydon JJ).
[1308] *Telstra* (n 128) 685 [344] (Gordon J).
[1309] Ibid 621 [5], 628-9 [34]-[35] (Gordon J).

5.3.3 Telstra Appeal

On appeal, the main issue was whether the automated computerised processes that occurred in the creation of the directories could constitute authorship.[1310] Telstra argued that authorship subsisted because the directories were original literary works under *The Act*[1311] and that the trial judges had erred in their findings about originality and authorship.[1312] The 91 affidavits were re-submitted by Telstra in support of joint authorship, identifying individuals who worked with the database systems.[1313] The counter-argument was that authorship did not subsist because the 'computerised process of storing, selecting, ordering and arranging the data' created the directories, as opposed to the individual people involved with the task.[1314] It was argued that the point in time at which the directories came into material form was undertaken by machine, not people.[1315]

Technological processes to create the directories were examined, with three processes isolated. The first was the collection phase, involving maintenance, updating and editing of the customer details;[1316] the second was the extraction phase, which involved the extraction of data from each database and its collation into electronic form;[1317] the third phase was the physical production phase, which involved typesetting and printing.[1318] The directories were found not to have originated from an individual author/joint authors.[1319] Rather, they were compiled from an automated process.[1320] The extraction process was found to be of 'overwhelming significance' to the expression in material form of each compilation and was primarily computer-generated.[1321] Therefore, even though there were 'elements of authorial contribution' present, the directories did not originate from an identifiable author/s.[1322]

[1310] *Telstra Appeal* (n 874).
[1311] Ibid 161 [49] (Keane CJ).
[1312] Ibid 161–2 [49]-[52] (Keane CJ).
[1313] *Telstra* (n 128) 621 [4] (Gordon J); *Telstra Appeal* (n 874) 147–8 [22] (Keane CJ).
[1314] *Telstra Appeal* (n 874) 146 [7] (Keane CJ).
[1315] Ibid 162 [53] (Keane CJ).
[1316] Ibid 173 [102] (Keane CJ).
[1317] Ibid.
[1318] Ibid.
[1319] Ibid 171 [96] (Keane CJ).
[1320] Ibid 170–1 [88]-[89] (Keane CJ), 172 [101] (Perram J).
[1321] Ibid 191 [169] (Yates J).
[1322] Ibid.

The notion to determine sufficient originality by individually assessing each person's contribution was dismissed.[1323] This was because each contribution was not directed to the expression of material form in the directories. The computer program was merely overseen by a person, who had 'no substantive input' into the forms.[1324] Reduction to material form was described as occurring during the 'extraction phase'.[1325] This occurred when the computers performed the selection, ordering and arrangement to place data into the material form from which it was published.[1326] Contribution to each work was not the result of human authorship but was computer-generated.[1327]

Telstra Appeal affirmed *IceTV*[1328] finding that precise human authorship is essential to determine database subsistence.[1329] As explained by Keane CJ, because *The Act* reflects the intention of *Berne* to protect the rights of an author, this necessitated the identification of individual authors.[1330] It was necessary to show that the work originated from 'an individual author or [joint] authors'.[1331] This was because the focus of subsistence was 'not upon a general concern to prevent misappropriation of skill and labour but upon the protection of copyright in literary works which originate from *individuals*'.[1332]

The issue of joint authorship was then examined. Although it was accepted that the 91 individuals who oversaw the computerised processes were involved with controlling the software and collecting data, they had no substantive input. This was because they did not personally reduce the data to material form: they merely made the arrangements necessary for the computers to do that.[1333] Their work was not collaborative to the extent deemed sufficient to establish joint authorship.[1334] As no author existed, copyright could

[1323] Ibid 173 [102]–[103], 176 [112] (Perram).
[1324] Ibid 172 [101] (Perram).
[1325] Ibid 190–1 [166]–[169] (Yates J).
[1326] Ibid.
[1327] Ibid 192–3 [179] (Yates J).
[1328] *IceTV* (n 38) 480 [52], 504 [135]–[139] (Yates J).
[1329] *Telstra Appeal* (n 874) 162 [57] (Keane CJ). Also see Henry Fraser, 'Computer Generated Phone Books: Not Original Literary Works' (2011) 23(8) *Australian Intellectual Property Law Bulletin* 190, 191.
[1330] *Telstra Appeal* (n 874) 144 [1] (Keane CJ).
[1331] Ibid 162 [57] (Keane CJ).
[1332] Ibid 171 [96] (Keane CJ) (emphasis added).
[1333] Ibid 145 [4], 172–3 [101] (Keane CJ), 179 [119] (Perram J).
[1334] Ibid 154 [33], 171 [91]-[92] (Keane CJ).

not subsist[1335] and the issue of the anteriority of the contribution of employees was not addressed.

In considering originality, Keane CJ emphasised the correlation with authorship.[1336] It was affirmed that the level of intellectual effort did not refer to a raised level of 'creativity' or inventiveness' in terms of creativity or novelty, but rather the origins of the work in terms of the author's intellectual effort.[1337] The directories did not involve **'independent intellectual effort'** and/or the exercise of **'sufficient effort of a literary nature'.**[1338] Furthermore, it was held that even if an author/s had been identifiable, individuals did not exercise sufficient 'independent intellectual effort'[1339] and/or 'sufficient effort of a literary nature',[1340] because the creation process was 'heavily automated' through computers.[1341] Contribution by humans was minimal and was regulated and controlled by the computer systems and rules.[1342] Therefore originality failed.

Despite this, the Court conceded that focusing upon an individual in the establishment of authorship may give rise to a 'perception of injustice on the part of those whose skill and labour has been appropriated'.[1343] Obiter acknowledged that human effort was invested in the database creation process. This acknowledgement prompts the question as to what steps in the creation process could ever be determined as being authored by human effort when computers are involved to such an extent in creating modern databases. Ultimately, the decision of the lower Court was upheld.[1344] Because the directories had primarily been created by automated computerised processes, copyright did not subsist due to a lack of identifiable authorship.[1345] For completeness, it must be noted that on 2 September 2011, special leave was sought to appeal this case to the High Court. Telstra submitted that the

---

[1335] Ibid 179 [119] (Perram J).
[1336] Ibid 172 [99]–[100] (Perram J).
[1337] Ibid 162–3 [58] (Keane CJ), affirmed in *Copyright Agency Ltd v New South Wales* (2013) 102 IPR 85, 95 [39] (Perram J).
[1338] Ibid 145 [5] (Keane CJ), affirming the originality test applied in *IceTV* (n 38) 474 [33], 494-5 [99], 622 [187]–[188].
[1339] *IceTV* (n 38) 474 [33], 479 [48] (French CJ, Crennan and Kiefel JJ).
[1340] Ibid 494–5 [99] (French CJ, Crennan and Kiefel JJ).
[1341] *Telstra Corporation Limited v Phone Directories Company Pty Ltd* (2010) 194 FCR 142, 154 [33] (Keane CJ).
[1342] *Telstra Appeal* (n 874) 154 [33] (Keane CJ).
[1343] Ibid 171–2 [97] (Keane CJ).
[1344] Ibid 146 [8], 171 [90], (Keane CJ), 181 [130] (Yates J).
[1345] Ibid 171 [95] (Keane CJ), 172 [98] (Perram), 181 [129]–[130] (Yates J).

lower Court had erroneously been too limited in its assessment of the human effort involved in the creation process.[1346] This was through focusing upon the efforts of the people involved with the computers to run the data extraction programs instead of the overall process of creation.[1347]

Telstra drew attention to the minimal High Court jurisprudence on the modern copyright protection of databases, with Mr Young QC stating: 'It is true that there has not been a careful consideration of the matter in the computer age'.[1348] However, Gummow and Bell JJ ultimately refused Telstra's application for special leave, finding that there had been no error by the Full Court of the Federal Court.[1349] Had special leave not been rejected, further directions pertaining to originality and authorship would likely have been provided.[1350]

This ruling prompted speculation that Telstra and other prominent database business owners would pressure the Attorney General to exercise authority to reform copyright.[1351] Between 2012 to 2020, interested parties have expressed desire for reform on various occasions.[1352] For example, in 2012 a submission was made by Tabcorp to the ALRC urging review of the copyright protection of databases in Australia.[1353] This was despite the fact that this issue was outside the terms of reference of that particular ALRC inquiry into the *Act*.[1354] As of June 2020, however, no such reform has occurred and the issue remains open, which supports the relevance of this study.

[1346] Davies Collison Cave, 'High Court Refuses Application For Leave to Appeal Telstra v PDC', *Davies Collison Cave Intellectual Property* (Web Page, 2 September 2011) <https://dcc.com/services/litigation-dispute-resolution/high-court-refuses-application-for-leave-to-appeal-telstra-v-pdc/>.

[1347] Ibid.

[1348] Transcript of Proceedings, Telstra Corporation Limited & Anor v Phone Directories Company Pty Ltd & Ors [2011] HCATrans 248 (2 September 2011).

[1349] Ibid (Gummow J).

[1350] Malcolm Maiden, 'Telstra Calls on Attorney-General Over Copyright', *The Age Online* (Web Page, 8 September 2011) <http://www.theage.com.au/business/telstra-calls-on-attorneygeneral-over-copyright-20110907-1jxnu.html>.

[1351] Ibid; William Van Caenegem, 'Originality, Joint Authorship and Databases Post-*IceTV*' (2011) 24(6) *Australian Intellectual Property Law Bulletin* 150, 150.

[1352] See, eg, Rebecca Smith and Siabon Seet, 'Football Dataco Ltd v Stan James Plc; Football Dataco Ltd v Sportradar GmbH: The Case and Its Relevance in Australia' (2013) 26(1) *Australian Intellectual Property Law Bulletin* 9.

[1353] Tabcorp Holdings Limited, Submission by Tabcorp Holdings Limited in response to the *Copyright and the Digital Economy Australian Law Reform Commission Issues Paper 42* (August 2012), 16 November 2012, 4.

[1354] Ibid.

5.3.4 Originality Post-*IceTV*

IceTV also resulted in changes in the judicial application of originality, which are relevant to databases. In *Fairfax v Reed*,[1355] the hearings occurred prior to *IceTV* but all parties agreed that the decision should be reserved until after the ruling was handed down.[1356] It was argued that copyright was infringed in various components of newspapers, including a compilation of articles within a newspaper.[1357] To establish originality, it was deemed necessary 'to prove that the work **originated from an author who expended independent intellectual effort** to create the expression in the work.'[1358]

Evidence established that the article compilations in some editions satisfied originality because they originated from authors and were produced through 'the exercise of considerable skill, judgement, knowledge, labour and expense involved in gathering, selecting and arranging the material included in the compilation'.[1359] Furthermore, the expression and arrangement of the article compilations was distinguished from the IceGuide in *IceTV*, because they 'required particular mental effort or exertion by joint authors' as opposed to information which was 'obvious, prosaic and essentially dictated by the nature of the information.'[1360]

It was acknowledged that the headlines may have been copyright-protectable but after careful consideration originality was rejected.[1361] This was because while the headline's creation involved skill and effort, they were 'too insubstantial and too short to qualify for copyright protection as literary works'.[1362] This affirmed a long line of precedent, which found that copyright would not subsist in a single word, title or sentence.[1363] When this decision was handed down, it directly conflicted with commentary from three other jurisdictions where, instead, it was suggested that newspaper headlines were original

---

[1355] *Fairfax v Reed* (n 904).
[1356] Ibid 113 [7] (Bennett J).
[1357] Ibid 112 [3] (Bennett J).
[1358] Ibid 129–30 [80] (Bennett J), applying *IceTV* (n 38) 479 [48] (French CJ, Crennan and Kiefel JJ).
[1359] Ibid 134-5 [104] affirming *Desktop Marketing* (n 44) 472–3 [160], 532–3 [409]. This was later affirmed by *Sanofi-Aventis Australia Pty Ltd and Others v Apotex Pty Ltd (No 3)* (2011) 281 ALR 705, 804 [346] (Jagot J) ('*Sanofi-Aventis*').
[1360] *Fairfax v Reed* (n 904) 134–5 [104], distinguishing *IceTV* (n 38) 397 [42]–[43].
[1361] Ibid 123 [46] (Bennett J), citing *Francis, Day & Hunter Ltd v Twentieth Century Fox Corporation Ltd* [1940] AC 112, 123 and *Milwell Pty Ltd v Olympic Amusements Pty Ltd* (n 212).
[1362] Ibid 122 [44]-[45] (Bennett J).
[1363] See eg, *Dicks v Yates* (n 1191) 18 Ch D 76; *Francis, Day & Hunter Ltd v Twentieth Century Fox Corporation Ltd* [1940] AC 112 and *Victoria v Pacific Technologies (Australia) Pty Ltd (No 2)* (n 732).

works protectable by copyright: *Meltwater Holdings* (UK);[1364] *Infopaq* (CJEU);[1365] and *Sunlec International* (New Zealand).[1366]

In Primary Healthcare, originality also failed. Here, *IceTV* was cited with the observation that 'A compilation may be an original literary work but only if it has been created through the exercise of skill and judgment'.[1367] In determining originality, skill and judgement firstly required the identification of the author and, in cases where this was impossible, copyright subsistence would fail.[1368] It was important for an author to demonstrate skill and judgment of an **'independent intellectual effort that … must be directed to the expression of the idea'**.[1369] The patient records were found to be insubstantial and did not qualify as original literary works. Rather, the skill, labour and effort demonstrated during creation had been directed towards the actual patient diagnosis through medical expertise instead of the expression of the idea in the patient records themselves.[1370]

Similarly, in *Acohs v Ucorp*[1371] transcribed MSDS were rejected as original literary works, because the transcribers did not make any original contribution towards their layout, presentation and appearance (the expression and reduction to material form). Rather, the transcribers had simply 'engaged in the mere task of copying'[1372] with limited actions.[1373] Likewise, in *Sanofi-Aventis*,[1374] (which involved patent and copyright issues), it was affirmed that a work originates 'from an individual author or authors'[1375] and it was found that a 'considerable degree of mental effort and exertion' was demonstrated in preparing the product information document.[1376]

[1364] *Newspaper Licensing Agency v Meltwater Holdings BV* [2010] EWHC 3099 (Ch).
[1365] *Infopaq* (n 80).
[1366] *Sunlec International Pty Ltd v Electropar Ltd* (High Court of New Zealand, Wylie J, 24 September 2008, Wylie J, Auckland CIV–2007–404–5044).
[1367] *Primary Healthcare v Commissioner of Taxation* (2010) 186 FCR 301, 313 [39] (Stone J) ('*Primary Healthcare*').
[1368] Ibid 312 [37] (Stone J).
[1369] Ibid 312–3 [38] (Stone J).
[1370] Ibid 313 [38] (Stone J).
[1371] (2010) 86 IPR 492 (Jessup J).
[1372] Ibid 522 [70] (Jessup J).
[1373] Ibid.
[1374] *Sanofi-Aventis* (n 1359).
[1375] Ibid 801 [336] (Jagot J), affirming *Telstra Appeal* (n 874) (Keane CJ).
[1376] Ibid 805 [350] (Jagot J).

In *Tonnex,* Dynamic submitted that originality subsisted due to the **'independent intellectual effort'** exercised by their employee in adapting it from the DMBS. They argued that their employee composed a 'unique layout',[1377] undertaking a painstaking selection of data from a range of sources.[1378] To support this, Dynamic relied upon the selection of the data and its arrangement, as well as the original gathering of the data and arrangement within their DBMS.[1379] In opposition, Tonnex submitted that the chart was unoriginal because originality could only subsist in the selection and order of the data.[1380] Also, the skill and labour demonstrated in the chart's creation had been minimal.[1381] There was no real selection of material[1382] and nothing original in the logical, alphabetical and numerical ordering of data within each column.[1383] Tonnex asserted that Dynamic's employee had not exercised enough 'independent intellectual effort' in the adaptation of the DBMS. In obiter, the Federal Court reiterated three essential principles of originality, two of which were affirmed in *IceTV* (in bold):

- **Original works emanate from authors.** The test for originality was whether the work originated from the author in the sense that it was **not copied by the author**;[1384]

- The work had to be the product of **human intellectual endeavour**. It required **'independent intellectual effort'** or the **'exercise of sufficient effort'** of a literary nature in its creation. However, neither literary merit nor novelty or inventiveness as understood in patent law was required;[1385] and

- Although compilations expressed in words, figures or symbols were literary works, copyright did not protect mere facts, ideas or data contained in a compilation. Rather copyright protected the form of expression that was the compilation

---

[1377] *Dynamic Supplies Pty Limited v Tonnex International Pty Limited* (2011) 91 IPR 488, 501 [58] (Yates J) ('*Tonnex*').
[1378] Ibid 502 [61] (Yates J).
[1379] Ibid 502 [62] (Yates J).
[1380] Ibid 502 [67] (Yates J).
[1381] Ibid.
[1382] Ibid.
[1383] Ibid 502–3 [67]–[68] (Yates J), citing *IceTV* (n 38) 477 [43].
[1384] Ibid 500 [48] (Yates J), applying *Robinson v Sands & McDougall Pty Ltd* (n 837) 132–3; *Sands & McDougall Pty Ltd v Robinson* (n 212); *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 291; *Bookmakers' Afternoon Greyhound Services Ltd v Wilf Gilbert (Staffordshire) Ltd* (n 939) 731.
[1385] Ibid 500 [49] (Yates J), applying *IceTV* (n 38) 474 [33], 479 [48] and 494–5 [99].

itself.[1386] It was important to consider the whole of the work, rather than an aspect/s in isolation, so as to avoid confusion between the form of the work and the elements that made up that form.[1387]

The data within the chart from the DBMS had been originated through skill and judgement of Dynamic's employee, so as to constitute sufficient intellectual effort.[1388] This was satisfied through the decisions made in selecting and ordering the data.[1389] These choices were underpinned by the employee's personal assessment and were not dictated by the nature of the data itself.[1390] There was nothing to suggest that the data had to be expressed in the particular form that it had been and therefore, 'fact and expression were not co-extensive'.[1391] Finally, it was affirmed that originality is a matter of degree, depending on skill, judgement or labour that has been involved in making the compilation.[1392] In a cumulative assessment, the skill and labour demonstrated by Dynamic's employee in creating the chart was more than negligible.[1393]

Upon appeal, the relevant ground was that there was insufficient 'independent intellectual effort' demonstrated in the creation of the chart for it to be considered an original literary work.[1394] Tonnex argued that the primary judge was incorrect in his finding that the skill, judgement and labour demonstrated by Dynamic's employee in creating the chart was 'more than negligible'.[1395] The Court had also erred in accepting evidence pertaining to the 'independent intellectual effort' that went into the selection and arrangement of the data within the chart.[1396] Instead, Tonnex argued that the selection and arrangement of this data had occurred in the course of creating and maintaining the DBMS rather than the chart itself.[1397] The Full Court found it irrelevant that the data reproduced in the chart

---

[1386] Ibid 500 [50] (Yates J), applying *IceTV* (n 38) 471 [26], 472 [28], 476 [40] and 495 [102].
[1387] Ibid 500 [50] (Yates J), applying *Milwell Pty Ltd v Olympic Amusements Pty Ltd* (n 212) 442–3 [19]–[20]; *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 277, 285, 290 and 291.
[1388] Ibid 504 [76] (Yates J).
[1389] Ibid 504 [77] (Yates J).
[1390] Ibid 504–5 [78]–[79] (Yates J).
[1391] Ibid 505 [81] (Yates J), distinguishing *IceTV* (n 38).
[1392] Ibid 505–6 [84] (Yates J), affirming *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 277–8, 282, 285, 292.
[1393] Ibid 505–6 [84] (Yates J).
[1394] *Tonnex International Pty Ltd v Dynamic Supplies Pty Ltd* (2012) 99 IPR 31, 36 [16] (McKerracher, Reeves and Nicholas JJ) ('*Tonnex Appeal*').
[1395] Ibid.
[1396] Ibid 37 [17] (McKerracher, Reeves and Nicholas JJ).
[1397] Ibid.

had been extracted from a DBMS.[1398] Rather, evidence tendered about the selection and the arrangement of the data was pivotal to the final ruling.[1399] Sufficient 'independent intellectual effort' was demonstrated in the selection and arrangement of the expression of the data.[1400]

In another recent Federal Court decision involving a relational database, by assessing originality, it was found that the fields within these tables had been authored by employees, with no evidence of copying due to the compilation's ordering and structure.[1401] The nature of the information itself was affirmed as being insufficient to dictate the form of the expression.[1402] In examining event descriptions, the selection, structure and arrangement was assessed as to whether it involved **'sufficient mental effort or exertion of a literary nature'**.[1403] Prima facie, the evidence suggested that the selection and arrangement of the event descriptions contained sufficient originality[1404] and the authors exerted sufficient effort to support this.[1405]

As can be observed from this post-*IceTV* originality jurisprudence, there has been an examination of joint authorship rather than singular authorship when examining whether sufficient originality has occurred. This has been because these cases have involved databases/DBMS and therefore the work of multiple people. For this reason, the next section will examine the judicial application of joint authorship in post-*IceTV* cases in much greater depth.

5.3.5 Joint Authorship Post-*IceTV*

Fairfax v Reed is one such example where joint authorship was examined. Fairfax submitted that newspaper articles and headings were works of joint authorship, created by multiple contributors.[1406] It was argued that the authors included journalists and sub-

---

[1398] Ibid 42 [41] (McKerracher, Reeves and Nicholas JJ).
[1399] Ibid.
[1400] Ibid 44 [51] (McKerracher, Reeves and Nicholas JJ).
[1401] *Sports Data Pty Ltd v Prozone Sports Australia Pty Ltd* (2014) 107 IPR 1, 13 [73] (Wigney J).
[1402] Ibid 13 [74] (Wigney J), affirming *IceTV* (n 38) [42]; *Fairfax v Reed* (n 904) [30]. Also see Peter Knight and Jackson Harrison, 'Claim for IP Protection for Data Files Fails for Want of Identification of Protected Subject Matter: Sports Data Pty Ltd v Prozone Sports' (2014) 27(8) *Australian Intellectual Property Law Bulletin* 223, 223–4.
[1403] *Sports Data Pty Ltd v Prozone Sports Australia Pty Ltd* (n 1401) 13 [74], 14 [76] (Wigney J), affirming *IceTV* (n 38) [42]; *Fairfax v Reed* (n 904) [30].
[1404] Ibid 14 [77] (Wigney J).
[1405] Ibid.
[1406] *Fairfax v Reed* (n 904) 131 [90] (Bennett J).

editors whose collaboration occurred in a way that could not be disentangled.[1407] Judicially, the newspaper article and headline creation processes were extensively examined and found to involve multiple contributors.[1408] The Court, however, remained unpersuaded that these contributors were identifiable employees and authors with specified job descriptions demonstrating sufficient skill and labour.[1409] The fact that each author was unidentifiable was 'fatal' to a claim of copyright.[1410] Joint authorship ultimately failed because the evidence showed that the writing of the articles and the headlines were distinct tasks with differing authors.[1411] Accordingly, an article/headline combination was rejected as being a discrete work in which copyright could subsist.[1412]

Rather, for joint authorship to subsist, there needed to be collaboration between sub-editors and journalists rather than the sub-editors partaking in separate tasks where the contribution of each person was separate from the other.[1413] The argument against joint authorship was supported by the by-line of the article, which named a journalist as the sole author.[1414] The process undertaken by the sub-editors was found to be a traditional editing role.[1415] In obiter, it was suggested that if it were assumed that the precise identification of every employee who contributed to the compilations were unnecessary, then copyright would subsist with Fairfax as the owner.[1416] Fairfax did not identify specific authors. In an alternative argument, they instead relied upon the presumption of anonymous authorship under s 129.[1417] This was ultimately rejected due to insufficient evidence.[1418] Section 129 did not provide the stipulation that the establishment of authorship could be made by external reasonable inquiry to the author or employer.[1419]

[1407] Ibid 132 [91] (Bennett J).
[1408] Ibid 125-6 [60]-[63] (Bennett J).
[1409] Ibid 131 [89] (Bennett J), affirmed by *University of Sydney v Objectivision Pty Ltd* (2019) 148 IPR 1, 123 [566] (Burley J).
[1410] Ibid.
[1411] Ibid 134 [101] (Bennett J).
[1412] Ibid.
[1413] Ibid 133 [95] (Bennett J).
[1414] Ibid 133 [96] (Bennett J).
[1415] Ibid 133 [97] (Bennett J).
[1416] Ibid [105] (Bennett J), affirmed in *University of Sydney v Objectivision Pty Ltd* (n 1409) 123 [566] (Burley J).
[1417] Ibid 128–30 [75]–[81] (Bennett J).
[1418] Ibid 130 [82] (Bennett J).
[1419] Ibid 129 [79] (Bennett J).

Similarly, *Primary Healthcare*[1420] was a post-*IceTV* literary work case (involving patient records) where insufficient authorship contributed to an overall failure of subsistence. The central issue in this tax case was whether copyright subsisted in individual patient records that were acquired by Primary Health. The answer would determine tax deductibility. When this case was handed down, the *Telstra Appeal* judgement (which suggested it unnecessary to identify each author individually) had not been released.

Instead, *Telstra*[1421] was applied so identification of every author was deemed necessary. This presented a substantial barrier to establishing authorship in many documents, because some doctors had merely initialled their names, making it impossible to establish their identity.[1422] In considering joint authorship, individual entries within each record[1423] were identified (eg, referral letters, blood pressure readings etc) to determine copyright status.[1424] The records were ultimately rejected as works of joint authorship,[1425] because they were considered separate works rather than a result of collaboration between doctors.[1426]

Subsistence also failed due to insufficient joint authorship in *Acohs v Ucorp*.[1427] This involved computer-generated material safety data sheets (MSDS). At first instance it was argued that copyright subsisted by virtue of underlying HTML (source) code, as original literary works of human authorship.[1428] Acohs submitted that the programmers who wrote the source code and entered data into the database were joint authors.[1429] This argument was ultimately rejected because each programmer made separate contributions towards the source code.[1430] Insufficient collaboration occurred to constitute an original work of joint authorship[1431] because it was not the work of any one human author.[1432]

[1420] (n 1367).
[1421] *Telstra* (n 128) 628 [35], 630-1 [37] (Gordon J).
[1422] *Primary Healthcare* (n 1367) 319 [69] (Stone J).
[1423] Applying *IceTV* (n 38) 469 [15] (French CJ, Crennan and Kiefel JJ) and 496 [105] (Gummow, Hayne and Heydon JJ).
[1424] *Primary Healthcare* (n 1367) 333 [123] (Stone J).
[1425] Ibid 332–3 [122] (Stone J).
[1426] Ibid.
[1427] (n 1371) (Jessup J).
[1428] Ibid 502–3 [24], 505 [32 (a)] (Jessup J).
[1429] Ibid 513 [55] (Jessup J).
[1430] Ibid 514 [57] (Jessup J).
[1431] Ibid.
[1432] Ibid 514 [59]-[60] (Jessup J).

Upon appeal, the Full Court of the Federal Court relied upon *IceTV*, stating that where the contributions of more than one person is made in a literary work, it is a 'question of fact and degree'[1433] as to whether any of them have expended 'sufficient effort of a literary nature'.[1434] After consideration of the source code it was affirmed as a separate work which had been created by a computer instead of human authors.[1435] Hence, the source code 'did not emanate from the authors. It was not an original work in the copyright sense'.[1436]

Similarly, the Federal Court explained the differences between establishing sole authorship and joint authorship in the first instance and appeal decisions of *Tonnex.*[1437] In clarifying joint authorship, the Court affirmed that the efforts of one or more individuals may bring a compilation into material form.[1438] After considering the evidence tendered (data logs which outlined the changes made to the DBMS), it was determined that most of changes were performed by one employee.[1439] Joint authorship therefore failed between the two named employees,[1440] because direct collaboration did not occur during the creation of the chart. Instead, the employees performed separate work in creating the chart.[1441] Nor did the evidence sufficiently establish joint authorship involving any other of Dynamic's employees.[1442]

Rather, each person who made changes to the DBMS performed separate work, albeit with the knowledge that some of the data would eventually be used in a future chart.[1443] **This reaffirmed the requirements of *The Act*, that for joint authorship to subsist, the work must have been produced by the collaboration of two or more authors and in a situation where the contribution of each authors was not separate from the contribution of the other author.[1444]** The single employee who created the chart brought

---

[1433] *Acohs Pty Ltd v Ucorp Pty Ltd and Another* (2012) 201 FCR 173, 182 [57]; affirming *Telstra Appeal* (n 874) 178–9 [118] (Perram J) and 191 [169] (Yates J).
[1434] Ibid 182 [47], citing *IceTV* (n 38) 494–5 [99] (Gummow, Hayne and Heydon JJ).
[1435] *Acohs Pty Ltd v Ucorp Pty Ltd and Another* (n 1433) 184 [57].
[1436] Ibid 184 [57].
[1437] *Tonnex* (n 1377) (Yates J) and *Tonnex Appeal* (n 1394) (McKerracher, Reeves and Nicholas JJ).
[1438] *Tonnex* (n 1377) 500–1 [51] (Yates J), applying *IceTV* (n 38) 474 [33], 479 [48] and 494-5 [99].
[1439] Ibid 503–4 [73] (Yates J).
[1440] Ibid 504 [74] (Yates J).
[1441] Ibid 504 [75] (Yates J).
[1442] Ibid 504 [74] (Yates J).
[1443] Ibid 504 [75] (Yates J).
[1444] Ibid.

it to fruition through their own initiative and labour[1445] and the first publication occurred in Australia when it was uploaded onto the website.[1446] Dynamic was, however, found to be the lawful owner under s 35(6), as it was produced under the terms of employment.[1447]

In the 2011 case of *Sanofi-Aventis*, *Telstra Appeal* was applied, so it was found unnecessary for every author to be identified separately for a work of joint authorship to subsist.[1448] However, the Federal Court has recently stated that post-*IceTV* precedent suggests it appropriate to 'ascertain the required degree of collaboration and non-separate contribution by having regard to the nature of the work and the available evidence of the contributions of the persons involved'.[1449] This assessment is made by regarding the nature of the work and evaluating evidence about each individual contribution.[1450] Chapter 6: shall discuss the implications of this jurisprudence on databases.

5.4 Conclusion

In conclusion, this chapter has examined the changes which have occurred to the judicial application of originality and authorship since 2000. During the early years of the 21st century, as demonstrated through *Desktop*, the Australian judicature steadfastly applied SOTB to databases and other works. Subsistence was found where an author had demonstrated a 'sufficient degree' of **'labour'**, **'effort'**, **'skill'** or **'expense'**. The rejection of the special leave to appeal *Desktop* in 2002 affirmed the High Court's refusal to consider departing from SOTB. It also controversially separated Australia from international treaties and many other jurisdictions who applied TCS.[1451]

However, just seven years later, *IceTV* significantly re-orientated the judicial application of originality and authorship for literary works including databases.[1452] After *IceTV*, the Australian judicature espoused a standard where **a database needed to originate from an author via means of 'independent intellectual effort'.** The implications of this will

---

[1445] Ibid 504 [75] (Yates J).
[1446] Ibid 506 [85] (Yates J).
[1447] Ibid.
[1448] *Sanofi-Aventis* (n 1359) 806 [353] (Jagot J).
[1449] *University of Sydney v Objectivision Pty Ltd* (n 1409) 124 [568] (Burley J).
[1450] Ibid 124 [569] (Burley J).
[1451] See, generally, Gervais, 'The Compatibility of the Skill and Labour Originality Standard with the Berne Convention and the TRIPS Agreement' (n 423).
[1452] Justine Pila, 'An Australian Copyright Revolution and its Relevance for UK Jurisprudence: IceTV in the Light of Infopaq v Danske' (2010) 9(2) *Oxford University Commonwealth Law Journal* 77, 77.

be analysed in the next chapter, which argues the central thesis by explaining how some database owners purport that some databases are currently under-protected through copyright.

CHAPTER 6: HOW SOME DATABASES ARE PURPORTED TO BE UNDER-PROTECTED THROUGH AUSTRALIAN COPYRIGHT LAW

6.1 Relevance to the Central Thesis

This chapter merges the conclusions from Chapter 4: with the context in Chapter 5: to analyse the fourth issue:

Issue 4 – The Limitations of the Copyright Protection of Databases in Australia

> 4. How does the current Australian judicial application pertaining to originality and authorship purport to under-protect some databases?

In doing so, it will address the central thesis by explaining how the current judicial application of Australian copyright law purports to under-protect some privately funded databases. Section 6.2 will engage in analysis about the judicial application of originality and authorship to databases post-*IceTV*, drawing on the conclusions from Chapter 4: and the cases analysed in Chapter 5:. It will explain what has changed for both criterion since then.

Then, section 6.3 will focus on the central thesis by arguing that the copyright subsistence criteria pertaining to originality and authorship under-protects some databases. Reasons will be examined as to why this is so. It will be argued that the requirement that an identifiable human author's 'independent intellectual effort/s' be directed to the expression of the database appears incompatible with contemporary database creation. Stated succinctly, because there has been a lack of traceable human authorship, which has led to a failure to successfully prove joint authorship and originality in some modern databases, copyright has failed. Economically, this under-protection is problematic because such databases are valuable assets and are vulnerable to commercial exploitation, as discussed in 2.3.3. From a Lockean perspective, the under-protection of databases discourages economic investment in creation because there is no authorial incentivisation. To begin the analysis, the next section will state the major observations pertaining to what has changed about the applicability of originality and authorship to databases post-*IceTV*.

6.2 The Applicability of Originality and Authorship to Databases Post *IceTV*

6.2.1 What Has Changed About Originality Since *IceTV*?

To briefly recap, Chapter 4: analysed the application of SOTB by the courts in over 200 years of precedent. It found that copyright protected the **'labour'**, **'skill'** and sometimes **'expense'** of an author which resulted in the creation of an original literary work.[1453] However, as has been examined, there was inconsistency demonstrated in the judicial application of originality during early precedent in relation to the degree which was required. Each case was decided upon its facts. SOTB judicial application transitioned over the centuries, particularly after the codification of originality in 1911 statute.

There was a gradual shift away from unfair competition principles (which focused upon the potential public policy benefits/detriments of pirating) onto the precise establishment of an individual author's labour. This author-centric focus eventually led to an unbalancing between public and private rights, with a sole focus upon the **'labour'**, **'skill'** and **'expense'** demonstrated by an author in creating a work and no consideration of the public benefits of copying the work. Increasingly atomistic assessment occurred about an author's original contribution to their work. Originality expanded to cater for an ever-broadening subject matter, and SOTB remained applicable until *Desktop Marketing* and *Telstra Appeal*.

IceTV, however, espoused the need to exercise caution in emphasising labour and expense.[1454] Instead, it was suggested that past reasoning in relation to databases (for example, in *Desktop Marketing*) was 'out of line with the understanding of copyright throughout the years'.[1455] The High Court advised that the focus should not be so complicated as to squarely divide originality into SOTB or TCS categories.[1456] **Rather, what was needed was consideration of the underlying mental processes by a human**

[1453] *Cary v Faden* (n 212); *Matthewson v Stockdale* (n 212); *Longman v Winchester* (n 761); *Lewis v Fullarton* (n 779); *Kelly v Morris* (n 212); *Morris v Ashbee* (n 212); *Morris v Wright* (n 212); *Walter v Lane* (n 212); *Sands & McDougall Pty Ltd v Robinson* (n 212); *MacMillan* (n 829); *Victoria Park* (n 38); *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212).

[1454] Peter Knight, 'The Federal Court Revisits Copyright in Databases: Tonnex International Pty Ltd v Dynamic Supplies Pty Ltd' (2013) 25(8) *Australian Intellectual Property Law Bulletin* 164, 165.

[1455] *IceTV* (n 38) 516 [188] (Gummow, Hayne and Heydon JJ).

[1456] Ibid 478–9 [47]–[48].

author during the creation of such a work.[1457] There must be emphasis on an author's 'original productive thought' behind the expression of the work.[1458]

Following *IceTV*[1459] obiter, there emerged re-orientation of SOTB,[1460] with a standard which emphasises **'sufficient intellectual effort'** and/or **'sufficient effort of a literary nature'**[1461] as applied in the *Telstra*[1462] and *Tonnex*.[1463] This need for an author to originate a work requires the establishment of causation: a human agency must be causally responsible for the creative expression of a work.[1464] However, there is a paradox here, because the actual processes of modern database creation challenges this notion. Arguably, the re-oriented *IceTV* standard of originality is similar to, but not necessarily the equivalent of, the 'creativity' standard from International law and the US.[1465] It remains of vital importance to determine whether authorial contribution satisfies originality. While this re-orientation might have occurred to blur a clear distinction between the originality standards to make it easier to identify the mental effort behind a work, it has, instead, had the opposite effect. In recent cases, it has required a highly detailed and atomistic judicial examination of evidence regarding the precise human labour in database creation and the underlying technological processes.

Originality has often failed, particularly in computer-generated databases, because the work of the humans involved in the database creation process has inherently been limited and has displayed insufficient **'independent intellectual effort'**. Essentially, three tests can be drawn from *IceTV*, each of which must be satisfied by a human author for originality to subsist:

1. How much, which is a quantifiable judgement of the precise 'sufficient effort';
2. What, which is a qualitative measure equating the work to be 'of a literary nature'; and

---

[1457] Ibid 478–9 [47]–[48].
[1458] Ibid (emphasis added).
[1459] Ibid.
[1460] See generally, See generally, McCutcheon, Jani, 'When Sweat Turns to Ice: The Originality Threshold for Compilations Following IceTV and Phone Directories' (2011) 22 *Australian Intellectual Property Journal* 87.
[1461] *IceTV* (n 38) 474 [33], 479 [48] (French CJ, Crennan and Kiefel JJ) (emphasis added).
[1462] *Telstra* (n 128) 685 [344] (Gordon J).
[1463] *Tonnex* (n 1377) 500 [49] (Yates J) applying *IceTV* (n 38) 474 [33], 479 [48] and 494–5 [99].
[1464] Balganesh (n 382) 2.
[1465] Lisa Egan, 'IceTV: High Court Closes in on Copyright in Compilations' (2009) 22(1) *Australian Intellectual Property Law Bulletin* 2, 5. See 3.1.2.

3. Whom, which is evaluated via 'independent intellectual effort' by an identifiable human author.

The criteria have an underlying requirement of an individual, quantifiable, mental, human process of reducing a database to tangible form. This presents challenges when it is applied to some modern databases, because it is the machines, not humans, which mostly perform this step. Therefore, some database producers purport that originality has failed, leaving some economically valuable databases unprotected by copyright.

In *Telstra*, **'independent intellectual effort'** was described as 'consistent with a long line of authority'.[1466] However, this is not strictly true. If *Telstra* had been assessed through the strict criteria of 'skill', 'labour' and 'expense', rather than by 'independent intellectual effort', then based upon the evidence, copyright would have likely been found to subsist in Telstra's directories, demonstrating consistency with *Desktop Marketing*. This is because, as evidenced by the technological processes expressed in the judgement, much human skill had gone into the arrangements that were necessary in preparing the relational databases to produce the final databases.

Although the main form of labour had shifted medium from person to machine, humans were still ultimately responsible for making the arrangements necessary for the machines to reduce the database to tangible form. Also, the expense of database creation was significant. Authorship failed because the humans who were involved with the technological programming of machines were found to have contributed prior to the work first taking material form. So, it can be argued that in attempting to simplify the application of the law by shifting the focus to an evaluation onto the mental processes underpinning the creation of a work, the result is that databases that previously would have been protected have instead fallen outside of protection.

[1466] *Telstra* (n 128) 625 [21] (Gordon J) citing *London Press* (n 447) 608–9 (Peterson J); *Robinson v Sands & McDougall Pty Ltd* (n 837) 132–133 (Barton J); *Sands & McDougall Pty Ltd v Robinson* (n 212) 52 (Isaacs J); *Victoria Park* (n 38) 511 (Dixon J); *Football League Ltd v Littlewoods Pools Ltd* (n 38) 651 (Upjohn J); *Autodesk Inc v Dyason* (n 743) 347 (Dawson J); *Interlego AG v Croner Trading Pty Ltd* (n 851) 379 (Gummow J); *Data Access Corporation v Powerflex Services Pty Ltd* (n 725) [22], [95] and [122] (Gleeson CJ, McHugh, Gummow and Hayne JJ); *Sawkins v Hyperion Records Ltd* (n 38) [31] (Mummery LJ); *Victoria v Pacific Technologies (Australia) Pty Ltd (No 2)* (n 732) [18] (Emmett J).

The issue is that due to advancing technology, computers have advanced to the point where they mostly perform the 'skill and labour' criteria in lieu of people. Computers now undertake the tasks that are required to physically express a database in material form. Therefore, humans no longer engage in the same types of activities as they did in the past to create databases. This does not, however, entirely negate collective human involvement. Rather, it is the role of human labour that has changed. The difference now is that teams of people must engage in different types of activities than they did in the past. Often these activities require a limited individual degree of human expression throughout the database creation process. Nevertheless, collective human involvement remains essential to create a database.

Currently, in relation to the criterion of skill, the skill displayed by a computer in producing a database is being judged in the same way that the skill of a person collating data for a hand-written database would be. It is, however, difficult to reconcile the evaluation of the labour performed by a machine with the labour-intensive processes involved in the human collation of a database from say, 100 years ago. The evaluation also overlooks the fact that it takes significant human skill to instruct a computer or DBMS to produce a database by reducing it to material form. In relation to the labour criterion, computers now undertake most of the labour-intensive tasks involved in database creation, such as cross-checking and data-matching. Humans remain involved in the process of database creation, albeit with highly constrained actions, which are often performed through computers: they undertake the necessary actions or instructions for the DBMS to reduce the database to material form.[1467]

One of the most significant reasons for the substantial reduction in physical human labour and the increase in computerised labour is an endeavour to generate higher profitability in less time. Also, another reason is a lessening of human error. Evidence in *Telstra* established that their database had advanced throughout the years by streamlining some of the processes that were previously performed manually by employees.[1468] Additional evidence in *Telstra Appeal* demonstrated the limited input of humans in database creation: the employees had highly constrained, pre-defined computer rules with which they had to comply. But this does not negate the fact that had humans not contributed to the

[1467] McCutcheon, 'Curing the Authorless Void' (n 316) 53-6.
[1468] *Telstra* (n 128) 637 [58] (Gordon J).

creation process, by adhering to the rules and overseeing the DBMS process, the databases would not have existed.

Of the three criteria within SOTB, expense remains significant to modern databases, particularly in business, medicine and scientific initiatives. As demonstrated in the post-*IceTV* cases, the databases were commercial innovations and the cost of developing software and DBMS is often high as evidenced in *Telstra* and *Telstra Appeal*.

In recent times it appears that a paradox has unfolded: to be efficient and fast, and to comply with mechanical convention, databases are specifically designed to limit the originality of humans involved in their creation. However, for originality to subsist, the law requires that the human who inputs data into such a database: (1) satisfy the tests for authorship/joint authorship and (2) demonstrate 'sufficient intellectual effort'. The problem here is twofold. Firstly, the nature of modern database creation usually involves the contribution of many skilled humans. Each person contributes their ideas[1469] and/or unique skills to the creation of the database, often in antecedent and limited ways. As discussed, this type of contribution has failed the collaborative legal tests for joint authorship, so authorship fails.

Secondly, there is an issue regarding the usual mechanical conventions that are followed by humans who input data into databases, when engaging in the selection and arrangement of the data. As extensively discussed by a legal scholar, the collation of modern databases requires people to utilise a broad set of cognitive skills to categorise, select and classify data.[1470] This selection and arrangement of data can be a highly dynamic process.[1471] Such processes involve considerable 'independent intellectual effort' by people, with the final database playing a significant role in influencing the public's understanding and perception of data.[1472]

However, under Australian jurisprudence, the input of specific words or commands by people to DBMS has fallen short of the test required to satisfy originality. Therefore, the judicial paradigms for originality have not always aligned well with the type of work that humans perform in selecting and arranging data. This has arguably led to a situation

[1469] See McFarlin (n 316) 706.
[1470] Shur-Ofry (n 41) 318–30.
[1471] Ibid 317.
[1472] Ibid 328.

where, in having computers perform the labour-intensive work to increase speed and reduce cost efficiency, the databases produced have been unprotected by copyright. It must be remembered that the databases involved are generally commercial products and their financial viability depends upon the production costs. Consequently, in the current Australian legal context, some database producers purport that the establishment of copyright protection under-protects some databases.

Application of originality in *Tonnex* and *Tonnex Appeal* involved examination of the employees' **'intellectual effort'** in the creation of the chart. This involved analysis of the actions of this person before and during the creation of the work, as well as consideration of the authorial intent during the creative process. Authorial choices which led to the creation of the work were considered. The concept of authorial intent is not new and it has been argued that the cognitive processes undermining creation deserve much more attention than they currently receive.[1473] Authorial intention questions the acts that are required throughout the creative process, as considered in the 1959 UK case of *Football League Ltd v Littlewoods Pools Ltd.*[1474] Chapter 4: discussed this, finding the effort which preceded the actual creation of the compilation was considered in the determination of copyright subsistence.[1475]

Recently though, to determine an author's intellectual effort, the Courts have examined the underlying mental processes and decisions made throughout the entire database creation process. This has spanned from conception right through to the reduction to material form. **It is submitted here that unless the law is reformed, authorial intent will provoke considerable evidentiary investigation in future database cases.** The consequences of such detailed evidentiary investigation are significant evidentiary expense, which may be time consuming and cost-prohibitive to some parties. Such investigations will likely involve an atomistic examination of the entire database creation process, as occurred in *Tonnex* and *Tonnex Appeal* and will weigh against finding subsistence. These reasons weigh strongly in favour of law reform.

[1473] See generally, Omri Rachum-Twaig, 'Recreating Copyright: The Cognitive Process of Creation and Copyright Law' (2017) 27 *Fordham Intellectual Property Media and Entertainment Law Journal* 287.
[1474] (n 38).
[1475] Ibid 654 (Upjohn J).

Having discussed the apparent changes in relation to originality post-*IceTV*, the next section will examine the changes that have occurred in the judicial application of authorship post-*IceTV*.

6.2.2 What Has Changed About Authorship/Joint Authorship Since *IceTV*?

To briefly recap the analysis from Chapter 4:, the establishment of authorship throughout 19th and 20th century jurisprudence was not contentious (except for *Cummins v Bond*).[1476] Authorship remained uncontested in most cases and particularly so in relation to literary work compilations. This was because creating such a work was usually a solitary endeavour. In earlier jurisprudence, it was simply a factual matter of identifying a human author/s who physically collated the work, thereby reducing it to tangible form. Also, as explored in Chapter 4:, another reason for the lack of contest pertaining to authorship was likely due to the firm embedding in consciousness of the notion of Romantic Authorship, combined with the fact that publishers usually held copyright instead of individuals. The concept of Romantic authorship was used as a means of exerting individual control over and access to creative works and information for centuries.[1477]

Judicially, an individual author satisfied originality through an examination of their **'labour', 'skill'** and sometimes **'expense'** in producing the work or database.[1478] It was essential that an author expressed a degree of original expression in their work and did not copy another's work. As Australian precedent developed into the 20th century, the concept of authorship was found to be tantamount with originality, in that it was deemed to be an author who 'originated' a work.[1479] This was examined factually and as time progressed, consideration of human involvement in database creation was often assumed. This was seen throughout Australian jurisprudence and epitomised in the 2002 case of *Desktop Marketing*, where assumptions were made about multiple contributors, finding

---

[1476] (n 965).
[1477] Jaszi (n 876) 457, 470.
[1478] *Cary v Faden* (n 212); *Matthewson v Stockdale* (n 212) 105–6 (Erskine L); *Lewis v Fullarton* (n 779) 1081 (Langdale L); *Kelly v Morris* (n 212) 702–3; *Morris v Ashbee* (n 212) 40–1 (Sir G M Giffard VC); *Morris v Wright* (n 212) 286; *Walter v Lane* (n 212) 552 (Davey L); *Sands & McDougall Pty Ltd v Robinson* (n 212) 55 (Issacs J); *Victoria Park* (n 38) 511 (Dixon J); *GA Cramp & Sons Ltd v Frank Smythson Ltd* (n 212) 338 (Macmillan L); *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 275 (Reid L); *Kalamazoo* (n 840) 120.
[1479] *Sands & McDougall Pty Ltd v Robinson* (n 212) 55 (Issacs J); *Express Newspapers Plc v News (UK) Ltd* (n 1116).

in favour of joint authorship without requiring extensive evidentiary proof of their precise contributions.[1480]

In *Desktop Marketing*, the Court instead relied upon the assumptions that (1) it was either unnecessary for Telstra to establish precise authorship for the telephone directories or (2) that all of the employees who had acted in compliance with the terms of their employment had contributed to the creation of these works as joint authors.[1481] Therefore, joint authorship was assumed based on multiple employees' involvement.[1482] Inadvertently, the Court opined that without the contributions of the employees, copyright would not have subsisted, because the works would not have been original works. It was not until after *IceTV* that the issue about the precise establishment of authorship/joint authorship in databases became much more contentious.

IceTV found that a work must '**originate with an author or joint authors from some independent intellectual effort**'.[1483] Precise human authorship and intellect was re-emphasised and was affirmed in later cases involving compilations and other works.[1484] Even if human authorship was successfully established in works involving teams of people, sufficient originality needed to be determined through each individual's contribution:

> Where a literary work is brought into such existence by the efforts of more than one individual, **it will be a question of fact and degree** which one or more of them have **expended sufficient effort of a literary nature to be considered an author** of that work within the meaning of the Act.[1485]

Post-*IceTV*, decisions involving databases and other works have emphasised the fact that human authorship is essential in establishing subsistence.[1486] If authorship cannot be

---

[1480] *Desktop Marketing* (n 44) (Sackville J), applying *Waterlow Publishers Ltd v Rose* (n 991) 500 (Slade LJ).

[1481] *Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited* (n 135) 136 [4] (Finkelstein J).

[1482] Ibid 136 [4] (Finkelstein J); *Desktop Marketing* (n 44) 557 [272] (Sackville J).

[1483] *IceTV* (n 38), 478 [47]–[48] (French CJ, Crennan and Kiefel JJ).

[1484] Ibid 474 [33], 479 [48], 494–5 [99] (French CJ, Crennan and Kiefel JJ); *Telstra* (n 128) 625 [21] (Gordon J); *Telstra Appeal* (n 874) 145 [5], 154 [33] (Keane CJ); *Tonnex* (n 1377) 500 [49], 504–5 [77]–[84] (Yates J); *Technology Integrations Pty Ltd v Green Energy Management Solutions Pty Ltd* [2011] FCA 1319, [84]–[87] (Kenny J); *Sanofi-Aventis* (n 1359) 804–7 [348]–[355] (Jagot J).

[1485] *IceTV* (n 38) 494 [99] (Gummow, Hayne, Heydon JJ).

[1486] See, eg, *Telstra Appeal* (n 874) 162 [57] (Keane CJ), 192–193 [179] (Yates J); *Acohs v Ucorp* (n 1371) 514 [59]–[60] (Jessup J); *Acohs Pty Ltd v Ucorp Pty Ltd and Another* (n 1433) 184 [57] (Jacobson, Nicholas and Yates JJ).

found, for example in situations involving computer-generated databases reducing the work to material form, then copyright subsistence fails and infringement cannot be examined.

The judicial emphasis upon the precise identification of an author/s is difficult to reconcile with the fact that for a database to subsist materially, multiple humans must have contributed in some way. The ramifications of this point are serious, particularly in relation to commercial databases where significant investment is potentially at risk if not even a single human author is unidentifiable. Arguably, the limitations of the judicial application of authorship have been exposed, with copyright not protecting what is now technological reality.

In *Telstra*, consideration was briefly given as to whether, generally, authorship could be established in a database. Despite the highly constrained nature of modern database collaboration, it was found that a claim of authorship in such a database could theoretically be satisfied. In reiterating the reasoning of Gummow, Hayne and Heydon JJ in *IceTV*,[1487] who relied upon the work of a prominent IP professor, it was stated:

> [A] claim of authorship in a database may arise where a person (an author) determines how a database will function and be expressed. The independent intellectual effort expended in making those determinations might go to the originality of the particular form of expression of the work (namely, the database).[1488]

This raises issues as to the logistical and practical ramifications of this requirement. For example, from an evidentiary perspective, it is difficult to prove the function and expression of databases involving DBMS, which replace actions once performed manually by people. Therefore, the establishment of sufficient authorial 'independent intellectual effort' is challenging in the existing copyright paradigm. The labour performed by people is too far removed from the actual task of reducing the work to material form, which is ultimately performed by a computer.

Tonnex and *Tonnex Appeal* provided further guidance about successfully establishing database authorship, with a focus upon the human elements required. Sole authorship rather than joint was found after detailed discussion of the actions and decisions of an

---

[1487] *IceTV* (n 38) 507–8 [151]–[152].
[1488] *Telstra* (n 128) 626–7 [27] (Gordon J), citing Davison, *The Legal Protection of Databases* (n 22).

employee.[1489] It was significant that the employee had engaged in a process of assessment by drawing upon their skill and expertise to select material that would be regarded as being useful by customers.[1490] Importantly, this employee understood what would best be utilised by customers, with their decisions enhanced by knowledge and experience.[1491] Therefore, the choices made in arranging the columns in the file satisfied originality in the expression of the chart and subsistence was found.[1492] It can be deduced from this that:

- The establishment of when and how a database is brought into material form; and
- Exactly by whom (machine or person/people)

is vital to successfully establishing subsistence. Primary reduction to material form by computer-generated machines instead of a human has resulted an 'authorless' status and a failure of subsistence.[1493]

However, what had been overlooked was the human planning, organising and overseeing the compilation process and correcting errors, albeit in a limited capacity. The machines were used as a tool to achieve the end-result, much like an artist's paintbrush is used to paint an artwork. However, the chain of authorship was deemed broken due to machine-based labour that was too far removed from the initial involvement of humans.

An example given by prominent Australian scholar is that 'a computer may have been programmed to identify the individual fields in a record and to separate each record into the relevant fields, but the field and record design has still been carried out by the [human] author of the database, as has the design of the indexing system'.[1494] These steps have been deemed too antecedent to constitute original authorship in a database. Databases are often programmed by humans to perform the tasks relating to data organisation, thereby forming 'a layer or layers of software between the physical database itself and its author, who accesses it to add, update or remove data'.[1495] This raises the exacting question as to

---

[1489] *Tonnex* (n 1377) 504–5 [74] (Yates J).
[1490] Ibid 504 [75] (Yates J).
[1491] Ibid.
[1492] Ibid.
[1493] *Telstra Appeal* (n 874) 192–3 [179] (Yates J).
[1494] Davison, *The Legal Protection of Databases* (n 22) 23.
[1495] Ibid 21, referring to Sam Ricketson, *Law of Intellectual Property* (n 1000) 7.175.

the degree of human involvement which must occur to constitute authorship/joint authorship.

This forces a very detailed judicial examination of factual evidence. An atomistic, quantifiable assessment ensues, involving factual establishment of the contribution and actions of each person involved with the database creation process, as demonstrated in recent post-*IceTV* cases. From a practical perspective, it has been impossible to precisely determine a quantifiable measurement of the contribution of each person involved in such complicated technological processes. The judicature in post-*IceTV* cases have been unable to determine an exact moment prior to a database taking material form that an individual's efforts were deemed sufficiently original towards the expression of the database.[1496]

A strange paradox has seemingly unfolded, because technology is normally utilised to improve work efficiency and to undertake complex tasks that would be difficult and time-consuming for humans to undertake. Yet some post-*IceTV* rulings have resulted in no copyright protection to some databases produced via the assistance of technology, essentially fostering a technology-free environment.

What has been overlooked is that authorial choices must still be made up-front about the different fields and records that are to be defined, as well as the way these records are collated and presented to the user.[1497] '[W]ith the vast majority of commercial databases, there has been some thought put into the database design by its [human] author, regardless of the extent to which that design has been automatically implemented by computers'.[1498] DBMS planning is a highly complex issue and usually includes high-level analytical thinking which requires a sophisticated understanding of the types of database transactions and technological governing rules, as well as the arrangement of the database fields.[1499] This is evidenced by the fact that databases are the visual 'representation of the entire process, rules and relationships of the [underlying] sub-processes', which requires detailed understanding and insight by humans.[1500] Usually, there are several steps

[1496] Ibid.
[1497] Ibid 22.
[1498] Ibid.
[1499] Blansit (n 21) 141.
[1500] Ibid.

involved in database development, which often merge and are repeated.[1501] It can, therefore, be argued that but for the (albeit limited) actions of humans, a correct and finalised database would not be possible.

Also, despite multiple contributors being involved in database creation, some recent post-*IceTV* database cases have failed to establish joint authorship. This has been due to the lack of establishment of sufficient collaboration between authors, because of the requirement that the contribution of each author is 'not separate' from the other; there had been insufficient evidence tendered that the multiple contributors involved in making the arrangements necessary for the database to be produced have undertaken work of a sufficient collaborative nature. Therefore, the requirement for collaboration in joint authorship under s 10 of *The Act* has had significant implications for the actual process of database creation. The requirement that an author's contribution must not be separate does not align well with the process of modern database creation.

While the creation of databases often involves the input of many humans, each person normally contributes their skills separately during the process of data compilation. It is usual practice for only one person to sit at each computer terminus and so the data input occurs separately. However, to satisfy joint authorship, *The Act* requires sufficient collaboration on the part of human authors, it is mostly the computer(s) that collaborate and manipulate the data. *Tonnex* and *Tonnex Appeal* demonstrated the ramifications of this, where joint authorship failed.

In the past, the judicial establishment of joint authorship in tangible works was not as complex. For example, in the case of other types of literary works (such as a book), it is less difficult for the contribution of one author not to be separate from the contribution of the other author. Judicially, in recent cases it has not been possible to specify what actions are 'classified as being separate from the contribution of the other author'.[1502]

This issue warrants reform, because modern databases are often produced by large teams of people, each of whom collaborate to the expression of the work through their individual skills. With innovation and businesses becoming technology-based and driven, it is increasingly common that people collaborate in large teams to produce databases.

[1501] Forder & Svantesson (n 16) 147.
[1502] *The Act* (n 168) s 10.

Another common practice is the creation of works through various forms of AI, with less traceable input by humans.[1503] The onset of AI presents considerable barriers in establishing joint authorship under Australian law and other jurisdictions.[1504] Also, the judicial interpretation of authorship currently requires the identification of a person/persons who 'direct' an original contribution to the expression of the work.[1505] It has been difficult to establish when the efforts of multiple human contributors during the database creation process would be sufficient to be 'directed' to the original contribution of the work.

Having discussed the changes in authorship and joint authorship post-*IceTV*, the next section will address the central thesis and distil the reasons as to why some producers argue that databases are currently under-protected by copyright.

6.3 The Reasons Why Some Databases Are Currently Under-Protected By Copyright

In 1999, a scholarly article questioned whether most databases were protectable under Australian copyright law, concluding that they most probably were.[1506] It was reasoned that SOTB provided a low originality threshold as affirmed in *Desktop Marketing*.[1507] At the time, Australia was espoused as providing 'the most generous copyright protection of any copyright regime in the world to compilations'.[1508]

However, just over a decade later, *IceTV* and other database rulings prompted a re-examination of originality. The re-orientated standard, which examines the **'independent intellectual effort'** in the selection and arrangement of data by a human author, led to a failure to satisfy originality and authorship in some cases. This leads to the ultimate issue

---

[1503] Russ Pearlman, 'Recognizing Artificial Intelligence (AI) as Authors and Investors under US Intellectual Property Law' (2018) 24(2) *Richmond Journal of Law & Technology* 1, 1–11.

[1504] For further information see Raquel Acosta, 'Artificial Intelligence and Authorship Rights' *JOLTDigest* (Web Page, 17 February 2012) <https://jolt.law.harvard.edu/digest/artificial-intelligence-and-authorship-rights>.

[1505] *Telstra* (n 128) 685 [344] (Gordon J).

[1506] Judith Bannister, 'Originality and Access: Copyright Protection of Compilations and Databases' (1999) 10 *Journal of Law and Information Science* 227, 227.

[1507] Ibid.

[1508] Mark Davison 'Nine Network Australia Pty Ltd v IceTV Pty Ltd and Telstra Corp Ltd v Phone Directories Co Pty Ltd: Copyright Protection for Compilations: Australia does a U-Turn' (2010) 32(9) *European Intellectual Property Review* 457, 457.

of the extent of copyright protection afforded to databases under *The Act*.[1509] A shift has emerged, where the private rights which were increasingly emphasised throughout the 20th century (to the detriment of public interest) were ignored. Instead, some database producers argue that the economic rights of databases have been minimised and under-protection has ensued. This reflects an unbalancing of the incentive/access paradigm. Future reform to rebalance this paradigm is recommended.

As examined in Chapter 4:, precedent underlying originality and authorship is well established. However, as examined in Chapter 5:, the limits of their judicial application to databases have been demonstrated because of major contextual shifts in technology. As declared by a copyright scholar, 'traditional copyright law is simply not up to the job we have tried to assign it in cyberspace'.[1510] The fact remains that current proprietary rights in works and the subsistence tests used to establish them were developed in a pre-digital era. It has become a matter of applying tests which have their basis in a pre-technological world to databases produced through technology. In attempting to apply such pre-established copyright laws to modern databases, subsistence fails, leading to no copyright protection for such databases. Some scholars have argued that the ongoing exclusivity of the judicial interpretation of 'Romantic authorship' has contributed to these contemporary problems.[1511] Hence, 'Romantic [A]uthorship and its connotations are deeply embedded in legal consciousness'.[1512] Authorship has been used as a means to limit public access to works, by bestowing monopoly rights upon authors. This was seen through an examination of authorship precedent throughout Chapter 4:.

However, from a practical perspective, the environment in which database authorship occurs has changed to such an extent that it generates tension with the historical philosophies and precedent against which has been judged. The dominant Romantic concept of rewarding a singular author-genius for their labour does not correlate well with the fact that:

[1509] Tim Golder, Adrian Chang and Scott Joblin, 'Copyright in Databases: The Spectre of *IceTV* Lives On' (2015) 28 *Australian Intellectual Property Law Bulletin* 290, 293.
[1510] Diane Leenher Zimmerman, 'Living Without Copyright in a Digital World' (2007) 70 *Albany Law Review* 1365, 1367.
[1511] Mark A Lemley, 'Book Review' (n 105) 879; James Boyle, *Shamans, Software and Spleens* (n 60) 114; Lior Zemer, *The Idea of Authorship in Copyright* (n 95) 73–9.
[1512] Jaszi (n 876) 501.

- The teams of people involved in creating modern databases engage in collective and collaborative practices; and
- The economic theory[1513] which largely dominates modern copyright has been driven by corporate practices, to the exclusion of any potential and future public interests that may be thwarted through a denial of access.

A primary underlying cause for this dichotomy has been suggested as the seemingly uncontrollable expansion of rights to new works, in favour of individual authors, which has ultimately been at the expense of the public interest.[1514] As succinctly stated by one scholar: 'while both utilitarian and rights-based justifications for copyright are generally viewed from the standpoint of the rights of the copyright owner, the question of justifications for this broad residuary public interest has largely remained unexplored.'[1515] In response to the assertion of rights in the public interest, the Open Access Movement ('OAM') has emerged. This shall be extensively explored in Chapter 10:.

The overarching result in recent times can be summarised as being that the establishment of subsistence has failed for two reasons:

Failure to Establish Authorship/Joint Authorship in Databases:

Due to modern database creation processes, it has been impossible to satisfactorily identify a human author/s;

In some works involving computer-generation, the contributions of multiple people have not been considered sufficiently collaborative, nor sufficiently separate enough from each other to successfully establish joint authorship**.**

[1513] See, eg, Jeffrey L Harrison, 'A Positive Externalities Approach to Copyright Law: Theory and Application' (2005) 13(1) *Journal of Intellectual Property Law* 1, 4–5; Dennis W K Khong, 'Copyright Failure and the Protection for Tables and Compilations' (Draft paper prepared for the 2004 Annual Meeting of the Society for Economic Research on Copyright Issues, 8-9 July 2004, Turin, Italy) 1–2; Landes and Posner (n 131) 326–27; Mark A Lemley, 'The Economics of Improvement in Intellectual Property Law' (1997) 75 *Texas Law Review* 989, 993–999; and, generally, Litman, 'The Public Domain' (n 106); Richard A Posner, 'Utilitarianism, Economics and Legal Theory' (1979) 8(1) *Journal of Legal Studies* 103, 119–27.

[1514] Coombe, *'The Cultural Life of Intellectual Properties*' (n 920) 219–20; Coombe and Cohen (n 209) 1048; Trosow, 'The Illusive Search for Justificatory Theories' (n 184) 217; Zemer, *The Idea of Authorship in Copyright* (n 95) 73–4; Lior Zemer, '"We-Intention" and the Limits of Copyright' (n 921) 99–100, citing Boyle, *Shamans, Software and Spleens* (n 60) 51-60.

[1515] Trosow, 'The Illusive Search for Justificatory Theories' (n 184) 220.

Authorship (whether single or joint) has failed in some databases because of the differing role fulfilled by people in creating databases. Software has usually been programmed to perform most of the tasks automatically and the distinction between human contribution and machine output is blurred.[1516] Human contributors have limited, often highly constrained antecedent input, which has been insufficient to satisfy authorship. This raises issues pertaining to the formal and informal organisational rules of collaborative input[1517] because some post-*IceTV* database cases have found that joint authorship has failed.

When the Courts have examined the contribution of each employee from a team of people contributing to database creation, due to the nature of the work performed, each employee's contribution has been deemed to be separate from the contribution of the other. Overall, recent Australian cases involving databases have demonstrated a shift in the copyright paradigm. There has either been (1) no identifiable human authors due to computer-generation which has reduced the work to material form; or (2) numerous humans who have been found to have contributed to the creation, but who have been unable to qualify as joint authors because their work has not been sufficiently separate enough from each other to successfully establish joint authorship. There has also been:

Failure to Establish Originality in Databases:

The efforts of humans have been found to be insufficient towards establishing the expression of the database in material form, to constitute sufficient originality via **'independent intellectual effort'**;

Originality has also failed due to the computerised process now occurring in database creation. The judicial application of the re-orientated SOTB standard has examined whether **'independent intellectual effort'** is demonstrated by a human in the expression of the database.[1518] The test has challenged the paradigms of modern database creation. Primarily this has been because of: (1) the constrained nature of human labour; and (2)

[1516] James Wagner, 'Rise of the Artificial Intelligence Author' (2017) 75 *Advocate (Vancouver)* 527, 530.
[1517] Anthony J Casey and Andres Sawicki, 'The Problem of Creative Collaboration' (2017) 58 *William and Mary Law Review* 1793, 1797.
[1518] *IceTV* (n 38) 474 [33], 479 [48] and 494–5 [99] (French CJ, Crennan and Kiefel JJ); *Telstra* (n 128), 685 [344] (Gordon J); *Dynamic Supplies Pty Limited v Tonnex International Pty Limited* (n 1377) 500 [49] (Yates J); *Sports Data Pty Ltd v Prozone Sports Australia Pty Ltd* (n 1401) 13 [74], 14 [76] (Wigney J).

the judicial process of identifying an individual's input has become atomistic and painstaking. With the constraints imposed by technological paradigms, this has led to a finding that no 'independent intellectual effort' has underpinned the reduction of the work to material form. A substantial barrier has prevented the establishment of originality.

What can also be deduced from modern Australian law is that to determine originality and authorship, there has been increasing judicial scrutiny in the examination of database creation. Consideration of the collaborative processes involved has become highly complex and atomistic.[1519] Ergo, the following principles have been affirmed:

1. It is the **original form of the expression of data that is protected by copyright**, not the data itself.[1520]

2. **Originality and authorship/joint authorship** are intrinsically linked.[1521]

3. To establish originality and authorship/joint authorship, a close assessment of the way in which the database has been reduced to tangible form will occur. Assessment will examine whether an author/s has displayed sufficient **'independent intellectual effort'** in the original expression of the work to tangible form.[1522] There must be identifiable, individual human effort directed towards the original expression of the work, as opposed to being dictated by the nature of the information itself.[1523] In assessing originality, the extent to which data has been selected and arranged by each human author will be vitally important. However, literary merit will not necessarily be required.[1524]

[1519] Molly Shaffer Van Houweling, 'Author Autonomy and Atomism in Copyright Law' (n 198) 554–556.

[1520] *IceTV* (n 38) 473–4 [31], 474 [33], 478–9 [47]–[48], 480 [52], 481 [54], 494–5 [99] and 516 [187]–[188]; *Telstra* (n 128) 622 [5(3)], 625 [20(9)], 626–7 [27], 628–9 [34]–[35] (Gordon J); *Sports Australia Pty Ltd* (n 1401) 14 [76] (Wigney J).

[1521] *Sands & McDougall Pty Ltd v Robinson* (n 212); *Desktop Marketing* (n 44), 532 [160(2)] (Lindgren J); *IceTV* (n 38) 496 [105], 503 [132] (Gummow, Hayne and Heydon JJ); *Telstra Appeal* (n 874) 172 [99]–[100] (Perram J).

[1522] *IceTV* (n 38) 479 [48] and 494–5 [99] (French CJ, Crennan and Kiefel JJ); *Telstra* (n 128) 685 [344] (Gordon J); *Dynamic Supplies Pty Limited v Tonnex International Pty Limited* (n 1377) 500 [49] (Yates J); *Sports Data Pty Ltd v Prozone Sports Australia Pty Ltd* (n 1401) 13 [74], 14 [76] (Wigney J).

[1523] *IceTV* (n 38) [42]; *Fairfax v Reed* (n 904) [30]; *Sports Data Pty Ltd v Prozone Sports Australia Pty Ltd* (n 1401) 13 [74] (Wigney J).

[1524] *Sands & McDougall Pty Ltd v Robinson* (n 212); *Victoria Park* (n 38); *Desktop Marketing* (n 44) 532 [160 Point 2] (Lindgren J); *IceTV* (n 38) 474 [33], 479 [48] and 494–5 [99]; *Telstra* (n 128) 625 [21] (Gordon J); *Tonnex* (n 1377) 500 [49] (Yates J).

4. For originality to subsist in a database, its expression must **originate from a human author;** the database must not be copied.[1525] A detailed examination of the contribution of each human separately will be undertaken, to determine whether there has been sufficient contribution.

5. For joint authorship to subsist in a database, it is important that the **contribution of each person was 'not separate' from the other** — each person must contribute to the work.[1526] As most processes involving humans in DBMS management are performed separately, this examination goes against establishing joint authorship. If the work involves multiple human contributors, each of whom conduct individual tasks relating to an automated computerised process, joint authorship will also likely fail.[1527]

6. The **expression of the database should be examined wholly**, as opposed to an examination in segments. [1528]

7. If the expression of the whole database has mostly occurred via a computerised process, originality will likely fail, due to inadequate establishment of 'independent intellectual effort' by a human author.

[1525] *Robinson v Sands & McDougall Pty Ltd* (n 837) 132-3; *Sands & McDougall Pty Ltd v Robinson* (n 212) 52; *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 291; *Bookmakers' Afternoon Greyhound Services Ltd v Wilf Gilbert (Staffordshire) Ltd* (n 939) 731; *Data Access Corporation v Powerflex Services Pty Ltd* (n 725) 16 [22] (Gleeson CJ, McHugh, Gummow and Hayne JJ); *Tonnex* (n 1377) 500 [48] (Yates J).

[1526] *The Act* (n 168) s 10; *Levy v Rutley* (n 936) 529 (Keating J); *Prior v Lansdowne Press Pty Ltd* (n 936) 688 (Gowens J); *CBS Records Australia Ltd v Gross* (n 936) 394–5 (Davies J); *Cala Homes (South) Ltd v Alfred McAlpine Homes East Ltd (No. 1)* (n 936) 835–6 (Laddie J) and *Hadley v Kemp* (n 936) 646 (Park J); *Tonnex* (n 1377) 504 [75] (Yates J).

[1527] *Tonnex* (n 1377) 504 [74]–[75] (Yates J).

[1528] *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 277, 285, 290 and 291; *Milwell Pty Ltd v Olympic Amusements Pty Ltd* (n 212), 442–3 [19]–[20]; *Tonnex* (n 1377) 500 [50] (Yates J).

The implications of these findings support the central thesis that some modern databases are currently under-protected through Australian copyright due to

- **A failure to establish traceable human authorship and/or**
- **A failure to establish joint authorship due to insufficient collaboration between authors and/or a lack of proof that the contribution of each author was not separate from the other and/or**
- **A failure to establish originality due to a lack of 'independent intellectual effort'**

Interestingly, it could be argued that economically, *Telstra Appeal* demonstrates a backwards shift of *The Act* in relation to the copyright protection of databases. The decision in this case shows that the current law essentially fosters an environment which caters to protect databases which are not produced via computer. This is despite the apparent time, money and human expertise which is invested throughout the creation process of modern databases.

Although joint authorship was argued in *Tonnex*, it could not be established based on the evidence presented. The work of the employees was found to be separate: no direct collaboration occurred between them, or between any other employees. The work performed on the computer system by each employee was not sufficiently collaborative nor sufficiently separate for joint authorship to exist. *Tonnex* also demonstrates that the more evidentiary proof of human input, which demonstrates the way in which human intellect is directed towards a database expression, the better the chances of successfully establishing subsistence.

Extraneous data, such as records or application lifecycle management tools (ALM), rather than the final database itself will be examined. ALM is becoming of increasing importance and it incorporates 'the entire time during which an organization is spending money on this asset [a software application], from the initial idea to the end of the

application's life'.[1529] Given these conclusions, Australian businesses should currently maximise their chance at judicially satisfying authorship in databases by:

1. Ensuring that accurate and detailed records are kept, which identify all human contributors.[1530] It is also important that they describe their precise contributions to the database, from conception through to completion. The work of each employee should clearly describe and relate to the form of the expression of the database – for example, notating that an employee has decided to input data in a certain way and the reasons underpinning this decision; and

2. Undertaking a more robust process of collaboration by meeting, discussing and documenting the work of each employee and how this interlinks to the work of others.

In the future, the issue of authorship is likely to remain vexing, particularly with developments in artificial intelligence and new forms of media.[1531] The advancement of such technological initiatives strongly provokes support of future legal reform. However, such outcomes may undermine the purposes and underlying philosophies for which copyright has traditionally been espoused.[1532] Instead of promoting creativity and innovation, copyright may be used to stifle it. As such, copyright laws may be used as a shield to prevent the dissemination of works which benefit the public interest.[1533] This issue warrants considerable weight, particularly considering the collaborative and communicative efforts that are occurring in modern database creation. In the alternative, if copyright is found to subsist in such databases, the flow-on effects may lead to negative outcomes such as increased costs, involving many rights-holders asserting separate rights.[1534]

[1529] David Chappell, 'What is Application Lifecycle Management?', *David Chappell and Associates* (Web Page, December 2008) <http://www.davidchappell.com/writing/white_papers/What-is-ALM--Chappell.pdf>.

[1530] Lisa Egan and Christina Maloney, 'Can Copyright Still Protect Databases? After *Telstra v PDC*' (2010) 22(8) *Australian Intellectual Property Law Bulletin* 146, 150.

[1531] See generally, Balkin, 'The Path of Robotics Law' (n 252); Bridy, 'Coding Creativity: Copyright and the Artificially Intelligent Author' (n 316); James Grimmelmann, 'Copyright for Literate Robots' (2016) 101 *Iowa Law Review* 657; and Calo (n 316).

[1532] See 2.1.

[1533] Reid (n 398) 426; Sheridan (n 386) 97.

[1534] Shaffer Van Houweling, 'Author Autonomy and Atomism in Copyright Law' (n 198) 557.

However, one of the broader implications of the re-orientated *IceTV* originality standard is that it more closely conforms to the current position of international conventions, the EU and the US, as discussed in 3.2.[1535] Seemingly, a global quasi-harmonisation of laws relating to originality in databases has emerged.

Since *IceTV*, due to the under-protection of some expensive databases, academic and judicial commentators have suggested that it is appropriate to investigate whether a sui generis database right should be enacted in Australia.[1536] A correlation seemingly exists between the post-*IceTV* re-orientated standard of originality and consideration of a sui generis database right. Perhaps this is because the databases which have fallen outside of copyright are economically valuable and their producers seek some form of protection.

The rulings in post-*IceTV* database cases raise the question as to the future direction of protection in Australia. To examine this issue in further depth, the remainder of this study will evaluate whether databases should:

1. Be protected through sui generis protection (Chapters 7–9); or
2. Be protected through open-access schemes (Chapter 10:);

The conclusion to this study (Chapter 11:) will discuss several future possibilities and recommendations for reform, including copyright legislative reform to address the issues and/or the addition of a new category of right.

The next section, PART THREE, shall examine the issue of sui generis protection, using the UK as a case study. This is an appropriate example, because as discussed in Chapter 4:, Australia shares common legal origins and subsistence precedent. English law applied SOTB, until the implementation of the *EU Directive* on 1 January 1998. In accordance with *the Directive*, the UK changed to a two-tier system of sui generis protection. Then, Chapter 7: will examine the English copyright protection of databases prior to the implementation of sui generis database rights. There shall be a focus upon the application of originality and authorship. After that, the reasons and processes underpinning the implementation of the *EU Directive* will be discussed. Chapter 8: will then analyse the judicial application of sui generis protection through the CJEU and how this was

[1535] For example, *Berne* (n 88) art 9(2) and *TRIPS* (n 90) art 10(2).
[1536] *IceTV* (n 38) 504 [135]–[139]; McGowan (n 1221) 848; *Telstra* (n 128) 629 [30] (Gordon J); *Telstra Appeal* (n 874) 171–2 [97] (Keane CJ).

interpreted in national UK law. Finally, Chapter 9: will evaluate the potential advantages and disadvantages of the implementation of sui generis protection in Australia. To achieve this the two official evaluations of *the Directive* will be analysed, as well as the recent plans to abolish *the Directive* which have been initiated through the European Digital Single Market laws.

PART THREE – THE UK: FROM ‘SWEAT OF THE BROW’ TO SUI GENERIS

CHAPTER 7: THE UK: FROM 'SWEAT OF THE BROW' TO SUI GENERIS

7.1 The UK: A Relevant Case Study with Important Lessons for Australia

PART 3 will address the fifth issue chosen for analysis by examining:

> 5. What lessons can be learned from the EU sui generis database right if Australia were to implement such a regime?

To begin this investigation, the issue of sui generis protection within the EU shall be examined by using the UK as a case study. The UK formally departed the EU on 31 January 2020[1537] after much political volatility[1538] and delays which began soon after the June 2016 British Exit Referendum (Brexit).[1539] Despite Brexit, the UK remains a highly relevant case study for three reasons:

1. As a signatory to *Berne* it shares a historical tradition with Australia, as analysed through precedent at 4.4.2.

[1537] *European Union (Withdrawal Agreement) Act 2020* (UK) c 1; *Agreement on the Withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community* (Brussels and London, 24 January 2020). Also see HM Government, 'Statement That Political Agreement Has Been Reached And That The United Kingdom Has Concluded An Agreement With The European Union Under Article 50(2) Of The Treaty On European Union'. Presented to Parliament pursuant to *European Union (Withdrawal) Act (No. 2) 2019* s 1 of the and *European Union (Withdrawal) Act 2018* (19 October 2019) s 13.

[1538] See, eg, *European Union (Notification of Withdrawal) Act 2017* (UK) c 9. Also see the Letter from Theresa May, British Prime Minister, to Donald Tusk European Council President, 29 March 2017, 1, sent in accordance with *Treaty on the Functioning of the European Union (Treaty of Lisbon)*, opened for signature 13 December 2007, (OJ C 306, 17.12.2007) (entered into force 1 December 2009) art 50(2) and *Treaty Establishing the European Atomic Energy Community*, opened for signature 25 March 1957, (OJ C 327, 26.10.2012 p. 1-107) (entered into force 1 January 1958) art 106a ('*Treaty of Lisbon*'). The oldest version of the *Treaty of Lisbon* was implemented by *Treaty on European Union*, opened for signature 7 February 1992, (OJ C 191, 29.7.1992) 11992M/TXT (92/C 191/01) (entered into force 1 November 1993) ('*Treaty on Maastricht*'). Also see *Treaty of Nice amending the Treaty on European Union, the Treaties Establishing the European Communities and Certain Related Acts, 26 February 2001, (C 080 , 10/03/2001 P. 0001 – 0087)* 2001/C 80/01 (entered into force 1 February 2003) ('*Treaty of Nice*'); and *Treaty of Amsterdam Amending the Treaty on European Union, the Treaties Establishing the European Communities and Certain Related Acts*, 2 October 1997 (*OJ C 340, 10.11.1997*) 1997D/TXD (entered into force 1 May 1999) ('*Treaty of Amsterdam*').

[1539] Lilian Edwards, 'Brexit: "You Don't Know What You've Got Till It's Gone"' (2016) 13(2) *SCRIPTed* 113, 113; John Rentoul, 'Article 50: Six Ways Britain Leaving the EU Will Affect You', *The Independent UK* (Web Page, 29 March 2017) <http://www.independent.co.uk/voices/article-50-six-ways-britain-leaving-the-eu-will-affect-you-a7656351.html>.

2. The UK provides a strong example of the pertinent issues facing a common law jurisdiction before and after enactment of sui generis protection. This occurred through the *EU Directive*.[1540] The reasons why *the Directive* was implemented are important in interpreting the domestic legislation and this shall also be discussed later in this chapter.
3. The copyright protection of databases in Australia and the UK was similar for many years until a significant divergence occurred in the UK on 1 January 1998. From that day onwards, the UK was compelled to implement *the Directive* due to their status as an EU Member State.[1541] In considering a hypothetical situation involving similar sui generis rights in Australia, the UK provides useful context. Important lessons can be learned when evaluating a similar situation in Australia, especially in light of the common historical origins and signatories of *Berne*.

At 7.2, this chapter will firstly discuss the protection of databases in the UK prior to the introduction of *the Directive*, which entailed a new two-tiered system of hybrid protection, utilising copyright and sui generis rights. It will establish the parallels between the protection of databases in the UK pre-*the Directive* and the position in Australia, pre-*IceTV*. This will be achieved through focusing upon the UK's judicial interpretation of originality and authorship. It will be seen that the UK shared commonalities with Australia in their judicial application of these criteria, which were clearly discernible through an examination of English precedent.

Then, at 7.3 this chapter will discuss the context surrounding the EU's implementation of *the Directive* and the reasons for its implementation. The necessary amendments which were made to UK national law to comply with *the Directive* will then be detailed. Finally, at the end of this chapter, despite a lack of available detail about Brexit, the potential future implications for the protection of UK databases will be speculated upon.[1542] The current Brexit transition period will expire on 31 December 2020.[1543]

[1540] (n 19).
[1541] Ibid art 16 § 1.
[1542] See, eg, Nick Allan, Michael Browne and Anna Carboni, 'Post Brexit IP Rights: What is Agreed and Yet to be Agreed Under the European Commission's Draft Withdrawal Agreement' (2018) 13(8) *Journal of Intellectual Property Law and Practice* 608, 608.
[1543] *Agreement on the Withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community* (n 1537) art 126.

7.1.1 The Four Key Stages of EU Copyright Development

By way of background, the UK joined the EU on 1 January 1973[1544] and was a Member State for 47 years. The Member State consisted of Great Britain (England, Wales and Scotland) and Northern Ireland.[1545] The EU was established in 1957 through the *Rome Treaty*[1546] and it is currently structured into seven institutions.[1547] A significant feature of EU law has been the development of system coherency through the adaptation of objectives and values common to all Member States.[1548]

When broadly examining the past 30 years of organic copyright development, four key stages are prominent.[1549] They can be viewed through the lens of UK database protection, with specific examples illustrating each stage (see Figure 7.1):

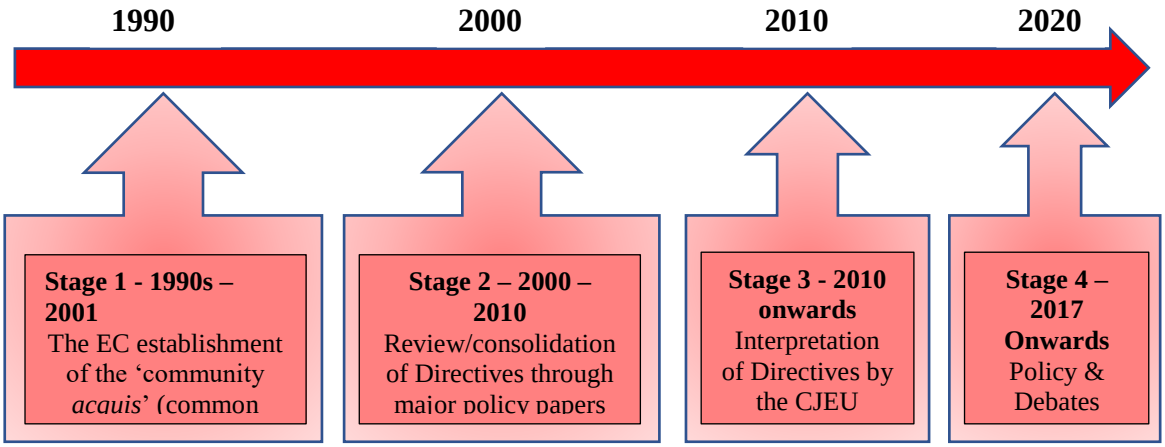

Figure 7.1: Timeline showing the development of EU database law

---

[1544] *European Communities Act 1972* (UK) c 68; *Treaty between the Kingdom of Belgium, the Federal Republic of Germany, the French Republic, the Italian Republic, the Grand Duchy of Luxembourg, the Kingdom of the Netherlands (Member States of the European Communities) the Kingdom of Denmark, Ireland, the Kingdom of Norway and the United Kingdom of Great Britain and Northern Ireland concerning the accession of the Kingdom of Denmark, Ireland, the Kingdom of Norway and the United Kingdom of Great Britain and Northern Ireland to the European Economic Community and to the European Atomic Energy Community*, opened for signature 22 January 1972, OJ L 73, 27.3.1972 p 5 (entered into force 1 January 1973).

[1545] EUROPA, 'Member Countries – United Kingdom', *EUROPA – European Union, Official Website of the European Union* (Web Page, 10 January 2020) <http://europa.eu/about-eu/countries/member-countries/unitedkingdom/index_en.htm>.

[1546] *Treaty of Maastricht* (n 1538) and *Treaty of Lisbon* (n 1538).

[1547] *Treaty of Maastricht* (n 1538) art 13.

[1548] Claes Granmar, 'Economic Globalisation and the Rule of Law' (2017) 3 *Europarättslig Tidskrift* [*European Journal*] 489, 491.

[1549] P Bernt Hugenholtz, 'Copyright in Europe: Twenty Years Ago, Today and What the Future Holds' (2013) 23 *Fordham Intellectual Property Media & Entertainment Law Journal* 503, 505-24.

Stage 1: Common rules[1550] were created through seven major copyright Directives.[1551] Prior to this, all Member States had differing standards of database protection. In early 1998, the Database Directive was implemented at a national level by the UK in compliance with its position as an EU Member State.[1552]

Stage 2 - Review and consolidation occurred through the first official EC evaluation of the *EU Directive*, (see 9.3.1) which was open for participation by UK citizens.

Stage 3 – (See 8.2). There were several landmark cases referred to the CJEU by the UK and other Member States which interpreted the *EU Directive's* scope/application.[1553] The harmonisation of copyright and database right doctrines occurred, and two new copyright Directives were implemented across Member States including the UK.

Stage 4 – (See Chapter 9:). There were policy changes towards the establishment of a future Digital Single Market. The second official EC evaluation of the *EU Directive* occurred. Debates surrounding the future impact of proposed amendments to a *Copyright*

[1550] Maria Martin-Prat, 'The Future of Copyright in Europe' (2014) 38(1) *Columbia Journal of Law and the Arts* 29, 30; Marcella Favale and Maurizio Borghi, 'Harmonization of Intellectual Property Rights Within and Beyond the European Union: The Acquis Communautaire in the Framework of the European Neighbourhood Policy' (SEARCH Working Paper, Document WP5/25, Sharing Knowledge Assets: Interregionally Cohesive Neighbours, September 2013) 10–17.

[1551] *Directive 91/250/EEC of 14 May 1991 on the Legal Protection of Computer Programs* [1991] OJ L 122/42, amended through *Directive 2009/24 of the European Parliament and of the Council of 23 April 2009 on the Legal Protection of Computer Programs* (n 603); *Directive 92/100/EEC of 19 November 1992 on Rental Right and Lending Right and on Certain Rights Related to Copyright in the Field of Intellectual Property* [1992] OJ L 346/61, amended through *Directive 2006/115 of the European Parliament and of the Council of 12 December 2006 on Rental Right and Lending Right and on Certain Rights Related to Copyright in the Field of Intellectual Property* [2006] OJ L 376/28; *Directive 93/83/EEC of 27 September 1993 on the Coordination of Certain Rules Concerning Copyright and Rights Related to Copyright Applicable to Satellite Broadcasting and Cable Retransmission* [1993] OJ L 248/15; *Directive 93/98/EEC of 29 October 1993 Harmonizing the Term of Protection of Copyright and Certain Related Rights* [1993] OJ L 290/9, amended through *Directive 2006/116/EC of the European Parliament and of the Council of 12 December 2006 on the Term of Protection of Copyright and Certain Related Rights* [2006] OJ L 372/12; *Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases* (n 19); *Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society* [2001] OJ L 167/10 ('*Infosoc*'); *Directive 2001/84/EC of the European Parliament and of the Council of 27 September 2001 on the Resale Right for the Benefit of the Author of an Original Work of Art* [2001] OJ L 272/32. Also see P Bernt Hugenholtz, Mireille van Eechoud, Stef van Gompel and Natali Helberger, 'The Recasting of Copyright and Related Rights for the Knowledge Economy' (Amsterdam Law School Legal Studies Research Paper No. 2012-44, Institute for Information Law Research Paper No. 2012-38, 2006) 1–20; Gunnar Karnell, 'European Originality: A Copyright Chimera' in (J Kabel and J H M Gerard eds), *Intellectual Property and Information Law* (Kluwer, 1998) 201, 73–81.

[1552] See 7.4.

[1553] See generally, Jonathan Griffiths, 'Constitutionalising or Harmonising? The Court of Justice, The Right to Property and European Copyright Law' (2013) 38(1) *European Law Review* 65.

Directive in the Digital Single Market[1554] and its formal enactment occurred.[1555] It amended arts 6 § (2)(b) – (exceptions to restricted acts) and 9 § (b) – exception/extraction for scientific purposes) of the *EU Directive*.[1556]

Having outlined the key stages of EU copyright development as relevant to the UK, the next section will examine the copyright protection of databases in the UK in Stage One, in the period before the implementation of *the Directive*.

7.2 The Protection of Databases in the UK, Pre-*the Directive*

Being signatories to *Berne*, the copyright protection of UK databases prior to *the Directive's* implementation reflected a similar scope of copyright protection for Australian databases pre-*IceTV*. Early copyright legislation common to both the UK and Australia analysed in Chapter 4: shall not be repeated here. Of importance is the fact that the *Copyright Act 1911* (UK) was the first Act to protect compilations as literary works.[1557] This classification of databases as original literary work compilations continued throughout the *Copyright Act 1956* (UK).[1558]

On 1 August 1989, with the enactment of the *Copyright, Designs and Patents Act 1988* (UK) (ch 48) ('*CDPA*'), literary works were defined as 'any original work, other than a dramatic or musical work, which is written, spoken or sung, and accordingly includes … (a) a table or compilation'.[1559] These provisions remain in force today. In a similar situation to Australia, other works such as dramatic, musical, artistic works, sound recordings, films, broadcasts, and typographical arrangements of published editions were protected under separate work categories in the *CDPA*.[1560]

Also, similarly to Australian law, because databases were classified as literary work compilations, to establish copyright, the judicial application of copyright subsistence

---

[1554] *Directive on Copyright in the Digital Single Market* 2016/0280 (COD), underwent formal trilogue discussions, which concluded in February 2019.
[1555] *Directive 2019/790/EU of the European Parliament and of the Council of 17 April 2019 on Copyright and Related Rights in the Digital Single Market and Amending Directives 96/9/EC and 2001/29/EC* [2019] OJ L 130/92.
[1556] Ibid art 24.
[1557] *Copyright Act 1911* (n 752) s 35(1).
[1558] *Copyright Act 1956* (UK) (4 & 5 Eliz 2, ch 74) s 2(1)-(2).
[1559] *Copyright, Designs and Patents Act 1988* (UK) (ch 48) s 3(1)(a) ('*CDPA*').
[1560] Ibid s 1(1)(a)-(c); Justine Pila, 'Copyright and Its Categories of Original Works' (2010) 30 *Oxford Journal of Legal Studies* 229, 230.

criteria was applicable. These included: identification as a literary work,[1561] reduction to material form,[1562] authorship/joint authorship[1563] and originality with a low threshold.[1564] As a country reflecting Lockean labour theory, the categorisation of works with this low originality threshold set the UK apart from most other EU Member States at the time.[1565] The majority of other Member States favoured the higher, creativity standard of *droit d'auteur* nations, reflecting Hegelian philosophy.[1566]

When subsistence was found in an original literary work, an author was granted exclusive economic and moral rights,[1567] subject to various fair dealing exceptions.[1568] Duration of copyright in a literary work initially lasted for life plus 50 years.[1569] However, on 1 January 1996, the duration was increased to life plus 70 years.[1570]

7.2.1 Originality in UK Jurisprudence

In a parallel situation to Australia, to satisfy originality, a literary work database had to originate from an author, being more than a mere copy of a pre-existing work.[1571] In establishing originality, UK courts would examine a database, using the sweat of the brow ('SOTB') standard.[1572] As noted by a prominent scholar, few cases referred to the exact term.[1573] Instead, copyright would subsist in a database if sufficient **'labour'**, **'skill'** or **'judgement'** had been demonstrated by the author in the selection and arrangement of the database/compilation as a literary work.[1574]

[1561] *CDPA* (n 1559) s 3(1)(a).
[1562] Ibid s 3(2).
[1563] Ibid s 9(1) – authorship; s 10(1) joint authorship.
[1564] Ibid s (1)(1)(a).
[1565] Estelle Derclaye, 'Do Sections 3 and 3A of the CDPA Violate the Database Directive? A Closer Look at the Definition of a Database in the UK and its Compatibility with European Law' (2002) 24(10) *European Intellectual Property Review* 466, 466.
[1566] European Commission, 'First Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (84) 3–4.
[1567] *CDPA* (n 1559) s 2(1)–(2), ch II – rights of the copyright owner (ss 16–27), ch IV – moral rights (ss 77–89).
[1568] Ibid ss 28-76, Chapter III – acts permitted in relation to copyright works.
[1569] Ibid s 12(1).
[1570] *Duration of Copyright and Rights in Performances Regulations 1995* (UK) SI 1995/3297, reg 5(1), which amended *CDPA* s 12(1).
[1571] *Ladbroke (Football) Ltd v William Hill* (n 212) 291 (Pearce L).
[1572] Yasmine El-Nazer, 'How Far Has the UK's Intellectual Property Laws Come in Protecting Copyrighted Work on the Internet? Is Reform Necessary and in What Ways Might the Law be Reformed?' (2016) 7 *Queen Mary Law Journal* 2, 5.
[1573] Davison, *The Legal Protection of Databases* (n 22) 143.
[1574] *Cary v Faden* (n 212); *Matthewson v Stockdale* (n 212); *Longman v Winchester* (n 761); *Lewis v Fullarton* (n 779); *Kelly v Morris* (n 212); *Morris v Ashbee* (n 212); *Morris v Wright* (n 212); *Walter*

The lower originality standard applied by the UK courts restricted the subjective element of the judicial application to a minimum, instead focusing on the investment in labour, to produce a tangible result.[1575] Reasons for this were likely because there was no unfair competition law to protect works,[1576] and there was a lack of common law and statute remedies against anti-competitive behaviours.[1577] This was evident throughout 19th century jurisprudence, as discussed in Chapter 4:. One of the ramifications were that, for almost 200 years, an author's 'intellectual creativity' was not required to successfully establish UK originality, a situation paralleled in Australia pre-*IceTV*.

However, copyright protection would fail in a UK database if an author's labour in the selection and arrangement of data was found to be negligible.[1578] With such a low threshold, a negative finding was unusual, as previously examined in early copyright cases common to the UK and Australia. In 1967, the infringement case of *Harman Pictures*[1579] affirmed SOTB. Goff J stated that, although it was impossible to precisely define the amount of '**knowledge, labour, judgement** or **literary skill** or **taste**' demonstrated by an author, these qualities were sufficiently fulfilled in this case.[1580] Similarly, *British Northrop Ltd* affirmed the idea/expression dichotomy, finding that although the expression of the idea did not need to be original, it had to 'originate with the author and not be copied from another work'.[1581]

Throughout the latter half of the 20th century, SOTB from *Walter v Lane*[1582] was not synonymous and began to be questioned. Uncertainty appeared about this standard from the mid-1970s onwards. In obiter by Cross J in *Robertson*,[1583] it was suggested that the requirement that a work be 'original' under the 1911 Act meant that the SOTB standard

---

v Lane (n 212); *London Press* (n 447); *Sands & McDougall v Robinson* (n 212); *GA Cramp & Sons Ltd v Frank Smythson Ltd* (n 212); *Football League Ltd v Littlewoods Pools Ltd* (n 38); *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212).

[1575] Eleonora Rosati, *Judge-Made EU Copyright Harmonisation: The Case of Originality* (PhD Thesis, European University Institute Florence, 2012) 77.

[1576] Ibid 5.

[1577] Gervais, 'The Compatibility of the Skill and Labour Originality Standard with the Berne Convention and the TRIPS Agreement' (n 423) 76.

[1578] *GA Cramp & Sons Ltd v Frank Smythson Ltd* (n 212) 338 (Macmillan L).

[1579] *Harman Pictures NV v Osbourne and Others* [1967] 1 WLR 723.

[1580] Ibid 727 (Goff J).

[1581] *British Northrop Ltd v Texteam (Blackburn) Ltd & Another* [1974] RPC 57, 68 (Megarry J), affirming *London Press* (n 447) 608.

[1582] (n 212).

[1583] *Robertson* (n 943).

found in *Walter v Lane*[1584] was no longer good law.[1585] Interestingly, *Robertson* ignored the Australian case of *Sands & McDougall*,[1586] where it was found that the *Copyright Act 1911* (Imp) merely codified common law, without implying 'inventive' originality.

The case of *Sifam Electrical Instrument Co Ltd v Sangamo Weston Ltd* referred to the obiter of Cross J in *Robertson*, where doubt had been cast upon SOTB.[1587] Graham J left the issue open, stating that sufficient originality was a question of 'fact and degree depending on the circumstances'.[1588] In 1979, seemingly in response to this issue, Whitford J provided clarification, finding that no originality of thought was needed: 'ideas are not protected, only the **skill** and **labour** needed to give any given idea some particular material form'.[1589]

In 1988, the Privy Council briefly considered the SOTB standard in the infringement case of *Interlego v Tyco*.[1590] Here, original drawings and engineered drawings of Lego toys had been reproduced by Tyco, who created toys based on these drawings.[1591] The Hong Kong Court of Appeal had found that no copyright subsisted in any drawings made before 1973, but copyright subsisted in engineered drawings made before 1972.[1592] Further, it ruled that Tyco could not establish a sufficient defence to infringement.[1593] Both parties appealed and cross-appealed to the Privy Council.

There it was found that copyright subsisted in the drawings pre-1973, because no issue could be raised pertaining to originality of these drawings under the *Copyright Act 1956* (UK).[1594] The Privy Council stated that '**skill labour** or **judgment** merely in the process of copying cannot confer originality'.[1595] Rather, what was needed was 'some element of

---

[1584] (n 212).
[1585] *Robertson* (n 943) 174 (Cross J).
[1586] (n 212).
[1587] *Sifam Electrical Instrument Co Ltd v Sangamo Weston Ltd* [1971] FSR 337, 346 (Graham J).
[1588] Ibid 346–7 (Graham J), affirming *GA Cramp & Sons Ltd v Frank Smythson Ltd* (n 212) 335 (Viscount Simon LC).
[1589] *LB (Plastics) Ltd v Swish Products Ltd* [1979] RPC 551, 567 (Whitford J).
[1590] [1988] RPC 343.
[1591] Ibid 343–4.
[1592] Ibid.
[1593] Ibid.
[1594] Ibid 351–2 (Oliver L).
[1595] Ibid 370–1 (Oliver L), affirming *London Press* (n 447) 608–9; *MacMillan Publishers Ltd v Thomas Reed Publications Ltd* [1993] FSR 455, 188, 190; *British Northrop Ltd v Texteam (Blackburn) Ltd* (n 1581) 68 (Megarry J); *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212) 277 (Reid L), 285, 287 (Hodson L); *GA Cramp & Son Ltd v Frank Smythson Ltd* (n 212); and *LB (Plastics) Ltd v Swish Products Ltd* (n 1589).

material alteration or embellishment', which would make the total quality of the work original.[1596] Quantity was not relevant to this totality.[1597]

Likewise, *Macmillian*[1598] also affirmed SOTB, stating that it was 'only certain kinds of **skill**, **labour** and **judgement** which confer[ed] originality'. Here the works at issue were small charts ('chartlets') in an almanac. They were found to be produced by several authors who had shown 'considerable **skill**, **labour** and **judgment**' in the technical aspects of their creation.[1599] The High Court rejected the defendant's argument that the plaintiff's chartlets were not original works.[1600] Rather, the evidence established that the works originated from the authors, who had assigned their rights to the plaintiffs.[1601] Similarly, in 1990, the case of *Express Newspapers Plc v News (UK) Limited* strongly affirmed SOTB, stating that the test from *Walter v Lane* was 'undeniably still good law' for originality subsistence.[1602]

What can be concluded from this examination of this UK jurisprudence is that despite some lingering doubts pertaining to SOTB, there were numerous infringement cases throughout the later part of the 20th century which successfully applied it. Pre-*EU Directive* cases considered a vast scope of original works and examined whether an author's '**labour'**, **'skill'** or **'judgement'** could establish subsistence.[1603] SOTB continued until the 1998 enactment of the *EU Directive*, after which time a gradual adjustment of the standard occurred in response to significant jurisprudence referred to the CJEU (see 8.2).[1604] Post-*EU Directive* and the guidance provided from CJEU

[1596] (n 1589) 370–1 (Oliver L).
[1597] Ibid.
[1598] *MacMillan Publishers Ltd v Thomas Reed Publications Ltd* (n 1595) 462–3 (Mummery J).
[1599] Ibid 459–60, 464 (Mummery J).
[1600] Ibid 463 (Mummery J).
[1601] Ibid.
[1602] *Express Newspapers Plc v News (UK) Limited* (n 1116) 1326 (Browne-Wilkinson V-C).
[1603] Cases include: *Harman Pictures NV v Osborne* (n 1579) 727 (Goff J); *Warwick Film Productions v Eisinger* (n 1203) 530–2 (Plowman J); *British Northrop Ltd v Texteam (Blackburn) Ltd & Another* (n 1581) 68 (Megarry J); *LB (Plastics) Ltd v Swish Products Ltd* (n 1589) 568–9 (Whitford J); *Allibert SA v O'Connor* [1981] FSR 613, 621 (Costello J); *Redwood Music Ltd v Chappell & Co Ltd* [1982] RPC 109, 110–11 (Goff J); *Merlet v Mothercare Plc* [1986] RPC 115, 131–2 (Walton J); *Interlego v Tyco* (n 1590) 370–1 (Oliver L); *Express Newspapers Plc v News (UK) Ltd* (n 1116) 365–6 (Sir Nicolas Browne-Wilkinson VC); *Total Information Processing Systems Ltd v Daman Ltd* [1992] FSR 171, 179-80 (Baker J); *MacMillan Publishers Ltd v Thomas Reed Publications Ltd* (n 1595) 462–3 (Mummery J); *Biotrading & Financing OY v Biohit Ltd* [1998] FSR 109, 115–17 (Aldous LJ).
[1604] *Infopaq* (n 80) [45]; *Bezpečnostní softwarová asociace - Svaz softwarové ochrany v Ministerstvo kultury* (n 80) [45], [50]; *Association Premier League Ltd and Others v QC Leisure and Others (Court of Justice of the European Communities)* (n 80) [97]; *Eva-Maria Painer v Standard VerlagsGmbH and Others (Court of Justice of the European Communities)* (n 80) [89] and [92]; *Football Dataco* (n 80) [38].

jurisprudence, the UK courts considered the author's intellectual processes involving 'skill' and 'labour' to determine whether this was sufficient to justify originality.[1605] This shall be examined in greater detail in the next chapter.

As originality has been discussed, the next section shall examine the judicial application of authorship, pre-*EU Directive*.

7.2.2 Authorship in UK Jurisprudence

Chapter 4: undertook analysis about the 'authorship construct' and its historical and jurisprudential origins in the UK, so analysis shall not be repeated here. It is, however, necessary to examine the legislative definition of an author/joint author of a literary work compilation, by examining the *CDPA*. In a similar situation to Australia, under s 9(1), an author was defined as the **'person who created'** the work. Joint authorship was expressed under the *CDPA* s 10(1) as being '**a work produced by the collaboration of two or more authors in which the contribution of each author is not distinct from the other author or authors'.[1606]** This mirrored the language used in UK precedent[1607] and in the 1956 Act.[1608] Also, there were some exceptions to authorship subsistence, including Crown/Parliamentary copyright,[1609] works made during employment (where authorship reverted to the employer)[1610] and a body incorporated under the law.[1611]

There was foresight demonstrated within the 1988 legislation, with provision made for CGW.[1612] Such a work was defined as being **'generated by computer in circumstances such that there is no human author of the work'.**[1613] The distinction in defining a CGW reflected one of the underlying rationales of the 1977 *Whitford Report*, which was to accommodate new technologies,[1614] although the report was heavily criticised by scholars

---

[1605] See, eg, *Designer Guild Ltd v Russell Williams (Textiles) Ltd* [2001] 1 All ER 700, 706; *Sawkins v Hyperion Records Ltd* (n 38) [31] (Patten J); *Baigent v Random House Group Ltd* [2007] EWCA Civ 247 [2008] [26] (Lloyd LJ).

[1606] Also see Elena Cooper, 'Joint Authorship in Comparative Perspective: *Levy v Rutley* and Divergence Between the UK and USA' (2015) 62(2) *Journal of the Copyright Society of the USA* 245, 245–7.

[1607] *Levy v Rutley* (n 936).

[1608] *Copyright Act 1956* (UK) (n 1558) s 11(3).

[1609] *CDPA* (n 1559) ss 163, 165.

[1610] Ibid s 11(2).

[1611] Ibid s 154(1)(c).

[1612] Ibid s 178.

[1613] Ibid s 178.

[1614] J N K Whitford, 'Copyright and Designs Law: Report of the Committee to Consider the Law on Copyright and Designs', (series cmnd 6732, HSMO, 1977) [514] ('*Whitford Report*').

at the time for a lack of robustness in response to the copyright protection of emerging technologies.[1615] The definition also reflected the underlying rationale of Parliament to update the law in response to new technologies, as outlined in three green papers and one white policy paper.[1616] In a CGW situation, to satisfy authorship, the author of the CGW was defined to be the '**person by whom the arrangements necessary for the creation'** were undertaken.[1617]

Although authorship was not heavily disputed throughout early UK copyright jurisprudence for reasons previously explained at 4.5.3, there was an exceptional case in 1985. In *Express Newspapers*,[1618] authorship was argued in a literary work compilation, due to the use of computers. A competition was conducted by the *Daily Express,* which involved free cards with codes being randomly distributed to the public.[1619] People could check their cards against a daily newspaper grid to see whether they had won a prize. The *Liverpool Daily Post* began copying these grids and the winning sequences in their newspapers.[1620] The *Daily Express* sued for infringement.[1621]

The grids were classified as literary work compilations under the 1956 Act.[1622] In establishing originality, the court applied SOTB, finding that there had been a 'great deal' of skill and labour in the production of the grid and five-letter codes.[1623] The striking authorship counter-argument which was advanced by the *Liverpool Daily Post* was that authorship did not subsist because the grids had ultimately been produced via computers; that is, no human author existed.[1624]

[1615] Gerald Dworkin, 'Reports of Committees: The Whitford Committee Report on Copyright and Designs Law' (1977) 40(6) *The Modern Law Review* 685, 699–700.

[1616] UK Department of Trade and Commerce 'Intellectual Property and Innovation' (White Paper, cmnd 9712, April 1986); and three green papers: 'Reform of the Law Relating to Copyright, Designs and Performers' Protection' (cmnd 8302, 1981); 'Intellectual Property Rights and Innovation' (cmnd 9117, 1983); 'Recording and Rental of Audio and Video Copyright Material', (cmnd 9445, 1985). Also see Hazel Carty and Keith Hodkinson, 'Copyright, Designs and Patents Act 1988' (1989) 52(3) *The Modern Law Review* 369, 369.

[1617] *CDPA* (n 1559) s 9(3).

[1618] *Express Newspapers Plc v Liverpool Daily Post & Echo Plc and Ors* [1985] 1 WLR 1089 (Whitford J). ('*Express Newspapers*').

[1619] Ibid 1089 (Whitford J).

[1620] Ibid.

[1621] Ibid 1089–90 (Whitford J).

[1622] *Copyright Act 1956* (n 1558) s 48(1).

[1623] *Express Newspapers* (n 1618) 1092 (Whitford J).

[1624] Ibid 1093 (Whitford J).

Whitford J ultimately rejected this argument, finding that the computer was merely used as a tool to produce the programmer's instructions via computer programs.[1625] A strong analogy was provided, which was that if a person writes using a pen, it would be absurd to suggest that the pen was the 'author of the work rather than the person who drives the pen'.[1626] Infringement was found, so an injunction was granted in favour of the *Daily Express*.[1627]

Similarly, the 1989 infringement case of *Waterlow Publishers v Rose*[1628] considered authorship in a legal directory as a literary work compilation. At first instance, it had been found that infringement had occurred because the defendant had copied the plaintiff's work in producing their own directory.[1629] The defendant had argued that no authorship subsisted because the plaintiff had merely collected the information, but had not 'selected, ordered and arranged it'.[1630] The defendant appealed the ruling.[1631] The plaintiff argued authorship subsisted because the gathering, organising, selection and arrangement of the information was done by their employees acting under the terms of their employment.[1632] Therefore, it was argued that, in accordance with the legislation, the plaintiff was the author/owner for copyright purposes.[1633]

The Court of Appeal discussed the notion of authorship in a literary work compilation. Slade LJ declined to fully concede that an author was the person who was responsible for collecting, ordering and arranging the material.[1634] He acknowledged the specific difficulties in establishing joint authorship in such a compilation.[1635] Instead, he referred to the presumption under s 20(4) of the 1956 Act.[1636] Under this section, copyright could subsist without an identifiable author, if the name of a person purporting to be publisher appeared on the first published copies.[1637] This had occurred in the situation.[1638] Under

[1625] Ibid.
[1626] Ibid
[1627] Ibid 1099 (Whitford J).
[1628] (n 991).
[1629] Ibid 493.
[1630] Ibid.
[1631] Ibid.
[1632] Ibid 499 (Slade LJ).
[1633] Ibid.
[1634] Ibid 502 (Slade LJ).
[1635] Ibid 502–3 (Slade LJ).
[1636] Ibid 503 (Slade LJ).
[1637] Ibid.
[1638] Ibid.

the presumption in s 20(4), it was found that the plaintiff, as the publisher named on the work, was entitled to an action for infringement.[1639]

The test of joint authorship was clarified in the case of *Godfrey v Lees*,[1640] where the court stated that it required each author to establish a **'significant and original contribution to the work …** pursuant to common design'.[1641] Further, it was **unnecessary for an equal contribution of 'quantity, quality or originality'** on behalf of the collaborators.[1642]

In conclusion, the definition of authorship in the UK pre-*EU Directive* paralleled the definition of Australian authorship/joint authorship, pre-*IceTV*. A UK author was the person who created the work and joint authorship occurred when two or more people collaborated and their contributions were not distinct from each other. The major difference between UK and Australian legislation was the specific provision in the UK for CGWs, being the person who made the arrangements to create the work. Later jurisprudence confirmed that a computer was classified as merely a tool – the means to an end – for an author to produce a CGW.

Having discussed the UK legislative provisions pertaining to authorship and their judicial application pre-*EU Directive*, the next section shall discuss the introduction of sui generis database rights under the *EU Directive*, beginning with an examination of the primary reasons as to why the EC sought its implementation. It is important to examine the purpose, object, aim and rationale of the *EU Directive* to aid with the later interpretation of domestic legislation in this chapter.

7.3 Reasons for Implementing *the Directive*

The UK was required to implement a national database law to comply with the *EU Directive's* minimum standards.[1643] Prior to the national introduction of *the Directive*, there was consternation from those involved with the British database industry. Of serious concern was that the enactment of the shortened duration of rights, (from a term of 50 years to 15 years under the *EU Directive*) would economically undermine the UK's

[1639] Ibid.
[1640] [1995] EMLR 307, 325 (Blackburne J).
[1641] Ibid 325 (Blackburne J), affirming *Stuart v Barrett* [1994] EMLR 448.
[1642] Ibid 325 (Blackburne J).
[1643] *EU Directive* (n 19) recital 32.

position in the global database industry.[1644] Due to a lack of empirical data, it remains difficult to ascertain whether these concerns were justifiable. At an EU-wide level, there were three major reasons for implementing the *EU Directive* and each will be discussed below.

7.3.1 Harmonisation Across EU Member States

From the early 1990s, a gradual process of copyright harmonisation commenced across Member States, as initiated by the European Commission (EC).[1645] In relation to database protection, prior to the *EU Directive's* implementation, national database laws considerably varied. The differences included the type and scope of protection granted to databases.[1646] The final *EU Directive* reflected subtle aspects of some of these variances. They were:

- *Droit d'auteur*[1647] ('right of the author') from continental jurisdictions, such as France, with a higher originality standard.[1648] Underpinned by Hegelian philosophy, it is focused on creator's rights. It has been described as 'more akin to a right of personality, with its justification lying in the act of creation'.[1649] The *EU Directive* subtly reflects this by promoting originality as being associated with an author's own intellectual creation (recitals 15–16).

- In the Nordic countries, since the 1960s, a catalogue rule existed, which was based upon competition principles, aiming to protect financial investment.[1650] Such laws prevented the unfair competition and commercial exploitation of rivals. They granted a protection period of ten years from publication for products that were

---

[1644] Debra B Rosler, 'The European Union's Proposed Directive for the Legal Protection of Databases: A New Threat to the Free Flow of Information' (1995) 10(1) *Berkeley Technology Law Journal* 105, 134.

[1645] Estelle Derclaye, 'What is the Database Sui Generis Right?' (2005) 9 *Stockholm Network* 7, 7.

[1646] *EU Directive* (n 19) recital 4.

[1647] Sunny Handa, 'A Review of Canada's International Copyright Obligations' (1996–1997) 42 *McGill Law Journal* 961, 972. Also see Agustin Waisman, 'Revisiting Originality' (2009) 31(7) *European Intellectual Property Review* 370, 370–4.

[1648] Thakur (n 140) 109.

[1649] Ibid.

[1650] See, eg, *Swedish Copyright Act* (1960) s 49; *Finnish Copyright Act* (1961) s 49; *Norwegian Copyright Act* (1961) s 43; *Danish Copyright Act* (1995) s 71; *Iceland Copyright Act* (1972) art 50. For further information see Bastian (n 348) 438–9; Gunnar Karnell, 'The Nordic Catalogue Rule' in E J Dommering and P B Hugenholtz (eds), *Protecting Works of Fact* (Kluwer, 1991) 67, 67–72; *Proposal for a Council Directive on the Legal Protection of Databases* (n 601) Explanatory Memorandum 16 [2.2.10].

primarily compiled from data, or 15 years from the creation, whichever was to expire faster. Interestingly, under this rule, originality was not required to establish protection: the collection/collation of data was sufficient to establish protection.[1651] Items afforded protection included sale catalogues, lists of names, tables or other informational products.[1652] The duration of this right may have influenced the duration of the database right, as espoused under *EU Directive* art 10(1) and the underlying competition-law rationales, as reflected in recitals 39-42.

The sui generis right of the *EU Directive* encapsulates the following two variances:

- In the Netherlands, prior to the early 1990s, copyright law protected non-original writings, through the remains of an 18th century printer's right known as 'geschriftenbescherming' (text protection/protection for non-original writings).[1653]

- France and Germany relied on copyright and applied an originality test in databases and other works 'in a fairly non-rigorous way'.[1654] This was similar to SOTB.

The inconsistencies in the scope of database protection between Member States had the capacity to significantly inhibit financial transactions and services within the internal market and internationally.[1655] For example, empirical evidence suggested that the UK benefitted from a strong competitive advantage in the database industry due to their lower standard of originality when compared with other Member States.[1656]

There were calls for 'stable and uniform protection regime'.[1657] This appears to have been underpinned by a longstanding European rationale where strong, property-centric IP

[1651] US Copyright Office (n 466) 44.
[1652] Bastian (n 348) 438.
[1653] *Dutch Copyright Act* (1912) art 10 para (1) s (1); Annemarie Beunen, 'Geschriftenbescherming: The Dutch Protection for Non-original Writings' in Bernt Hugenholtz, Antoon Quaedvlieg and Dirk Visser (eds), *A Century of Dutch Copyright Law, Auteurswet 1912–2012* (deLex, 2012), 57, 57–97; Derclaye, *The Legal Protection of Databases*' (n 92) 2.
[1654] Thakur (n 140) 110.
[1655] *EU Directive* (n 19) recital 2.
[1656] European Commission, 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) 5.
[1657] *EU Directive* (n 19) recital 12.

rights are considered beneficial, self-sufficient and essential for successful commodification of knowledge in trade.[1658] The *EU Directive's* aim was, therefore, to harmonise the level and type of protection available for European databases.[1659] At the time, it was purported that such coherence would ensure the future free movement of EU data goods and services.[1660] This was further emphasised through increased pressure upon copyright and its impact on trade practices, which could inhibit the future economic free-flow of European goods.[1661] Harmonisation of Member States to promote a common market continues to be a primary aim of the EU, although it has been argued that the unification of EU law does not necessarily result in successful European integration.[1662]

7.3.2 The Economic Stimulation of Database Investment as a Primary Motivation

Another primary motivation was economic promotion of the database industry, in recognition of the expanding importance of investment in databases throughout the European community.[1663] It was argued that the *EU Directive* would stimulate additional investment in European databases.

As discussed in the Explanatory Memorandum to the EU Draft Directive,[1664] in 1992, a quarter of the world's online databases originated in Europe.[1665] The Western European database industry was then valued at 2.188 billion ECU,[1666] having experienced substantial growth in comparison to the growth of the US database industry during the previous ten years.[1667]

[1658] Alexander Peukert, 'Intellectual Property as an End in Itself?' (2011) 33 *European Intellectual Property Review* 67, 67–70.

[1659] *EU Directive* (n 19) recitals 1–4 Derclaye, 'Do Sections 3 and 3A of the CDPA Violate the Database Directive?' (n 1565) 470.

[1660] Bainbridge, *Intellectual Property* (n 549) 279. *EU Directive* (n 19) recital 4.

[1661] *EU Directive* (n 19) recital 4.

[1662] See generally, Andreas Rahmatian, 'European Copyright Inside or Outside the European Union: Pluralism of Copyright Laws and the "Herderian Paradox"' (2016) 47(8) *International Review of Intellectual Property and Competition Law* 912.

[1663] *EU Directive* (n 19) recitals 11–12; Derclaye, *The Legal Protection of Databases* (n 92) 45.

[1664] *Proposal for a Council Directive on the Legal Protection of Databases* COM (n 601) Explanatory Memorandum 2 [1.1].

[1665] Ibid.

[1666] European Currency Unit, a unit of account which, on 1 January 1999 was replaced by the Euro at a value of at the value 1 ECU = € 1.

[1667] *Proposal for a Council Directive on the Legal Protection of Databases* COM (n 601) Explanatory Memorandum to the 2 [1.1].

Although the US dominated the global database industry,[1668] the economic significance of the European database industry was acknowledged.[1669] It was deemed a present and advancing field, but also a service underpinning future activities of great variance.[1670] There was a fear that the US database industry would misappropriate European data unless a new database right protected such data.[1671] Accordingly, the EC acknowledged that present and future EU businesses desired the availability, storage and manipulation of large quantities of data.[1672]

One of the greatest influences over the growing importance of databases was technological change and the ease of copying data, as stated in recitals 7–12. There was concern that the risk of the low-cost, rapid reproduction of costly databases[1673] would cause 'serious economic and technical consequences'.[1674] It was feared that without sufficient protection, database innovation would stall, leading to economic detriment.[1675] It was also acknowledged that although originality standards were based upon traditional copyright philosophies such as an author's labour or creativity,[1676] investment was substantial in some databases. Many databases fell outside of copyright, due to failing the subsistence criteria.[1677] Interestingly, this parallels the situation in recent Australian law, as concluded in Chapter 6: and further justifies the use of the UK as a case study in consideration of Australian law reform.

7.3.3 Balance Between Database Makers and Users' Interests

Another benefit of an EU-wide sui generis right was touted as the protection of creators' investment, by preventing parasitic behaviour by users.[1678] This was reflected in recitals 7 and 8. It was argued that the compilers of such databases were not granted enough lead

[1668] McManis (n 475) 8.
[1669] *Proposal for a Council Directive on the Legal Protection of Databases* COM (n 601) Explanatory Memorandum 3 [1.2].
[1670] Ibid.
[1671] Hugenholtz, 'Data Property' (n 233).
[1672] *Proposal for a Council Directive on the Legal Protection of Databases* COM (n 601) Explanatory Memorandum 3 [1.2].
[1673] *EU Directive* (n 19) recital 7; Derclaye, *The Legal Protection of Databases* (n 92).
[1674] *EU Directive* (n 19) recital 8.
[1675] Terry M Sanks, 'Database Protection: National and International Attempts to Provide Legal Protection for Databases' (1998) 25 *Florida State University Law Review* 991, 993.
[1676] Cornish (n 2) 38.
[1677] *EU Directive* (n 19) recitals 1, 7 and 8.
[1678] *Proposal for a Council Directive on the Legal Protection of Databases* COM (n 601) Explanatory Memorandum to the 15 [2.2.8].

time to recoup their investments.[1679] The *EU Directive* sought to protect database owners from free-riders and Information Samaritans who misappropriated financial investment in databases.[1680] There was an emphasis on the purpose of the database right as protecting the investment of obtaining, verifying and presenting database contents, when such investment required financial resources and/or time, effort and energy.[1681]

The protection bestowed to creators under the right was to ensure increased production of databases as valuable economic tools.[1682] It was to contribute to the growth of the European information market.[1683] The database right sought to prevent users from undertaking unauthorised extraction and/or reutilisation of all or a substantial part of a database's contents.[1684] It was acknowledged that such behaviour would harm investment through qualitative or quantitative detriment.[1685] Implementing settled law would create balance between creators and users, although the implementation process to achieve this would be arduous.

7.3.4 The Arduous EU Implementation Process

The development of the *EU Directive* was intricate and slow,[1686] spanning over six years.[1687] Several events were highly influential.[1688] Key documents reflect contextual influences and show that what was initially envisaged was vastly different to the final directive. In 1988, the EC 'Green Paper on Copyright and the Challenge of Technology'[1689] was published. This substantial public investigative study has been credited with spawning several of today's major copyright and associated-right

---

[1679] Reichman and Samuelson (n 133) 55.
[1680] *EU Directive* (n 19) recital 39; Bastian (n 348) 444; Grosheide (n 147) 40; Powell (n 552) 1224–5 Reichman and Samuelson (n 133) 81. Also see *United States v LaMacchia* (n 287).
[1681] *EU Directive* (n 19) recital 40.
[1682] Ibid recital 9.
[1683] Ibid recital 10.
[1684] Ibid art 7 § 1; recitals 41, 42.
[1685] Ibid recital 42.
[1686] Davison, *The Legal Protection of Databases* (n 22) 51–100; Jens L Gaster, 'The New EU Directive Concerning the Legal Protection of Databases' (1996) 20(4) *Fordham International Law Journal* 1129, 1129–32; Grosheide (n 147) 47–57.
[1687] *Proposal for a Council Directive on the Legal Protection of Databases* COM (n 601).
[1688] See Paul Durdik, 'Ancient Debate, New Technology: The European Community Moves to Protect Computer Databases' (1994) 12 *Boston University International Law Journal* 153, 153–6; P Bernt Hugenholtz, 'Something Completely Different: Europe's *Sui Generis* Database Right' in Susy Frankel and Daniel Gervais (eds) *The Internet and the Emerging Importance of New Forms of Intellectual Property* (Kluwer Law International, 2016) 205, 206–9; Davison, *The Legal Protection of Databases* (n 22) 51–68.
[1689] (COM (88) 172 final, Brussels, 7 June 1988).

Directives.[1690] This paper investigated copyright protection of European IT products, including home audio-visual copying, computers and database law reform.[1691] Sui generis protection was suggested to protect databases which fell outside of copyright to ensure protection for the economic investment in such works.[1692]

In 1990, the EC 'White Paper on Copyright and Neighbouring Rights' was released.[1693] Six proposals for the harmonisation of property rights were made, including a directive to harmonise the legal protection of databases.[1694] Significantly, this paper emphasised the differences in originality standards required for copyright subsistence and stated that the EC was drawing up a directive for the harmonisation of databases.[1695] It discussed the preferred choice of two-tiered approach, involving a sui generis database right and copyright.[1696] This was found to be the best option because it would provide balance and certainty between rights-holders,[1697] be superior to a neighbouring right due to its conformity with international law,[1698] encompass existing copyright protections[1699] and promote investment in the industry.[1700] An April hearing in Brussels reflected the general consensus on database protection at the time[1701] and copyright was found an appropriate means by which to protect databases as 'information works'.[1702] The reasons for this preference have been described in large part due to 'wishful thinking' and due to the fact that copyright confers protection for quite a long duration in exchange for a relatively mild subsistence criteria.[1703] At the time, the European attitude was also largely

---

[1690] Pilichou (n 1004); Mireille Van Eechoud, 'Along the Road to Uniformity: Diverse Readings of the Court of Justice Judgements on Copyright Work' (2012) 1 *JIPITEC - Journal of Intellectual Property, Information Technology, and Electronic Commerce Law* 60, 61.
[1691] See Chapter 3:, Chapter 5: and Chapter 6: respectively.
[1692] European Commission, 'Green Paper on Copyright and the Challenge of Technology' (n 1689) 216.
[1693] (COM 90 (594), Brussels, 1991).
[1694] Durdik (n 1688) 154.
[1695] European Commission, 'White Paper on Copyright and Neighbouring Rights in the European Community' (n 1693) 7. Also see Hugenholtz, 'Implementing the European Database Directive'(n 458) 195–6; Derclaye, *The Legal Protection of Databases*' (n 92).
[1696] European Commission, 'White Paper on Copyright and Neighbouring Rights in the European Community' (n 1693) 34 [5.3.1].
[1697] Ibid 31 [5.1.1].
[1698] Ibid 32-3 [5.2.1]-[5.2.4].
[1699] Ibid 34 [5.3.1].
[1700] Ibid 31 [5.1.1].
[1701] *Proposal for a Council Directive on the Legal Protection of Databases* COM (n 601) 4 [1.5], 38 [7.1.1].
[1702] Hugenholtz, 'Implementing the European Database Directive' (n 458) 195-6, 199-200.
[1703] Ibid 184-5.

influenced by two French Supreme Court decisions which found copyright in information works.[1704]

Throughout 1991, the use of copyright alone as a suitable method by which to protect databases fell out of favour. It is an unlikely coincidence that this was the year that the US *Feist*[1705] decision was handed down. Although *Feist* considered copyright and applied the 'creativity' standard of originality, as mentioned in 3.1.2, the ruling that a so-called 'unoriginal' compilation could not be protected by copyright sparked worldwide commentary.[1706]

Another influence prior to *Feist* occurred in the Netherlands Supreme Court, through the case of *Van Dale Lexicografie BV v Rudolf Jan Romme*.[1707] Here, it was indicated that copyright protection may be inadequate to protect databases. Copyright was found not to subsist in a database unless it resulted 'from a selection process expressed in the author's personal views'. It was ruled that copyright protection subsisted in 230,000 alphabetically ordered headwords in the Van Dale's Dictionary (Dutch Language Dictionary). In effect, this endorsed the more stringent 'creativity' standard. As this more rigorous standard had not been applied to databases before in the Netherlands, the case was referred to the Court of Appeal in The Hague, which ultimately affirmed the ruling in 1993.[1708] This was likely a catalyst for change in general attitudes towards database protection.[1709]

Then, on 13 May 1992, 'Proposal for a Council Directive on the Legal Protection of Databases'[1710] ('Draft Directive') was released. It reflected the EC's opinion that database reform should occur without delay. There were two parts: (1) a detailed explanatory memorandum outlining the aims and underlying justifications for implementing the new directive;[1711] and (2) the new Draft Directive.[1712] The main aims were (1) the

---

[1704] *Le Monde v Microfor*, *Cour de Cassation* [French Court of Cassation], 9 November 1983, reported in 1984 *Droit de l'informatique* 1984/1, 20; *Cour de Cassation* [French Court of Cassation] 30 October 1987, reported in 1988 *Droit de l'informatique* 1988/1, 34.
[1705] *Feist* (n 38).
[1706] See 3.4.4.
[1707] 4 January 1991, *Netherlandse Jurisprudentie* (NJ) 1991, 608.
[1708] 1 April 1993, *Nederlandse Jurisprudentie* (NJ) 1994, 58.
[1709] Derclaye, *The Legal Protection of Databases* (n 92).
[1710] *Proposal for a Council Directive on the Legal Protection of Databases* COM (n 601).
[1711] Ibid Explanatory Memorandum 38 [7.1.1].
[1712] Drafted in accordance with the *Treaty Establishing the European Economic Community*, opened for signature 25 March 1957, 298 UNTS 11 (entered into force 1 January 1958) art 57(2), 66 and 100A ('EEC Treaty').

harmonisation of copyright laws for databases constituting and author's own 'intellectual creation' and (2) a new special unfair competition rule for commercial databases which fell outside of copyright.

A critical evaluation occurred about the copyright protection of databases. The originality criterion of the selection or arrangement of data was found to have limited application to some databases, particularly those which stored 'whole of universe' data, rather than selective data.[1713] Concern was expressed in the explanatory memorandum that creator's investment would be compromised through parasitic behaviour and misappropriation if such databases were left unprotected.[1714] Later, this unfair competition rule for commercial databases transformed into the sui generis right.[1715] Provision was made for the unauthorised extraction or utilisation of a whole or part of database contents for commercial purposes,[1716] irrespective of whether copyright subsisted.[1717] The Draft Directive was distributed among community legal institutions for comment.

After consultations, on 25 January 1993 an 'Opinion on the Proposal for a Council Directive on the Legal Protection of Data Bases [sic]' was published in the Official Journal.[1718] Changes were advocated for the Draft Directive, but its primary aim was to ensure a competitive database industry[1719] through strong IP rights.[1720] The Opinion summarised the EC's proposal and proposed the protection of non-digitised databases through copyright and a new right, which precluded 'unfair extraction' from databases.[1721]

On 23 June 1993, the first reading of the Draft Directive was successfully endorsed through parliamentary resolution, subject to 37 amendments.[1722] Another submission to the EC on 4 October 1993[1723] contained 32 whole or partial amendments of the

---

[1713] *Proposal for a Council Directive on the Legal Protection of Databases* COM (n 601) Explanatory Memorandum 14 [2.2.4].
[1714] Ibid [4.2.6].
[1715] Gaster (n 1686) 1130.
[1716] *Proposal for a Council Directive on the Legal Protection of Databases* COM (n 601) 7-8, art 2 § 5.
[1717] Ibid 7–8.
[1718] *Opinion on the proposal for a Council Directive on the Legal Protection of Databases* [25 January 1993] OJ C 19/3.
[1719] Ibid 3 [2.1].
[1720] Ibid 4 [2.2].
[1721] Ibid 3 [1.1]-[1.2].
[1722] *Proposal for a Council Directive on the Legal Protection of Databases* COM (n 601).
[1723] *Amended Proposal for a Council Directive on the Legal Protection of Databases* COM (93) 464 final – Brussels 4 October 1993 OJ C 308/1, 1.

recommended 37 made by the European Parliament.[1724] Of significance was that the unfair competition rule (prevention of unfair extraction) from the Draft Directive[1725] was rearticulated as the 'right to prevent *unauthorised* extraction'.[1726] This later became the sui generis right.

Contentious negotiations occurred in 1995 and, on 10 July, a Common Position[1727] was adopted which was markedly different to any previous documents.[1728] Following a second Parliamentary reading, on 14 December 1995, *the Directive* as it is known today was accepted, subject to minor changes.[1729] The final directive was adopted by the EC on 26 February 1996, short of unanimity by one vote.[1730] Finally, on the 11 March 1996, it was enacted by the EC in accordance with arts 57 § (2), 66 and 100a of the *EEC Treaty*.[1731]

What can be observed from the development process is that the final version was markedly different compared to what was originally proposed. This was likely due to the influence of various people, EU rulings and freshly-minted overseas originality jurisprudence. Several significant developments cannot be ignored:

- National copyright jurisprudence - the 1991 Netherlands Supreme Court case of *Van Dale Lexicografie*,[1732] and the ruling at the Court of Appeals, the Hague.[1733] As a consequence of this case, doubt was cast upon the appropriateness of copyright to protect databases;

- Various EU rights-holders, such as those in the digital music industry, who sought broad protection for their products;[1734]

[1724] Gaster (n 1686) 1130.
[1725] *Proposal for a Council* Directive *on the Legal Protection of Databases* COM (92) 24 final – SYN 393 Brussels 13 May 1992 [23 June 1992] OJ C 156/4.
[1726] *Amended Proposal for a* Council *Directive on the Legal Protection of Databases* COM (n 1722) art 10 § 1 (emphasis added).
[1727] *Common Position (EC) No 20/95* (n 537).
[1728] Ibid.
[1729] *EU Directive* (n 19).
[1730] Gaster (n 1686) 1131.
[1731] *EEC Treaty* (n 1712).
[1732] E J Dommering and P B Hugenholtz, *Protecting Works of Fact* (Deventer, 1991) 93. Also see Grosheide (n 147) 43 citing *Van Dale Lexicografie BV/Rudolf Jan Romme, Nederlandse Jurisprudentie* (NJ) 4 January 1991.
[1733] Hugenholtz (n 458) citing *Nederlandse Jurisprudentie* (1 April 1993) 1994, 58.
[1734] *EU Directive* (n 19) recital 38.

- US copyright jurisprudence. The 1991 *Feist* ruling appeared highly influential, because it rejected SOTB. This was reflected in the higher creativity standard;[1735] and

- US Copyright Statute. The originality standard under the copyright component of *the Directive* seemed to reflect parallel language to the definition of a 'compilation', under the *Copyright Act of 1976*.[1736]

When comparing the draft to the final, the most important changes pertain to the significant transformation of the unfair competition rule referred to in the draft. This rule disappeared, as did the right to prevent 'unfair extraction', referred to in the amended proposal. However, the underpinnings of competition law can still be seen in some recitals.[1737] Instead, chapter three of the *EU Directive* contained the strict proprietary sui generis right, which allows transferability, assignment and contractual licensing.[1738] The most significant differences were:

- The applicability and scope of the final Directive encompassed all databases and was much broader than what was initially proposed.[1739]
- The sui generis right was applicable *irrespective* of copyright subsistence.[1740]
- Any database which met the requisite criteria was protected, regardless of its origins (commercial/non-commercial).[1741]
- There was a 15-year duration of the database right, instead of the proposed ten years. Being easily renewable, perpetual protection could be conferred.[1742]
- The final directive indicated that the database right was not entirely based on unfair competition principles, as was originally proposed.[1743]

[1735] *Feist* (n 38). Also see Gervais, 'The Protection of Databases' (n 143) 1120; Grosheide (n 147) 47; Indranath Gupta, *Was Feist a Catalyst for the Structure of the Database Directive? A Legal Exploration of the Implications of the Feist Decision* (PhD Thesis, Brunel University, 2015) 75–83, 237–40; Powell (n 552). See 3.4.4
[1736] (n 555) § 101.
[1737] *EU Directive* (n 19) recitals 6, 42.
[1738] Ibid art 7 § 3.
[1739] Davison, *The Legal Protection of Databases* (n 22) 52.
[1740] Ibid.
[1741] Ibid.
[1742] Ibid.
[1743] Ibid.

The final directive resulted in a new, two-tier regime, underpinned by copyright and competition principles. Its judicial application and broader effects in Member States have been far-reaching and somewhat unmeasurable. This has resulted in the referral of several national cases to the CJEU for preliminary hearings to provide direction and judicial interpretation pertaining to key terms of the *EU Directive*.[1744] It has also resulted in difficulties associated in evaluating the *EU Directive's* effectiveness.[1745]

The specific framework of the two-tier scheme involving copyright and the database right was discussed in 3.1.3 and shall not be repeated here. Within weeks of the enactment of the *EU Directive*, the US House of Representatives had initiated action toward similar sui generis protection.[1746] There was considerable debate over the future direction of US databases for some time following the enactment of the *EU Directive*,[1747] which ultimately failed, as was analysed in 3.1.3. Having explored the reasons and processes involved with implementing the *EU Directive*, the next section shall discuss its implementation and compliance within the UK through the legislative changes made to national law.

7.4 Amendments to UK National Database Protection Post-Directive

The process of implementation occurred under art 189 of the *EEC Treaty*. EU directives are binding but Member States are permitted to choose the form and method which is taken.[1748] Article 189 raises questions as to how binding such directives are upon the rights and obligations of private citizens and corporations.[1749] Several CJEU cases have eroded this principle, but it is outside the scope of this study to discuss this issue any further.[1750] As directives are non-self-executing, they merely provide instructions. This results in discretion as to the national implementation of such directives.[1751] Under s 2(2)

[1744] See Chapter 8:.
[1745] See Chapter 9:.
[1746] McManis (n 475) 8-11.
[1747] Xuqiong Wu, 'E C Data Base Directive' (2002) 17(1) *Berkeley Technology Law Journal* 571, 587–94.
[1748] *EEC Treaty* (n 1712).
[1749] David Anderson, 'Inadequate Implementation of EEC Directives: A Roadblock on the Way to 1992?' (1988) 11(1) *Boston College International and Comparative Law Review* 91, 92.
[1750] Gráinne De Búrca, 'Giving Effect to European Community Directives' (1992) 55(2) *The Modern Law Review* 215, 231–3.
[1751] Anderson (n 1749) 92.

of the *European Communities Act 1972*,[1752] EU law is authorised to be implemented as national UK law through primary/secondary legislation or other means.[1753]

Being a Directive, it was not directly applicable to UK law, so it was implemented as a legislative instrument – a national regulation – in 1997. This complied with art 16 § 1.[1754] titled the *Copyright and Rights in Databases Regulations 1997* (UK),[1755] ('*CRDR*'), which came into force on 1 January 1998.[1756] Unlike some Member States, such as Ireland and Luxembourg, the UK complied with art 16 § 1-2 by the prescribed deadline.[1757] Implementation occurred and was reported to the EC.[1758] Under the new national regulations, the two-tiers of UK database protection:

1. Amended the *CDPA* to change pre-existing provisions relating to the copyright protection of databases. Part II of the *CRDR* (regs 5–11) outlined these changes. Amended sections of the *CDPA* included ss 3(1), 21, 29, 179 and the insertion of new sections: ss 3A, 50D, 296B.[1759]
2. Implemented the sui generis protection, through the introduction of the database right;[1760] Judicial interpretation of the sui generis right by the CJEU and national UK cases will be discussed at 8.2.

7.4.1 Distinction Between Compilations and Databases

CDPA s 3(1) was amended to define a literary work to be 'any work, other than a dramatic or musical work, which is written, spoken or sung, and includes:

(a) a table or compilation **other than a database;**

(b) a computer program; and

[1752] (n 1544) c 68.
[1753] Vaughne Miller, 'Making EU Law into UK Law' (UK House of Commons Library, International Affairs and Defence Section, Standard Note No SN/IA/7002, 22 October 2014) 2–3.
[1754] *EU Directive* (n 19).
[1755] SI 1997/3032 ('*CRDR*'), from 1 January 1998.
[1756] *EU Directive* (n 19) art 16 § 1.
[1757] Ibid.
[1758] *European Commission v Ireland* (Court of Justice of the European Union, Case C-370/99, 11 January 2001) [11] (L Sevón (Rapporteur), President of the Chamber, P Jann and M Wathelet JJ); *European Commission v Luxembourg* (Court of Justice of the European Union, Case C-348/99, 13 April 2000) [3] (L Sevón (Rapporteur), President of the Chamber, P Jann and M Wathelet JJ).
[1759] *CRDR* (n 1755).
[1760] Ibid Part III, regs 12–25.

(c) preparatory design material for a computer program; and

(d) a database.'

This distinction between tables/compilations and databases produced much confusion and scholarly debate, but the accepted consensus appeared to be that tables and compilations were a narrower subset of databases generally.[1761] Of importance was that *CRDR* reg 5(c) **specifically excluded databases from the prior definition of a literary work compilation** under the pre-*EU Directive CDPA* s 3(1)(a).[1762]

Instead, a database was defined under a new section, *CDPA* s 3A(1), as **'a collection of independent works, data or other materials which (a) are arranged in a systematic or methodical way; and (b) are individually accessible by electronic or other means'**. 'Other means' specifically encompassed non-digitised (hard-copy or hybrid) databases.[1763]

It must be noted that databases created prior to the *EU Directive's* enactment and protected by national copyright were not affected by its introduction.[1764] Therefore, if a pre-*EU Directive* database created before 27 March 1996 did not satisfy the eligibility for protection under art 3 § 1, then copyright vested under national law extraneous to the *EU Directive*.[1765]

7.4.2 Originality

To establish database originality, *CDPA* s 3A(2) stated that it was classified as an original work only if it constituted an ***author's own intellectual creation*** **'by reason of the selection or arrangement of its contents'**.[1766] The phrase an 'author's own intellectual creation' was new to the UK in 1998. It seemingly reflected the higher 'creativity' (Hegelian) originality standard, as opposed to the long-established, lower SOTB (Lockean) standard.[1767]

[1761] Derclaye, 'Do Sections 3 and 3A of the CDPA Violate the Database Directive?' (n 1565) 467–70.
[1762] *CDPA* (n 1559) s 3(1)(a).
[1763] *EU Directive* (n 19) recital 14.
[1764] Ibid art 14(2).
[1765] *CRDR* (n 1755) regs 29(1)–(2).
[1766] *CDPA* (n 1559) s 3A (2), inserted on 1 January 1998 by SI 1997/3032, reg 6 (emphasis added).
[1767] Gary Scanlan, 'The Database Directive – One Step Too Far?' (2004) 13 *Nottingham Law Journal* 38, 48.

Although computer programs were protected under a separate category of right under UK national copyright law, the term 'intellectual creation' correlated with the concept of originality in another of the EU's directives pertaining to computer programs.[1768] Subsequently, 'an author's own intellectual creation' harmonised with the 'creativity' standard, as required under EU law. It also aligned with TCS in US and Canada.[1769] The judicial interpretation of this standard by the CJEU shall be extensively discussed in the next chapter because the Court ultimately provided succinct clarification on the scope of the *EU Directive* by determining its application to databases.

Prior to any judicial clarification the definition of 'the selection or arrangement of its contents' produced confusion. Some scholars argued that, within some databases, such as those ordered alphabetically, the actual selection or arrangement of the contents would be void of any originality.[1770] Alternatively, it was argued that this meant that such a database would fall outside of sui generis protection, however, it could still be protected under national copyright laws.[1771]

CRDR reg 13(1) contained the database right and it stated that a property right subsisted in a database if there had been 'a substantial investment in obtaining, verifying or presenting the contents of the database'. As such, depending on the work in question, until further guidance was provided by the CJEU,[1772] it was argued that there was a choice of three possible originality standards applicable to works under national UK copyright:[1773]

1. SOTB – this remained applicable to non-database compilations and tables (including those that were computer-generated)[1774] and other categories of original works under the *CDPA*; or

---

[1768] *EU Software Directive* (n 603) art 1 (3)
[1769] *Feist* (n 38); *Kregos v Associated Press*, 937 F 2d 700, 703 (2nd Cir, 1991); *Victor Lalli Enterprises Inc v Big Red Apple Inc* 936 F 2d 671, 673 (2nd Cir, 1991); *Tele-Direct (Publications) Inc v American Business Information Inc* (n 455). Also see Gervais, 'The Protection of Databases' (n 143) 1150–1.
[1770] Derclaye, 'Do Sections 3 and 3A of the CDPA Violate the Database Directive?' (n 1565) 470.
[1771] Ibid.
[1772] *Football Dataco* (n 80).
[1773] Derclaye, 'Do Sections 3 and 3A of the CDPA Violate the Database Directive?' (n 1565) 471–2; Stanley Lai, 'Database Protection in the United Kingdom: The New Deal and its Effects on Software Protection' [1998] 1 *European Intellectual Property Review* 32, 33.
[1774] *CDPA* (n 1559) s 9(3) and 178.

2. The new higher creativity standard, which deemed a literary work database to be original, if the 'selection or arrangement of the contents' constituted 'the author's own intellectual creation';[1775] and/or

3. The sui generis database right under *CRDR* reg13(1) – applicable to most databases as long as there had been 'substantial' investment demonstrated in the obtaining, verifying or presentation of the database contents.[1776] The investment could be qualitative or quantitative.[1777] Judicial interpretation of this right will be discussed in the next chapter.

7.4.3 Authorship

Under *CRDR* reg 14(1), the 'maker' of a database was classified as the person who took 'the initiative in obtaining, verifying or presenting the contents of a database' and assumed 'the risk of investing in that obtaining, verification or presentation'. There were exceptions to this, including employment;[1778] Crown copyright;[1779] and databases made under the direction of the House of Commons/Lords.[1780]

Joint authorship in a database was defined as occurring 'if two or more persons acting together in collaboration take the initiative in obtaining, verifying or presenting the contents of the database and assume the risk of investing in that obtaining, verification or presentation'.[1781] Provision was also made for the 'maker' of a database as being the first owner of the database right within it.[1782]

7.4.4 Infringement of the Database Right

Under the *CRDR*, infringement of the database right occurred **if a person, without the database owner's consent, 'extracted or re-utilised all or a substantial part of the contents.'**[1783] Infringement could also occur **if a person performed 'repeated and**

[1775] Ibid s 3A (2), inserted on 1 January 1998 by *CRDR* reg 6.
[1776] *CRDR* (n 1755) reg 13(1), which implemented *EU Directive* (n 19) art 7(1).
[1777] *EU Directive* art 7(1).
[1778] *CRDR* (n 1755) reg 14(2).
[1779] Ibid reg 14(3).
[1780] Ibid reg 14(4).
[1781] Ibid reg 14(5).
[1782] Ibid reg 15.
[1783] Ibid reg 16(1).

systematic extraction/re-utilisation of insubstantial parts' of the database contents.[1784]

'Extraction' of database contents was defined as 'the permanent or temporary transfer of those contents to another medium by any means or in any form'.[1785] 'Re-utilisation' was 'making content available to the public by any means'.[1786] In relation to the investment, extraction or re-utilisation of a database, 'substantial' was stated as being 'substantial in terms of quantity or quality or a combination of both'.[1787]

In 1999, one of the first national UK cases to consider infringement under the *EU Directive* provided very limited guidance on its application.[1788] This case involved a silicon chip, which had sensors to differentiate the sizes of coins, using algorithms of physical coin dimensions.[1789] As it was conceded that the chip was protectable under the *EU Directive*, no further discussion was advanced to clarify the scope of protection. Rather, the clarification and judicial interpretation needed by the UK national courts resulted in cases being stayed and referred to the CJEU for guidance. The most seminal cases will be discussed in the next chapter.

7.5 The Possible Implications of Brexit on the Future of UK Database Protection

As previously stated, the Brexit referendum has seen the UK depart the EU and a transition position is currently occurring, with true Brexit scheduled to begin on 1 January 2021. Currently, the precise future implications of the departure upon the protection of databases are uncertain.[1790] A white paper released in July 2018 provided limited detail about future copyright-related issues – it merely stated that UK rights-holders would remain protected.[1791] According to the government at the time, if a no deal Brexit occurred before departing the EU, citizens would be ineligible for future database rights in the

[1784] Ibid reg 16(2), which implemented *EU Directive* (n 19) art 7(5).
[1785] Ibid which implemented *EU Directive* (n 19) art 7(2)(a).
[1786] Ibid which implemented *EU Directive* (n 19) art 7(2)(b).
[1787] Ibid reg 12(1).
[1788] *Mars v Teknowledge* [1999] EIPR N-158 (Jacob J).
[1789] Ibid.
[1790] Rosati, 'Brexit and UK Copyright' (n 76) 563.
[1791] HM Government UK, 'The Future Relationship Between the United Kingdom and the European Union' (White Paper, Cm9593, Presented to Parliament by the Prime Minister by Command of Her Majesty, July 2018) 47 [152].

EEA.[1792] It was proposed that national legislation would be amended with the introduction of a database right for citizens, the details of which were undisclosed.[1793] However, any pre-existing database rights (held by UK/EEA people/businesses) would have continued to function in the UK.[1794] The UK, however, finally reached a re-negotiated withdrawal agreement which was ratified in January 2020,[1795] although it may still be possible for the transition period to end without a free-trade agreement in place. So far, there has been limited guidance provided by the Government,[1796] but a political declaration presented to Parliament dated 19 October 2019 makes assurance that the UK will continue to protect and enforce IP rights beyond the standards required under international law.[1797] Specifically, it states that the Government should 'preserve the Parties' current high levels of protection, inter alia, of certain rights under copyright law, such as the sui generis right on databases'.[1798]

It appears unlikely that the UK will immediately depart from most copyright laws that were implemented under EU Membership. A major reason for this is that there will be the need for continued cross-border commercial harmonisation with the EU.[1799] Also, the UK will continue in its role as a member of the WTO and as a dual member with the EU of the WIPO.[1800] They will also need to comply with the minimal standards of copyright protection, as stipulated through international treaties under the WTO and WIPO.[1801] The *CDPA* also remains in force despite Brexit.

[1792] UK Intellectual Property Office, *Changes to Copyright Law in the Event of No Deal* (26 October 2018) UK.Gov Website 6.1-6.2 <https://www.gov.uk/government/publications/changes-to-copyright-law-in-the-event-of-no-deal/changes-to-copyright-law-in-the-event-of-no-deal#fnref:3>.

[1793] Ibid.

[1794] Ibid.

[1795] *European Union (Withdrawal Agreement) Act 2020* (UK) c 1; Agreement on the Withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community (n 1537). Also see HM Government, 'Statement That Political Agreement Has Been Reached' (n 1537).

[1796] HM Government, 'Political Declaration Setting Out the Framework for the Future Relationship Between The European Union and the United Kingdom' - Presented to Parliament pursuant to Section 1 of the *European Union (Withdrawal) Act (No. 2) 2019* and Section 13 of the *European Union (Withdrawal) Act 2018* (19 October 2019).

[1797] Ibid 8 [42].

[1798] Ibid 8 [43].

[1799] Graeme B Dinwoodie and Rochelle C Dreyfuss, 'Brexit and IP: The Great Unraveling' (2018) 39 *Cardozo Law Review* 967, 988–989; Kim Walker, 'Brexit: Implications for Copyright and the Digital Single Market' (Shakespeare Martineau LLP, March 2017) 1.

[1800] Florian Koempel, Gaetano Dimita, Phil Sherrell and Heather Randles, 'Impact of Brexit on UK Copyright Law' (Paper of the British Copyright Council, 2017) 1.

[1801] *Berne* (n 88); *TRIPS* (n 90); *WCT* (n 448); *WIPO Performances and Phonogram Treaty 1996*, opened for signature 13 February 1997, TRT/WPPT/001 (entered into force 14 March 2010). See 3.2.

In the future, the UK may wish to amend any new database right, if there is the 'political will to do so'.[1802] Reasons underpinning a future amendment or even reversal of the right include historical SOTB originality precedent and the largely unproven benefits of the database right (as reflected in the two EU evaluations – see 9.3).[1803] The situation, however, may be an example of 'ratcheting up'. This was a term coined by a European IP scholar to denote the lasting and heightened effects of harmonisation – a raised standard of protection which is impossible to reverse – despite leaving the Union.[1804]

There are, however, other strong reasons as to why the UK may wish to maintain the status quo for database protection. The most pertinent reason is that UK databases could fall outside of eligibility for database right protection altogether.[1805] This could lead to economic disadvantage accessing the EU market and confusion about the applicable copyright subsistence standard.[1806] There has been speculation that the UK may also decide to depart from the community copyright *acquis*.[1807] As stated at the beginning of this chapter, the copyright *acqui*s has been established through CJEU precedent,[1808] which will no longer be binding on the UK, post-Brexit.[1809] In principle, CJEU precedent could be retained if it was considered appropriate[1810] and the doctrine of supremacy will remain binding on domestic law,[1811] but its effects will be restricted. Of relevance to this discussion is that, post-Brexit, the UK Supreme Court will be entitled to overrule CJEU precedent.[1812] If it chooses not to, then pre-existing CJEU precedent will remain binding on lower courts. Additionally, there is the option for the UK to take into consideration CJEU law passed post-Brexit if it wishes to do so.[1813]

In conclusion, while the future direction remains unclear, the lesson that Australia can take from this is that any changes would likely pertain to revising the database right,

---

[1802] Koempel, Dimita, Sherrell and Randles (n 1800).
[1803] Maria C Gomez Garcia and Ana Ramalho, 'Copyright After Brexit' (2017) 12(8) *Journal of Intellectual Property Law & Practice* 669, 670.
[1804] P Bernt Hugenholtz, 'Harmonisation or Unification of European Union Copyright Law' (2012) 38(1) *Monash University Law Review* 4, 6.
[1805] Garcia and Ramalho (n 1803) 670.
[1806] Ibid.
[1807] Ibid 669.
[1808] See 7.5.
[1809] Dinwoodie and Dreyfuss (n 1799) 3; Garcia and Ramalho (n 1803) 671.
[1810] European Union (Notification of Withdrawal) Bill clause 6(2).
[1811] Ibid c 5(2).
[1812] Ibid c 6(4)(a).
[1813] Ibid c 6(2).

rather than a radical departure from the copyright *acquis*. This is due to the notion of 'ratcheting up', compliance with international treaties and ongoing trade coherence with the EU. Whether or not the UK chooses to return to SOTB originality remains to be seen, although this is unlikely given pre-established harmonisation with Member States and the need to ensure trade coherence.

7.6 Conclusion

In conclusion, this chapter has examined the copyright protection of databases pre-*EU Directive* in the UK through an examination of originality and authorship jurisprudence. The similarities between copyright law in the UK pre-*EU Directive* and Australian copyright law pre-*IceTV* were discussed. Then it explained the reasons for the implementation of the *EU Directive*. This chapter has also speculated upon the future protection of databases in the UK post-Brexit and the lessons that can be learned by Australia from this.

Of importance is that, due to the enactment of the *EU Directive*, the originality criterion for the protection of UK databases underwent an abrupt change. Seemingly, a departure occurred from the SOTB standard through the enactment of national database right legislation,[1814] which essentially quashed hundreds of years of precedent.[1815] Some copyright scholars observed that the raising of the originality standard was unique to the UK, because most other Member States with civil law backgrounds had already been applying a higher standard.[1816]

Under the *EU Directive*, SOTB was replaced by a higher originality standard. The new test examines databases for an **'author's own intellectual creation by reason of the selection or arrangement of its contents'**.[1817] Of interest is that the UK situation post-1998 regarding the application of the higher standard of originality is somewhat

---

[1814] *Football Dataco* (n 80) [53]. Also see *Attheraces (UK) Ltd v The British Horseracing Board Ltd* [2005] EWHC 3015 (Ch); *BHB Enterprises plc v Victor Chandler (International) Limited* [2005] EWHC 1074 (Ch); *Jobsearch Ltd v Relational Designers Ltd* [2004] EWHC 661 (Ch); *Royal Mail Group Plc v i-CD Publishing (UK) Limited* [2004] All ER (D) 250 (Feb); *Sietech Hearing Limited v. Russell Borland, James Eley, Digital Hearing (UK) Limited*, Outer House, Court of Session, Scotland, 19 February 2003; *Mars v Teknowledge* (n 1788).

[1815] Sally Anne Hinfey, 'Database Copyright and *Sui Generis* Rights: "Creating" A Problem for the Labourer' (2005) 5 *University College Dublin Law Review* 1, 12–13.

[1816] Derclaye 'Do Sections 3 and 3A of the CDPA Violate the Database Directive?' (n 1565) 466; Hinfey (n 1815) 15–16.

[1817] *CDPA* (n 1559) s 3A (2), inserted on 1 January 1998 by *CRDR* (n 1755) reg 6.

analogous to the situation in Australia post-2003 after *IceTV*. As 6.2.1 explored, the rulings in post-*IceTV* cases suggest that Australian law has re-orientated the originality standard, relying on an author's 'independent intellectual effort'. This seemingly parallels the revised UK originality test of an 'author's own intellectual creation' under the *EU Directive*. It also suggests that Australia was reacting to later UK jurisprudence by partaking in quasi-harmonisation with the EU.

Similarly, such abrupt judicial departure in the standard of Australian precedent raises the question as to whether sui generis protection is justifiable within Australia to protect those valuable databases which fall outside of copyright protection. To evaluate this further, Chapter 8: shall examine how sui generis database protection has been applied judicially in the UK. In doing this, it will analyse national cases which were stayed and referred to the CJEU under the *EU Directive* for a preliminary ruling, as well as subsequent UK national rulings.

Since 2009, the CJEU entered what has been deemed by some scholars as a third stage of development. A period of 'judicial activism' has occurred, with EU copyright harmonisation moving away from national legislative lawmakers.[1818] The CJEU has played a pivotal, horizontal role in the interpretation of key terms of *EU Directives* pertaining to copyright, property[1819] and associated rights.[1820] Interpretation has been necessary because the divergence in the application of national laws results in trade barriers within the internal market.[1821] There remains, however, a continual need for the CJEU to ensure a balance between the application of copyright protection with basic freedoms under the Lisbon Treaty[1822] and general rights of the EU legal order.[1823] During the last decade, the CJEU's role has strengthened to such an extent in passing

[1818] Hugenholtz, 'Copyright in Europe' (n 1549) 513; Keenan K Kmiec, 'The Origin and Current Meanings of Judicial Activism', (2004) 92 *California Law Review*, 1441, 1463–76.
[1819] Griffiths, 'Constitutionalising or Harmonising?' (n 1553) 65.
[1820] Martin-Prat (n 1550) 32–33; Van Eechoud, 'Along the Road to Uniformity' (n 1690) 60–1.
[1821] See, eg, *EMI Electrola GmbH v Patricia Im-und Export Verwaltungsgesellschaft mbH* (Court of Justice of the European Communities, C-341/87, 24 January 1989).
[1822] (n 1537). Also see *Deutsche Grammophon Gesellschaft mbH v Metro-SB-Großmärkte GmbH & Co KG* (Court of Justice of the European Communities, Case 78–70, 8 June 1971) [12]; *Football Association Premier League Ltd v QC Leisure* (Joined case of the Court of Justice of the European Communities, C-403/08, 4 October 2011) [106]-[121] with *Karen Murphy v Media Protection Services Limited* (Joined case of the Court of Justice of the European Communities, C-429/08, 4 October 2011) [164].
[1823] *Productores de Música de España (Promusicae) v Telefónica de España SAU* (Court of Justice of the European Communities, C-275/06, 29 January 2008) [68].

controversial rulings that some scholars have argued it has exceeded its powers.[1824] It has been argued that this has occurred to such an extent that the CJEU has been responsible for harmonising EU law through 'stealth' processes.[1825]

Considerable dangers are purported with this process. On several occasions, the CJEU has sailed perilously close to the creation of new laws instead of merely applying existing law.[1826] Such problems are a consequence of the interpretation of vague general principles, which are difficult to interpret nationally, and the CJEU's treatment of prior judgements as if they were statutory rules.[1827] To explore recent interpretation in greater depth, the next chapter shall examine the most important rulings pertaining to originality and the *EU Directive*. Then, it will examine the application of originality and the database right in more recent national UK decisions.

[1824] Marcella Favale, Kretschmer and Paul C Torremans, 'Is There an EU Copyright Jurisprudence? An Empirical Analysis of the Workings of the European Court of Justice' (CREATe Working Paper 2015/07, August 2015) 20–2.

[1825] See, generally, Lionel Bently, 'The Return of Industrial Copyright?' (2012) 34(10) *European Intellectual Property Review* 654; Lionel Bently, 'Harmonisation by Stealth? The ECJ and European Copyright Law' (Speech delivered at the 2012 Fordham IP Conference, Fordham University School of Law, 13 April 2012) <http://fordhamipconference.com/wp-content/uploads/2010/08/Bently_Harmonization.pdf>; Jonathan Griffiths, 'Dematerialization, Pragmatism and the European Copyright Revolution' (2013) 33(4) *Oxford Journal of Legal Studies* 767, 780-3; Hugenholtz, 'Copyright in Europe' (n 1549) 513; Pilichou (n 1004) 29–30; Van Eechoud, 'Along the Road to Uniformity' (n 1690) 60–80.

[1826] Martin-Prat (n 1550) 35.

[1827] Ansgar Ohly, 'Introduction: The Quest for Common Principles of European Intellectual Property Law – Useful, Futile, Dangerous?' in Ansgar Ohly (ed), *Common Principles of European Intellectual Property Law* (Siebeck, Mohr, 2012) 3, 8; Martin-Prat (n 1550) 35–6.

CHAPTER 8: LESSONS AUSTRALIA CAN LEARN THROUGH THE CJEU APPLICATION OF THE *EU DIRECTIVE*

8.1 The Role of the CJEU and Its Impact on the EU Protection of Databases

This chapter will continue to address the fourth question posited for analysis, which pertains to the lessons that Australia can learn from the *EU Directive*. To do so, this chapter will specifically examine how the right has been judicially interpreted by the CJEU. In continuing the use of the UK as a case study, it will also examine how CJEU interpretation has impacted UK national law. The importance of the CJEU's interpretation of the scope of key definitions of the *EU Directive* cannot be overemphasised. This is because, when applied factually after being returned to national courts, CJEU interpretation has determined what databases fall within and outside the scope of copyright and sui generis protection.

As Chapter 7: explained, the horizontal nature of the *EU Directive* sought to harmonise EU law. It did this through the provision of minimum national standards and all Member States, including the UK, eventually complied. The need for national implementation resulted in rather broad legislative definitions, requiring judicial interpretation as to their exact scope. This interpretation process began in national courts, with key issues ultimately referred to the CJEU for a preliminary ruling,[1828] in compliance with *Lisbon Treaty* art 267.[1829]

Located at Luxembourg and established in 1952, CJEU's role is to ensure that all Member States and institutions interpret and apply EU law consistently.[1830] The institution is divided into the General Court and the CJEU. The CJEU is relevant to this study, as it handles hearings from national courts for preliminary directions, as well as appeals and annulments.[1831] Preliminary CJEU hearings primarily interpret and provide direction to ensure uniformity in legal application across Member States, because nations have

---

[1828] Grosheide (n 147) 57–8.
[1829] *Treaty of Lisbon* (n 1538).
[1830] Europa EU, *Court of Justice of the European Union - Overview*, (Web Page, 26 March 2020) <https://europa.eu/european-union/about-eu/institutions-bodies/court-justice_en>.
[1831] Ibid.

interpreted EU laws differently.[1832] CJEU directions are issued through the doctrine of direct effect.[1833]

Since the implementation of the *EU Directive* in 1996, several key questions from national courts including the UK have been forwarded to the CJEU for clarification. Guidance has been provided pertaining to the interpretation and scope of key definitions and phrases used within the *EU Directive*. In the interpretation offered, the CJEU has, therefore, wielded enormous power in shaping the protection of databases of the community *acquis*, as well as the tests applicable for copyright subsistence. The process of CJEU judicial interpretation of generalised terms has been a contentious issue because, prior to implementation of the *EU Directive*, no comparative database protection existed anywhere in the world. Since its implementation, the question of the scope of the *EU Directive* and the clarification of key terms has caused uncertainty and confusion, not only in national courts, but also at the CJEU.

In addressing the questions referred by a Member State through a preliminary ruling, the CJEU provides instruction as to the judicial interpretation of a directive at a national level. When a case is referred, a judge ('judge-rapporteur') and an advocate general are assigned.[1834] The case may proceed in two parts: a written and an oral stage. Firstly, written statements are submitted, often with observations provided by national authorities, EU institutions or private individuals.[1835] These statements are summarised and discussed by the judge-rapporteur at a general meeting.[1836] It is also decided how many judges will hear the case.[1837] Usually, five judges are assigned, but depending on importance, there may be three or 15 (the whole court, which is highly unusual).[1838]

It is also decided if an oral hearing will occur and if the Advocate General shall provide an opinion.[1839] If an oral hearing occurs, lawyers for each party can submit their cases before the judges and the Advocate General.[1840] If it has been determined that the

---

[1832] Ibid.
[1833] See generally, De Búrca (n 1750).
[1834] Europa EU (n 1830).
[1835] Ibid.
[1836] Ibid.
[1837] Ibid.
[1838] Ibid.
[1839] Ibid.
[1840] Ibid.

Advocate General shall provide an Opinion, then this is released several weeks after the hearing, and the judges hand down their ruling.[1841] Each Opinion is then returned to its initial Member State, so that their national courts can apply the law to the facts to make a final national ruling.

Having explained the role and judicial processes undertaken by the CJEU, the next section shall discuss seminal cases pertaining to copyright subsistence under *the Directive*.

8.2 The CJEU Interpretation of Copyright Subsistence Under the *EU Directive*

This section will focus upon the establishment of copyright subsistence under the *EU Directive*, with the most contentious issues pertaining to the interpretation of art 3.[1842] Copyright subsistence is satisfied under art 3 § 1 if the selection or arrangement of a database contents constitutes an **'author's own intellectual creation'**. Protection does not extend to the actual contents of the database itself (art 3 § 2) because this would violate the idea/expression dichotomy. Article 3 refers to originality.[1843] It has been described as an 'autonomous concept[s] of Community law', requiring independent, but consistent interpretation throughout Member States, through CJEU guidance.[1844]

Of importance is that this standard correlates with *Berne* (for literary/artistic works)[1845] and two other EU directives (involving software and photographs).[1846] While these three directives draw upon the same definition of originality, they do not provide a standard per se; this has been a matter for judicial interpretation. As such, a process of vertical harmonisation has emerged.[1847] The originality standard was introduced in 1991, through the first software *Directive 91/250/EEC*.[1848] It is likely that the selection of words reflected the continental scope of originality, with 'intellectual creation' reflecting civil

---

[1841] Ibid.
[1842] *EU Directive* (n 19).
[1843] *Football Dataco* (n 80) [37]; *Infopaq* (n 80); affirmed in *Bezpečnostní softwarová asociace - Svaz softwarové ochrany v Ministerstvo kultury* (n 80) [45]; *Association Premier League Ltd and Others v QC Leisure and Others* (n 80); *Eva-Maria Painer v Standard VerlagsGmbH and Others* (n 80).
[1844] Martin-Prat (n 1550) 34.
[1845] *Berne* (n 88) art 2(5).
[1846] *EU Software Directive* (n 603) art 1 § 3 (software); *Directive 2006/116/EC of the European Parliament and of the Council of 12 December 2006 on the Term of Protection of Copyright and Certain Related Rights* [2006] OJ L 372/12 art 6 (photographs).
[1847] Margoni (n 1006) 6–8.
[1848] *of 14 May 1991 on the Legal Protection of Computer Programs* (n 1551) art 1(3), recitals 3-5. The Directive was later superseded by the *EU Software Directive* (n 603).

law (Hegelian) justifications.[1849] Because judicial interpretation about the scope of this term has occurred about works which fall outside of the *EU Directive*, it is necessary to discuss a landmark 2009 non-database case: *Infopaq*.[1850]

8.2.1 *Infopaq*

This Danish case involved Infopaq, a media analyst company, who created and sold summaries of press articles. Infopaq engaged in the unauthorised, automatic reproduction of eleven-word newspaper extracts belonging to Danish newspapers. The professional association of Danish national newspapers (DDF) sued in Østre Landsret (High Court of Eastern Denmark). The case was dismissed, with a ruling that the consent of rights-holders was not required to reproduce these small extracts.[1851] The case was then appealed to the Danish Supreme Court (Højesteret), who applied for a preliminary CJEU hearing.

The *EU Directive* underpinning this case was *InfoSoc*.[1852] This Directive has proved to be very important to EU copyright, because it was the first 'horizontal' Directive.[1853] *InfoSoc* aimed to provide a 'rigorous, effective system'[1854] and 'high level protection'[1855] for copyright and related rights, in a technologically neutral way. It sought to harmonise the rights, exceptions and limitations of all authorial works under EU copyright law, by attaching these to works and promoting investment in their creation and innovation.[1856] *InfoSoc* has been utilised by the CJEU to promote EU-wide harmonisation for fundamental doctrines, such as what constitutes originality, as interpreted in *Infopaq*.

Specifically, in *Infopaq*, the Højesteret stayed the proceedings, asking the CJEU for an interpretation of art 2(a) (the reproduction right) and art 5 (an exemption for transient or temporary copying) under *InfoSoc*.[1857] The CJEU considered what constituted infringement under the reproduction right. It applied a teleological approach, finding that under *Berne*,[1858] the protection of certain works (such as literary and artistic works) was

---

[1849] Eleonora Rosati, 'Originality in a Work, or a Work of Originality: The Effects of the *Infopaq* Decision' (2011) 33(12) *European Intellectual Property Review* 795, 796-98.
[1850] *Infopaq* (n 80).
[1851] Ibid [2].
[1852] *Infosoc* (n 1551).
[1853] Martin-Prat (n 1550) 31.
[1854] *Infosoc* (n 1551) recital 9.
[1855] Ibid recital 10.
[1856] Ibid recital 4.
[1857] *Infopaq* (n 80) [1].
[1858] *Berne* (n 88) art 2(5), 2(8).

underpinned by the fact that they are intellectual creations.[1859] It found that other works such as software, databases and photographs were copyright-protectable, **if they were original by virtue of being their 'author's own intellectual creation'.**[1860] Ergo, the establishment of *InfoSoc* was to ensure a harmonised European copyright framework, based on the principles outlined in recitals 4, 9–11 and 20.[1861] This affirmed that the originality standard espoused under *InfoSoc* was applicable to all categories of protectable works and correlated with the Database, Term and Software Directives.[1862]

Accordingly, in considering infringement, the CJEU stated that the reproduction right under Article 2(a) would apply to a work that was **'original in the sense that it is the author's own intellectual creation'**.[1863] It is unlikely a coincidence that *IceTV* was handed down in the same year and uses the same terminology. In interpreting this, an EU-wide concept was derived of what constituted a 'protected work', which has been affirmed in subsequent cases.[1864] This harmonised the originality standard for works across the EU as being the creativity standard.[1865]

Regarding the standard of originality required from an author, the CJEU further clarified that it was a test of **qualitative judgment, rather than a quantitative one**:

> It is only through the choice, sequence and combination of those words that the author may express his creativity in an original manner and achieve a result which is an intellectual creation.[1866]

So, it was the 'expression of the intellectual creation of the author of the work' which was protectable by copyright.[1867] Also, the CJEU found that the extract of 11 words during the automatic data capture process was not transient in nature, as required under art 5(1);

[1859] *Infopaq* (n 80) [34].
[1860] Ibid [35].
[1861] Ibid [36].
[1862] *EU Directive* (n 19) art 3 § 1; *Directive 2006/116/EC of the European Parliament and of the Council of 12 December 2006 on the Term of Protection of Copyright and Certain Related Rights* (n 1846) art 6; *EU Software Directive* (n 603) art 1 § 3.
[1863] *Infopaq* (n 80) [37].
[1864] *Bezpečnostní softwarová asociace - Svaz Softwarové Ochrany v Ministerstvo Kultury* (n 80) [42], [45]-[46], [48]; *Football Association Premier League Ltd v QC Leisure* (n 1822); *Eva-Maria Painer v Standard VerlagsGmbH and Others* (n 80) [87]-[99]; *Football Dataco* (n 80).
[1865] *Infopaq* (n 80) [35], [37]–[38].
[1866] Ibid [45]; affirmed in *Bezpečnostní softwarová asociace - Svaz softwarové ochrany v Ministerstvo kultury* (n 80) [45]; *Association Premier League Ltd and Others v QC Leisure and Others* (n 80) [97]; *Eva-Maria Painer v Standard VerlagsGmbH and Others* (n 80) [87].
[1867] *Infopaq* (n 80) [39].

therefore, it required the consent of the relevant rights-holders.[1868] The CJEU hearing was returned to the Danish national court for determination.[1869] The finding led commentators to undertake comparable analysis in various jurisdictions pertaining to the threshold for permissible copying in short sentences.[1870] Subsequent application of *Infopaq* precedent shall be discussed in another non-database case: *Newspaper Licensing Agency v Meltwater Holdings BV* ('*Meltwater*').[1871] *Meltwater* is significant because it clarified the harmonising effects of *Infopaq* in the UK.

8.2.2 Meltwater

Prior to *Infopaq*, SOTB remained applicable to copyright-protected UK works extraneous to databases, as established by over 200 years of precedent. More recent cases where SOTB was affirmed included *Baigent v Random House Group Limited*[1872] for literary works, and *Sawkins v Hyperion Records Limited*[1873] for musical works.

In November 2010, in *Meltwater*,[1874] the High Court (Chancery Division) re-examined originality in consideration of *Infopaq*. Interestingly, the facts were similar. The defendant, Meltwater, was a Dutch parent company of a multi-national group, who offered an online media monitoring service to business subscribers.[1875] Subscribers could choose search words, which would be used to send reports called the *Meltwater News* about correlating news articles.[1876] These reports contained an article title, a hyperlink to the news article, the first text of the article and an extract containing the chosen search words.[1877]

The applicant, NLA, was a company who managed the IP rights of newspaper content for its members.[1878] There were seven co-applicants involved, including national newspaper

---

[1868] Ibid [70]–[74].
[1869] Ibid [51].
[1870] See, eg, Connor Moran, 'How Much is Too Much? Copyright Protection of Short Portions of Text in the United States and European Union After *Infopaq International A/S v Danske Dagblades*' (2011) 6(3) *Washington Journal of Law, Technology and Arts* 247, 250–58.
[1871] *Newspaper Licensing Agency v Meltwater Holdings BV* [2011] RPC 7, 209 (Proudman J) ('*Meltwater*').
[1872] (n 1605) (Lloyd LJ).
[1873] (n 38) (Patten J).
[1874] *Meltwater* (n 1871) 209.
[1875] Ibid 209 [H4] (Proudman J).
[1876] Ibid 209-10, [H4], [H7] (Proudman J).
[1877] Ibid 210 [H7] (Proudman J).
[1878] Ibid 209 [H3] (Proudman J).

publishers and shareholder members of the NLA.[1879] Because online media monitoring services had become so popular, NLA had developed two new licensing schemes for commercial users.[1880] Meltwater denied that they needed to seek any licence from the NLA.[1881] NLA asserted that Meltwater was infringing their copyright in three ways due to the fact that they had to access and reproduce the news headlines to create the *Meltwater News*.[1882] It was this dispute which prompted the proceedings before the High Court.

The court emphasised the need for UK domestic legislation to be construed in conjunction with *EU Directives* and their desired purpose, as extensively discussed in Chapter 7:.[1883] Proudman J examined five issues, two of which are relevant to this study. These were, whether headlines were capable of constituting either: (1) a free-standing copyright-protected literary work;[1884] or (2) a substantial part of the article of which they titled.[1885] The court examined the process of how headlines are created,[1886] as well as distinguishing obiter from the Australian *Fairfax* case.[1887]

In examining originality, the High Court cemented the shift in the application of originality, by declaring that any historical precedent had been overtaken by *Infopaq*.[1888] In other words, **the higher EU standard of originality, which examined the creative choices behind an author's own intellectual creation, was appropriate. As such, a subjective test was necessary, which examined the intellectual creation of an author through the 'skill' and 'labour' demonstrated**. This finding later led to the suggestion that UK skill and labour was redundant.[1889]

[1879] Ibid.
[1880] Ibid 209 [H5] (Proudman J).
[1881] Ibid 209 [H6] (Proudman J).
[1882] Ibid 210 [H8] (Proudman J).
[1883] Ibid 221 [40] (Proudman J), citing *Marleasing SA v La Comercial Internacional de Alimentacion SA* (C-106/89) [1990] ECR I-4135; *Revenue and Customs Commissioners v IDT Card Services Ireland Limited* [2006] EWCA Civ 29, [73]–[92].
[1884] Ibid 224 [56] (Proudman J).
[1885] Ibid.
[1886] Ibid 224–5 [58] (Proudman J).
[1887] Ibid 225–7 [62]-[66] (Proudman J).
[1888] Ibid 227 [67] (Proudman J).
[1889] Estelle Derclaye, 'Football Dataco: Skill and Labour is Dead!' Kluwer Copyright Blog (Blog Post, 1 March 2012) <http://copyrightblog.kluweriplaw.com/2012/03/01/football-dataco-skill-and-labour-is-dead/>.

Of importance was that the originality test did not distinguish between an extracted part and the whole work, so long as the part contained elements which were 'the expression of the intellectual creation of the author'.[1890] Proudman J stated that *InfoSoc* art 2 not make reference to a 'substantial part'.[1891] The CJEU asserted that originality rather than substantiality was correct to apply to an extracted part of a work.[1892] In obiter, the Court, surprisingly, suggested that headlines were capable of being literary works, as either a part of an article or an independent work.[1893] Despite this, the issue could not be examined any further because the processes that went into creating the headlines could not be precisely established.[1894]

Instead, it was found that copyright subsisted in the headlines due to sufficient originality establishment through authorial effort of a literary nature.[1895] Affirming precedent, the effort required needed no assessment of quality.[1896] **Rather, it was quantitative, having to originate from an author and involve 'application of skill or labour in the creation of the work'.[1897]** In examining the creative process for each headline, specialised and considerable 'skill' and 'labour' was found to have been exercised by the authors.[1898] Their intent was to provoke readers' attention and provide entertainment.[1899] Proudman J declared, 'the test of quality has been re-stated, but for present purposes not significantly altered by *Infopaq* … the decision may sit awkwardly with some provisions of English law … [and] the full implications of the decisions have not yet been worked out'.[1900] The final ruling was that without a licence for the *Meltwater News*, infringement had occurred.[1901]

[1890] *Meltwater* (n 1871) 227 [68]-[69] (Proudman J), citing *Infopaq* (n 80) [38]–[39], [42], [47]–[48].
[1891] Ibid 227 [69] (Proudman J).
[1892] Ibid.
[1893] Ibid 228 [71] (Proudman J).
[1894] Ibid.
[1895] Ibid 228 [70]–[71] (Proudman J), applying *Infopaq* (n 80) [35], [37]–[38].
[1896] Ibid 220 [29]–[30], applying *London Press* (n 447) 608–9 (Peterson J); *Ladbroke (Football) Limited v William Hill (Football) Limited* (n 212) 277–8, 285 and *Sawkins v Hyperion Records Ltd* (n 38) [31].
[1897] Ibid 220 [30]-[31] (Proudman J), applying *Interlego* (n 849) 259–63.
[1898] Ibid 228 [70] (Proudman J).
[1899] Ibid.
[1900] Ibid 229–30 [81] (Proudman J).
[1901] Ibid 241 [148] (Proudman J).

Upon appeal to the Court of Appeal (Civil Division) on 27 July 2011, the ruling was upheld and the appeal was dismissed.[1902] The High Court judgement was described as 'clear, careful and comprehensive' and the Appellant Court concurred that a headline could attract copyright.[1903] However, it was similarly acknowledged that there would be some limited situations where a licence would not be required for the re-use of the headlines.[1904] Such situations would occur where subsistence failed due to a lack of 'skill' and 'labour' demonstrated.[1905] This ruling directly contrasted to the 2010 Australian case of *Fairfax v Reed*, as discussed at 5.3.4 and 5.3.5.[1906]

It was affirmed that for copyright to subsist, the headline needed to be a literary work, originating from an author.[1907] The court found that, although *Infopaq* referred to an 'intellectual creation', it did so in a context which related to a question of origin, instead of novelty or merit.[1908] Accordingly, the Court of Appeal stated that *Infopaq* did not affect the UK originality test, because novelty or merit was not required.[1909] However, later CJEU cases cemented *Infopaq* jurisprudence as requiring an the embodiment of an author's original intellectual creation through the free and creatives choices made.[1910] This was in contradiction to this finding of the Court of Appeal.

The case of *Football Dataco*[1911] was handed down by the CJEU on 1 March 2012. It was the first case referred from the UK pertaining to database copyright protection under art 3 § 1 and will be discussed next.[1912]

[1902] *Newspaper Licensing Agency Ltd & Others v Meltwater Holding BV & Others* (2011) 93 IPR 341, 356–7 [48]–[51] (Jackson and Elias LJ).
[1903] Ibid 351 [22] (Jackson LJ).
[1904] Ibid 356–7 [48] (Jackson LJ).
[1905] Ibid 357 [49] (Jackson LJ).
[1906] (n 904) 189 FCR 109 (Bennett J).
[1907] *Newspaper Licensing Agency Ltd & Others v Meltwater Holding BV & Others* (n 1902) 349 [19] (Jackson LJ), affirming *CDPA* (n 1559) s 1(1)(a), *London Press* (n 447) 609 and *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (n 212).
[1908] *Newspaper Licensing Agency Ltd & Others v Meltwater Holding BV & Others* (n 1902) 349 [20].
[1909] Ibid 349 [20].
[1910] *Eva-Maria Painer v Standard VerlagsGmbH and Others* (n 80) [87]–[90], [92], affirming *Infopaq* (n 80) [35], *Football Association Premier League Ltd v QC Leisure* (n 1822) [98].
[1911] *Football Dataco* (n 80).
[1912] Perrtu Virtanen, 'Football Dataco v Yahoo! The CJEU Interprets the Database Directive' (2012) 9(2) *SCRIPTed* 258, 261.

8.2.3 Football Dataco

In their highly anticipated judgement, the CJEU provided guidance about copyright's applicability to databases by discussing originality and what constitutes an 'authors own intellectual creation'.[1913] There were six claimants, who were involved in the creation of football fixtures lists for the English and Scottish Premier Football Leagues.[1914] The defendants were media enterprise and betting companies, who used the fixtures lists without a licence.[1915] In the High Court (Chancery Division), they sued for infringement, claiming copyright in the lists under one or more of the following:

1. As an original literary database under *CDPA* ss 3 and 3A (which gave effect to art 3 or the *EU Directive*); and or
2. The sui generis database right (which gave effect to art 7 of the *EU Directive*); and/or
3. As a literary work under UK copyright, irrespective of whether it was a database, [1916]

In relation to point (1), after a detailed examination of the creation of the lists,[1917] the High Court found that art 3 was applicable, so the lists were protectable by copyright as original literary databases.[1918] Floyd J summarised a four-step test to determine subsistence, which involved (a) identifying the data collected and arranged; (b) analysing the work which had gone into the database creation to ensure isolation of the selection and arrangement; (c) questioning whether the selection and arrangement comprised the author's own intellectual creation and whether it involved the author's judgement taste or discretion; and (d) examining whether the work was quantitively sufficient to attract copyright.[1919]

Consideration was given to the data collected and how it was arranged.[1920] The selection and arrangement of the data was isolated by the choices made by the authors.[1921] **It was**

[1913] *Football* (n 80) [27]–[34], referring to *EU Directive* (n 19) art 3 § 1.
[1914] *Football Dataco Ltd v Britten Pools Ltd* [2010] RPC 17 522, 522 [3] (Floyd J).
[1915] Ibid [4] (Floyd J).
[1916] Ibid 527 [7] (Floyd J).
[1917] Ibid 527–33 [9]-[44] (Floyd J).
[1918] Ibid 547 [99] (Floyd J).
[1919] Ibid 545 [91] (Floyd J).
[1920] Ibid 545 [93] (Floyd J).
[1921] Ibid 546 [94]-[95] (Floyd J).

questioned whether this could be considered an 'author's own intellectual creation'.[1922] Significantly, the preparation of the fixtures lists was described as involving 'very significant labour and skill … [to satisfy] … competing requirements'.[1923] The court clarified this standard by explaining that it went beyond mere SOTB and the 'application of a rigid criteria'.[1924] Instead, it involved 'scope for the application of judgement and skill' at each stage'.[1925] The outcome and quality of the solutions in the lists was found to be entirely dependent upon the authorial skill involved.[1926] Evidence suggested quantitative sufficiency, so copyright subsisted in the fixtures lists as original literary databases.[1927]

In considering point (2) above, the CJEU cases of *British Horseracing* and the *Fixtures Marketing Trio* were examined. They will be discussed in the next section. In a similar outcome to those cases, the High Court found that no database right existed.[1928] This was because the investment in creating the fixture lists was insufficient, insofar of the 'obtaining, verification or presentation of the data' required under art 7 § 1.[1929] Therefore, sui generis protection could not vest.

Finally, in relation to point (3) above, it was held that the lists could not attract copyright as literary works under domestic law because there was no further scope for subsistence other than via copyright under the *EU Directive*.[1930] The preliminary hearing confirmed that although sui generis protection was inapplicable to the fixture lists, copyright as a literary database was still available. This ruling was also considered significant for the claimants because it justified their licensing scheme.[1931]

So, when comparing the three findings, only point (1) found that the lists were protectable by copyright as original databases, whereas points (2) and (3) failed. Point (2) found no database right existed due to insufficient investment in creation and point (3) found that

---

[1922] Ibid 546-7 [96]-[97] (Floyd J).
[1923] Ibid 533 [41] (Floyd J).
[1924] Ibid 533 [43] (Floyd J).
[1925] Ibid.
[1926] Ibid.
[1927] Ibid 547 [98] (Floyd J).
[1928] Ibid 545 [92] (Floyd J).
[1929] Ibid.
[1930] Ibid 547 [100] (Floyd J).
[1931] Paul Cairns and Simone Blakeney, '1-0 to *Football Dataco Ltd* - The Organisers of Professional Football Matches take the Lead in the Battle to Prevent the Unauthorised Use of their Fixture Lists' (2010) 3(4) *International Sports Law Review* 57, 59.

copyright failed under domestic UK law – it was impermissible to 'double dip'. The ruling was stayed and referred to the CJEU.

8.2.3.1 CJEU Judgement

Upon appeal, the Court of Appeal agreed with the lower court (and past CJEU rulings),[1932] affirming that the fixtures lists fell outside sui generis protection.[1933] However, there remained a lingering doubt as to whether the 'skill' and 'judgement' found in the lists would be sufficient for copyright to subsist as a literary database under *CDPA* ss 3 and 3A (or art 3).[1934] Subsequently, the case was stayed by the Court of Appeal and referred to the CJEU for a preliminary ruling, with the following questions:[1935]

Issue 1: Author's Own Intellectual Creation

'In Article 3 § 1 … what is meant by 'databases which, by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation' and in particular:

> (a) Should the intellectual effort and skill of creating data be excluded?
>
> (b) Does 'selection or arrangement' include adding important significance to a pre-existing item of data?
>
> (c) Does 'author's own intellectual creation' require more than significant labour and skill from the author, and if so, what is that additional requirement?'[1936]

In March 2012, the CJEU responded to this issue,[1937] which mirrored the opinion of Advocate General Mengozzi.[1938] It was found that art 3 § 1 must be interpreted as meaning that a 'database' within the meaning of art 1 § 2 is protected by copyright,

---

[1932] See below, 8.3 (Database Right) – *BHB* (n 83); *Fixtures Marketing Ltd v Oy Veikkaus AB* (C-46/02) [2004] ECR I-10396; *Fixtures Marketing Ltd v Organismos Prognostikon Agonon Podosfairou* ('*OPAP'*) (n 83); and *Fixtures Marketing Ltd v Svenska Spel AB* (C-338/02) [2004] ECR I-10532 (*'Fixtures Marketing Trio'*).

[1933] *Football Dataco Ltd v Stan James (Abingdon) Ltd* [2011] RPC 9, 295, 299 [10]-[11] (Jacob, Hooper, Rimer LLJ).

[1934] Ibid 299 [7]-[9], 300-1 [13]-[21] (Jacob, Hooper, Rimer LLJ).

[1935] Reproduced from the law report.

[1936] *Football Dataco Ltd v Stan James (Abingdon) Ltd* (n 1933) 295, 302 [22] (Jacob, Hooper, Rimer LLJ).

[1937] *Football Dataco* (n 80) [37]; referring to *Infopaq* (n 80) [35], [37]–[38]; *Bezpečnostní softwarová asociace - Svaz softwarové ochrany v Ministerstvo kultury* (n 80) [45]; *Football Association Premier League Ltd v QC Leisure* (n 1822) [87].

[1938] Opinion of Advocate General Mengozzi, delivered on 15 December 2011, *Football Dataco* (n 80).

provided that the selection or arrangement of the data amounts to an **'original expression of the creative freedom of its author'**.[1939] No other criterion was permissible.[1940]

In other words, because copyright under art 3 § 1 is to subsist in the structure of the database and not the contents, this refers to the selection and arrangement of the data by an author. The selection and arrangement must occur through authorial 'creative freedom' and original expression through choices:

> As regards the setting up of a database, that criterion of originality is satisfied when, through the selection or arrangement of the data which it contains, its author expresses his creative ability in an original manner by making free and creative choices and thus stamps his 'personal touch'.[1941]

Contrastingly, copyright protection could not subsist if the creation of the database was 'dictated by technical considerations, rules or constraints which leave no room for [an author's] creative freedom'.[1942] The actual degree of authorial creative freedom demonstrated was a matter for national court interpretation.[1943] Consequently, the answers to questions 1(a), (b) and (c) were:

> (a) The intellectual effort and skill in creating the data was irrelevant in assessing the eligibility for copyright protection under the database right;[1944]
>
> (b) It was irrelevant whether or not the selection or arrangement of the data included the addition of important significance to that data;[1945] and
>
> (c) The 'labour' and 'skill' required in setting up the database could not justify protection, if it did not express any originality in the selection or arrangement of data within the database.[1946]

[1939] *Football Dataco* (n 80) [45]; *Bezpečnostní softwarová asociace - Svaz softwarové ochrany v Ministerstvo kultury* (n 1820) [50]; and *Eva-Maria Painer v Standard VerlagsGmbH and Others* (n 80) [89] and [92].
[1940] *Football Dataco* (n 80) [40]; Virtanen (n 1912).
[1941] *Football Dataco* (n 80) [38], affirming, by analogy, *Infopaq* (n 80) [45]; *Bezpečnostní softwarová asociace - Svaz softwarové ochrany v Ministerstvo kultury* (n 80) [50]; *Eva-Maria Painer v Standard VerlagsGmbH and Others* (n 80) [89] and [92].
[1942] *Football Dataco* (n 80) [39]; affirming *Bezpečnostní softwarová asociace - Svaz softwarové ochrany v Ministerstvo kultury* (n 80) [48]–[49]; and *Football Association Premier League Ltd v QC Leisure* (n 1822) [98].
[1943] *Football Dataco* (n 80) [45].
[1944] Ibid [33], [35], [46].
[1945] Ibid [40]-[41], [46].
[1946] Ibid [46].

Question 1(a) suggested that the Court of Appeal sought clarification as to the precise scope of *Infopaq*. However, the three answers to these questions had important ramifications for UK national law, because if the standard was found to constitute more than the selection or arrangement of data, or labour and skill, then this effectively extinguished SOTB for databases under UK precedent. As articulated by the Court of Appeal, 'what the meaning and limits of [an] 'author's own intellectual creation' is also, we think, a question calling for an answer.'[1947]

The answer to 1(b) suggested that a database could qualify for protection if the 'selection and arrangement' of the database contents included the addition of important significance to that data, which fulfilled this criterion. It was, however, the answer to 1(c) which was particularly significant, because it affirmed that *Infopaq* had changed the scope of UK originality. Rather than being a mechanical standard, merely predetermined by technical function, the database had to be an 'intellectual creation'.[1948] With undertones to Hegelian philosophy, this had to be achieved by reflecting the personality of its author through their 'free and creative choices' in its production.[1949]

Issue 2: Preclusion of National Rights

The second issue referred by the English Court of Appeal was: 'Does *the Directive* preclude national rights in the nature of copyright in databases other than those provided for by *the Directive*?'[1950] The CJEU affirmed the *EU Directive's* purpose was to remove the differences between national legislation on database protection.[1951] Subject to the transitional provision contained in art 14 § 2, interpretation required preclusion of national legislation, granting copyright protection under conditions that were different to those in art 3 § 1.[1952]

This meant that as such, no separate database copyright protection was permissible under UK national law. It also reflected one of the underlying rationales of the *EU Directive*,

---

[1947] *Football Dataco Ltd v Stan James (Abingdon) Ltd* (n 1933) 302 [21] (Jacob, Hooper, Rimer LLJ).
[1948] *Football Dataco* (n 80) [40] affirming *Eva-Maria Painer v Standard VerlagsGmbH and Others* (n 80) [88]–[89].
[1949] Ibid [40], affirming *Bezpečnostní softwarová asociace - Svaz softwarové ochrany v Ministerstvo kultury* (n 80) [49].
[1950] Ibid [22] (Jacob, Hooper, Rimer LLJ).
[1951] Ibid [48].
[1952] Ibid [52].

which was to harmonise the scope of EU database law and remove the differing standards between Member States.[1953] Significantly, it confirmed that it was impermissible for a database to be considered under a domestic copyright regime if it was also considered under the *EU Directive*. The precise application of originality was strongly confirmed. This ruling prompted suggestions that the CJEU was encouraging national courts to reject the copyright protection of football fixtures lists under the *EU Directive*.[1954] This case was subsequently touted as the UK's equivalent to *Feist*, due to rejecting SOTB.[1955]

8.2.4 The Impact of CJEU Interpretation of Copyright Subsistence in the UK and What Australia Can Learn from This

This section will discuss the impact of the CJEU's interpretation of originality upon the UK and what lessons Australia can learn from this. When examining the interpretation of originality in CJEU jurisprudence upon the EU generally, deliberate harmonisation has occurred through the establishment of an 'author's own intellectual creation'.[1956] What was once a distinct bipartite test involving (1) origination of a work from an author without copying and (2) demonstration of sufficient authorial skill, labour and expense has been revised.

In the UK, this means that SOTB precedent has been abolished for databases. **Instead, what has been solidified is an autonomous concept of Community law.[1957] The standard requires an author to demonstrate their 'personal touch' through their 'free and creative' choices.[1958] Authorial creation is paramount; it is now insufficient to merely rely upon labour and skill.[1959]** The degree of labour or expense alone are

---

[1953] EU Directive (n 19) recital 60.

[1954] David Cran and Paul Joseph, 'Football Dataco: Fixture Lists not Protected by Database Copyright' (2012) 23(5) *Entertainment Law Review* 149, 151.

[1955] Christian Handig, 'The Sweat of the Brow is Not Enough! - More than a Blueprint of the European Copyright Term "Work"' (2013) 35(6) *European Intellectual Property Review* 334, 337.

[1956] Aurelija Lukoseviciene, 'On Author, Copyright and Originality: Does the Unified EU Originality Standard Correspond to the Digital Reality in Wikipedia' (2017) 11(2) *Masaryk University Journal of Law and Technology* 215, 217-223; Eleonora Rosati, 'Towards an EU-Wide Copyright? (Judicial) Pride and (Legislative) Prejudice' (Paper presented at the First International Colloquium on Law and ICT/IP, George-August-Universität Göttingen, Germany, 8-9 November 2012) 2.

[1957] Martin-Prat (n 1550) 34; Andreas Rahmatian, 'Originality in UK Copyright Law' (n 1007) 6–18.

[1958] *Infopaq* (80) [45], affirmed in *Bezpečnostní softwarová asociace - Svaz softwarové ochrany v Ministerstvo kultury* (n 80) [45], [50]; *Association Premier League Ltd and Others v QC Leisure and Others* (n 80) [97]; *Eva-Maria Painer v Standard VerlagsGmbH and Others* (n 80) [89] and [92]; *Football Dataco* (n 80), [38].

[1959] Ibid, Opinion of Advocate General Mengozzi, delivered on 15 December 2011.

insufficient to satisfy subsistence. Subsequently, expensive databases produced through machines, where an author is unidentifiable, fall outside of copyright protection.

Interpretation of 'personal touch', through 'free and creative choices', suggests that the terms have been used synonymously in determining the degree of authorial intellectual creation. There is a qualitative element that the court must exercise in making this evaluation.[1960] In creating a database, what is required to satisfy originality is authorial intellectual creation in the selection or arrangement of a database structure[1961] - the author's personal creative choices must reflect this.

It may, however, be more difficult to demonstrate this criterion in database creation due to technical constraints/limitations. Although it may be more limited, adequate proof of this criterion, through for example, the database producer's selection and arrangement of data, should be satisfactory to demonstrate their personal touch in their free and creative choices in most cases. The CJEU has affirmed that the originality conferred under art 3(1) trumps any potential protection that would vest through any significant investment of skill and labour.[1962]

Additionally, it remains uncertain whether the judicial application of the originality test from *Infopaq* and *Football Dataco* (being an 'author's own intellectual creation') is reconcilable with the UK statutory authorship of computer-generated works.[1963] As a CGW 'author' is classified as the person who makes the necessary arrangements for the creation of the work,[1964] it remains to be seen whether originality could be satisfied. When examining the likely application of both tests to this situation, theoretically, a CGW author would need to demonstrate their 'personal touch' through their 'free and creative choices' in the way they instructed a computer to make the necessary arrangements for the selection and arrangement of a database.[1965] It remains uncertain whether this would

---

[1960] See generally, Stef Van Gompe and Lavik, Erlend, 'Quality, Merit, Aesthetics and Purpose: An Inquiry into EU Copyright Law's Eschewal of Other Criteria than Originality' (2013) 236 *RIDA - Revue Internationale du Droit d'Auteur* 100.

[1961] *Football Dataco* (n 80) [29], [32].

[1962] Ibid [40]-[46].

[1963] *CDPA* (n 1559) s 178.

[1964] Ibid s 9(3).

[1965] *Infopaq International A/S v Danske Dagblades Forening* (n 80) [45], affirmed in *Bezpečnostní softwarová asociace - Svaz softwarové ochrany v Ministerstvo kultury* (n 80) [45], [50]; *Association Premier League Ltd and Others v QC Leisure and Others* (n 80), [97]; *Eva-Maria Painer v Standard VerlagsGmbH and Others* (n 80) [89] and [92]; *Football Dataco* (n 80) [38].

be possible. To examine the judicial application of the originality standard in further detail, the next section shall examine recent national UK copyright decisions. It will ascertain how CJEU originality jurisprudence has been applied and what lessons Australia can learn from this.

8.2.4.1 Recent National UK Copyright Decisions About Originality

The ramifications of the EU-wide originality standard espoused in *Infopaq* and affirmed in *Football Dataco* were noticeable in some Member States and provoked further issues. For example, in the Netherlands, it became questionable as to whether 'geschriftenbescherming' copyright would remain available for un-original writings.[1966] In the UK, *Infopaq* jurisprudence subsequently raised the originality standard for most works. The usual categories of protectable works continued, requiring ongoing fixation in order to measure the tangibility of originality. *Infopaq* originality was subsequently considered[1967] and applied[1968] to other categories of original works.

The 2011 case of *Forensic Telecommunications Services Ltd v Chief Constable of West Yorkshire Police*[1969] examined issues pertaining to subsistence and the database right in a list of mobile phone codes. The essentiality of EU harmonisation and the relevant international treaties was emphasised, with the desirable result expressed as being

---

[1966] Annemarie Beunen, 'The Dutch 'Geschriftenbescherming' After the ECJ's Football DataCo Decision' *Leiden Law* (Blog Post, 27 April 2012) <http://leidenlawblog.nl/articles/the-dutch-geschriftenbescherming-after-the-ecjs-football-dataco-decision>. Also see generally, Beunen, 'Geschriftenbescherming' (n 1652.

[1967] *John Kaldor Fabricmaker UK Ltd v Lee Ann Fashions Ltd* [2014] EWHC 3779 (IPEC); *Raft Ltd v Freestyle of Newhaven Ltd and Others* [2016] EWHC 1711 (IPEC); *Ogunkoya v Harding* [2017] EWHC 470 (IPEC); *Technomed Ltd and Another v Bluecrest Health Screening Ltd and Another* (2017) 125 IPR 144, (Stone J); *Nicholas Martin v Julia Kogan* [2018] FSR 9, 234 (Hacon HHJ); *Mei Fields Designs Ltd v Saffron Cards and Gifts Ltd and Another* [2018] EWHC 1332 (IPEC); *and Levola Hengelo BV v Smilde Foods BV* [2018] All ER (D) 85 (Nov).

[1968] *SAS Institute v World Programming Limited* [2010] EDCR 15, 297 (Lewison LJ); *Meltwater* (n 1871) 209 (Proudman J); *Hodgson and Another v Isaac and Another* [2011] All ER (D) 43 (Dec) (Birss J); *Temple Island Collections Ltd v New English Teas* Ltd [2012] FSR 9, [27] (Birss J) ('*Temple Island Teas*'); *Football Dataco Ltd v Stan James (Abingdon) Ltd* (n 1933) 295 (Jacob, Hooper, Rimer LLJ); and *Public Relations Consultants Association Ltd v Newspaper Licensing Agency Ltd and Others* [2013] 2 All ER 852 (Sumption SCJ).

[1969] [2011] EWHC 2892 (Ch) (Arnold J).

conformity with the *EU Directive*.[1970] This case provided a clear interpretation of copyright statute.[1971]

The list was found to be a 'very simple' database, because it contained addresses which were individually accessible and systemically arranged.[1972] However, subsistence failed, because the database demonstrated insufficient selection and arrangement in the form of the expression of the data as being the **author's own intellectual creation**.[1973] The named author did not engage in a process of selecting the contents; rather the data was acquired over time in a basic manner and the database had no merited structure.[1974]

A year later, instead of merely focusing on the author's intellectual creation, UK originality jurisprudence conflated 'intellectual creation' with 'skill and labour' from SOTB, as applied in *Temple Island Teas*.[1975] Here, originality was found to be the 'product of the skill and labour (or intellectual creation)' of an author.[1976] The choices demonstrated by a photographer determined copyright subsistence.[1977] Then, in 2013, SOTB was found in a papercutting artwork, because it had been produced as the 'result of independent skill and labour by the artist'.[1978] The court boldly affirmed this, stating that the 'greater the level of originality in the work the higher the effective level of protection'.[1979]

[1970] *Forensic Telecommunications Services Ltd v Chief Constable of West Yorkshire Police* (n 1968) 428, 456–7 [69] (Arnold J), affirming *Marleasing SA v La Comercial Internacional de Alimentacion SA* (n 1882) [1992] 1 CMLR. 305, [8]; *Litster v Forth Dry Dock & Engineering Co Ltd* [1990] 1 AC 546, 558C–H (Templeman L) and 576E-577D (Oliver L); *Pfeiffer v Deutsches Rotes Kreuz Kreisverband Waldshut eV* (C-397/01) [2004] ECR I-8835 [113]–[117]; *R (On the application of IDT Card Services Ireland Ltd) v Customs and Excise Commissioners* [2006] EWCA Civ 29, [73]–[92] (Arden LJ); *Angelidaki v Organismos Nomarkhiaki Aftodiikisi Rethimnis* (C-378/07) [2009] ECR I-3071; [2009] 3 CMLR 15, [197]–[202]; and *Churchill Insurance Co Ltd v Wilkinson* [2010] EWCA Civ 556, [14] (Waller LJ).

[1971] *Forensic Telecommunications Services Ltd v Chief Constable of West Yorkshire Police* (n 1968) 428, 446–58 [52]-[73] (Arnold J).

[1972] Ibid 428, 461 [88] (Arnold J).

[1973] Ibid 428, 463 [94] (Arnold J).

[1974] Ibid 428, 461-2 [90] (Arnold J), citing *EU Directive* (n 19) recital 15.

[1975] *Temple Island Teas* (n 1967) (Birss J).

[1976] Ibid [27] (Birss J), referring to *Bauman v Fussell* (1953) [1978] RPC 485; *Antiquesportfolio.com Plc v Rodney Fitch & Co Ltd* [2001] FSR 23; and *Krisarts SA v Briarfine Ltd (t/a Lenton Publications)* [1977] FSR 557.

[1977] *Temple Island Teas* (n 1967) [27], [51]-[54] (Birss J), affirming *Infopaq* (n 80) [37].

[1978] *Taylor v Maguire* [2014] ECDR 4, 45, 47 [8] (Clarke DJ).

[1979] Ibid.

Another case of importance is *SAS Institute v World Programming Limited* ('*SAS*'),[1980] which considered the protection of the functionality of a computer program under the original Software Directive.[1981] This case is relevant to this study because the Directive was implemented with the same rationale as the *EU Directive* – to harmonise EU copyright law and, in particular, the standard of EU originality. In *SAS*, the issue for determination was the extent to which it was permissible to lawfully reproduce pre-existing software functions and what materials could lawfully be used to do that.[1982] Previously, the English High Court had stayed this case and referred to the CJEU for guidance.[1983] The CJEU and the Court of Appeal (Civil Division) found that the code and the functionality of the computer program was unprotectable by copyright, because the elements of the software **did not constitute sufficient authorial intellectual creation**.[1984] This case also explored the relationship between the software[1985] and *InfoSoc*.[1986] It confirmed that the Software Directive principles supported *InfoSoc*, which did not directly cover the scope of copyright protection, but rather the expression of an author's 'intellectual creation'.[1987] Lewison LJ found that the CJEU had clarified this issue, by applying *Infopaq*.[1988] He confirmed that if *InfoSoc* had changed the traditional UK SOTB test, then it had appeared to have 'raised the bar' for subsistence[1989] by imposing a higher, more stringent standard.

In 2017, *Technomed Ltd and Another v Bluecrest Health Screening Ltd and Another*[1990] considered subsistence and the database right in an online electrocardiogram analysis and reporting system ('cloud'), including a spreadsheet and PDF.[1991] The cloud qualified as a database under *CDPA* s 3A(1) because it was a collection of data arranged in a systemic

---

[1980] [2015] ECDR 17, 299 (Tomlinson, Lewison, Vos LJ) ('*SAS*').
[1981] (n 1550). Also see Pamela Samuelson, 'The Past, Present and Future of Copyright Software: Interoperability Rules in the European Union and the United States' (2012) 34(4) *European Intellectual Property Review* 229, 234–5.
[1982] *SAS Institute v World Programming Limited* [2010] EDCR 15, 297, 303 [1] (Lewison LJ).
[1983] Ibid 392 [333] (Arnold J).
[1984] Ibid 322 [79], affirming *SAS Institute v World Programming Limited* (C-406/10) [2012] ECR I-259.
[1985] *Infosoc* (n 1551).
[1986] *SAS* (n 1980) 309 [27] (Lewison LJ), affirming *Infosoc* (n 1551) recital 50.
[1987] Ibid 309 [27], [29] (Lewison LJ).
[1988] Ibid 300–13 [29]-[37] (Lewison LJ).
[1989] Ibid 313 [37] (Lewison LJ).
[1990] (2017) 125 IPR 144.
[1991] *Technomed Ltd and Another v Bluecrest Health Screening Ltd and Another* (n 1967) 146, [1], 163 [69] (Stone J).

way and was individually accessible by electronic means.[1992] In examining subsistence, the court affirmed *Infopaq*,[1993] finding that a database must constitute an author's own intellectual creation, in compliance with *CDPA* s 3A(2) [1994] and authorial creation and substantial verification had been invested.[1995]

Originality was further analysed with reference to SOTB and *Infopaq*, with a finding that although the differences between these tests were not contested, the latter imposed a 'low hurdle'.[1996] That was merely 'a requirement for the work to be the author's own intellectual creation'. Despite the divergence between originality tests, it was deemed unnecessary to engage in a resolution, because the parties had agreed on *Infopaq*.[1997] Nevertheless, the works analysed were determined to have satisfied both standards.[1998]

The court endorsed and applied the four-step subsistence test, as outlined by Floyd J in *Football Dataco*.[1999] Upon analysis, it was found that there had been 'considerable intellectual effort and creativity' expended by the authors in the choices that they made regarding the database contents.[2000] The database constituted their own intellectual creation and involved the exercising of authorial judgement.[2001] Finally, the selection and arrangement undertaken by the authors was qualitatively sufficient for copyright to subsist.[2002] In stark departure to *SAS*[2003] it was found that copyright subsisted in cloud data files and PDF as literary works.[2004] This was because the evidence established that the files satisfied the originality threshold, demonstrating expended 'sufficient, non-

---

[1992] Ibid 164, [64]-[66], [71] (Stone J), affirming EU Directive (n 19) art 1(2); *Football Dataco Ltd and Others v Sportradar GmbH and Others* (n 79) [19], [26] (Jacob LJ) and *Fixtures Marketing Ltd v Organismos Prognostikon Agonon Podosfairou* (*'OPAP'*) (n 83) [20]–[36].
[1993] *Technomed Ltd and Another v Bluecrest Health Screening Ltd and Another* (n 1967) 168, [87] (Stone J).
[1994] Ibid 168 [87] (Stone J).
[1995] Ibid 164-5 [75] (Stone J).
[1996] Ibid 168 [89] (Stone J).
[1997] Ibid citing *Football Dataco Ltd v Britten Pools Ltd* [2010] RPC 17 522 (Floyd J).
[1998] Ibid.
[1999] Ibid 170, [97] (Stone J), affirming *Football Dataco Ltd v Britten Pools Ltd* (1933) 545 [91] (Floyd J).
[2000] Ibid 170–1 [98] (Stone J).
[2001] Ibid 171 [99] (Stone J).
[2002] Ibid.
[2003] *SAS* (n 1980) 299 (Tomlinson, Lewison, Vos LJ).
[2004] *Technomed Ltd and Another v Bluecrest Health Screening Ltd and Another* (n 1967) 175 [122] (Stone J).

negligible intellectual effort' by the authors.[2005] Therefore, multiple rights vested in the same work.

In conclusion, in a situation paralleling Australian originality, after *Infopaq*, in recent years, the UK application of originality has undergone significant transformation. It is unlikely coincidental that during the second decade of the 21st century, the quasi-harmonisation of originality in the EU, UK and Australian law to a higher originality standard (already utilised by the US) has occurred. In the EU, the *Infopaq* standard espoused by the CJEU changed UK originality, from SOTB to the 'expression of an author's own intellectual creation', as *IceTV* changed Australia's SOTB to an author's independent intellectual effort'. In the UK, the new standard has occasionally been conflated in later national cases with an author's 'skill and labour' in expressing the intellectual creation. Despite this, the overall change of originality standard has resulted in a positive outcome for the EU harmonisation rationale (see 7.3.1) through a vertical process.

However, while EU and UK originality clearly requires an author's 'personal touch' through their 'free and creative' choices,[2006] this may be difficult to establish to an acceptable degree, particularly with databases. This is due to the technical constraints that may be present throughout the database collation process. As discussed in *Telstra*, often authorial input is antecedent and limited. There appears a narrow window of opportunity for a person involved in producing a database to demonstrate that they have exercised 'free and creative' choices via a 'personal touch'.

This generates issues pertaining to the extent of creation required, as well as challenging the notion of what constitutes a 'free choice'. The rules and constraints which exist when collating and programming relational databases may also provide a substantial barrier to proving an acceptable degree of an author's creative input, as opposed to mere skill and labour.[2007]

[2005] Ibid 175 [122] (Stone J).

[2006] *Infopaq* (n 80) [45], affirmed in *Bezpečnostní softwarová asociace - Svaz softwarové ochrany v Ministerstvo kultury* (n 80) [50]; *Association Premier League Ltd and Others v QC Leisure and Others* (n 80), [97]; *Eva-Maria Painer v Standard VerlagsGmbH and Others* (n 80) [89] and [92]; *Football Dataco* (n 80) [38].

[2007] *Football Dataco* (n 80), Opinion of Advocate General Mengozzi, delivered on 15 December 2011.

To explore this issue in further depth, the next section shall examine some recent decisions regarding authorship, involving a CGW, as well as the law of joint authorship.

8.2.4.2 Recent National UK Copyright Decisions About Authorship/Joint Authorship

In 2006, the authorship test for a CGW artistic work was clarified in *Nova Productions Ltd v Mazooma Games*.[2008] A video game was judicially classified as a CGW, due to successive composite graphic frames which created the impression of movement.[2009] It was found that even though the single frames themselves were designed by a person,[2010] the composite frames were generated by computer, in a situation with no precise human author.[2011]

In establishing authorship, in accordance with *CDPA* s 9(3), it was found that the author was the person who made the necessary arrangements for the work's creation.[2012] This was the company director, as he had devised the elements, rules and logic of the game, as well as writing the code.[2013] Finally, the court rejected that players were considered joint authors because they did not contribute skill or labour of an artistic sort.[2014]

In 2017, High Court guidance from the Intellectual Property Enterprise Court ('IPEC') division was provided about joint authorship and collaboration[2015] in the case of *Nicholas Martin v Julia Kogan* ('*Kogan*').[2016] The work in contention was the screenplay of the film 'Florence Foster Jenkins'.[2017] Martin, a screenwriter, was named as the sole author in the credits of the film; however his ex-partner, Kogan, an opera singer, lived with him during the time the early screenplay drafts were written.[2018] Martin sought a declaration that he was the sole author and Kogan sought a counterclaim for joint authorship and damages for infringement.[2019] The court established the nature and extent of Kogan's

---

[2008] [2006] RPC 14, 379 (Kitchin J) ('*Kogan*').
[2009] Ibid 379, 398 [103] (Kitchin J).
[2010] Ibid 379, 398 [104] (Kitchin J), citing *CPDA* s 178.
[2011] Ibid 379, 398 [101] (Kitchin J).
[2012] Ibid 379, 398 [104] (Kitchin J).
[2013] Ibid 379, 398–9 [105] (Kitchin J), citing *CDPA* s 9(3).
[2014] Ibid 379, 399 [106] (Kitchin J).
[2015] *CDPA* (n 1559) s 10(1).
[2016] *Nicholas Martin v Julia Kogan* (n 1967) 247-8 [51(1)-51(10)] (Hacon HHJ).
[2017] Ibid 234, 238–9 [1] (Hacon HHJ).
[2018] Ibid 234, 239 [2] (Hacon HHJ).
[2019] Ibid 234, 239 [3] (Hacon HHJ).

contribution to the writing process through factual evidence.[2020] Originality was established through the finding that the elements expressed sufficient 'skill', which was described as being synonymous with the author's intellectual creativity.[2021] This satisfied the author's own intellectual creation threshold, thereby affirming *Infopaq*.[2022]

In affirming the tests for joint authorship, it would only be found if a person collaborated through co-operative acts, which led to the work's creation.[2023] The court provided ten propositions regarding the establishment of joint authorship. Firstly, the actual contribution of each author could not be distinct from the other[2024] and had to form part of the creation.[2025] There was to be no distinction between the varying contribution or skill that went toward creating the work.[2026] Sufficient contribution would be measured through substantiality of the whole of the work,[2027] involving both qualitative and quantitative assessment.[2028] Furthermore, suggestions such as editing/criticism, which pertained to how the author exercised their skill, would not constitute joint authorship, where an author ultimately determined the final version of the work.[2029] A relevant (although not definite) criterion was whether the author made the final decision as to the content.[2030] If joint authorship was found, then the court could apportion ownership.[2031]

Upon examining the factual evidence, Martin's contributions to the work were found to be substantial.[2032] Conversely, Kogan's contributions were found to be insubstantial,[2033] involving musical expressions,[2034] corrections and proof-reading.[2035] Martin was

---

[2020] Ibid 234, 239-40 [9]-[12] (Hacon HHJ).
[2021] Ibid 246 [43], affirming *Infopaq* (n 80) [33]–[37].
[2022] Ibid 245 [38] (Hacon HHJ), affirming *Infopaq* (n 80) [33]–[37].
[2023] Ibid 234, 247 [54(1)] (Hacon HHJ).
[2024] Ibid 234, 247 [54(2)] (Hacon HHJ).
[2025] Ibid 234, 247 [54(3)] (Hacon HHJ).
[2026] Ibid 234, 247 [54(4)] (Hacon HHJ).
[2027] Ibid 234, 247 [54(5)] (Hacon HHJ).
[2028] Ibid 234, 247 [54(7)] (Hacon HHJ).
[2029] Ibid 234, 247 [54(8)] (Hacon HHJ).
[2030] Ibid 234, 247 [54(9)] (Hacon HHJ).
[2031] Ibid 234, 247 [54(10)] (Hacon HHJ).
[2032] Ibid 234, 248 [57] (Hacon HHJ).
[2033] Ibid 234, 256 [85] (Hacon HHJ).
[2034] Ibid 234, 255 [82] (Hacon HHJ).
[2035] Ibid 234, 254 [81(3)-(4)] (Hacon HHJ).

subsequently the 'ultimate arbiter' of the play's contents.[2036] He was declared the sole author, with the counterclaim being dismissed.[2037] Kogan appealed the ruling.

In an unusual turn of events, the Court of Appeal recently set aside the first instance judgement and ordered a retrial before a different judge at IPEC.[2038] The appellant judgement was highly critical in nature of the treatment of evidence in the first instance judgement.[2039] It found that witness evidence had been ignored, which left insufficient primary facts from which to conclude whether joint authorship occurred.[2040] Also, when the primary judge had assessed what constituted sufficient contribution to establish joint authorship, they had made a distinction by applying a higher threshold test which was described as being the 'contributions of secondary skills' including 'plot and character'.[2041] The Court of Appeal provided extensive guidance on what constitutes a work of joint authorship, finding that it comprises of four elements:

1. Collaboration, which encompasses a common design;[2042]
2. Authorship, which involves questions about the nature of the
3. Contribution of each person;[2043] and
4. The non-distinctness of contribution.[2044]

Regarding collaboration, the Court of Appeal emphasised the importance of identifying the 'true nature of the interactions between the parties in relation to the work, an assessment that provides the essential context for consideration of questions of authorship and contribution'.[2045] Running with this logic, it found that a collaborative work could exist if 'in the context of a particular joint project, one person decides on the plot and the other writes the words to give effect to the plot'.[2046] It was, however, important to discern the degree of the expression of the work from its actual idea, so as not to conflate the

[2036] Ibid 234, 254 [81(3)-(4)] (Hacon HHJ).
[2037] Ibid 234, 257 [93] (Hacon HHJ).
[2038] *Martin v Kogan* [2020] FSR 3 (Floyd, Henderson and Jackson LLJ).
[2039] Ibid 82-5 [88]-[105] (Floyd, Henderson and Jackson LLJ).
[2040] Ibid 85 [104] (Floyd, Henderson and Jackson LLJ).
[2041] Ibid 75 [65]–[67], 76 [69], 85 [107] (Floyd, Henderson and Jackson LLJ).
[2042] Ibid 65 [32], citing *Levy v Rutley* (n 936) (1871) 24 LT 621, affirmed by *Beckingham v Hodgens* [2004] ECDR 6.
[2043] Ibid 65 [33] citing *Beckingham v Hodgens* [2004] ECDR 6.
[2044] Ibid 65 [31] (Floyd, Henderson and Jackson LLJ).
[2045] Ibid.
[2046] Ibid 66 [35] (Floyd, Henderson and Jackson LLJ).

idea/expression dichotomy[2047] which was deemed a 'notoriously slippery' subject.[2048] It was also essential not to solely focus upon who did the writing – rather, a joint author needed to have 'contributed a significant amount of the skill and labour which entitled the work to copyright protection'[2049] through an 'authorial effort'.[2050] Otherwise, there was a risk of overlooking what was protected and who authored it.[2051]

These recent clarifications about joint authorship raise some challenging questions when considering databases. These are pertinent questions which Australia must also consider. With modern databases, it may be difficult to demonstrate that each author has undertaken a significant and original contribution to the work through the choices exercised through their intellectual creativity (the old 'skill and labour' test).[2052] While proving this criterion may be limited due to the technological constraints of modern databases, what becomes even more difficult to establish in this context is that the author's original contribution is 'significant'.[2053]

In exploring this issue in the *Kogan* first instance decision, a heightened distinction was drawn between 'primary' and 'secondary' skill, with primary skill being described as the 'the selection and arrangement of words' in a literary work.[2054] Whereas, a secondary skill for a literary work entailed 'inventing plot and character'.[2055] It is not difficult to discern why it was negatively treated in the Appellant judgement. A good example of the questionable application of this distinction occurs with a database. If a primary skill is the selection and arrangement of data, perhaps a secondary skill would be the degree of choices made by a person in directing a machine to produce the final database. In a previous UK case, the term 'significant' was interpreted as being 'more than merely trivial'.[2056] The Court of Appeal, however, has taken a different approach, emphasising

---

[2047] Ibid 65–6 [34] (Floyd, Henderson and Jackson LLJ), citing *IBCOS Computers Ltd v Barclays Mercantile Highland Finance Ltd* [1994] FSR 275, 291.
[2048] Ibid 66 [34] (Floyd, Henderson and Jackson LLJ).
[2049] Ibid 66–8 [37]–[41] (Floyd, Henderson and Jackson LLJ).
[2050] Ibid 68 [42] (Floyd, Henderson and Jackson LLJ), affirming *Fylde Microsystems Ltd v Key Radio Systems Ltd* [1998] FSR 449, 455 (Laddie J).
[2051] Ibid 67-8 [41] (Floyd, Henderson and Jackson LLJ).
[2052] *Kogan* (n 1967) 234, 246 [43] (Hacon HHJ), applying and citing *Infopaq* (n 80).
[2053] *Godfrey v Lees* (n 1640) 325 (Blackburn J); *Robin Ray v Classic FM Plc* [1998] FSR 622, 636 [V Joint Authorship] (Lightman J); *Hadley v Kemp* (n 936) 643 (Park J); *Brighton v Jones* [2005] FSR 16, 288, 303 [34] (Park J).
[2054] *Kogan* (n 1967) 234, 246 [44]-[45] (Hacon HHJ).
[2055] Ibid 234, 246 [44]-[45] (Hacon HHJ).
[2056] *Fisher v Brooker* [2007] FSR 12, 255, 274 [46].

the need to not become so focused on each author's actions so as to overlook the protection of the entire work and the degree of each author's contribution.[2057] When applied to databases, this would more likely result in a finding in favour of joint authorship, because the actions of each author or contributor would not be analysed in such an atomistic way.

It should be noted that in terms of quantity, the contributions made by joint authors do not need to be in equal shares. Rather, this 'can reflect pro rata, the relative amounts of their contributions'.[2058] Authors need to demonstrate an appropriate method of contribution for the medium. As stated in the first instance *Kogan*, mere editing suggestions were insufficient because they merely assisted the author in exercising their original skill.[2059] What is important is that a process of collaboration via co-operative acts between co-authors occurs, with both working towards a 'common design', specific to the work at hand.[2060]

The notion of working towards a common design is significant in the context of databases because of the speed and ability to easily transform them into new works. One of the challenges of modern database production processes pertains to producing a fixed, final work to which protection attaches. Theoretically, the notion of a common design means that for two people to be considered joint-authors of a database, they would need to be working towards producing an identical, tangible end-result. Therefore, if a database was inadvertently transformed or manipulated by two or more authors, then joint authorship may not vest due to a lack of common design.

Also, establishment of joint authorship requires that the contributions of each person are not separate/distinct to each other; rather, what is required is a fused whole work.[2061] This may present challenges with databases, once again, due to the constrained and antecedent input of people and the changing role undertaken by machines in producing the final work.

[2057] *Martin v Kogan* (n 2038) 67–8 [41] (Floyd, Henderson and Jackson LLJ).
[2058] Ibid 71 [53] point 11 (Floyd, Henderson and Jackson LLJ).
[2059] *Kogan* (1967) 234, 247 [54(8)] (Hacon HHJ).
[2060] Ibid 242 [25] (Hacon HHJ).
[2061] Ibid 234, 247 [54(2)] (Hacon HHJ).

Having discussed the effects of CJEU originality jurisprudence in recent UK cases, recent national law as applicable to authorship of CGWs and joint authorship, this rounds off analysis pertaining to copyright under the *EU Directive*. Because the database right may vest concurrently or independently to copyright under the *EU Directive*,[2062] the next section will discuss the CJEU decisions pertaining to the database right.

8.3 Database Right (Non-Copyright Aspects of Protection)

This section shall analyse the most pertinent CJEU cases regarding the database right (ie, the non-copyright aspects of protection). The most contentious issues for judicial clarification have pertained to the terms which are bolded below from *EU Directive* art 7. This section shall systemically examine CJEU interpretation of these bolded terms:

> Article 7 § 1 states that the sui generis right will be provided for a database that:
>
> - is the result of a **'substantial investment'** which is qualitative and/or quantitative by the database producer;
> - the substantial investment must be in either the **obtaining,** verifying or presenting of the contents; to
> - prevent '**extractions and/or re-utilisation**' of
> - the '**whole or of a substantial part**' of the contents, evaluated qualitatively and/or quantitatively.

This means that a broad two-part test must be analysed when determining whether infringement has occurred:

1. The court must firstly determine whether a collection of data qualifies for the database right via a detailed assessment of the 'substantial investment' in its creation involving the obtaining, verification or presentation of its contents; and

2. The court must undertake a quantitative or qualitative examination of whether the database right was infringed by a user. The most contentious examinations here pertain to whether 'extraction' or 're-utilisation' occurred of 'a whole or a substantial part of the database contents'.

[2062] *EU Directive* (n 19) art 7 § 4.

What is fascinating about point 1 above is that it appears similar to the SOTB standard, in that no creativity is required on behalf of an author to satisfy this criterion. Rather, all that is required is substantial investment in the obtainment, verification and presentation of the contents. This seemingly parallels the 'labour, skill and expense' criterion for SOTB to subsist.

In relation to point (2), at first glance, this also parallels the some of the rights conferred to authors under the exclusive bundle of rights granted through subsistence. To explore these nuances further, the next section shall look at the first criterion: substantial investment.

8.3.1 Substantial Investment

The issue of precisely what constitutes a requisite degree to satisfy 'substantial investment' is unsettled. There is divided and varying opinion amongst producers and users.[2063] The *EU Directive* itself provides no further guidance and these terms can be interpreted narrowly or broadly.[2064] What remains undefined is the type of investment required, when it begins and the extent to which it must occur to satisfy substantiality. The *EU Directive* would benefit from amendment to clarify this issue.

The CJEU has not provided a decision which qualifies this threshold, nor where it lies. While the type of investment and the degree of substantiality varies in every case, the criteria has been accepted in some national cases without question.[2065] There have been several CJEU decisions which have briefly considered the requisite investment and when it has begun. It has been described as involving 'human, technical and/or financial resources in the setting up and operation of a database'.[2066]

On 9 November 2004, the CJEU handed down four significant cases on the same day. The English Court of Appeal (Civil Division) had referred a case for CJEU opinion about

---

[2063] Markus Siltanen, 'Database Protection in the European Union and the United States: Comprising an Analysis in Relation to Location-Based Services' (Report of the Support Project of NAVI-Programme: Regulatory Framework, Helsinki Institute for Information Technology, ND) 33-6.

[2064] *Fixtures Marketing Ltd v Organismos Prognostikon Agonon Podosfairou ('OPAP')* (n 83) [20].

[2065] See, eg, *British Horseracing Board v William Hill Organisation Ltd* [2001] RPC 31, 625 [32] (Laddie J).

[2066] *Innoweb BV v Wegener ICT Media BV, Wegener Mediaventions BV* (Case C-202/12) 19 December 2013, [36], citing *BHB* (n 83) [32], [46]; *Fixtures Marketing Ltd v Organismos Prognostikon Agonon Podosfairou ('OPAP')* (n 83) [35]; *Directmedia Publishing GmbH v Albert-Ludwigs Üniversität Freiburg* (n 83) [33].

a database operated by the British Horseracing Board (BHB).[2067] The other three judgements concerned the same claimant company but had been referred by Finland,[2068] Greece[2069] and Sweden.[2070] They sought preliminary rulings about the interpretation of certain provisions. Because these judgements were handed down together, to a certain extent there was duplication of judicial interpretation. Also, the CJEU controversially erred towards exceeding its jurisdictional power under art 234 of the *EC Treaty*,[2071] by making findings of fact, instead of providing interpretation of EC legislation.

In BHB, the company maintained a large database of racehorse-related data. The cost of obtaining, verifying and presenting the data that comprised of 20 million records was around GBP £4 million.[2072] BHB sold licenses to third parties for use of their database.[2073] Subscribers were able to access a live feed of up-to-the minute racing details. The service was provided by a company called Satellite Information Services Ltd (SIS), who transferred the data from the BHB database to subscribers in a form known as a raw data feed (RDF).[2074] The revenue from license fees charged by BHB for access to the data in their database came to around GBP £1 million per annum.[2075] The defendant, William Hill (WH), was an off-track bookmaker, who placed data about races on their betting website, allowing punters to make bets, which displayed changes to the odds in real time. This website contained limited data that was identical to data on the BHB database.[2076]

In the 2001 English High Court (Chancery Division), BHB contended that WH had infringed their database right by undertaking an extraction or re-utilisation of a substantial part of the contents of their database, which was contrary to *EU Directive* art 7 § 1.[2077] It was also argued that even if the individual extracts made by WH were insubstantial, they should have been prohibited under art 7 § 5,[2078] because the totality of WH's actions

[2067] *BHB* (n 83).
[2068] *Fixtures Marketing Ltd v Oy Veikkaus AB* (n 1932).
[2069] *Fixtures Marketing Ltd v Organismos Prognostikon Agonon Podosfairou 'OPAP'* (n 83).
[2070] *Fixtures Marketing Ltd v Svenska Spel AB* (n 1932).
[2071] *Consolidated Version of the Treaty Establishing the European Communities* (24.3.2002) OJ C 325, 33.
[2072] *British Horseracing Board v William Hill Organisation Ltd* [2001] (n 2065) 618 [6] (Laddie J).
[2073] Ibid 619 [10] (Laddie J).
[2074] Ibid 619–20 [10]–[11] (Laddie J).
[2075] Ibid 619 [10] (Laddie J).
[2076] Ibid 621 [15] (Laddie J).
[2077] Ibid 622 [20] (Laddie J).
[2078] Ibid.

amounted to repeated extraction or re-utilisation of insubstantial parts of the contents of the database.[2079]

In considering infringement under art 7, Laddie J applied a wide interpretation.[2080] It was found that BHB's database had required considerable investment in its creation, which was substantial enough to justify sui generis protection.[2081]

Before the English Court of Appeal (Civil Division), it was stated that the ruling of the lower court was likely to be affirmed.[2082] For clarification, several questions were referred to the CJEU prior to a final ruling.[2083] Of importance was an interpretation of art 7 § 1.[2084] In June 2004, Advocate General Stix-Hackl released her opinion, which mostly supported the Court of Appeal decision.[2085] The next sub-section shall discuss CJEU interpretation in BHB pertaining to obtaining versus creating data.

8.3.2 Creating vs Obtaining Data

The 2005 CJEU judgement and preliminary ruling was surprising,[2086] because it overturned the decision of the UK High Court. It rejected the proposition that a substantial investment in the data used by WH had been established by BHB.[2087] **Subsequently, the CJEU interpreted art 7 § 1 by differentiating between the investment in data that is 'obtained'[2088] versus the investment in data which is 'created'.[2089]** The distinction related to the resources used to seek pre-existing independent materials and their collation in a database. The resources which created the materials constituted the database contents which were not covered.[2090]

[2079] Ibid.
[2080] Ibid 628–35 [42]-[60] (Laddie J).
[2081] Ibid 625 [32] (Laddie J).
[2082] *British Horseracing Board v William Hill Organisation Ltd* [2002] EEC 460 [45]–[46] (Peter Gibson, Clarke and Kay LJJ). Also see, Robin Elizabeth Herr, *Is the Sui Generis Right a Failed Experiment? A Legal and Theoretical Exploration of How to Regulate Unoriginal Database Contents and Possible Suggestions for Reform* (PhD Thesis, Copenhagen Business School, DJØF Publishing Copenhagen 2008) 108.
[2083] *British Horseracing Board v William Hill Organisation Ltd* [2002] (n 2082) 474–5 [R2] (Peter Gibson, Clarke and Kay LJJ).
[2084] *BHB* (n 83) I–10463 [1].
[2085] Herr (n 2081) 108.
[2086] *BHB* (n 83).
[2087] Ibid I–10461, I–10490 [80].
[2088] Ibid I–10461, I-10495, Rule 1.
[2089] Ibid I–10461, I-10495, Rule 1.
[2090] Ibid I–10461, I-10495, Rule 1.

Because BHB had 'created' its factual data for the purposes of organising and carrying out checks of the races, this did not constitute a relevant investment for the purposes of 'obtaining and verifying' the contents of the database under art 7 § 1.[2091] Subsequently, the resources amounted to an insufficient investment in the verification of the contents of the data.[2092] Rather, the type of investment demonstrated was in the creation of database materials.[2093]

In making a distinction between the investment of data that is 'created' and 'obtained', this embodies the principles of a doctrine known as the 'spin-off doctrine', which has been utilised in Dutch courts.[2094] This strict CJEU interpretation of the right has proved to be controversial to some database producers. This is because some producers have purported that the interpretation restricts the application of the scope of the database right. It has been alleged the right is only applicable to databases **in situations where it can be proved that the investment in the data has specifically occurred to create the database. The database right is, therefore, inapplicable to collections of data that have been collated as a by-product of another activity.** This application is viewed unfavourably by some database producers who wish to monetise their databases despite the degree of investment in their work. Such producers argue that they ought to be able to exploit the potential and future economic value of their databases, despite the method of production. Such processes also raise judicial uncertainty relating to what constitutes a 'substantial change' so as to permit the duration of the right to be renewed and whether the right is potentially perpetual.

Of significance is that the judicial scope of the database right has been 'severely curtailed' through CJEU cases.[2095] The CJEU decreased the overall protection available to non-original databases (databases that are more likely to be covered by the sui generis right,

---

[2091] Ibid I–10461, I-10495, Rule 1.
[2092] Ibid I-10461, I-10490 [80].
[2093] Ibid.
[2094] See generally, Davison and Hugenholtz (n 142); Derclaye, 'Database 'Sui Generis' Right: Should We Adopt the Spin-Off Theory?' (n 582); Gervais, 'The Protection of Databases' (n 143) 1126–28; Hugenholtz, 'Program Schedules, Event Data and Telephone Subscriber Listings under the Database Directive' (n 583); A Masson, 'Creation of Database or Creation of Data: Crucial Choices in the Matter of Database Protection' (2006) *European Intellectual Property Review* 261–7.
[2095] European Commission, 'First Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 84) 15.

as opposed to copyright). This was acknowledged in the First Official Evaluation, which will be discussed at 9.3.1.[2096]

Similarly, in *Fixtures Marketing Ltd v Oy Veikkaus AB, Fixtures Marketing Ltd v Organismos Prognostikon Agonon Podosfairou (OPAP)* and *Fixtures Marketing Ltd v Svenska Spel AB* ('*Fixtures Marketing Trio'*)[2097] the CJEU distinguished between the 'creation' and 'obtaining' of data to clarify the scope of the application of the database right.[2098] The court favoured the interpretation as being the investment in the collection of pre-existing materials, as opposed to investment in the fresh creation of materials. In this way, it favours the practice of the re-use of pre-existing information, rather than the deliberate creation of materials which are subsequently collated in a database.

In these cases, the claimant company was Fixtures Marketing Ltd, who exploited English and Scottish football fixture lists outside of the UK, by granting licences on behalf of the organisers of the English and Scottish Football Leagues. In Finland, Greece and Sweden, the defendants had used the data from these fixtures lists for gambling-related activities. Fixtures Marketing Ltd sought to enforce database rights within their lists against each defendant separately under art 7 § 1.

The CJEU distinguished between the investment in 'created' and 'obtained' data. They rejected that the type of investment required under art 7 § 1 was satisfied. This was because the investment did not subsist in the obtaining, verification or presentation of the contents, but rather in the creation of the contents in the first place.[2099]

Of note is that in all four 2004 CJEU cases, the investment in obtaining, verifying or presenting database contents referred to the resources used to source and collect independent materials in the database; it did not refer to resources used to create independent materials.[2100]

The next sub-section explores the concept of extraction.

[2096] Ibid.
[2097] *Fixtures Marketing Trio* (n 1932).
[2098] See generally, Estelle Derclaye, 'The Court of Justice Interprets the Database *Sui Generis* Right for the First Time' (2005) 30 *European Law Review* 420.
[2099] *Fixtures Marketing Trio* (n 1932).
[2100] *BHB* (n 83) I–10476 [31], I–10495, rule 1.

8.3.3 Extraction

Under the *EU Directive*, 'extraction' is defined as 'the permanent or temporary transfer of all or a substantial part of the contents of a database to another medium by any means or in any form'.[2101] This parallels the right of reproduction under copyright. In BHB, the CJEU interpreted it to refer to 'any unauthorised act of appropriation and distribution to the public of the whole or a part of the contents of a database'.[2102] However, consultation of a database did not equate to 'extraction'.[2103]

Likewise, *Directmedia*[2104] provided a preliminary CJEU ruling and guidance on the concept of 'extraction'. Here, Albert-Ludwigs-Universität Freiburg had undertaken investment (EUR €34,900) in an anthology of 1100 German poems from literature between 1730 and 1900.[2105] The data included the author, title, opening line and a publication year for every poem.[2106]

Directmedia created a CD-ROM and used the anthology as a guide during the creation. For example, certain poems were omitted by Directmedia, while others were added. Each poem was critically examined for selection.[2107] There was an overlap between the anthology and the CD-ROM of 856 poems.[2108] Albert-Ludwigs-Universität Freiburg brought an action for cessation and damages for the infringement of their anthology. This was upheld in the national German court of the first instance.[2109] Upon appeal, the German Federal Court of Justice[2110] requested CJEU guidance as to whether using the contents of a database in such circumstances constituted an 'extraction' within the meaning of art 7 § 2 (a).[2111]

Directmedia argued that only acts which constituted the actual mechanical reproduction of a database (copying/paste), without any adaptation, constituted 'extraction'. The CJEU rejected this; rather it found that the definition of extraction was to be widely

---

[2101] *EU Directive* (n 19) art 7, § 2 (a).
[2102] *BHB* (n 83) I–10495-6, rule 2.
[2103] Ibid I-10461, I-10482 [54].
[2104] *Directmedia* (n 83).
[2105] Ibid [9]–[12].
[2106] Ibid [11].
[2107] Ibid [14].
[2108] Ibid [13].
[2109] Ibid [16].
[2110] Bundesgerichtshof (German Federal Court of Justice).
[2111] *Directmedia* (n 83) [17]–[19].

interpreted.[2112] 'Extraction' meant an 'act of transfer', with the explanation that 'the decisive criterion in this respect is to be found in the existence of an act of "transfer" of all or part of the contents of the database concerned to another medium'.[2113] It did not matter if this did not involve a substantial and structured series of elements; the extraction could still fall within the meaning of art 7 § 2 (a).[2114] Furthermore, the court found that 'extraction' existed irrespective of the purpose of the act of transfer.[2115] Therefore, the CJEU affirmed that data transferal between two databases, after an initial assessment, could constitute an 'extraction'.[2116]

It was up to the referring national court to ascertain whether Directmedia's actions constituted infringement. This would necessitate a factual evaluation of the contents of the protected databases, either qualitatively or quantitively, to ascertain whether there was reconstruction of a substantial part.[2117] A similar finding occurred in *Apis-Hristovich EOOD v Lakorda AD*.[2118] There it was ruled that during a quantitative evaluation as to whether a substantial part of a database had been extracted, it was necessary to compare the data allegedly extracted against the total database.[2119] The next sub-section shall discuss the concept of re-utilisation.

8.3.4 Utilisation

The *EU Directive* states that 're-utilisation' is defined as 'any form of making available to the public all or a substantial part of the contents of a database by the distribution of copies, by renting, by on-line or other forms of transmission'.[2120] Fascinatingly, this seemingly parallels the remainder of the exclusive bundle of rights conferred on authors under copyright when subsistence vests. In Australia, such rights include reproduction in

[2112] Ibid [40].
[2113] Ibid [36].
[2114] Ibid [44].
[2115] Ibid [47] affirming *BHB* (n 83) I–10480 [46]–[47].
[2116] Ibid.
[2117] Ibid.
[2118] *Apis-Hristovich EOOD v Lakorda AD* (Court of Justice of the European Communities, C-545/07, 5 March 2009).
[2119] Ibid [74].
[2120] *EU Directive* (n 19) art 7, § 2 (b).

material form;[2121] publishing the work[2122] and communicating it to the public[2123] (see 4.6).

In October 2012, the CJEU further clarified the *EU Directive's* scope in relation to online re-utilisation in the *Sportradar* case. In a departure to the *BHB* and *Fixtures Marketing* decisions, the major issue was about the interpretation of methods of re-utilisation, rather than whether database content was eligible *per se* for protection under the database right. This was because at the national proceedings, the applicability of the database right was undisputed.[2124]

The facts were that Football Dataco and other claimants (FD) organised football competitions in England and Scotland.[2125] They created and exploited data relating to live football competitions through a database.[2126] It contained statistics about football matches, which were updated in real-time during matches.[2127] This statistical data was collected on behalf of Football Dataco by ex-professional footballers on a freelance basis.[2128]

There were two defendants: Sportradar GmbH, a German company, who provided current English League match statistics on their website;[2129] and Sportradar AG, the Swiss parent company.[2130] Also of importance were the actions of bet365 and Stan James (a Gibraltar betting company), both customers of Sportradar GmbH, who had entered into contracts with Sportradar AG.[2131] These customers provided links on their websites, so that when a user clicked on the 'live score' option, data pertaining to UK football competitions was automatically downloaded onto a user's computer, appearing under a reference to either 'bet365' or 'Stan James'.[2132] The data held by Sportradar GmbH was stored in servers within Germany and Austria, but it was accessible to users via the internet in the UK.

[2121] *The Act* (n 168) s 31(1)(a)(i).
[2122] Ibid s 31(1)(a)(ii).
[2123] Ibid s 31(1)(a)(iv).
[2124] *Football Dataco Ltd and Others v Sportradar GmbH and Others* [2011] (n 79) [19] (Laws, Jacob and Wilson LJ).
[2125] Ibid [3] (Jacob LJ).
[2126] Ibid.
[2127] Ibid [3] (Jacob LJ).
[2128] Ibid.
[2129] Ibid [4] (Jacob LJ).
[2130] Ibid.
[2131] Ibid [5] (Jacob LJ).
[2132] Ibid.

On 29 March 2011, appeal and cross-appeal submissions were presented before the High Court, Court of Appeal (Civil Division).[2133] The FD database was found to fall outside of copyright protection, because it did not involve sufficient intellectual creativity in its creation.[2134] Merely data (facts) had been reproduced by Sportradar.[2135] FD's database was subsequently precluded from copyright protection under art 3.2.[2136] The database was, however, found to satisfy the criteria for sui generis protection, due to substantial investment in the collection and recording.[2137]

Sportradar argued that the act of 're-utilisation' of the database could only occur in Member States in which its servers were situated. Under the *EU Directive*, 're-utilisation' was defined as 'any form of making available to the public'.[2138] Under this right, the Court of Appeal referred a question to the CJEU regarding 'extraction' or 're-utilisation' of data, pertaining to where the data was made available.[2139]

The question asked whether the data had been made available in the UK (the location of 'reception' where the public being targeted by the website host were); or Austria (a location of 'emission' where the web server was located); or both territories.[2140] FD argued that the data had been made available in both territories; Sportradar argued that it had only been made available extraneous to the UK (in Austria).[2141]

Sportradar's argument, that 're-utilisation' could only exclusively refer to the territory of the Member State in which the web server was located, was rejected.[2142] Instead, the CJEU was strongly in favour of FD, finding that Sportradar's unauthorised usage of the database likely amounted to re-utilisation of the database under art 7 § 2(b). The court clarified that an act of 're-utilisation' constituted any unauthorised act by the database

---

[2133] Ibid (Laws, Jacob and Wilson LJ), on appeal from *Football Dataco Ltd and Others v Sportradar GmbH and Others* [2010] (n 534) (Floyd J).
[2134] Ibid [14] (Laws, Jacob and Wilson LJ).
[2135] Ibid [14]–[16] (Laws, Jacob and Wilson LJ).
[2136] Ibid [14] (Laws, Jacob and Wilson LJ).
[2137] Ibid [19]–[26] (Laws, Jacob and Wilson LJ).
[2138] *Football Dataco & Others v Sportradar GmbH & Others* (Court of Justice of the European Communities, C-173/11, 18 October 2012), [4]. Also see generally, Penelope Thornton, 'High Court Decision on Where the Act of "making available" Takes Place for Internet Transmissions: *Football DatacoLtd v Sportradar GmbH*' (2011) 17(3) *Computer and Telecommunications Law Review* 74.
[2139] *Football Dataco Ltd and Others v* Sportradar *GmbH and Others* [2011] (n 79) [47] (Laws, Jacob and Wilson LJ).
[2140] Ibid.
[2141] *Football Dataco & Others v Sportradar GmbH & Others* [2012] (n 2138) [15]–[16].
[2142] Ibid [44].

maker where there was distribution to the public of the whole or substantial part of the database contents.[2143]

The CJEU found that Sportradar had violated FD's sui generis rights by publishing the results online for customers in the UK and Austria and that infringing data had been specific to UK users.[2144] They also clarified that just because a website contained infringing data in a national territory, that this did not mean that the website operator was in violation of re-utilisation of data under the sui generis right.[2145]

The holding of data by Sportradar GmbH on their server to attract the interest of the UK public was found to have been a deliberate attempt to target people within that territory.[2146] Subsequently, the CJEU found that in a situation where there was clear evidence of this type of behaviour, the question of whether re-utilisation had occurred could be considered not only in the territory of the recipient, but also in the territory of the sender.[2147] This was a factual matter for determination in the national court, so the case was referred to the English Court of Appeal for a final determination.[2148]

In October 2019, a case was referred from Latvia to the CJEU which asked whether a hyperlink which redirected users to a database website can be interpreted as falling under the scope of art 7 § 2 (b).[2149] Alternatively, it asked whether this act constitutes the re-utilisation of a database by another form of transmission. At the time of publishing this study, the ruling has not been handed down.

[2143] Ibid [20], [47] citing *British Horseracing Board v William Hill* [2004] (n 1932) ECR I–10415, [45], [46], [51] and [67].

[2144] Ibid [39].

[2145] Ibid [36], [39] referring by analogy to *Pammer-v-Reederei Karl Schlüter GmbH & Co KG and Hotel Alpenhof GesmbH v Oliver Heller* (Court of Justice of the European Communities, C-585/08 & C-144/09, 7 December 2010), [69] and *L'Oréal SA and Others v eBay International AG and Others* (Court of Justice of the European Communities, C-324/09, 12 July 2011), [64].

[2146] Ibid [36]-[40], referring by analogy to *Pammer-v-Reederei Karl Schlüter GmbH & Co KG and Hotel Alpenhof GesmbH v Oliver Heller* (n 2145) [75], [76], [80], [82] and *L'Oréal SA and Others v eBay International AG and Others* (n 2145) [65].

[2147] Ibid [43].

[2148] Ibid [47]; see *Football Dataco Ltd v Stan James Plc* [2013] EWCA Civ 27 (Lloyd, Lewison LJJ, Sir Robin Jacob). Also see generally, Joel Smith and Rachel Montagnon, 'Databases Hosted Outside the UK can Infringe Rights in UK Databases: *Football Dataco Sportradar* (C-173/11)' (2013) 35(2) *European Intellectual Property Review* 111.

[2149] Request for a preliminary ruling from the *Rīgas Apgabaltiesas Civillietu Tiesu Kolēģija* (Latvia) lodged on 17 October 2019. *SIA 'CV-Online Latvia' v SIA 'Melons'* (Court of Justice of the European Communities, Case C-762/19).

The next matter for discussion will be what constitutes a whole or a substantial part of a database.

8.3.5 Whole or Substantial Part of a Database

In *BHB*, the CJEU also provided guidance about what constituted 'a substantial part of a database'. It found that the definitions of 'substantial' and 'insubstantial' parts of a database (which are needed to prove infringement under the *EU Directive*) referred to the volume of data that was extracted and/or re-utilised, which had to be assessed in relation to the volume of the contents of the whole database.[2150] The use of this criterion parallels the substantiality test under copyright law in determining infringement.

Similarly, a 'qualitative evaluation' of a 'substantial part' of database contents referred to the scale of the investment in the obtaining, verifying or presenting of the contents being extracted or re-utilised.[2151] This was regardless of whether it represented a quantitative part of the general database contents.[2152] An 'insubstantial part' of the contents of a database was any part which did not fulfil the definition of a substantial part by qualitative and quantitative evaluation.[2153]

Subsequently, WH had engaged in a process of extraction and re-utilisation of an insubstantial part of BHB's database.[2154] Because WH's acts did not make available to the public a whole or substantial part of the BHB database, their actions did not seriously prejudice BHB's investment.[2155] Therefore, BHB's database did not qualify for sui generis protection, because it failed the above criterion under art 7 § 1.[2156] Upon return to the English Court of Appeal, the appeal was allowed.[2157] The database was unprotectable under art 7 § 1 and WH were permitted to continue using BHB's data.[2158]

Likewise, the 2011 English and Wales Patent County Court case of *Beechwood House Publishing (t/a Binleys) v Guardian Products Limited, Precision Direct Marketing*

[2150] *BHB* (n 83) I-10487-8 [70]; I-10496, rule 3.
[2151] Ibid I-10496, rule 3.
[2152] Ibid.
[2153] Ibid.
[2154] Ibid I-10493 [90].
[2155] Ibid I-10493 [91].
[2156] *British Horseracing Board Ltd v William Hill Organisation Ltd* [2005] ECDR 28, 425-6 [8]-[11], 427 [21] (Jacob LJ).
[2157] Ibid 430 [36] (Jacob LJ), 438 [38] (Clarke LJ), 432 [50] (Pill LJ).
[2158] Ibid.

Limited[2159] (‘*Beechwood*’) considered what was meant by a ‘substantial part’ of a database. Here, the defendants performed an act of the ‘extraction’ of records from a database, under *CRDR* reg 12(1).[2160] At issue was whether the defendant’s extraction constituted a ‘substantial part’ of the plaintiff’s database.[2161] Infringement would occur if a person extracted or re-utilised all or a substantial part of the contents of the database without the consent of the database owner.[2162]

The qualitative and quantitative tests from *BHB* were applied.[2163] In considering the qualitative test, an examination of the economic investment in the obtaining, verifying and presenting of the data occurred. The court disregarded whether this data quantitatively amounted to a substantial part.[2164] Instead, it was found that the qualitative test was satisfied by the evidence, described as ‘thousands of phone calls and staff working for weeks to compile and validate the data.’[2165]

In evaluating the quantitative test, the writings of Advocate General Stix-Hackl from *BHB* were considered,[2166] who ‘raised the question of whether a quantitatively significant part was to be assessed in relative or absolute terms.’[2167] In *BHB*, the CJEU applied a relative test because ‘quantitative’ referred to substance, rather than a numerical majority.[2168] Similarly, this test was assessed relatively. Although only 11 per cent of records were identical and found to have been extracted (4,783 records out of 43,000), this constituted infringement of the database right on grounds of relative quantity.[2169] Of significance was evidence about the substantial resources required in the creation of the database.[2170] However, it was acknowledged that, from a quantitative perspective, the infringing percentage fell at the ‘lower end’ of the spectrum.[2171]

[2159] *Beechwood House Publishing (t/a Binleys) v Guardian Products Limited, Precision Direct Marketing Limited* [2011] EWHC 22 (Admin) (‘*Beechwood*’).
[2160] *CRDR* (n 1755).
[2161] Ibid reg 16(1).
[2162] Ibid.
[2163] *BHB* (n 83).
[2164] *Beechwood* (n 2159) [44] (Birss QC).
[2165] Ibid [45] (Birss QC).
[2166] *BHB* (n 83).
[2167] *Beechwood* (n 2159) [44] (Birss QC).
[2168] Ibid.
[2169] Ibid.
[2170] Ibid.
[2171] Ibid.

In recent years, *Technomed Ltd*[2172] instead undertook a qualitative assessment of data, examining the substantial investment in the obtainment, verification and presentation of the database contents.[2173] In a departure to WH however, the court found that sui generis rights vested in the database due to the facts tendered.

The next sub-section examines a final controversial issue: that of the right's scope.

8.3.6 Scope of the Right

In 2015, *Ryanair*[2174] was referred by the Supreme Court of the Netherlands.[2175] The judgement was delivered without an opinion of the Advocate General. This case is significant when considering a possible sui generis right in Australia because it focused on the limits of contractual protection extraneous to copyright or the database right.[2176] The CJEU found that contract law can govern usage rights in a database unprotected by copyright or sui generis protection, and this could extend to sole-source databases.

The case involved PR Aviation, a company who operated an airfare comparison website, which also permitted customers to book flights by paying commissions. Ryanair was one of the carriers included in the comparison website and data was obtained from a publicly available dataset linked to Ryanair's website.[2177] Contractual terms on the Ryanair website stated that they were the exclusive dealer of their flights, however it was permissible for comparison websites to enter into a written licencing agreement to access data.[2178]

Ryanair commenced proceedings against PR Aviation for infringement of copyright and sui generis rights. The Utrecht Local Court partially dismissed the action due to insufficient originality and sui generis rights.[2179] The Court of Appeal ruled against

---

[2172] (2017) 125 IPR 144.
[2173] *Technomed* (n 1967) 165, [77] (Stone J), affirming *EU Directive* art 7 § 1; *British Horseracing Board v William Hill* [2004] (n 1931); *Fixtures Marketing Trio* (n 1931).
[2174] *Ryanair Ltd v PR Aviation BV* (Court of Justice of the European Communities, C-30/14, 15 January 2015) ('*Ryanair*').
[2175] Hoge Raad der Nederlanden.
[2176] Matěj Myška and Jakub Harašta, 'Less is More? Protecting Databases in the EU after Ryanair' (2016) 10(2) *Masaryk University Journal of Law and Technology* 170, 171.
[2177] *Ryanair* (n 2174) [15].
[2178] Ibid [16].
[2179] Ibid [18], referring to the *Rechtbank Utrecht* (Local Court, Utrecht) action on 28 July 2010.

Ryanair and found that PR's website constituted a legitimate use of their dataset.[2180] Furthermore, it was found that Ryanair had not established the existence of 'substantial investment' in the creation of their dataset.[2181]

Upon Appeal to the Supreme Court, the case was stayed and a question was referred to the CJEU. That was, whether the *EU Directive's* operation also extended to online databases that were not protected by copyright or sui generis under the *EU Directive* and whether this prevented the use of contractual clauses pertaining to such databases.[2182]

The CJEU applied a strict scope, finding that the *EU Directive* was applicable to databases protected by copyright or sui generis rights.[2183] Under the *EU Directive* art 6(1), 8 and 15 established mandatory rights for lawful database users and prevented contractual limitations in the use of eligible databases.[2184] The court found that for databases which fell outside of the *EU Directive* (and these parameters), the database owner was free to contractually determine the conditions of use in compliance with national law.[2185] This suggests that any database which is protectable by the *EU Directive* is constrained from reliance upon contract law; in other words, implementation of the *EU Directive* precludes the use of contract law. Furthermore, it suggests that, in some situations, it would be beneficial to avoid fulfilling the requirements necessary for the *EU Directive* to be applicable to a database so that mandatory exceptions and limitations imposed by the *EU Directive* remain inapplicable. However, for those databases which do fall outside of copyright/the database right, the balance potentially swings in the favour of the user rather than the author because no rights subsist.

This case has sparked harsh criticism, to the extent that it has been labelled as negating the *EU Directive's* entire existence.[2186] *Ryanair* is likely to have critical future ramifications because of its impact upon the incentive/access balance between producers

---

[2180] Ibid [19]-[22], referring to the *Gerechtshof te Amsterdam* (Court of Appeal, Amsterdam) action on 13 March 2012.
[2181] Ibid [22].
[2182] Ibid [28].
[2183] Ibid [34].
[2184] Ibid [36]-[39].
[2185] Ibid [39].
[2186] Maria Bottis, 'How Open Data Become Proprietary in the Court of Justice of the European Union' in S Katsikas and A Sideridis (eds), *E-Democracy: Citizen Rights in the World of the New Computing Paradigms* (Springer, 6th International Conference Proceedings, E-Democracy 2015, Athens, Greece, December 10-11, 2015, Vol 570, 2015) 169, 173.

and users. It appears to inhibit data re-use and it may impact some business models. The outcome suggests that it may be more beneficial to seek contractual protection for a database in the situation where copyright/database rights fail.[2187] However, careful drafting would be required to ensure that any contractual provisions were severable if the *EU Directive* were subsequently found to be applicable.

As some of the potential ramifications of *Ryanair* have been discussed, the next sub-section shall conclude by examining some future ramifications of the CJEU's interpretation of the database right.

8.4 Lessons Australia Can Learn from the CJEU Interpretation of the Database Right

In summation, the CJEU have enforced that there are two requisite conditions for a database to fall under the database right: it must be structured within a database,[2188] and it must have been produced via 'substantial investment'.[2189] This is relevant for Australia, because, as has been explored, since *BHB*, CJEU interpretation of this right has been narrowly construed. It must be kept in mind that the narrow judicial interpretation of the *EU Directive* has likely been influenced by the pertinent risk of over-protecting data, which would otherwise grant database owners monopolies over collections of facts. In this way Australia must be aware of the fact that the CJEU has been highly conscious of defining the boundaries between data itself and the expression of data under the database right, analogous to the distinction in the idea/expression dichotomy.[2190]

Of significance to Australia is that landmark judgements such as *BHB* and *Fixtures* have distinguished between data that has been utilised to create the contents of a database and the data obtained, verified and presented in a database. This distinction separates databases produced through the 'creation' of data, as opposed to the creation of a database through 'obtaining' data. An example is where a database is produced during the process of other activities (eg, sporting fixture timetables or machine-generated data such as that

---

[2187] European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) 19, 22–3.
[2188] *EU Directive* art 1 § 2.
[2189] *Fixtures Marketing Ltd v Organismos Prognostikon Agonon Podosfairou ('OPAP')* (n 83) [35]; *BHB* (n 83) [32], [46]; *Directmedia* (n 83) [33]; *Innoweb BV v Wegener ICT Media BV, Wegener Mediaventions BV* (n 83) 3, [36].
[2190] See 4.3.

used in AI or digital scanning), which are then used to control spin-off data (eg, through betting companies or self-driving cars). Therefore, judicially, the database right has specifically been narrowed to exclude such so-called 'spin-off databases' from protection. This avoids data monopolisation and limiting access to data. As a result, databases where it is impossible to separate the act of creating the data from the database itself fall outside the database right scope. One such example is a sole-source database. Linked data is another example.[2191]

Some producers have argued that the restriction of the scope to these databases reduces the need for future compulsory licensing regimes, because the CJEU has effectively denied 'protection to collections of untreated sole-source data'.[2192] This is due to the inapplicability of the right to data generation without substantial investment.[2193] The current and future implications of this are significant, particularly when considering possible Australian implementation. **It means that, currently, the right would be inapplicable to many activities undertaken in the data economy world, particularly many forms of big data, the Internet of Things, AI and machine-generated data ('spin-off' databases).[2194]** Opinions on this matter are extremely divided. Ultimately, whenever a database has the capacity to generate a profit, database producers seek to monetise it, despite a lack of substantial investment in the origins of the database. Database producers have therefore sought protection and clarification under the *EU Directive*, while users have rejected protection and sought access to databases.[2195] Clearly, further consultation and clarification is needed about these issues, particularly as the data economy continues development. Such polarisation between parties must be borne in mind when considering possible Australian implementation. There are other unsettled matters, which include the precise time that a database is considered to be completed and when the duration of the right begins; what constitutes a 'substantial

---

[2191] Victor Rodríguez-Doncel, Cristiana Santos, Pompeu Casanovas and Asunción Gómez-Pérez, 'Legal Aspects of Linked Data – The European Framework' (2016) 32 *Computer Law & Security Review* 799, 806-10.

[2192] Davison and Hugenholtz (n 142) 115.

[2193] Herbert Zech, 'A Legal Framework for a Data Economy in the European Digital Single Market: Rights to Use Data' (2016) 11(6) *Journal of Intellectual Property Law & Practice* 460, 467–8.

[2194] See generally, Derclaye, 'Database '*Sui Generis*' Right' (n 582); and Davison and Hugenholtz, (n 142).

[2195] European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) v.

change' so as to permit the duration of the right to be renewed; and whether the right is potentially perpetual.

Having discussed the interpretation of copyright and the database right by the CJEU, the impact on UK national law and the lessons Australia can learn from this, Chapter 9: will continue to analyse what lessons Australia can learn from the *EU Directive*. To do this, it will engage in a detailed analysis of how the *EU Directive* has been evaluated. This will include discussion about two official evaluations.[2196] Consideration will also be given to the recent initiates towards a European Digital Single Market. Finally, in consideration of sui generis protection in future Australian databases, 9.5 will conclude the fourth question posited for analysis by explaining what lessons can be learned from the EU. It will do this by evaluating the reasons which encourage and discourage implementation of sui generis protection in Australia.

[2196] European Commission, 'First Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 84) 5; European Commission, 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85).

CHAPTER 9: EVALUATION OF SUI GENERIS PROTECTION

9.1 The Relevance to the Overall Study of Evaluating Sui Generis Protection

This chapter will complete addressing the fifth question for analysis, which pertains to the lessons that can be learned from the EU sui generis database right if Australia were to implement such a regime. Using empirical and theoretical analysis, it will examine the reasons that encourage and discourage implementation within Australia. To achieve this, firstly it will evaluate the primary purpose and benefits of implementing such a regime in Australia by contrasting this to the primary purposes of EU implementation.

After this, the chapter will evaluate whether the *EU Directive* met its primary goals in the EU by analysing empirical analysis from the two official evaluations of the *EU Directive,* taken in 2005 and 2018. Overall, it will be seen that the first evaluation from 2005 acknowledged that the economic benefits of the sui generis right were unproven.[2197] The implications of this finding will be considered in the context of Australia implementing such a regime. Findings from the second evaluation in 2018 will then be analysed and their implications for Australia considered. In 2018 it was found that there were no immediate policy changes needed but there was a need to monitor how future laws (for example, those pertaining to public sector information or open access initiatives) would interact with the *EU Directive*.[2198] It was postulated that future amendments would be needed to clarify various identified legal uncertainties. These findings will be considered in the context of Australian law.

Then the empirical analysis will turn to a notice from the European Parliament to the European Commission in consideration of the recent initiative towards a European Digital Single Market. It will be seen that this notice advised follow-up on policy options to abolish the *EU Directive*.[2199] It will be argued that this presents a strong argument against implementation of such a regime in Australia, particularly in light of the need for policies that are mindful of the future impact of the law on changing technology. The implications

---

[2197] European Commission, 'First Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 84) 5.

[2198] European Commission, 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) 2; European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) vii.

[2199] European Parliament (n 86) [108].

of these empirical findings will be evaluated in the context of Australian law. Overall, it will be argued that the above uncertainties are substantial enough to warrant caution in implementing such a regime in Australia.

This chapter will then consider the theoretical disadvantages of introducing such a right in Australia by discussing the scholarly criticisms levelled at the *EU Directive* and whether these would remain relevant in the context of Australian law. Finally, through the use of two graphs, analysis will occur about how a database right would likely be different in its theoretical application within Australia, in consideration of its judicial application in the EU. The key findings pertaining to the application of the *EU Directive* by the UK (Chapter 7:) and the CJEU (Chapter 8:) will be used in evaluating its application within the Australian context. **The above analysis will lead to the ultimate recommendation against the future enactment of a sui generis database right in Australia.**

9.2 The Major Purpose and Benefits of Implementing *the Directive* in Australia

In order to effectively assess the notion of introducing a sui generis database right similar to the *EU Directive* into Australia, it becomes necessary to identify and evaluate the major purpose and the potential benefit(s) for Australian implementation. Section 7.3 explained the three major reasons for EU implementation of the *EU Directive*. These were:

1. Regional harmonisation of database protection between EU Member States;
2. To stimulate European database investment; and
3. To strike a more appropriate balance between database producers and users.

In considering the main purpose of implementing the *EU Directive* into Australia, as concluded at 6.3, it is not primarily for regional harmonisation nor to primarily stimulate database investment. Rather, it is to protect economically valuable databases which have judicially fallen outside of copyright due to insufficient establishment of originality and authorship. An indirect effect of this may be the stimulation of the database economy, although empirically this notion has been debatable in the EU.

Although not all information is equal and there are varying relationships which exist between database producers and users, section 5.3 discussed several post-*IceTV* cases where expensively produced databases fell outside of copyright. This occurred because

of insufficient originality and authorship and such databases were left open to economic exploitation. The outcome of the post-*IceTV* cases analysed in Chapter 5: has shown an imbalance between database producers and users, with users currently being favoured. Recent Australian judgements discussed in Chapter 5: pertaining to databases have revealed a favouring of users' rights over producers' (authors') rights. **Therefore, the central problem that the introduction of a sui generis database right would seek to remedy in Australia would be to protect some of the economically valuable databases which currently fall outside of copyright protection.**

The introduction of a database right would arguably incentivise some producers for the production of their databases. It potentially rewards the production expense, effort and time invested in some database creation, while also allowing the insubstantial taking of information by users. Supporters of the *EU Directive* have argued that this strikes an appropriate balance, because it 'protect[s] substantial [economic] investment and does not prevent the irregular taking of insubstantial parts of a database'.[2200] A beneficial flow-on effect of this right is to ensure integrity in data creation and to provide legal certainty about the protection of data and the generation of profits.

Introducing this right would, therefore, strive to achieve a more appropriate balance between the rights of some database producers and users. To examine the empirical evidence from the EU about the impact of the *EU Directive*, the next section will quantify and evaluate its economic impact. It shall consider the implications for Australia of the empirical analysis in the two Official EU Evaluations which were conducted in 2005 and 2018.

9.3 EU Empirical Analysis of *the Directive* and the Implications of This for Australia

First EC Evaluation – 2005

On 12 December 2005, ten years after implementation, a first evaluation was released by the EC.[2201] Of note was that at its release, a prominent scholar described this evaluation

[2200] Laurence Kaye, 'The Directive on the Legal Protection of Databases of 11 March 1996: Does it Have a Future?' (Web Page, 2019) *Copyright in the Digital Age* <https://www.copyright-debate.com/database-directive-future-lawrence->.

[2201] European Commission, 'First Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 84).

as an 'anomaly' of a policy paper because instead of being full of praise, it was 'a scathing review of a directive once heralded as a model for the world'.[2202] Primarily, there were two aims:

1. To assess whether the policy goals of the EU Directive had been achieved.[2203]
2. To evaluate whether the database right had adversely affected EU competition.[2204]

Before interpreting the results, the limited number of participants must be noted. The survey was distributed to 500 database producers and a mere 101 responded.[2205] Such a limited number is unlikely to accurately represent the structure of the EU database market.

In terms of positive findings, there were 'strong submissions' from the European publishing industry which argued that the database right was vital to their ongoing success.[2206] Other stated benefits were that many respondents found that the database right had clarified legal rights, reduced production costs and stimulated business opportunities for marketing databases.[2207] Despite this, the report failed to quantify these statements with compelling empirical evidence and instead relied upon anecdotal evidence. Of greater significance were the neutral empirical findings:

- **Firstly, any economic impact from the database right was unproven and empirical evidence cast doubt on its necessity.[2208]** The primary aim of economically stimulating the EU database industry was unlikely fulfilled, because no measurable impact was proven in new database production.[2209] Upon examining the statistics from the largest global database statistic directory, the *Gale Database Directory*, after a brief spike in production after the introduction of the *EU Directive*, production of EU databases in 2004 had dropped to pre-*EU*

[2202] Hugenholtz, 'Copyright in Europe' (n 1549) 512.
[2203] European Commission, First Evaluation of Directive 96/9/EC on the Legal Protection of Databases (n 84) 3.
[2204] Ibid.
[2205] Ibid 5.
[2206] Ibid.
[2207] Ibid.
[2208] Ibid.
[2209] Ibid 15–20, 22–3.

Directive levels.[2210] The result indicated inconclusive evidence that the *EU Directive* had significantly influenced the database industry.[2211]

Considering this issue in the context of the primary purpose of implementing such a right in Australia, this is a significant red flag, which should be carefully considered. This finding weighs heavily against Australian implementation because the EU did not observe a significant positive economic impact, even going so far as to doubt its economic necessity.

- Secondly, the complexities of the two-tier approach had confused some EU users.[2212] There was concern the database right had caused imbalance between rights-holders and users by restricting users' access to data and monopolising data, such as public domain data.[2213] Considering this issue in the context of the primary purpose of implementing such a right in Australia, this also weighs heavily against introduction. This is because it is desirable to achieve as best a balance as possible between database producers and users. The empirical findings from the EU suggest a substantial risk that the balance could, instead, swing too far in the other direction, to ultimately restrict users' access to data.

- Thirdly, as analysed at 8.3.1, *BHB*[2214] had significantly restricted the right's scope and 'thereby pre-empted concerns that the right negatively affects competition'[2215] and the EU public's right to information.[2216] Specifically, the distinction in this case between creating and obtaining contents of the database was highlighted as significantly restricting the scope of protection.[2217] This meant that the actual creation of data remained unprotected under the sui generis right.[2218] Therefore, any database owners who 'created' their data remained

[2210] Ibid 5.
[2211] Ibid 20.
[2212] Ibid 21.
[2213] Ibid.
[2214] *BHB* (n 83).
[2215] European Commission, 'First Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 84) 6, 13–14.
[2216] See generally, Estelle Derclaye, 'Database Sui Generis Right: The Need to Take The Public's Right to Information and Freedom of Expression into Account' in Fiona Macmillan (ed) *New Directions in Copyright Law* (Edward Elgar, 2007) 3.
[2217] *BHB* (n 83) I-10478 [41].
[2218] Ibid.

unprotected through the database right; whereas, if the same owner obtained or collated data from other sources, their database would fall under sui generis protection. Considering this issue in the context of the primary purpose of implementing such a right in Australia, this also weighs heavily against introduction. This is because the CJEU interpretation of the application of the right restricted it to such an extent that data created by an author still falls outside of the right and remains unprotected. Although CJEU precedent is not binding in Australia, it may still be considered persuasive in obiter. The CJEU judicial interpretation of the right demonstrates that it is not well suited to remedying the primary goal for implementing the right in Australia to begin with.

- Fourthly, the evaluation noted that the judicial restriction of the application of the right was contrary to the original intention of the EC, which was that a wide variety of databases be protected.[2219] Consequently, statistics from the online survey substantiated the ineffectiveness of the *EU Directive* from the perspective of EU respondents, revealing that:

    (a) 43% of respondents believed that the legal protection of their databases would be the same as before this CJEU ruling;[2220]
    (b) 36% believed that the scope of protection would be either weakened or removed;[2221] and
    (c) 54% believed that few databases would be protected by the *sui generis* right.[2222]

In significance for Australia, the major conclusion in 2005 was that the overall effectiveness of *the Directive* in the EU was unproven. It was simply favoured by the EU database industry and Member States as a better solution in comparison to the lack of regional harmonisation that existed prior to its implementation.[2223] This suggests that while the *EU Directive* met the goal of regional harmonisation of EU Member States, it was ineffective economically, with any substantial economic impact in favour of

[2219] European Commission, 'First Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 84) 13.
[2220] Ibid 6, 14.
[2221] Ibid.
[2222] Ibid.
[2223] Ibid 20.

producers being unmeasurable and unremarkable. It can be argued that what currently exists in the EU has been an improvement only due to regional Member State conformity. It is, therefore, unpromising for possible future utilisation in a country such as Australia, where the primary aim is economic rather than regional harmonisation of law for more effective trade practices.

In response to the above findings, the EC identified four options pertaining to possible future actions. The first three of these options weigh heavily against introducing a database right in Australia:

- **Repeal the Whole Directive:**[2224] Member States would have reverted to the type of protection offered pre-*EU Directive*. Once again, this would have led to inconsistencies in the level of originality and a lack of EU regional harmonisation. It was anticipated that if this were to occur, that contract law and access control systems, (including TPMs)[2225] would have become increasingly important, particularly in online environments.[2226] It was also acknowledged that repealing the *EU Directive* would likely cause legal disruption at national levels, because although the *EU Directive* would have been repealed, it would not cancel its effects at a national level, unless a sunset clause existed.[2227]

- **Withdraw the Right:**[2228] This would have entailed withdrawing the database right and maintaining regional harmonisation of the copyright provisions for original databases. Member States could have chosen what type of protection be used for non-original databases. It was noted that withdrawal of the right would synchronise with an emerging trend in common law jurisdictions such as the US — that of a higher originality standard — which would exclude some databases.[2229] Despite this, it was noted that some business groups, such as

[2224] Ibid 6, 25.
[2225] See 2.4.1.
[2226] Ibid 25.
[2227] Hugenholtz, 'Copyright in Europe' (n 1549) 519.
[2228] European Commission, 'First Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 84) 6, 25.
[2229] Ibid 26.

European publishers, preferred to retain current levels of protection, although the reasons behind this preference were not offered.[2230]

- **Amend the Provisions:**[2231] suggestions included re-drafting the scope of protection so that it applied to the creation of data; clarifying: (a) what types of source lists would be protectable; (b) the scope of protection and who it would apply to; and (c) what constituted a substantial investment. This suggestion was radical because it risked undermining CJEU precedents. For that reason, it was unlikely to ever occur. Such amendments would run the risk of producing a 'layer of untested legal notions that [would] not withstand scrutiny before the CJEU'.[2232]

- **Maintain the Status Quo:**[2233] it was acknowledged that withdrawal would be expensive, as would allowing Member States to change their database protection laws, so a cheaper option was to maintain the status quo.[2234] In other words, as uniform protection had been introduced at considerable cost, despite general dissatisfaction and lack of evidence in its favour, economically and logistically it appeared easier to leave it be. It was suggested that a positive outcome of the CJEU's judicial interpretation was that it had limited the *EU Directive's* scope and availability and this favoured primary rather than secondary database producers.[2235] The underlying issues in this option do not weigh in favour of implementation of such a right in Australia.

In response to these options, stakeholders were invited to submit their observations.[2236] A total of 55 submissions were received.[2237] There was little support for the first two options, with a divided split between the last two.[2238] The European Publishers Council

---

[2230] Ibid.
[2231] Ibid.
[2232] Ibid.
[2233] Ibid 27.
[2234] Ibid.
[2235] Ibid.
[2236] Ibid.
[2237] EU Commission, 'Stakeholder Consultation' (Web Page, 19 June 2013) *The EU Commission – the EU Single Market – Protection of Databases* <http://ec.europa.eu/internal_market/copyright/prot-databases/index_en.htm>.
[2238] Chris Reed and John Angel, *Computer Law – the Law and Regulation of Information Technology*, (Oxford University Press, 6th ed, 2007) 427.

were strongly in support of option four.[2239] It was suggested that many supporters of the 'no change' option appeared to have elected it because they perceived the current position to be better than any possible future changes.[2240] Also, implementation of the *EU Directive* had met the primary underlying rationale which was regional harmonisation. Once again, such a situation presents a highly undesirable incentive for Australian implementation.

Prior to 2017, the EC appeared to undertake option four by maintaining the status quo. This was likely by default and due to the inconvenience, potential confusion, logistical challenges and costs associated with proceeding with any other option. While the *EU Directive* was not particularly successful in achieving its aims, the conformity in database protection laws across Member States was accepted in preference to the diversity in laws prior to its implementation (as discussed at 7.3.1). While regional harmonisation is significant to the EU, it is irrelevant as a reason for implementing the *EU Directive* in Australia.

9.3.2 The Digital Single Market and Its Relevance to *the Directive*

In recent years, the fourth major phase in the development of EU IP rights harmonisation has been occurring through the development of an internal market — the Digital Single Market (DSM).[2241] This section will discuss the DSM and its relevance and impact upon the *EU Directive*. This issue is relevant to this study because it demonstrates the direction that laws extraneous to the *EU Directive* are moving in and the interplay of the *EU Directive* with these initiatives. It is thought-provoking to consider these emerging issues as a further step pertaining to Australian implementation.

Recent policy reports pertaining to the DSM have been unfavourable as to the existence of the *EU Directive*; these shall be discussed later in this section. What is desired in the

---

[2239] European Publishers Council, 'Response from the European Publishers Council to the First Evaluation of Directive 96/6/EC on the Legal Protection of Databases' (Web Page, 10 March 2006) *European Publishers Council Website* <https://www.epceurope.eu/>.

[2240] Reed and Angel (n 2238) 427.

[2241] European Commission, 'A Single Market for Intellectual Property Rights Boosting Creativity and Innovation to Provide Economic Growth, High Quality Jobs and First Class Products and Services in Europe Communication' (Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels, 24 May 2011, COM (2011) 287) 3.

EU is a market without internal frontiers, where goods/services have fluid movement.[2242] In association with this has been that national laws of Member States attach to copyright; there is no single 'European title', but rather, community *acquis*.[2243] The goal for a DSM was formally introduced under the *Lisbon Treaty* art 118, with the ambitious aim being for a truly unified future IP framework.[2244] Its establishment has been a major priority of the EC.[2245]

The 2015 DSM Strategy (DSMS) posited a three-pillar approach to the challenges posed by digitalisation, including maximising the growth potential of the digital economy.[2246] As discussed at 2.5, copyright plays an essential role in a data economy's legal framework. In recent years there has been the goal of a single, harmonised EU copyright code.[2247] This would entail the abolishment of all national titles and their replacement with Union-wide copyright titles.[2248] The purported benefits include reduced costs, increased security, greater transparency for rights-holders/users, a rebalancing of rights and one market for copyright/related rights.[2249] Such an ambitious undertaking will take years to develop and implement. On 19 January 2016, in conjunction with DSM preparations, the European Parliament noted that the EC's first evaluation of the *EU Directive* was unfavourable and requested further investigation into the *EU Directive's* abolishment.[2250]

[2242] *Consolidated Treaty on the Functioning of the European Union* (opened for signature 13 December 2007, (OJ C 326, 26.10.2012) (entered into force 13 December 2007) art 26 § 2.
[2243] Martin-Prat (n 1550) 29–30.
[2244] *Treaty of Lisbon* (n 1538).
[2245] European Commission, 'Digital Single Market: Commission Calls for Swift Adoption of Key Proposals and Maps Out Challenges Ahead', (Press Release IP/17/1232, Brussels, 10 May 2017).
[2246] European Commission, 'A Digital Single Market Strategy for Europe' (Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels, 6 May 2015, COM (2015) 192 final) 3–4, 6–8.
[2247] European Commission, 'Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on A Single Market for Intellectual Property Rights Boosting Creativity and Innovation to Provide Economic Growth, High Quality Jobs and First Class Products and Services in Europe' (24 May 2011, COM (2011) 287 final) 11. See generally, Hugenholtz, 'Harmonisation or Unification of European Union Copyright Law' (n 1804).
[2248] Hugenholtz, 'Copyright in Europe' (1549) 523.
[2249] Ibid.
[2250] European Parliament (n 86).

In January 2017, an EC report titled *Building a European Data Economy* acknowledged the limited application of the database right to raw machine-generated data.[2251] It was noted that it is necessary to prove substantial investment in the obtaining, verification, or presentation of database contents and, therefore, there is a limited scope applicable for the right.[2252] **It was postulated that most machine-generated data would fall outside of protection from the right, because such data is classified as secondary data.[2253]** This provoked calls for a second evaluation for the *EU Directive* to determine whether it was truly necessary.

Significantly the report listed an alternative to the *EU Directive* and one possible remedy for the protection of secondary data as the introduction of a new type of 'data producer's right'.[2254] This would be a type of fully transferable, non-personal/anonymised machine-generated data right, which would be granted to a 'data producer' — the owner or long-term user (lessee) of a device.[2255] While a producer's right is extraneous to the *EU Directive*, it would define the status of such data and the roles of people/machines involved.[2256] A potential advantage would be that it would allow machine-generated data or data with highly constrained and/or untraceable human input to be utilised.[2257] There are, however, several exceptions which would need to be clarified under this right, as would the rules pertaining to the use of personal data (which is protected under the GDPR).[2258] In terms of possible disadvantages, there is speculation that this new right's broad scope could undermine the entire rationale of the European IP system: that of authorial incentive to create.[2259] Other concerns include potential violation of human rights and the *EU Charter* and limitations upon open access/open data initiatives, as well as the general undermining of future data economies.[2260] Subsequently, this propounded

---

[2251] European Commission, 'Building a European Data Economy' (Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels, 10 January 2017, COM (2017) 9 final) 10.
[2252] Ibid 10.
[2253] Ibid.
[2254] Ibid 13.
[2255] Ibid. Also see generally, P Bernt Hugenholtz, 'Data Property: Unwelcome Guest in the House of IP' (n 233).
[2256] European Commission, 'Building a European Data Economy' (n 2251) 13.
[2257] Ibid 13.
[2258] Ibid.
[2259] Hugenholtz, 'Data Property: Unwelcome Guest in the House of IP' (n 233) 10–13.
[2260] Ibid 10–17.

but currently underdeveloped new right has been labelled 'a very bad idea' by a prominent European scholar.[2261]

9.3.3 Second Evaluation – 2018

In response to the DSM developments, the EC undertook a second round of consultations to assess whether the *EU Directive* had fulfilled its policy goals and whether it remained appropriate for continued use in the digital economy.[2262] In a similar situation to the first evaluation, there were a limited number of responses, with a mere 113 submissions.[2263] On 25 April 2018, the second evaluation[2264] and an external study in its support[2265] were released in conjunction with the third DSM data package. The effectiveness of the right in response to its purpose was analysed, with the following observations:

- The *EU Directive* had successfully harmonised regional database protection across Member States, with CJEU interpretation assisting to clarify scope of implementation.[2266] Regional harmonisation was found to be its major benefit. As previously stated, this goal is irrelevant to the implementation of the right in Australia.

- Despite stakeholder assertions of economic benefit, particularly in the publishing industry, the *EU Directive* continued to show no proven impact on the stimulation of EU database production, or the competitiveness of the industry.[2267] However, the *EU Directive* was often effectively used in conjunction with other methods of database protection (such as contracts etc).[2268] This finding is significant because it demonstrates that implementation of the *EU Directive* alone is not a salient solution for database protection within Australia. Rather, the *EU Directive* is used

[2261] Ibid 1-3.
[2262] European Commission, 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85).
[2263] Ibid 1–2.
[2264] Ibid 146 final.
[2265] European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85).
[2266] European Commission, 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) 15; European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) i, ii, v–vii, 1, 3, 9–10.
[2267] Ibid iv.
[2268] European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (Final Report prepared by the Joint Institute for Innovation Policy and Technopolis Group, Study SMART number 2017/0084, 2018) ii-iii.

as an adjunct to other known methods of database protection, which again weighs against implementation.

- However, it was found that an appropriate balance had occurred between the rights and interests of database producers and users due to CJEU interpretation applying a limited scope of protection to the database right[2269] (as analysed at 8.3.1). The right was found to only be applicable to producers of 'primary' databases, for example, publishing companies, as opposed to secondary producers, who fell outside the scope of protection.[2270] The opinions of various stakeholders were particularly polarised about how such legal provisions might be amended in the future,[2271] with compulsory licencing amendments being touted as a possible solution.[2272] Once again, the fact that compulsory licencing was being discussed demonstrates that the *EU Directive* itself is not a strong solution for Australia, but rather that it is used in addition to other pre-existing methods of protection.

From an economic perspective, the cost efficiency of the right was assessed as being moderate, but the benefits to both producers and users were found to outweigh the costs.[2273] Producers were found to benefit from the extra protection, particularly against third parties, and users were found to have benefited from legal clarity and lawful access to works.[2274] The right was found to be highly relevant because it restricted regulatory fragmentation which could harbour detriment in the online, cross-border DSM.[2275] Although these findings appear promising, because Australia has no such equivalent as a digital single market, this evidence is not particularly strong in supporting the implementation of such a right in Australia.

[2269] European Commission, 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) 1, 9-10.
[2270] Ibid 3; European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) iv.
[2271] European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) iii.
[2272] Ibid vi.
[2273] European Commission, 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) 1.
[2274] Ibid 1.
[2275] Ibid 2.

Another major issue which requires future clarification is the scope of the definition of a database under the *EU Directive*.[2276] This is highly relevant because it determines whether machine-generated data would be included in the scope of the right. It must be remembered that the *EU Directive* protects databases but not information in the form of datasets or (raw) data in accordance with the idea/expression dichotomy. There is often much ambiguity about whether data is created or collected.[2277] If such a right were implemented within Australia, the issue of the scope of the *EU Directive* is of great significance because it determines what data falls within and outside of protection. Too narrow a scope would make implementation redundant, while too broad a scope would extend protection to all information, thereby running the risk of creating fact monopolies or violating the idea/expression dichotomy.

Notably, the narrow CJEU interpretation of the scope of the right was found to be beneficial by preventing significant issues in the data economy.[2278] While this shows some promise in terms of support to implement the right in Australia, the fact remains that it is unlikely that the database right is applicable to machine-generated data.[2279] Such examples include data produced through AI, big data, the internet of things and algorithm/sensor-generated data.[2280] Experts have postulated that the database right might be applicable to this data, in conjunction with TPMs and contract law[2281] however there is uncertainty about this and some scholars have found it unlikely.[2282] In Australia, CJEU precedent is not binding, but it could be persuasive in obiter, so it is likely that Australian courts would follow the narrower CJEU interpretation. This also means that there would be ambiguity about such a right's application to machine-generated data to the extent that the right would likely be inapplicable. Once again, this does not demonstrate much promise in terms of support for implementing the *EU Directive* in Australia.

[2276] European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) vi–vii.
[2277] Ibid 114.
[2278] European Commission, 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) 2.
[2279] European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) v, viii, 108-9.
[2280] Ibid.
[2281] Ibid 113.
[2282] Nusrat Jahan Shaba, *Big Data Database: Loopholes Regarding Ownership and Access to Data* (LLM Thesis, Uppsala Universitet, 2018) 27-30; Martin Zeitlin, *Everything Counts in Large Amounts: Protection of Big Data Under the Database Directive* (LLM Thesis, Uppsala Universitit, 2018) 62-3.

Significantly, the 2018 report found the *EU Directive* could co-exist with other types of protection[2283] and there were no major legal inconsistencies with other EU legislation.[2284] Although this is not highly relevant to the issue of Australian implementation, this finding demonstrates that the *EU Directive* could theoretically co-exist alongside other known types of pre-existing database protection laws. An issue requiring future clarification and research would be likely interaction with Public Sector Information (PSI),[2285] although further investigation is beyond the scope of this study.

Another important issue for Australia concerns uncertainty about interoperability with open-access initiatives such as Creative Commons licences (CC licencing).[2286] In Europe, it is unclear whether the database right could be waived in a situation where data was created under CC licencing and would also qualify for protection under the *EU Directive*.[2287] To remedy this issue, it was suggested that the *EU Directive* be amended to clarify the option to waive the right.[2288] This also requires clarification under Australian law if implementation was to occur. The next chapter will examine what lessons Australia could learn from the implementation of open access regimes for databases.

The 2018 evaluation considered possible EU policy reforms, but these were cast as being 'largely disproportionate' to their future potential.[2289] It was, however, found that the application of the right needs to be closely monitored in the context of the future data economy.[2290] One such example of potential conflict with proposed new DSM laws pertain to text and data mining (TDM). A recent study found that TDM practices could infringe a database owner's exclusive rights.[2291] This included the extraction of substantial parts of a database and, to a minor extent, re-utilisation, because data

---

[2283] Estelle Derclaye, 'The Database Directive' in Irini Stamatoudi and Paul Torremans (eds), *EU Copyright Law: A Commentary* (Edward Elgar, 2014) 298, 323.
[2284] European Commission, 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) 2.
[2285] Ibid 2.
[2286] European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) vii.
[2287] Ibid.
[2288] Ibid vii.
[2289] European Commission, 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) 2.
[2290] Ibid 3.
[2291] Christophe Geiger, Giancarlo Frosio and Oleskandr Bulayenko, 'The Exception for Text and Data Mining (TDM) in the Proposed Directive on Copyright in the Digital Single Market – Legal Aspects' (Centre for International Intellectual Property Studies, Research Paper No. 2018-02) 7–8.

transfer/integration from one medium to another occurred.[2292] If a database right was implemented in Australia then the issue of the interaction between TDM and the right would also require further clarification.

Another example of incompatibilities of the right with other laws would be potential conflict with the introduction of the novel, albeit currently underdeveloped, data producers' right which has been previously discussed.[2293] Although there is currently no such right in Australia, with the advancement of the global digital economy and ongoing globalisation, such a right may exist at a future time. The interaction of the *EU Directive* with proposed novel future laws such as this requires consideration. This issue raises many more questions than solid answers and the uncertainties weigh against implementation of an Australian sui generis database right.

The 2018 report found that if future EU policy intervention is needed, a broad range of stakeholders would need consultation.[2294] Such consultation would require substantial reflection on how to reformulate the database right and the potential benefits/disadvantages for competition in the EU data industry.[2295] The fact that these issues (which go to the root of the *EU Directive's* purpose) remain so pertinent 23 years since its implementation are unfavourable in considering Australian implementation. This is because the purported purpose of the *EU Directive* is heavily dependent upon the vested interests of particular stakeholders — opinions as to its implementation and how broad its scope ought to be are polarised depending on particular parties' vested interests.

In conclusion, although the 2018 evaluation found that there was no need for EU policy changes at that time, clearly there is the need to consider how future data protection laws will interact with the *EU Directive*. It is likely that future EU legal amendments will occur to remedy identified conflicts in law. This is a pertinent issue which in its totality weighs against Australian implementation.

Overall, the above findings weigh heavily against implementation within Australia, due to the many legal ambiguities and uncertainties which arise. By far, the overarching

---

[2292] Ibid 7–8; *EU Directive* (n 19) art 7 §(1)–(2)(a)–(b).
[2293] Hugenholtz, 'Data Property: Unwelcome Guest in the House of IP' (n 233) 1–3.
[2294] European Commission, 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) 3.
[2295] Ibid.

problem is that it is unlikely that the *EU Directive* would meet the major purpose for which it would be implemented in Australia. This is because the right would not necessarily protect databases which are expensive to produce and which fall outside of copyright protection. Due to the narrow judicial interpretation of the right, it is likely that such databases would remain outside of the scope of protection. To investigate the theoretical criticisms against the *EU Directive,* the next section will engage in analysis.

9.4 Theoretical Criticisms Levelled at *the Directive* and What Australia Can Learn From Those

Since its implementation, the *EU Directive* has been subject to much criticism, with scholars finding that it grants too high (broad) a level of protection to database owners.[2296] It has been argued that when such a 'high' level of protection is granted to a 'non-original' database, there is the risk of over-protection by granting too stringent a monopoly, therefore restricting access to data.[2297] Critics cite the *EU Directive* as accelerating the erosion of the public domain and empowering a minority of companies who create 'synthetic data' (primary data) to have the means to aggressively sue.[2298] Others have argued the *EU Directive* is unwarranted, as databases are already adequately protected through alternate avenues of law, such as misappropriation and contracts (see 2.4.1).[2299]

Also, when considering the protection of databases through sui generis rights, the emphasis upon elevating the economic importance of databases due to 'substantial investment' provokes a fundamental tension with the philosophical underpinnings of copyright law. This is because the protection is aimed at an economic right, which is underpinned by a competition law right. This is not strictly reconcilable with the underlying philosophies of copyright[2300] and, particularly, with the underlying justifications for copyright in continental Europe, which focuses upon Hegelian

---

[2296] Mark Davison, 'Sui Generis or Too Generous (n 321) 737; see generally Estelle Derclaye, 'What is a Database? A Critical Analysis of the Definition of a Database in the European Database Directive and Suggestions for an International Definition' (2002) 5 *Journal of World Intellectual Property* 981 Hinfey (n 1815) 5; Kumar (n 139) 111–12.

[2297] Lipton, 'Balancing Private Rights and Public Policies' (n 116), 774; Reichman and Samuelson, (n 133) 53–5; see generally, Reichman, 'Legal Hybrids Between the Patent and Copyright Paradigms' (n 345) 2476; Von Simson (n 139) 766–68.

[2298] Stephen M Maurer, P Bernt Hugenholtz, and Harlan J Onsrud, 'Europe's Database Experiment' (2001) 294 *Science* 789, 789–90.

[2299] Ginsburg, 'Copyright, Common Law and *Sui Generis* Protection of Databases in the United States and Abroad' (n 774) 152, 157–65.

[2300] Reichman and Samuelson (n 133) 55.

philosophy (see 2.1.2). Additionally, for databases eligible for sui generis protection, the *EU Directive* permits Member States multiple avenues of protection, including unfair competition and other protective measures.[2301] It has been argued that simultaneous protection through database rights and unfair competition principles leads to over-protection of information.[2302] Such examples have occurred in Member States such as Belgium and France.[2303] This is a pertinent issue which requires careful consideration in Australia. As explored in 2.1, copyright has traditionally focused upon rewarding an author for the expression of their creativity and strives to achieve this through a balance between incentive to authors and access to users.[2304] In considering whether information products that are commercially valuable should be economically protected as property under the law of copyright, the application of the law can only be pushed so far.[2305]

As time advances and the divide between tangible (physical) and intangible (digital) worlds lessen, the tensions intensify on the application of copyright doctrine.[2306] At the root of the problem is a disparity which exists between the ownership rights traditionally attributed to physical, tangible assets and the attribution of these same rights to invisible, intangible, commercial assets. Under pre-existing frameworks, the issue becomes to what extent the judicial interpretation of the sui generis right should occur when it has legal applicability to commercially valuable database products.

Under the judicial application of the right in the CJEU, there has been diversity in digitised and manual data collections litigated nationally. Every conceivable collection of data, from ticketing event data through to pop music titles has been argued.[2307] Indeed,

---

[2301] *EU Directive* (n 19) art 1.
[2302] See generally, Derclaye, 'Can and Should Misappropriation Also Protect Databases? (n 348) 83–108.
[2303] Ibid.
[2304] Lior Zemer, 'The Conceptual Game in Copyright' (2006) 28 *Hastings Communication and Entertainment Law Journal* 409, 413-14.
[2305] See generally, Norman Siebrasse, 'A Property Rights Theory of the Limits of Copyright' (2001) 51(1) *University of Toronto Law Review* 1; Mazumder, 'Information, Copyright and the Future' (n 396) 181–2.
[2306] Osborn 'The Limits of Creativity in Copyright' (n 747) 26.
[2307] Cases from 1997–2006 in the national courts of EU Member States, sourced from P Bernt Hugenholtz et al, 'The Database Right Case-Law Collection' (Web Page, 13 December 2006) *IViR Institute for Information Law, Faculty of Law*, University of Amsterdam <https://www.ivir.nl/database-right-case-law-collection/>; *ADV-Firmenbuch II*, Austrian Supreme Court [Oberste Gerichtshof], 28 May 2002; *ADV-Firmenbuch*, Austrian Supreme Court [Oberste Gerichtshof], 9 April 2002; *AG Rostock v Datenbankeigenschaft von Hyperlinksammlungen*, 49 C 429/99, Lower Court Rostock, [Amtsgericht], 20 February 2001; *Algemeen Dagblad et al v Eureka*, President District Court Rotterdam, [Arrondissementsrechtbank], 22 August 2000; *ANP v Novum*, Court of Appeal Amsterdam, [Gerechtshof], 21 July 2005; *ANP v Novum*, District Court Amsterdam, [Voorzieningenrechter], 11

November 2004; *Art Research & Contact v S Boas*, Belgium Supreme Court [Hof van Cassatie/Cour de Cassation], 11 May 2001; *Attheraces (UK) Ltd v The British Horseracing Board Ltd* [2005] EWHC 3015 (Ch); *Autonet v Promasy*, District Court Arnhem, [Voorzieningenrechter], 27 December 2004; *Baumarkt.de*, Higher Regional Court Düsseldorf, [Oberlandesgericht], 29 June 1999; *Berlin Online*, District Court Berlin, [Landgericht], 8 October 1998; *BHB Enterprises plc v Victor Chandler (International) Limited* [2005] EWHC 1074 (Ch); *Bolig.ofir.dk v. Home.dk*, Danish Maritime and Commercial Court, 24 February 2006; *Branchenbuch*, District Court Düsseldorf, [Landgericht], 7 February 2001; *Cadremploi v Keljob*, District Court Paris, [Tribunal de Grande Instance], 5 September 2001; *C-Compass*, Austrian Supreme Court, [Oberste Gerichtshof], 28 November 2000; *C-Villas*, Austrian Supreme Court [Oberste Gerichtshof], 10 July 2001; *De Telegraaf v NOS and HMG*, Netherlands Competition Authority [Nederlandse Mededingingsautoriteit, NMa], 10 September 1998; *De Telegraaf v NOS and HMG*, Netherlands Competition Authority, [Nederlandse mededingingsautoriteit, NMa], 3 October 2001; *Derpoet.de*, District Court Cologne, [Landgericht], 2 May 2001; *Dictionnaire Permanent des Conventions Collectives*, District Court Lyon, [Tribunal de Grande Instance], 28 December 1998; *eBay International AG*, District Court Berlin, [Landgericht], 27 October 2005; *Électre v TI Communication and Maxotex*, Commercial Court [Tribunal de Commerce], 7 May 1999; *E-mailadressdatenbank*, District Court [Landgericht], 23 April 2003; *Finn Eiendom AS and Finn.no AS v Supersøk AS and Ekko It AS*, Frostating Court of Appeal, 2 March 2005; *Finn Eiendom AS and Finn.no AS v Supersøk AS and Ekko It AS, Trondheim* District Court, 17 March 2006; *Fixtures Marketing Limited v Organismos Prognostikon Agonon Podosphairou AE* Single-Judge Court of First Instance, Athens [Monomeles Protodikio Athinon], 11 July 2002; *France Télécom v MA Editions*, Commercial Court Paris, [Tribunal de Commerce], 18 June 1999 ; *GFK and Stichting Nederlandse Top 40 v Van Oeffelen*, District Court Amsterdam, [Voorzieningenrechter], 30 June 2005; *Gratiz.nl*, Court of Appeal Leeuwarden [Gerechtshof], 23 July 2003; *Groupe Moniteur et al v Observatoire des Marchés Publics*, Court of Appeal Paris, [Cour d'Appel], 18 June 1999 ; *Harmony v De Ruijter*, District Court Arnhem, [Voorzieningenrechter], 4 April 2003; *Hit Bilanz*, Federal Supreme Court Germany, [Bundesgerichtshof], 21 July 2005; *IMS Health v PharmaVision*, President District Court Haarlem, [Arrondissementsrechtbank], 21 April 2000; *IMS Health v Pharma Internet*, 11 U 67/00, Court of Appeal Frankfurt, [Oberlandesgericht], 17 September 2002; *Jakata and Pierre M v EIP District Court Strasbourg*, [Tribunal de Grande Instance] 22 July 2003; *Jobsearch Ltd v Relational Designers Ltd* [2004] EWHC 661 (Ch); *Kammergericht v Vervielfältigung von Datenbankteilen*, 5 U 2172/00, Court of Appeal Berlin, [Kammergericht], 9 June 2000; *Kidnet v Babynet*, District Court Cologne, [Landgericht], 25 August 1999; *KPN v Denda International et al*, Court of Appeal Arnhem, [Gerechtshof], 15 April 1997; *KPN v Denda International et al*, District Court Almelo, [Arrondissementsrechtbank], 6 December 2000; *KPN v XSO*, President District Court The Hague, [Arrondissementsrechtbank], 14 January 2000; *La Sociéte Sonacotra v le Syndicat Sud Sonacotra District Court Paris*, [Tribunal de Grande Instance] 25 April 2003; *Les Éditions Néressis v France Télécom Multimédia Services*, District Court Paris [Tribunal de Grande Instance], 14 November 2001; *LG Berlin v Zulässigkeit von 'Deep Links'*, 16 O 792/00, District Court Berlin, [Landgericht], 30 January 2001; *LG München I v Elektronische Pressespiegel*, 21 O 9997/01, District Court Munich [Landgericht], 1 March 2002; *Linksammlung als Datenbank*, District Court Cologne, [Landgericht], 12 May 2000; *Mál og Menning hf v Landmælingum Íslands*, Supreme Court Iceland [Høyesterett], 19 September 2002; *Marktstudiën*, High Court Germany, [Bundesgerichtshof], 21 April 2005; *Mars v Teknowledge* [1999] EWHC 226 (Pat); *Medizinisches Lexicon I*, District Court Hamburg, [Landgericht], 12 July 2000; *Medizinisches Lexicon II*, Higher Regional Court Hamburg, [Oberlandesgericht], 22 February 2001; *Miller Freeman v Neptune Verlag*, District Court Paris, Tribunal de Grande Instance, 31 January 2001; *NationaleVacaturebank.nl v NVM*, District Court, The Hague, [Voorzieningenrechter], 21 July 2004; *Newsbooster.com*, District Court Copenhagen, [Byret], 16 July 2002; *NOS v De Telegraaf*, President District Court The Hague, [Arrondisementsrechtbank], 5 January 1999; *NOS v De Telegraaf*, Court of Appeal The Hague, [Gerechtshof], 30 January 2001; *NOS v De Telegraaf*, Netherlands Supreme Court, [Hoge Raad], 6 June 2003; *Nutzung von Datenbanken*, AZ: 6U 123/02, District Court [Landgericht], 30 October 2002; *NV Syllepsis v NV Wolters Kluwers Belgium*, Court of Brussels, 28 July 2000; *NVM v De Telegraaf*, Court of Appeal The Hague, [Gerechtshof], 21 December 2000; *NVM v De Telegraaf*, Netherlands Supreme Court [Hoge Raad], 22 March 2002; *NVM v De Telegraaf*, President District Court The Hague, [Arrondissementsrechtbank], 12 September 2000; *Oberlandesgericht*, 29 U 4008/02, Court of Appeal Munich, 10 October 2002; *Paperboy*, Federal Supreme Court Germany, [Bundesgerichtshof], 17 July 2003; *Pharma Intranet Information AG v IMS Health GmbH & Co OHG* [2005] ECC 12; *Presscorp*

the scope of the *EU Directive* has been applied to a wide variety of data and most collections of information would qualify for protection. The impact of this is that there has been heavy reliance upon CJEU interpretation to determine the scope of the *EU Directive*, as explored throughout Chapter 8:. If Australia were to implement a similar right, heavy reliance on the judicial interpretation of key terms and the scope of the *EU Directive* is also likely.

When the *EU Directive* was initially implemented in the EU, it was argued that, due to its broad scope, there was a risk of over-protecting collections of data, which could lead to 'fact monopolies' or enabling database owners 'to charge monopoly rents for sole-source or proprietary data'.[2308] This could restrict data access due to the establishment of stringent economic monopolies controlled by a select few.[2309] Additionally, it was argued that there remained a risk of the general over-protection of data itself. This constituted a process where protection was granted over facts and was a violation of the idea/expression dichotomy.[2310] However, recent narrow CJEU judicial interpretation of

---

v GoldNet Media, District Court Almelo, [Arrondissementsrechtbank], 28 December 2000; *PRLine v Newsinvest*, Commercial Court Nanterre, [Tribunal de commerce], 16 May 2000; *Publishers v Euroclip et al*, District Court Amsterdam [Arrondissementsrechtbank], 4 September 2002; *Quote Media and MTV v SBS*, District Court Amsterdam, [Voorzieningenrechter], 16 June 2005 and 28 July 2005; *Royal Mail Group Plc v i-CD Publishing (UK) Limited* [2004] All ER (D) 250 (Feb); *SARL News Invest v SA PR Line Court of Appeal Versailles*, [Cour d'Appel], 11 April 2002; *Sietech Hearing Limited v. Russell Borland, James Eley, Digital Hearing (UK) Limited*, Outer House, Court of Session, Scotland, 19 February 2003; *Spot (Cinebel.be) v Canal Numédia (Allocine.be)*, District Court Brussels, [Tribunal de Première Instance] 18 January 2002; *SPRL Noir d'Ivoire v SPRL Home Boutique*, Court of Appeal of Brussels, [Jurisprudence de Liège, Mons et Bruxelles] 7 December 2001; *Sté Tigest Sarl v Sté Reed Exposition France et al*, Court of Appeal Paris, [Cour d'Appel], 12 September 2001; *Stepstone*, District Court Cologne [Landgericht], 28 February 2001; *Stichting Vrije Recreatie v Vakantieboerderij.nl*, President District Court Zutphen [Arrondissementsrechtbank], 2 September 2003; *Süddeutsche Zeitung*, District Court Cologne [Landgericht], 2 December 1998; *Technos*, Court of Appeal Amsterdam, [Gerechtshof], 15 September 2005; *The Public Prosecutor v AB et al*, Court of Milan, Section III, n 5407, 9 August 2004; *Topware v KPN Telecom BV (NL-info-CD)*, District Court Almelo, [Rechtbank], 18 August 2004; *UNMS v Belpharma Communication*, District Court Brussels, [Rechtbank van Eerste Aanleg], 16 March 1999; *Urheberrechtsschutz von HTML-Quelltext*, Court of Appeal Frankfurt, [Oberlandesgericht], 22 March 2005; *Vermande v Bojkovski*, President District Court The Hague, [Arrondissementsrechtbank] 20 March 1998; *Wegener et al v Hunter Select*, Court of Appeal Leeuwarden [Gerechtshof], 27 November 2002; *Zoekallehuizen.nl v NVM* , District Court Arnhem, [Arrondissementsrechtbank] 16 March 2006; *Zoekallehuizen.nl v NVM*, Court of Appeal Arnhem, [Garrettson], 4 July 2006.

[2308] Hunsucker (n 287) 707.

[2309] Mark Davison, 'Sui Generis or Too Generous (n 321) 737; Reichman and Samuelson (n 133) 53–5. Also see J H Reichman, 'Legal Hybrids Between the Patent and Copyright Paradigms' (n 345) 2476; Von Simson (n 139) 766–68; Thomas and Dhar (n 345) 44.

[2310] European Commission, *First Evaluation of Directive 96/9/EC on the Legal Protection of Databases* (n 84) 23.

the right (discussed in 8.2) has clarified the scope of the *EU Directive* and has quietened these criticisms.

As of mid-2017, there were suggestions that the *EU Directive* had the capacity to negatively impede future open-data/open-access initiatives. This is a pertinent issue. One such inhibition of the database right has been cited as the availability of free information under the burgeoning open-data/open-access movement within Europe.[2311] This issue must be noted by Australia when considering possible implementation in light of the growing popularity of open-access regimes (see Chapter 10:).

A case study involving the interplay between the sui generis right and open data is illustrated by a 2013 French Administrative Tribunal ruling which held that digitalised public records (such as census records from the 1600–1800s) were protectable under the *EU Directive*.[2312] The database owners, the General Council of Vienne, submitted that they had spent eight years and more than €230,000 on the digitalisation of these documents. It was argued that the Council were entitled to reserve the exclusive right to distribute these civil records. The Tribunal agreed, applying database rights. In finding sui generis protection for this public record database, the owners were permitted to withhold its release, even though licensing payments had been offered for access. It has been suggested that other courts may follow the precedent established in this case, thereby stifling the European open-data movement, particularly in relation to digitalised documents.[2313] However, this decision was later reversed by the Council of State, who found that it was impermissible for a cultural service database producer to assert the database right under the *French IP Code* art L 342-1.[2314]

Another pertinent issue which should be carefully considered by Australia are incompatibilities with other data protection laws. For example, in Europe there are suggestions that the *EU Directive* and *the Directive on the Re-Use of Public Sector*

[2311] European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) 126–30.

[2312] *Notrefamille.com/Département de la Vienne* [Notrefamille.com v Department of Vienna] Tribunal administratif de Poitiers [Administrative Tribunal of Poitiers] 2ème chambre Jugement du 31 Janvier 2013 [Second Chamber Judgment of 31 January 2013] Record no. 1002347.

[2313] Guillaume Champeau, 'L'Open Data fragilisé par le droit d'auteur sur les bases de données, [Open Data Weakened by the Copyright in Databases]' (Web Page, 11 February 2013) *Numerama* <http://www.numerama.com/magazine/25038-l-open-data-fragilise-par-le-droit-d-auteur-sur-les-bases-de-donnees.html>.

[2314] *NotreFamille.com v Department of Vienna* (n 2312).

Information (‘*PSI*’)[2315] are incompatible.[2316] This is because it is possible for a public sector body to acquire a database right in a work which fulfils the criterion of substantial investment, even if it is funded publicly.[2317] If Australia were to implement such a right, a similar conflict may occur with Australian PSI laws. A solution to negate this tension in Europe has been for publicly funded databases to be placed in the open domain, through the compulsory use of CC licencing.[2318] Clearly, future clarification about this issue and possible amendment to clarify the role of the database right is needed in Europe. Chapter 10: shall examine Australian open access initiatives in greater depth.

Another argument against implementation is that the *EU Directive* is ‘fraught with ambiguities and insufficiencies’, which result in it failing to be an ‘optimum global model’ of database protection.[2319] In consideration of the context of the *EU Directive’s* implementation, it has been suggested that it was introduced as a hasty response to *Feist* as ‘a rather unbalanced compromise’.[2320] Additionally, it has been suggested that the *EU Directive* would be inappropriate for use in other jurisdictions extraneous to the EU, such as Australia, because the uncertainty of its provisions forces strong judicial interpretation, as evidenced by CJEU jurisprudence.

The overall EU judicial process has been labelled as being ‘too unchecked by institutional balancing mechanisms’,[2321] with concerns over the role the CJEU has played in shaping the *EU Directive’s* application.[2322] Although, comparing the intricacies of the EU legal system to Australia’s legal system is similar to comparing ‘apples to oranges’, it is still a valid argument to hypothetically consider how the right may be judicially interpreted if it were implemented in Australia. It can be seen that considerable weight has been placed

---

[2315] *Directive 2003/98/EC on the Re-Use of Public Sector Information* [2003] OJ L 345/90, revised by *Directive 2013/37/EU of the European Parliament and of the Council of 26 June 2013 amending Directive 2003/98/EC on the Re-Use of Public Sector Information Text with EEA Relevance* [2013] OJ L 175/1 (‘*PSI*’).

[2316] See generally, Estelle Derclaye, ‘Does the Directive on the Re-use of Public Sector Information Affect the State’s Database Sui Generis Right?’ in J Gaster, E Schweighofer and P Sint (eds), *Knowledge Rights – Legal, Societal and Related Technological Aspects* (Austrian Computer Society, 2008) 137.

[2317] European Commission, ‘Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases’ (n 85) 115–18.

[2318] Ibid 129.

[2319] Thakur (n 140) 102.

[2320] Paul Marrett, *Marrett: Intellectual Property Law: Concise Course Texts* (Sweet and Maxwell, 1996) 212.

[2321] C D Freedman, ‘Should Canada Implement a New Sui Generis Database Right?’ (2002) 13(1) *Fordham Intellectual Property, Media and Entertainment Law Journal* 36, 88.

[2322] See Chapter 8:.

upon the judicature to interpret the broad provisions of the *EU Directive*. The courts ultimately determine what databases fall inside and outside of protection. In summation, the above theoretical criticisms levelled at the *EU Directive* support an overall finding against implementing a sui generis database right in Australia.

9.5 How the Hypothetical Application of the Database Right in Australia Would Compare to its Application in the EU

This section will use two graphs as primary springboards for considering the hypothetical situation of implementing an Australian database right and how its application would likely compare to its application in the EU. Chapter 8: examined the judicial interpretation of the *EU Directive* in cases that were referred by the UK to the CJEU. Figure 9.1 demonstrates the judicial interpretation of copyright subsistence under the *EU Directive* with *Infopaq* as the seminal case. **The current EU originality standard requires a work to be original by virtue of being the 'author's own intellectual creation' and they must demonstrate their 'personal touch', through their 'free and creative' choices.** With its emphasis on an author's creative will; this has strong undertones of continental Hegelian philosophy. In considering possible Australian implementation of the *EU Directive*, there is a distinction to be made from this originality standard, because it differs to the Lockean labour theory which traditionally underpins Australian law (as discussed at 2.1).

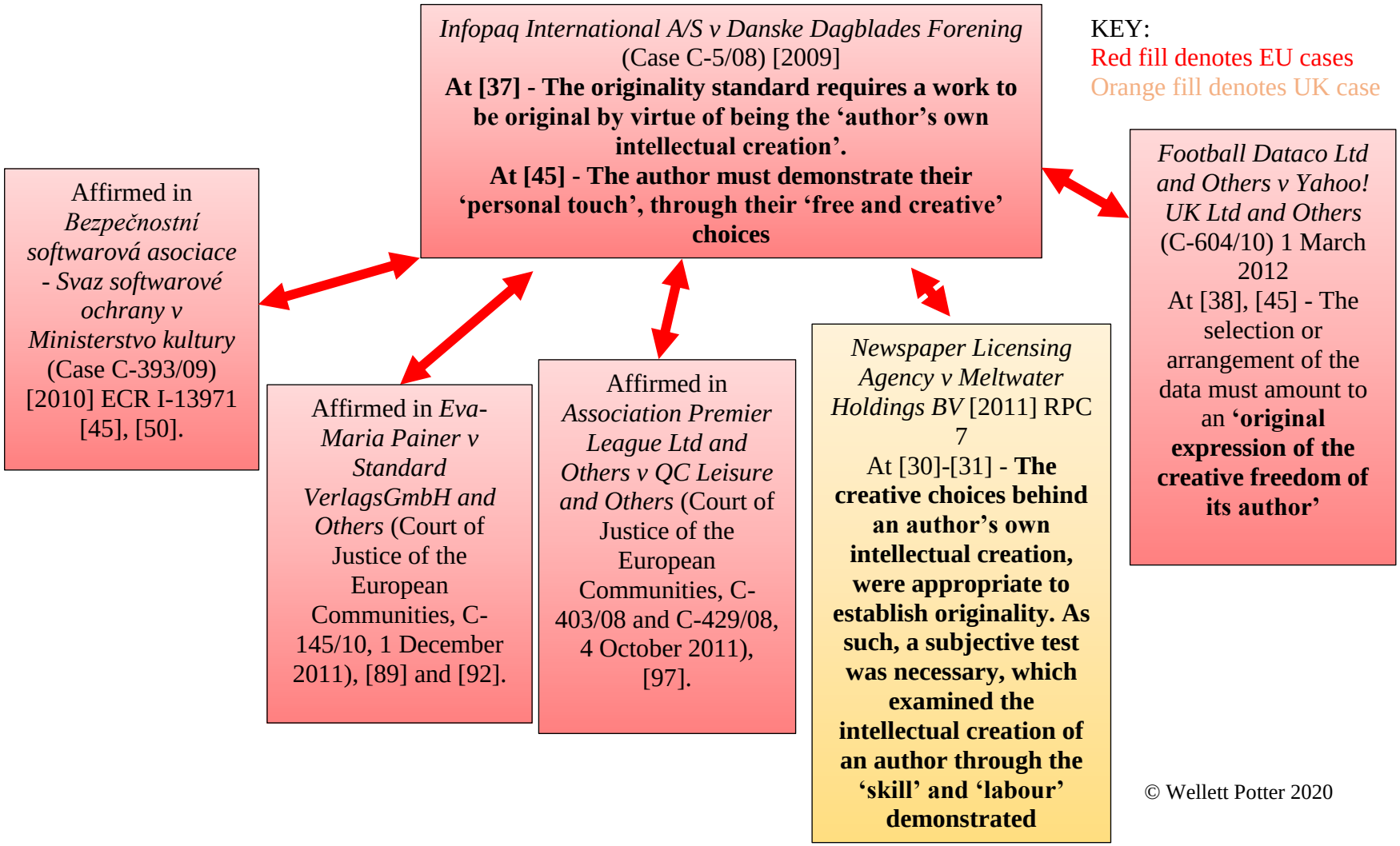

Figure 9.1: The CJEU Interpretation of Copyright Subsistence Under *the Directive*

The hypothetical notion of implementing a new database right in Australia, generates the question as to how far the courts would be willing to interpret this originality standard with its Hegelian undertones. With such a strong basis in Lockean philosophy it seems less likely that Australian courts would ask whether an author demonstrated their 'personal touch' through their 'free and creative choices' in determining originality.

It can, however, be seen that the UK, which has a rich history of the SOTB standard like Australia, revised their originality standard in *Meltwater*. **There, the originality standard was expressed as being the creative choices behind an author's own intellectual creation, involving a subjective test through demonstrated 'skill' and 'labour'.**[2323] In this way, the UK modified the SOTB standard while also ensuring conformity with the EU community *acquis*. In implementing the *EU Directive*, perhaps Australian courts would interpret the originality standard in a similar way.

In Australia, however, it may be that the re-orientated post-*IceTV* standard, which espouses **'independent intellectual effort',** is already similar to or even reconcilable with the European originality standard for the following reasons:

- Both standards focus upon an author's intellect; and
- Both standards focus upon the creative choices which underpin the decisions behind reducing a work to tangible form.

Due to these major similarities in both originality standards, Australian courts may come to similar conclusions as UK courts have in relation to the accepted standard of originality. It is for this reason that it can be argued that in examining the similarities between the EU and Australian originality standards post-2009, quasi-global harmonisation has occurred across several countries for some categories of copyright-protectable works, including databases.

Also, although CJEU precedent is not binding upon Australian law, the fact that there is well over ten years' worth of strong EU precedent to draw upon would be useful guidance for the Australian judicature in interpreting a database right. Clearly, to fall under the right, a database must (1) be a collection of independent works, data or other.

[2323] *Meltwater* (n 1871) [30]-[31].

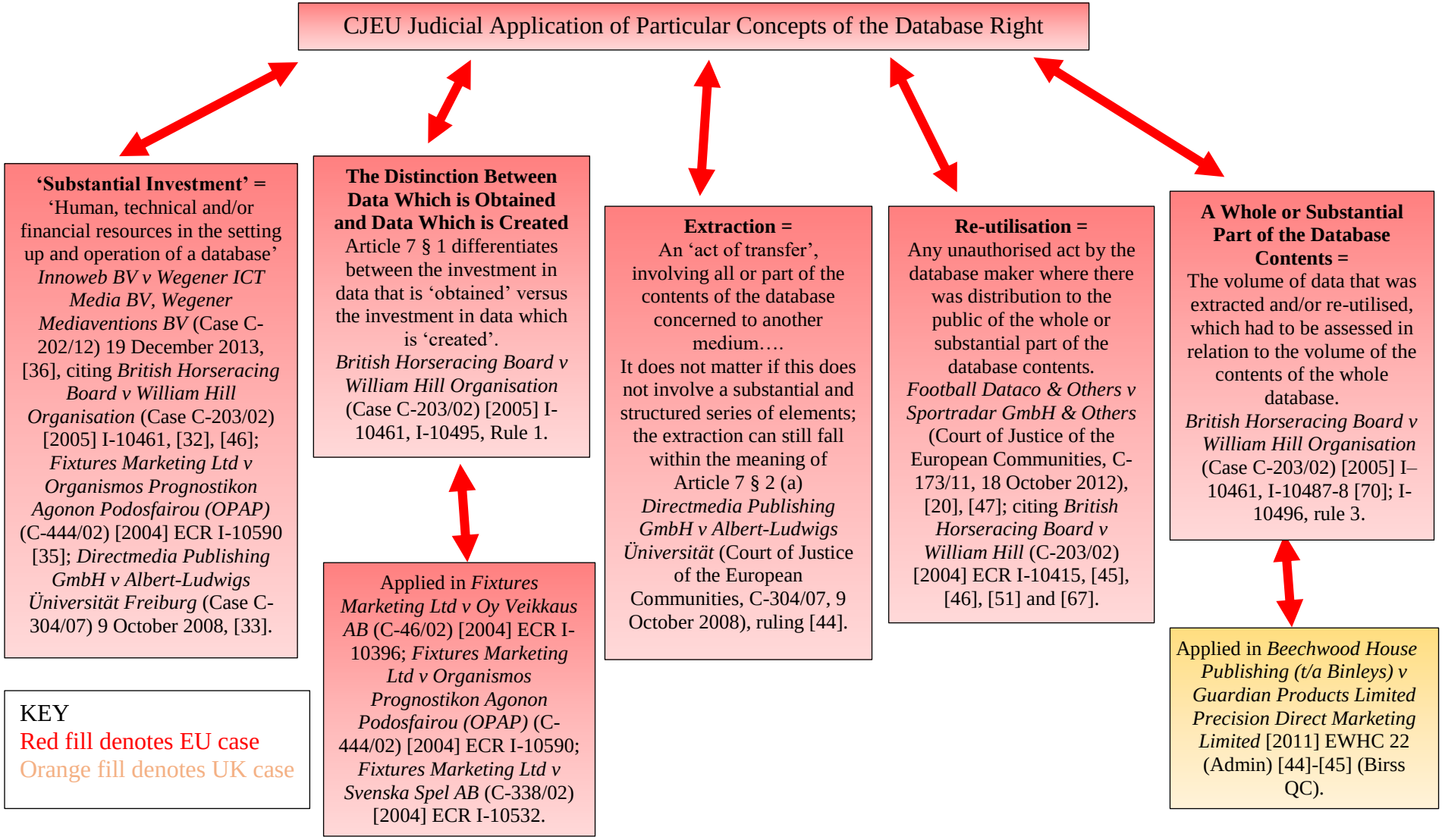

Figure 9.3: CJEU Narrow Interpretation of the Database Right **© Wellett Potter 2020**

materials which are (2) arranged in a systematic or methodical way and (3) individually accessible by electronic or other means and (4) the result of qualitatively and/or quantitively a substantial investment in either the obtaining, verification or presentation of the database contents.[2325]

The CJEU has interpreted the scope of the right narrowly and key phrases can be represented in Figure 9.2. When considering CJEU interpretation in Australia, it must be remembered that there has been minimal focus upon what constitutes a 'substantial investment'. Rather, this is decided on a factual basis. The CJEU has defined this notion as 'the human, technical and/or financial resources in the setting up and operation of a database'.[2326] A precise threshold or quantifiable assessment of this expression is impossible due to the diversity of information and the differing human involvement, technical methods and financial resources involved in various databases.

It is notable that there is a distinction between the investment in data which is obtained/verified and data which is created. As affirmed in *Fixtures*, the database right will only vest in data which is obtained and verified as opposed to being created.[2327] Depending on the type of information and database in question, there is, however, ambiguity as to what constitutes investment in creation versus investment in obtaining/verifying. Australian courts could rely on the approach from the UK *Sportradar* case, where the court distinguished between creating and recording data: 'a scientist who takes a measurement would be astonished to be told that she was creating data. She would say she is creating a record of pre-existing fact, recording data, not creating it'.[2328]

An extraction or 'act of transfer' is defined as involving all or part of the contents of the database to another medium. Of note to Australian courts is that there is flexibility in what is extracted or transferred – the information need not involve a substantial and structured series of elements.[2329] Contrastingly, the notion of re-utilisation is a stricter test, involving any unauthorised act by the database maker where there was distribution to the public of

---

[2325] *EU Directive* (n 19) arts 1 § 2, 7 § 1.
[2326] *Innoweb BV v Wegener ICT Media BV, Wegener Mediaventions BV* (n 83) [36], citing *BHB* (n 83) [32], [46]; *Fixtures Marketing Ltd v Organismos Prognostikon Agonon Podosfairou ('OPAP')* (n 83) [35]; *Directmedia* (n 83) [33].
[2327] *Fixtures Marketing Trio* (n 1932).
[2328] *Football Dataco Ltd and Others v Sportradar GmbH and Others* [2011] (n 79) [39] (Jacob LJ).
[2329] *Directmedia* (n 83) ruling [44].

the whole or substantial part of the database contents.[2330] The Australian judicature could refer to *BHB* for the definition of 'a whole or substantial part of the database contents' to be the volume of data that was extracted and/or re-utilised, which had to be assessed in relation to the volume of the contents of the whole database.[2331] Having discussed these points, the next section will summarise the lessons that Australia can learn from the EU and offer the final recommendation, which is that there should not be a sui generis database right implemented in Australia at this time.

9.6 Final Recommendation: No Australian Sui Generis Database Right

In consideration of the lessons learned from the EU and whether Australia should implement a database right, the following conclusions are drawn. Firstly, the primary reason for Australian implementation is economic. The economic production of some private databases, such as those owned by the Telstra Corporation, remains high. Because of this, some producers seek protection under copyright to protect their assets from parasitic behaviour and subsequent economic loss. This, combined with the simplicity and speed of copying and transferring data, leaves some database assets vulnerable to low-cost parasitic behaviour and economic exploitation. A sui generis regime, theoretically, has the potential to be applicable to economically valuable databases, such as those that fell outside of copyright in *Telstra* and *Telstra Appeal*. It would incentivise some producers for the economic value of their information and reward the expense, effort and time invested in creation, while permitting insubstantial taking. Hypothetically, this ensures data creation integrity and lays clear foundations about protecting data and generating profits.

However, from an empirical economic perspective the actual benefits of the *EU Directive* in the EU have largely been questionable. The fact remains that since the *EU Directive's* implementation, there was an insignificant economic increase in the production of European databases. Twenty-two years on from implementation, database production had remained steady but has not flourished. If the *EU Directive* had been economically successful, there ought to have been a significant increase in production, because database

---

[2330] *Football Dataco & Others v Sportradar GmbH & Others* (n 1991), [20], [47] citing *BHB* (n 83) ECR I-10415, [45], [46], [51] and [67].
[2331] *BHB* (n 83) I-10487-8 [70]; I-10496, rule 3, applied in *Beechwood* (n 2159) [44]-[45] (Birss QC).

producers should have found the legal underpinnings of the *EU Directive* highly conducive to the protection of their work, which would have provided economic stimulation and promotion of their work.

Furthermore, both empirical evaluations suggested an overall lack of proven effectiveness of the sui generis right. This substantially weakens support for the implementation of a similar regime within Australia. There were several reasons for this:

- There was little documented evidence to suggest that the implementation of *the Directive* encouraged further innovation (and therefore economic investment) by database producers. It did not appear to encourage database producers to engage in practices that they would not otherwise have been able to without its implementation. This suggests that the *EU Directive* was ineffective in addressing the underlying legal purposes and competing interests of producers and users for which it was implemented.

- Empirically, it is unclear whether the *EU Directive* promotes or hinders competition of investment within the database industry. This makes it difficult to measure the effects of the *EU Directive* upon the balance between incentive and access and authors/users and weakens support for its Australian implementation.

- Although the first official evaluation cast doubt over the longer-term effects of the *EU Directive*, the second evaluation in conjunction with the DSM has found that no policy changes are currently warranted. While this is a neutral finding in support of its implementation, the future monitoring of how the *EU Directive* interacts with new laws will be necessary, particularly relating to PSI and open-access initiatives. This is a pertinent issue which should be considered by Australia.

- While the *EU Directive's* implementation was described as providing a 'one-time boost'[2332] to the EU database economy, there were considerable difficulties in quantifying a substantial positive economic impact on the industry. This led scholarly commentators to question: (1) the point of implementing such a directive in the first place; and (2) the viability of amending and/or withdrawing

[2332] Maurer, Hugenholtz and Onsrud (n 2298) 790.

the right altogether,[2333] as evidenced by the evaluations. The lack of convincing evidence warrants caution in the notion of implementing the *EU Directive* in Australia, particularly when the primary purpose and benefit would be to economically protect databases.

Secondly, when examining the standard of originality established under the *EU Directive*, it can be seen that it is very similar to what already exists in Australia post-*IceTV*. This fact considerably weighs against implementing the *EU Directive*.

Thirdly, the scope of the database right has been considerably narrowed by the CJEU. Hypothetically applying such established precedents to an Australian database case such as *Telstra* or *Telstra Appeal*, the result may remain that the database right remains inapplicable to such works. This is because the CJEU have ruled that the investment which has gone into these types of databases has been demonstrated in the creation, rather than the obtaining, of the data.[2334] *BHB* precedent suggests that Australian courts could also find that such databases do not constitute a relevant investment for the purposes of obtaining and verifying the contents, under a similar provision to art 7 § 1. Therefore, despite implementing a similar right in Australia, database protection may ultimately fail.

Ergo, the following conclusions are drawn:

- In consideration of the lack of proven economic effectiveness of the *EU Directive*, there is unlikely to be a significant economic benefit for producers from the adoption of sui generis protection within Australia.

- Despite the implementation of sui generis protection, the fact remains that some economically valuable databases would fall outside of the right, as seen in the EU and with sole-source databases. The implementation of such a broad regime would be an overreaction to the issues currently raised by the judicial application of Australian copyright law to databases. Such a right would remain an extreme and inappropriate response to the current lack of copyright protection that some databases currently face.

[2333] See, eg, Ibid 790.
[2334] *BHB* (n 83) I-10495, Rule 1.

- The introduction of sui generis protection would likely generate confusion amongst Australian database producers and others, similar to the reported confusion expressed in the EU.[2335] There are ambiguities surrounding several critical issues pertaining to the non-copyright aspects of protection. These include: the precise time that a database is considered to be completed and when the duration of the right begins; what constitutes a 'substantial change' so as to permit the duration of the right to be renewed; and whether the right is potentially perpetual.

- While the implementation may economically cater for databases that would currently fall outside of copyright protection, the apparent advantages of implementation do not outweigh the disadvantages. The introduction of such a regime is therefore unjustifiable.

- Such a regime would be too rigid because it has the capacity to extend a monopoly to database products, thereby provoking litigation. There is a substantial risk that an Australian database right would provide excessive protection and spur more litigation. This could open the floodgates for unnecessary litigation regarding the future creation and use of data, as has been demonstrated by the multitude of cases that have come before national EU courts.

- Weight should be given to the potential for such a right to negatively impede future data protection laws and to negatively impede upon innovation, particularly with the pace at which technology is moving.

- As a last-resort and in consideration of the alternative option of implementing a sui generis right, it is recommended that this be an opt-in initiative rather than automatically subsisting in all databases which meet the criteria.

For the reasons discussed above, it is concluded that, currently, Australia should not follow in the EU's footsteps by introducing sui generis database protection. As PART THREE has evaluated, the lessons that can be learned from the EU regarding issue of sui generis database protection for Australian databases and has concluded against this, Part

[2335] European Commission, 'First Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 84) 21; Kaye (n 2200).

FOUR will examine the issue of open access. This is important because, in recent years, with the shift away from outright ownership of works towards access-based consumption models, utilisation of open-access models has grown. PART FOUR shall evaluate the application of open-access schemes to Australian produced databases.

PART FOUR – DATABASES AND OPEN ACCESS INITIATIVES IN AUSTRALIA

CHAPTER 10: DATABASES AND OPEN ACCESS INITIATIVES IN AUSTRALIA

> 'An old tradition and a new technology have converged to make possible an unprecedented public good.'
>
> The Budapest Open Access Initiative, 2002.[2336]

10.1 How Open Access Differs to Traditional Publishing Practices

This chapter shall examine the sixth issue posited for analysis:

> 6. What lessons can be learned from current open access initiatives if applied to Australian databases?

To begin this analysis, it is necessary to reinforce some guiding principles about data and traditional publishing. As stated by a recent Australian data policy report, no one 'owns' data.[2337] The accuracy of this statement has been assumed for the purposes of advancing this study. Although data is not owned, in some situations copyright protects the expression of data and, therefore, ownership may be asserted over a database, data output or dataset.

In the past, it has been standard practice for authors or producers of creative works (including databases as compilations) in fields external to academia and science to be remunerated for publication through royalties. This business model relies on the user paying for access, with only a small percentage of publishing profits going to the author. This model has historical origins dating back hundreds of years, as discussed in Chapter 4:. The author's minimal incentivisation and control of their work in lieu of the publisher as an intermediary has led this being cited as a weakness of the copyright system.[2338] One notable exception to this model is open source software,[2339] but setting that aside,

---

[2336] Leslie Chan et al, 'Read the Budapest Open Access Initiative', *Budapest Open Access Initiative*, (Web Page, 14 February 2002) <https://www.budapestopenaccessinitiative.org/read>.
[2337] Australian Government Productivity Commission, (n 6) 65.
[2338] Jessica Litman, 'Real Copyright Reform' (2010) 96(1) *Iowa Law Review* 1, 8–25.
[2339] See Aultman (n 307) 397–8. Also see generally, Andrés Guadamuz González, 'Open Science: Open Source Licenses in Scientific Research' (2006) 7(2) *North Carolina Journal of Law and Technology* 321; Dan Hunter, 'Culture War' (2005) 83 *Texas Law Review* 1105, 1127; Juho Lindman and Linus Nyman, 'Businesses of Open Data and Open Source: Some Key Similarities and Differences' (2014)

economically, it is the revenue generated from the sale of the copies of works which finance the publishing, with a small royalty to incentivise the author.

To publish the work, an author typically either assigns their rights to a publisher or licences their work to them. Assignment involves the complete transfer of copyright, usually in exchange for payment and has been the preferred option for publishers. Under *The Act* s 196, an author may partially or fully assign their work to another.[2340] To be effectual, an assignment must be (1) in writing[2341] and (2) signed by/on behalf of the assignor.

Alternatively, through licencing, the author gives permission to the publisher to exercise one or more of their exclusive rights pertaining to a work. This does not transfer ownership of the work to the publisher but merely grants permission to exercise some rights and this is why it is not normally preferred by publishers. Licencing can be exclusive or non-exclusive. An exclusive licence is to the exclusion of the author - a licencee (licence recipient) is the only party who can utilise the work in accordance with the licence terms.[2342] Whereas, a non-exclusive licence permits the exercising of one or more of the author's rights and is not to the exclusion of the author.[2343]

Over the last 20, the Open Access (OA) movement has begun to challenge these traditional publishing practices (the use of assignment or licencing and the user-pay model). Every year, more Australian-produced works, including databases, data output and datasets, are instead being licenced through OA initiatives. OA licences contain a higher degree of permissiveness for users in the scope of rights permitted and exceptions pertaining to the access and reuse of works.[2344]

The Technology Innovation Management Review 12; Narendran Thiruthy, 'Open Source: Is It an Alternative to Intellectual Property?' (2017) 20 *Journal of World Intellectual Property* 68.

[2340] *The Act* (n 168).

[2341] Ibid s 196(3).

[2342] Brian Fitzgerald et al, 'Oak Law Project Report No 1: Creating a Legal Framework for Copyright Management of Open Access Within the Australian Academic and Research Sector' (Report for the Department of Education Science and Training [DEST], 2006) 44.

[2343] Ibid.

[2344] OECD, 'Legal Aspects of Open Access to Publicly Funded Research' in *Enquiries into Intellectual Property's Economic Impact*, (Organisation for Economic Co-operation and Development Publication, 2015) 373, 376.

OA is a global movement where both public and privately funded works, unimpeded by access barriers, are freely distributed via the internet.[2345] OAWs are published works and they can include books, book chapters, (peer reviewed/non-peer reviewed) journal articles, conference presentations/PowerPoint slides, theses, music, artistic works, films and associated data output, databases or datasets.[2346] The next section shall discuss the authoritative definition and characteristics of an OAW and explain its relationship to copyright.

10.1.1 What is an Open Access Work and What is its Relationship to Copyright?

There remains considerable academic debate over an authoritative definition of an OAW.[2347] Simply stated, the characteristics of an OAW is that it is 'digital, online, free of charge, and free of most copyright and licensing restrictions; for example, the exclusive rights of an author to reproduce the work or communicate it to the public.'[2348] The distinction is that OAWs remove most permissions barriers, thereby granting freedom of access to read and reuse.[2349] The only condition attached to a work under an OA model is that it must be universally free to access. Any further conditions attached to reuse are usually outlined under open licencing models.

An OAW is classified as a work which is distributed through any type of open access licencing system. It may exist in an online or offline environment but dissemination and access are often promoted online. For the purposes of this study, the focus will be on online OAWs. The major difference between a work under which copyright is asserted and an OAW lies in the fewer restrictions which are placed on accessing and using an OAW. Another difference lies in the underlying notion of the OAW being 'freely' available. 'Free' in this context pertains to the user not being required to pay a licence accessibility or usage fee. It should be noted, however, that in order to access online

---

[2345] Julie L Kimbrough and Laura N Gasaway, 'Publication of Government-Funded Research, Open Access and the Public Interest' (2016) 18(2) *Vanderbilt Journal of Entertainment and Technology Law* 267, 269.

[2346] Victoria Stodden, 'Applying the Creative Commons Philosophy to Scientific Innovation' (Paper presented at Acesso Livre à Informação Científica, Reitoria UNL - Campolide, Lisbon, 11 February 2010).

[2347] Heather Piwowar et al, 'The State of OA: A Large-Scale Analysis of the Prevalence and Impact of Open Access Articles' (2018) *PeerJ* 6:e4375, 3.

[2348] Suber (n 57) 4.

[2349] Ibid 6.

OAWs, considerable economic investment in the online technical infrastructure is still required, such as hardware, software and networks.[2350] Time and effort are still invested in the creation of such works, although the author or those involved do not receive any economic remuneration for their investment. Economic investment, therefore, continues to underpin the work, albeit payment to access is not required from the user/subscriber.[2351]

As previously stated, being released as a 'free' work results in the author/owner of the work forgoing economic remuneration in lieu of allowing access and reuse to all. A major philosophy underpinning OAWs is promoting knowledge in the public interest, with underlying principles being (1) the enriching of education, more balanced equality in education; (2) the dissemination and utility of knowledge; (3) promotion of democracy/citizenship;[2352] and (4) the amalgamation and ultimate advancement of humanity.[2353] These principles are initiated through a fundamental tenet of the movement, which is unimpeded access, and this is achieved via free online distribution.[2354]

The OAW movement evolved as a response to the traditional distribution model of copyright provoking an ever-increasing 'permissions culture',[2355] involving the 'all rights reserved' approach from the early 1990s onwards. This approach is underpinned by the philosophical justifications for protecting IP: the authorial incentive and economic theories,[2356] as explored at 2.1. As discussed, these theories are predicated on the notion that the work in question is excludable and rivalrous, which justifies copyright protection as it stands.[2357] Under an economic theory of property rights, such rights exist to

---

[2350] John Willinsky, *The Access Principle: The Case for Open Access to Research and Scholarship* (Massachusetts Institute of Technology, 2006) xii.
[2351] Ibid.
[2352] Alexander Dimchev, *To Libraries, With Love – The Library-Information Policy of Bulgaria, 1989-2013* (St Kliment Ohridski University Press, 2013) 105.
[2353] Chan (n 2336).
[2354] Fitzgerald et al, 'Oak Law Project Report No 1' (n 2342) 87.
[2355] Terry Hart, 'License to Remix' (2016) 23(4) *George Mason Law Review* 837, 837; Rachel M Smith, 'Why Can't My Waiter Sing Happy Birthday: The Chilling Effect of Corporate Copyright Control' (2016) 56(3) *IDEA: The Journal of the Franklin Pierce Center for Intellectual Property* 399, 403–9.
[2356] Also see James Boyle, 'Cruel, Mean or Lavish? Economic Analysis, Price Discrimination and Digital Intellectual Property' (2000) 53(6) *Vanderbilt Law Review* 2007, 2012; Mark A Lemley, 'The Economics of Improvement in Intellectual Property Law' (n 1513) 993.
[2357] Carol M Rose, 'The Comedy of the Commons: Custom, Commerce and Inherently Public Property' (1986) 53(3) *The University of Chicago Law Review* 711, 711–12.

internalise benefit and harm and are best understood whenever technological or market changes affect costs and benefits.[2358]

Applying this in the present time, the status quo has been that when copyright subsists in a database, an authorial monopoly right vests, which, in-turn, imposes an economic loss on all but the author through exclusion. As stated at 2.3.1, however, presently the internet age challenges the authorial monopoly right paradigm in works such as databases because most are non-excludable, non-rivalrous and ubiquitous. When applied to copyright, these qualities weaken traditional underlying justifications such as the need for monopoly rights on these works. It raises questions as to whether stronger future IP protection is truly warranted, or whether it would lead to over-protection of databases. With the continual strengthening of copyright, there is a considerable risk of restricting access to information and violating the idea/expression dichotomy.[2359]

10.1.2 The Link Between the OA Movement and the Concept of the Commons

In response to these issues, the OA movement reflects a strong nexus to the modern concept of the commons, which has its underlying philosophical origins in the Roman law concept of *res publicae*.[2360] This permitted the public to legally access an item and rendered its legal nature incapable of ownership, despite is capacity to be physically appropriated.[2361] Rather, it was desirable in the public interest for such a non-excludable item to be publicly accessible via the commons.[2362]

There are notable parallels between the historical enclosure of common land and modern developments in technology and IP, with one scholar labelling the current situation 'the enclosure of the intangible commons of the mind'.[2363] It is interesting that the notion of public or private benefit through access or exclusion to property can be examined through the analogy of the 400-year history of the English common land enclosure movement.

[2358] Harold Demsetz, 'Towards a Theory of Property Rights' (1967) 57(2) *American Economic Review* 347, 350; James Krier, 'Evolutionary Theory and the Origin of Property Rights' (2009) 95 *Cornell Law Review* 139, 139–43.

[2359] AJ Van der Walt and M du Bois, 'The Importance of the Commons in the Context of Intellectual Property' (2013) 24 *Stellenbosch Law Review* 31, 34; Reichman and Uhlir (n 13) 324.

[2360] Van der Walt and du Bois (n 2359) 32.

[2361] Ibid.

[2362] Kevin Gray, 'Property in Thin Air' (1991) 50(2) *Cambridge Law Journal* 252, 253–4.

[2363] James Boyle, *The Public Domain: Enclosing the Commons of the Mind* (Yale University Press, 2008) 45.

Land that had historically been inadequately managed through common ownership or open access was instead privatised, with centralised management.[2364] The theory behind this change was that the public tended to waste the resources they were given, through over-or-underuse.[2365] The privatisation of land use resulted in gains and was touted as being successful in the public interest because resources were more effectively used and there were more incentives for investment.[2366]

However, in 1968, an article explored the negative environmental effects of the use of the commons (land, water, natural resources) through over-population.[2367] Suggested solutions pertained to morality.[2368] The article prompted other scholars to subsequently examine why it was human nature to deplete the commons and how this results in unexpected surprises, which may be negative for tangible resources but positive for intangible ones.[2369] The 'tragedy of the anticommons' theory was advanced, where it was found that no party had a right to use property because several parties had the equal right to preclude others from it.[2370] Conversely, the 'comedy of the commons' theory was also advanced, where it was propounded that some types of property should be made public[2371] to meet needs or trust.

Later, the positive benefits of commons usage were explored and were found to include the creation of group-based property,[2372] which, interestingly, can be analogised with the concept of 'citizen sourcing' in the creation of OAWs.[2373] There are, however, those who caution against 'collective ownership' and collaborative production, who argue that the cessation of rewarding individual authors will lead to the demoralisation of spirit.[2374]

[2364] Ibid 42-4.
[2365] Rose, 'The Comedy of the Commons' (n 2357) 712.
[2366] Boyle, *The Public Domain* (n 2363) 44.
[2367] Garrett Hardin, 'The Tragedy of the Commons' (1968) 162(3) *Science* 1243. Also see generally, H Gordon Scott, 'The Economic Theory of a Common-Property Resource: The Fishery' (1954) 62(2) *The Journal of Political Economy* 124.
[2368] Garrett Hardin, 'The Tragedy of the Commons' (1968) 162(3) *Science* 1243, 1245–8.
[2369] Carol M Rose, 'Surprising Commons' (2014) 6 *Brigham Young University Law Review* 1257, 1266–70
[2370] Michael A Heller, 'The Tragedy of the Anticommnons: Property in the Transition from Marx to Markets' (1998) 111(3) *Harvard Law Review* 621, 624–6; Dan Hunter, 'Cyberspace as Place and the Tragedy of the Digital Anticommons' (2003) 91(2) *California Law Review* 439, 444;
[2371] Rose, 'The Comedy of the Commons' (n 2357) 713.
[2372] Rose, 'Surprising Commons' (n 2369) 1277–8.
[2373] Marcel Bogers, Henry Chesbrough and Carlos Moedas, 'Open Innovation: Research, Practices, and Policies' (2018) 60(2) *California Management Review* 5, 5.
[2374] See generally, Tracy Reilly, 'Copyright and the Tragedy of the Common' (2014) 55 *IDEA: The Intellectual Property Law Review* 105.

Others, however, argue that intangible goods should be treated differently because they do not have scarcity characteristics, nor can they be depleted to the extent that tangible goods can,[2375] particularly when there is a well-balanced IP regime in place.[2376] This challenges the notion of incentivisation under Lockean jurisprudence.[2377] For an OAW author, the remuneration for creating such works is not economic but rather fun or creative satisfaction,[2378] or the chance to contribute to a new form of digital folk culture.[2379]

The underlying philosophy of the benefits of the commons was subsequently espoused by those who were developing the OAW movement.[2380] From a social and economic perspective, contradictory tensions also spurred the establishment of OAWs. The factors which led to these developments and some relevant history pertaining to the movement will be discussed in the next section.

10.2 Relevant History of the OAW Movement

In the early 1990s, publishing (particularly academic journal publishing) was becoming exponentially expensive,[2381] while the digital publishing industry was rapidly expanding and becoming more affordable for users via internet dissemination.[2382] In response to restrictions imposed by copyright laws, the darknet – secure and anonymous peer-to-peer file-sharing networks – had been established.[2383] Concurrently, tertiary education was expanding in low-and-middle income countries, the internet was developing, and information-sharing was beginning an evolution,[2384] a trend which continues.[2385] User-

---

[2375] Rose, 'Surprising Commons' (n 2369) 1270-1.
[2376] Van der Walt and du Bois (n 2359) 35–6.
[2377] See generally, Christopher Jon Sprigman, 'Copyright and Creative Incentives: What We Know (and Don't)' (2017) 55(2) *Houston Law Review* 451.
[2378] Sean Pager, 'Making Copyright Work for Creative Upstarts' (2015) 22(4) *George Mason Law Review* 1021; 1038–41; Sean A Pager, 'Does Copyright Help or Harm Cultural Diversity in the Digital Age?' (2019) 32 *Kritika Kultura* 397, 410–11; Rose, 'Surprising Commons' (n 2369) 1273.
[2379] Benkler, *The Wealth of Networks* (n 37) 15.
[2380] Rose, 'Surprising Commons' (n 2369) 1257–8.
[2381] Michael W Carroll, 'The Movement for Open Access Law' (2006) 10(4) *Lewis and Clark Law Review* 741, 748.
[2382] Willinsky, *The Access Principle* (n 2350) xiii.
[2383] Jessica A Wood, 'The Darknet: A Digital Copyright Revolution' (2009) 16(4) *Richmond Journal of Law and Technology* 1, 1–4.
[2384] Dan Hunter, 'Open Access to Infinite Content or "In Praise of Law Reviews"' (2006) 10(4) *Lewis and Clark Law Review* 761, 768.
[2385] Jessica Edmundson and Elizabeth Townsend Gard, 'Conversations with Renowned Professors and Practitioners on the Future of Copyright' (2011) 14 *Tulane Journal of Technology and Intellectual Property* 1, 45–6.

generated content was becoming popular though online platforms which promoted collaboration and content-sharing.[2386] Conversely, libraries, research and cultural institutions[2387] were also looking to digitise their collections and make their heritage collections freely available for non-commercial online use.[2388]

In the academic world, a handful of publishers (eg Elsevier, Nature, Sage, Springer, Taylor & Francis, Wiley) held a monopoly in market power.[2389] Paid subscriptions to publishing initiatives were dropping rapidly, due to increased licensing prices, driven by profit-maximising. These factors were reducing the impact of scholarly publishing and posing a considerable barrier to the general accessibility of works and, therefore, knowledge.[2390]

In response to this, there was growth in informal copying and sharing practices to access educational materials in most countries.[2391] 'Negative space' initiatives were blooming.[2392] Peer-to-Peer file sharing had exploded, with 2003 being a year of substantial litigation for the recording industry in the US.[2393] There was additional concern within the scientific community about the extent to which IP laws were being used counterproductively, particularly as bioinformatics expanded globally.[2394] Such counterproductive practices included restricting access to important scientific data,

---

[2386] Juho Hamari, Mimmi Sjöklint and Antti Ukkonen 'The Sharing Economy: Why People Participate in Collaborative Consumption' (2016) 67(9) *Journal of the Association for Information Science and Technology* 2047, 2048.

[2387] Andrew T Kenyon, and Robin Wright, 'Whose Conflict? Copyright, Creators and Cultural Institutions' (2010) 33(2) *University of New South Wales Law Journal* 286, 289.

[2388] See, eg, Denise Troll Covey, *Acquiring Copyright Permission to Digitize and Provide Open Access to Books* (Digital Library Federation Council on Library and Information Resources, 2005) 1; Dimitrios K Tsolis, Spyros Sioutas and Theodore Papatheodorou, 'Copyright Protection and Management of Digital Cultural Objects and Data' (Paper presented at 2008 Annual Conference of CIDOC, Athens, Greece, 15-18 September 2008).

[2389] Lisa Matthias, Najko Jahn and Mikael Laakso, 'The Two-Way Street of Open Access Journal Publishing: Flip It and Reverse It' (2019) 7(2) *Publications* 23, 23.

[2390] Elizabeth Gadd and Denise Troll Covey, 'What Does 'Green' Open Access Mean? Tracking Twelve Years of Changes to Journal Publisher Self-Arching Policies' (2019) 51(1) *Journal of Librarianship and Information Science* 106, 107; Suber (n 57) 29–30.

[2391] Joe Karaganis, 'Introduction – Access from Above, Access from Below' in Joe Karaganis (ed) *Shadow Libraries – Access to Knowledge in Global Higher Education* (MIT Press, 2018) 5.

[2392] Elizabeth L Rosenblatt, 'Intellectual Property's Negative Space: Beyond the Utilitarian' (2013) 40(3) *Florida State University Law Review* 441, 447–52.

[2393] Peter K Yu, 'P2P and the Future of Private Copying' (2005) 76 *University of Colorado Law Review* 653, 654-76; Peter K Yu, 'The Escalating Copyright Wars' (2004) 32 *Hofstra Law Review* 907, 907-9.

[2394] M Scott McBride, 'Bioinformatics and Intellectual Property Protection' (2002) 17 *Berkeley Technology Law Journal* 1331, 1332–40.

through the excessive commercialisation of research data and patent overkill in biotechnology.[2395]

Several freely accessible online OA databases and journals evolved.[2396] The aim was to provide universal access by removing publishing paywalls.[2397] OA initiatives included a scientific research pre-print service called *arXiv* (1991) and a self-archiving movement promoted by Steven Harnad, a cognitive science professor.[2398] An OA research repository for the social sciences called the Social Sciences Research Network (SSRN) began in October 1994 and science related fields were keen to develop OA initiatives to freely share and access research.[2399] In 1998, the Scholarly Publishing and Academic Resources Coalition (SPARC) was formed, offering lower cost journals, followed by *E-Biomed* in 1999, a biotechnology OA repository (which later became *PubMed Central*).[2400] *Biomed Central* (a commercial OA publisher) was soon launched, requiring authors to pay an 'article processing fee' to publish their work.[2401]

By the early 2000s, freely available publicly funded scientific databases included *PubMed*, *Medline*, *PubScience* and *GenBank*.[2402] By the mid-2000s, there was policy debate about the benefits of OA regimes for data[2403] and scientific research.[2404] Academic disciplines such as law were beginning to debate and propound the merits of open legal scholarship,[2405] although there were concerns about the financial viability of the OA

[2395] González (n 2339) 322–3; Anna B Laakmann, 'The New Genomic Semicommons' (2015) 5 *UC Irvine Law Review* 1001, 1023–6.

[2396] Kylie Pappalardo et al, *A Guide to Developing Open Access Through Your Digital Repository* (QUT Printing Services, 2007) 1.

[2397] Matthias, Jahn and Laakso (n 2389) 24.

[2398] Karen M Albert, 'Open Access: Implications for Scholarly Publishing and Medical Libraries' (2006) 94(3) *Journal of the Medical Library Association* 253, 255.

[2399] Joseph Scott Miller, 'Why Open Access to Scholarship Matters' (2006) 10(4) *Lewis and Clark Law Review* 733, 734; Arewa B Olufunmilayo, 'Open Access in a Closed Universe: Lexis, Westlaw, Law Schools and the Legal Information Market' (2006) 10(4) *Lewis and Clark Law Review* 798, 809–11.

[2400] Albert (n 2398) 255.

[2401] Michael W Carroll, 'Creative Commons and the Openness of Open Access' (2013) 368(9) *The New England Journal of Medicine* 789, 791.

[2402] M Lee Rice, 'Free Access to Publicly Funded Databases is Vital' (2003) 421 *Nature* 786, 786.

[2403] Reichman and Uhlir, 'A Contractually Reconstructed Research Commons for Scientific Data in a Highly Protectionist Intellectual Property Environment' (n 13) 416–62.

[2404] See generally, Uhlir and Schröder (n 52) 189.

[2405] See generally, Carroll, 'The Movement for Open Access Law' (n 2381); Jane C Ginsburg, '"The Exclusive Right to their Writings": Copyright and Control in the Digital Age' (2002) 54 *Maine Law Review* 195, 200-1; Dan Hunter, 'Open Access to Infinite Content or "In Praise of Law Reviews"' (n 2384) 774–8; Jessica Litman, 'The Economics of Open Access Law Publishing' (2006) 10(4) *Lewis and Clark Law Review* 779.

economic model.[2406] Economic aspects of traditional and OA publishing shall be discussed in subsequent sections.

During the development of the OA movement, initially the focus was not specifically upon what came to be known as the cornerstone principles or philosophies.[2407] Instead, a gradual process unfolded, and the clarification of OAW scope and principles occurred through several organisational initiatives.[2408] These included: the *Budapest Declaration*,[2409] the *Bethesda Statement on Open Access Publishing*[2410] and the *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities*.[2411] In 2002, the *Budapest Declaration* was produced through the Budapest Open Access Initiative (BOAI).[2412] The declaration was the first to define OA, stating that such literature was:

> Freely available on the public internet, providing any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.

A meeting in Maryland on 11 April 2003 resulted in the creation of the *Bethesda Statement on Open Access Publishing* ('*BSOAP*'). It expanded the scope of the BOAI, through a discussion of users' interaction with OAWs and it expanded the BOAI by permitting users to create derivative works.

The *BSOAP* also provided a definition of an OA publication as being the property of an individual and not necessarily journals/publishers. A publication was where the author/copyright holder granted users 'a free, irrevocable, worldwide, perpetual right of

---

[2406] Litman, 'The Economics of Open Access Law Publishing' (n 2405) 780.
[2407] Pappalardo et al, *A Guide to Developing Open Access Through Your Digital Repository* (n 2396) 1.
[2408] Miller (n 2399) 733.
[2409] Chan et al (n 2336).
[2410] Peter Suber et al, 'The Bethesda Statement on Open-Access Publishing', *ResearchGate* (Web Page, 20 June 2003) <https://www.researchgate.net/publication/48547523_The_Bethesda_Statement_on_Open-Access_Publishing>.
[2411] Suber (n 57) 7; Max-Planck-Gesellschaft München, 'Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities', *Open Access Max-Planck-Gesellschaft - Berlin Declaration* (Web Page, 2019) <https://openaccess.mpg.de/Berlin-Declaration>.
[2412] 'Definition of Budapest Compliant Open Access', *KF Open Access Working Group* (Web Page, 25 March 2019) <https://access.okfn.org/definition/index.html>.

access to, and a licence to copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship'.[2413]

On 22 October 2003, the *Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities* ('*BDOAK*') was released. It defined OA as 'a comprehensive source of human knowledge and cultural heritage that has been approved by the scientific community'.[2414] Of significance is that the *BDOAK* is primarily aimed at groups extraneous to authors and publishers (for example, governments, universities, foundations, museums etc).[2415] *BDOAK* found that OAWs had to satisfy two primary traits:

1. The author/rights-holder had to grant users a free irrevocable, worldwide right of access to the work, subject to authorial attribution; and

2. A completed version of the work (and supplemental materials/authorial permission) had to be deposited and published in an online OA repository. It had to be maintained by an academic institution, scholarly society, government or other OA institution that would permit unrestricted distribution, interoperability and future long-term archiving.[2416]

The primary focus of OAWs was initially scientific or professional disciplines but, after 2005, commercial publishers started to publish using OA licencing.[2417] During subsequent years, the notion of OA has also taken on various definitions, depending on the publisher or user, with considerable variations from the original definition given in the *Budapest Declaration*. Despite initial reluctance on the part of some groups,[2418]

[2413] Suber et al (n 2410).
[2414] Max-Planck-Gesellschaft München (n 2411).
[2415] See, Lucie Guibault, 'Licensing Research Data Under Open Access Conditions Under European Law' in Dana Beldiman (ed), *Access to Information and Knowledge: 21st Century Challenges in Intellectual Property and Knowledge Governance* (Edward Elgar Publishing, 2013) 63–92.
[2416] Max-Planck-Gesellschaft München (n 2411).
[2417] Patricia H Dawson and Sharon Q Yang, 'Institutional Repositories, Open Access and Copyright: What are the Practices and Implications?' (Research Paper of Rider University, Lawrenceville, New Jersey, 2016) 2.
[2418] Kylie Pappalardo et al, *Understanding Open Access in the Academic Environment: A Guide for Authors* (Elect Printing, 2008) 1.

globally, OA publishing has become a standard form of practice in many disciplines, for example, in academia.[2419]

10.2.1 The Example of Academia and Its Modern Reception

Taking academia as an example, there were initial concerns about the integrity, prestige and transparency of works published through OA models which required the author to pay an 'article processing fee' (to be discussed in the next section).[2420] It was feared that an author could simply purchase the right to publish their work, despite its quality or academic merit.[2421] On the other hand, some commentators were indifferent, suggesting that OA would not make any difference to legal scholarship because the majority of subscribers who avoided reading such scholarship would still avoid reading similar, albeit OA-released materials.[2422]

In the advancing years, a gradual shift has emerged in academic legal publishing, and OA is now globally utilised. From a practical perspective, some interesting trends have emerged. Very long works that would have previously needed a publisher and the assignment (transfer) of an author's exclusive rights were replaced by works which were much shorter and released through disintermediated OA regimes.[2423] Despite this, OA works are now being regarded as having a greater research impact than subscription journals due to increased general access.[2424]

Reception to the academic publishing of OAWs appears to be varied, depending on jurisdiction. In Europe, throughout 2006, the European Research Advisory Board (EURAB) engaged in considerable consultation and dialogue between interested parties about the implications of new scientific publication practices and the role of open access.[2425] There was a focus on OA best practice guidelines and it was recommended that the EC consider mandating publicly funded researchers to lodge their publications in

---

[2419] Brian L Frye, Christopher J Ryan Jr, Franklin L Runge, 'An Empirical Study of Law Journal Copyright Practices' (2017) 16(2) *John Marshall Review of Intellectual Property Law* 207, 209.
[2420] Litman, 'The Economics of Open Access Law Publishing' (n 2405) 779.
[2421] Ibid 781.
[2422] Michael J Madison, 'The Idea of the Law Review: Scholarship, Prestige and Open Access' (2006) 10(4) *Lewis and Clark Law Review* 901, 904–5.
[2423] Lawrence B Solum, 'Download it While It's Hot: Open Access and Legal Scholarship' (2006) 10(4) *Lewis and Clark Law Review* 841, 847–57.
[2424] Kristin Antelman, 'Do Open-Access Articles Have a Greater Research Impact?' (2004) 65(5) *College and Research Libraries News* 372, 379–80; Dawson and Yang (n 2417) 4.
[2425] Jane Grimson et al, 'Scientific Publication: Policy on Open Access' (EURAB Research Advisory Board Final Report, December 2006) 3–4.

an OA repository within six months of publication, with an overall policy focus of promoting OA research.[2426] In Europe in 2009 and 2010, there was debate amongst European policy makers and academics as to whether to abolish copyright completely for academic legal scholarship in favour of OAWs.[2427] This has not happened, but further consultations and policy development has occurred.

In 2012, the EC published a report which observed that, while there had traditionally been a focus in scientific publishing on journals and monographs, a reorientation was also needed to make the underlying data accessible. It stated 'it is becoming increasingly important to improve access to research data (experimental results, observations and computer-generated information) which form the basis for the quantitative analysis underpinning many scientific publications'.[2428] The reported benefits of such an initiative would include wider access to data, acceleration of innovation, more collaboration (which would reduce duplication of research) and the capacity to build upon prior knowledge.[2429] The report spurred the creation of the EU *Openaire* initiative, which launched on 1 December 2009 and remains. Three specific goals currently underscore all existing and future European innovation and research initiatives: Open Innovation, Open Science and Open to the World.[2430] As part of this, the EC requires European researchers to publish OAWs.[2431] OA is becoming such an accepted practice that some countries, such as Switzerland, have developed a national plan to have 100 per cent of university publications released via OA by 2024.[2432]

[2426] Ibid 2–3.

[2427] See, generally, Frank Müller-Langer and Richard Watt, 'Copyright and Open Access for Academic Works' (Research Paper of the Max Planck Institute for Intellectual Property, Competition and Tax Law, University of Canterbury, MPRA Paper No. 24095, 24 June 2010); Hossein Nabilou, 'A Response to Professor Shavell's "Should Copyright of Academic Works be abolished?"' (2010) 7(1) *Student's Guide to the U.S. Government Series* 31; Steven Shavell, 'Should Copyright of Academic Works Be Abolished?' (2010) 2(1) *Journal of Legal Analysis* 301.

[2428] European Commission, 'Towards Better Access to Scientific Information: Boosting the Benefits of Public Investments in Research' (Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels, 17 July 2012, COM (2012) 401 final) 3, citing European Union, *Riding the Wave: How Europe Can Gain From the Rising Tide of Scientific Data* (Final Report of the High Level Expert Group on Scientific Data, A Submission to the European Commission, October 2010) 4–5.

[2429] Ibid 3.

[2430] See generally, European Commission, *Open Innovation, Open Science and Open to the World: A Vision for Europe* (17 May 2016).

[2431] Bogers, Chesbrough and Moedas (n 2373) 6.

[2432] Fabienne Sarah Graf and Dario Henri Haux, 'Obligation to Open Access: Academic Publishing of the Future?' (2018) *Sui-Generis* 124, 126.

Contrastingly, the academic reception of OAWs has been reported as being 'ambivalent' in the UK in 2018.[2433] Researchers are starting to analyse the trends that are emerging from the publication of OA data and associated publications in various disciplines, for example, the Earth Sciences.[2434] The use of OAWs in scientific fields is not as widespread as might be assumed.[2435] Particular norms of openness are emerging, as well as other relationships, such as to what extent funding and institutional mandates are influencing the type of OA publishing chosen.[2436] Many non-profit non-government organisations (NGO) have also adopted open data policies. One such example is the members/organisations of the Group of Earth Observation (GEO), who make much of their data freely available through a portal known as GEO Global Earth Observing System of Systems (GEOSS).[2437]

Within Australia, OA initiatives and legal frameworks have developed, in conjunction with what has been described as a steady 'revolution' in the treatment of open data production, storage, analysis and dissemination.[2438] The Open Access Knowledge (OAK) Project at the Queensland University of Technology (QUT) has been at the forefront of the Australian OA movement, releasing many informative reports, policy guidelines and publications for guidance about this issue.[2439] The Australian public are generally becoming more aware of what OAWs are and the differences between traditional

---

[2433] Francis Dodds, 'Conflicting Academic Attitudes to Copyright Are Slowing the Move to Open Access' (Blog Posting, 10 May 2018) <http://blogs.lse.ac.uk/impactofsocialsciences/2018/05/10/conflicting-academic-attitudes-to-copyright-are-slowing-the-move-to-open-access/>.

[2434] See generally, Samantha Teplitzky, 'Open Data, [Open] Access: Linking Data Sharing and Article Sharing in the Earth Sciences' (2017) 5 *Journal of Librarianship and Scholarly Communication (General Issue)* eP2150.

[2435] Roberto Caso and Rossana Ducato, 'Open Bioinformation in the Life Sciences as a Gatekeeper for Innovation and Development' in Giuseppe Bellantuono and Fabiano Teodoro Lara (eds) *Law, Development and Innovation* (Springer, 2016) 115, 117. Also see, Francine Berman and Vint Cerf, 'Who Will Pay for Public Access to Research Data?' (2013) 341(6146) *Science* 616.

[2436] Teplitzky (n 2434) 13–14.

[2437] Uhlir et al (n 385) 2.

[2438] See, Anne Fitzgerald, Kylie Pappalardo and Anthony Austin, 'Understanding the Legal Implications of Data Sharing, Access and Reuse in the Australian Research Landscape' in Brian Fitzgerald (ed) *Understanding the Legal Implications of Data Sharing, Access and Reuse in the Australian Research Landscape* (Sydney University Press, 2008) 162, 163–71.

[2439] See, eg, Ibid; Anne Fitzgerald, Kylie Pappalardo and Anthony Austin, Practical Data Management: A Legal and Policy Guide (OAK Project, Queensland University of Technology, 2008); Fitzgerald et al, 'Oak Law Project Report No 1' (n 2342); and Brian Fitzgerald and Jessica Coates, 'Digital Preservation and Copyright in Australia' (Open Access to Knowledge (OAK) Law, Queensland University of Technology, July 2008); Pappalardo et al, *A Guide to Developing Open Access Through Your Digital Repository* (n 2396); Kylie Pappalardo et al, *Understanding Open Access in the Academic Environment: A Guide for Authors* (n 2418).

publishing and OAW in terms of copyright, authorship and access implications for authors, publishers and users.[2440]

In 2017, in celebration of the 15th anniversary of the BOAI, a global community survey was conducted to measure the response to OA initiatives and to identify the roadblocks towards further OA initiatives.[2441] The survey was undertaken by 300 parties and the results showed that there were two major issues in need of attention:

1. The need for further calibration of incentives to encourage scholars to share their works more freely.
2. A need to reduce the publication costs of OAWs.[2442]

Of note was that follow-up was recommended in the *BDOAK* about the economic costs/financial frameworks presented by OA schemes. It was found that there needed to be an emphasis on the promotion of optimal use and access via the subsequent advancement of pre-existing financial and legal frameworks.[2443] It therefore becomes necessary to examine how the underlying economic framework of OAWs vests in further depth. But before this, the next section will firstly examine what occurs in traditional publishing practice.

10.2.2 Traditional Publishing Practice

From a financial perspective, OAWs are often posited as an alternative to the traditional distribution model of copyright involving economic rights. As explored at 2.1, traditional copyright doctrine is underpinned by a philosophical justification which places private proprietary rights at the centre.[2444] This model subsequently uses these proprietary rights as a source of exclusion (through accessibility) to ensure a market monopoly. The belief is that by remunerating authors for their efforts, it ensures subsequent investment in future works, thus advancing public interest and welfare.[2445]

[2440] See, eg, Anthony Austin, Maree Heffernan and Nikki David, 'Academic Authorship, Publishing Agreements and open Access: Survey Results' (The OAK Law Project, Queensland University of Technology, May 2008).

[2441] Peter Suber et al, 'BOAI15', *Budapest Open Access Initiative* (Web Page, 14 February 2017) <https://www.budapestopenaccessinitiative.org/boai15-1>.

[2442] Ibid.

[2443] Max-Planck-Gesellschaft München (n 2411).

[2444] Alina Ng, 'The Author's Rights in Literary and Artistic Works' (2009) 9 *Marshall Review of Intellectual Property Law Journal* 453, 453–60.

[2445] Frye, Ryan Jr and Runge (n 2419) 210.

As explored at 4.5.1, copyright is also predicated on the conception of the Romantic, individual author. Under authorship doctrine, there is the somewhat artificial belief that the creativity involved is the result of an individual's effort, rather than a process which could involve the collaborative efforts of many. Although joint authorship is recognised under *the Act*,[2446] as discussed 4.5.2 for Australia and 8.2.4.2 for the UK, judicially, a rather rigid test must be satisfied. It must be established that multiple authors have collaborated and that their contributions have not been distinct from each other.[2447] As has been discussed, from a practical perspective, this can be difficult to prove in modern databases.

Also discussed at 4.6 was that, when copyright subsists, private economic property rights bestow a bundle of exclusive rights from which the author/owner can exploit their work.[2448] The author/owner are granted an exclusive monopoly over the work. This bundle of rights ensures economic incentive and renumeration to an author/owner to promote further creativity.[2449] It also provides the ability to limit accessibility and re-use (reproduction,[2450] publication,[2451] communication[2452] and adaptation)[2453] of such works.

What happens in traditional publishing practice is that, under current copyright laws, many authors assign (transfer) their works to publishers or other intermediaries, who subsequently become the main economic benefactors in exchange for producing, exploiting and disseminating the work.[2454] Through such arrangements, the economic remuneration for most authors is miniscule in comparison to the earnings that a

[2446] *The Act* (n 168) s 10. See Chapter 4:.
[2447] See *Levy v Rutley* (n 936) 529 (Keating J); *Prior v Lansdowne Press Pty Ltd* (n 936) 688 (Gowens J); *CBS Records Australia Ltd v Gross* (n 936) 394–395 (Davies J); *Cala Homes (South) Ltd v Alfred McAlpine Homes East Ltd (No. 1)* (n 936) 835–836 (Laddie J) and *Hadley v Kemp* (n 936) 646 (Park J).
[2448] *The Act* (n 168) s 31(1).
[2449] See generally, Jane B Baron, 'Rescuing the Bundle-of-Rights Metaphor in Property Law' (2013) 82 *University of Cincinnati Law Review* 57.
[2450] *The Act* (n 168) s 31(1)(a)(i).
[2451] Ibid s 31(1)(a)(ii).
[2452] Ibid s 31(1)(a)(iv).
[2453] Ibid s 31(1)(a)(vi).
[2454] Litman, 'The Economics of Open Access Law Publishing' (n 2405) 781.

publisher/intermediary makes on their work.[2455] Such publishers or intermediaries are looking to generate enough profit to run their business and cover their costs.[2456]

For the author, the result of assignment to the publisher is that they cannot freely disseminate their work, nor re-use the work without the publisher's permission.[2457] Although it is possible to request the reservation of some authorial rights, the publisher may not agree to this. Depending on the discipline, at worst, the implications of the situation are that the only likely compensation for the author is the privilege of simply being published; at best, some economic remuneration. The publisher (or other intermediary) economically benefit more than the author does.

The OA movement is, therefore, attractive to some authors because it removes the necessity of a publisher/intermediary beneficiary and, instead, allows the author to directly disseminate their work to users. For academics, it allows expedience in disseminating research.[2458] In fact, the Australian Research Council (ARC) mandate that all their research publications are released via OA because they are publicly funded; this will be discussed later. OA movements also mean that the author retains the rights to their work and can re-use their work whenever they wish. Depending on the discipline and work, the notion of receiving no remuneration instead of miniscule renumeration (from a publisher/intermediary) in exchange for direct and wider dissemination/communication is very appealing to some authors. Primary motivations for such authors are often cultural or social, sharing their passion,[2459] the public interest or knowledge-based, rather than primarily economic means.

Subsequently, the OA movement has resulted in a major shift in copyright licencing. In the past, copyright was binary, in that it was an 'all rights reserved' approach, or a work which had fallen into the public domain (where copyright had expired). During the last

---

[2455] Giblin and Weatherall, 'If We Redesigned Copyright from Scratch, What Might It Look Like?' (n 110) 193–6; Hugenholtz, 'The Great Copyright Robbery: Rights Allocation in a Digital Environment' (Paper presented at A Free Information Ecology in a Digital Environment Conference, 31 March – 2 April 2000); Hunter, 'Open Access to Infinite Content or "In Praise of Law Reviews"' (n 2384) 768–9; Jessica Litman, 'What We Don't See When We See Copyright as Property' (2018) 77(3) *Cambridge Law Journal* 536, 538.

[2456] Gordon, 'The Core of Copyright: Authors, Not Publishers' (n 382) 651.

[2457] Kimbrough and Gasaway (n 2345) 277–9.

[2458] Joseph Scott Miller (n 2399) 736.

[2459] Peter K Yu, 'Digital Copyright and Confuzzling Rhetoric' (2011) 13(4) *Vanderbilt Journal of Entertainment and Technology Law* 881, 911.

15 years, a paradigm shift has occurred, where alternative OA licencing initiatives allow a range of options (such as CC, an MIT licence[2460] or a GNU general public licence),[2461] where some rights are reserved.[2462]

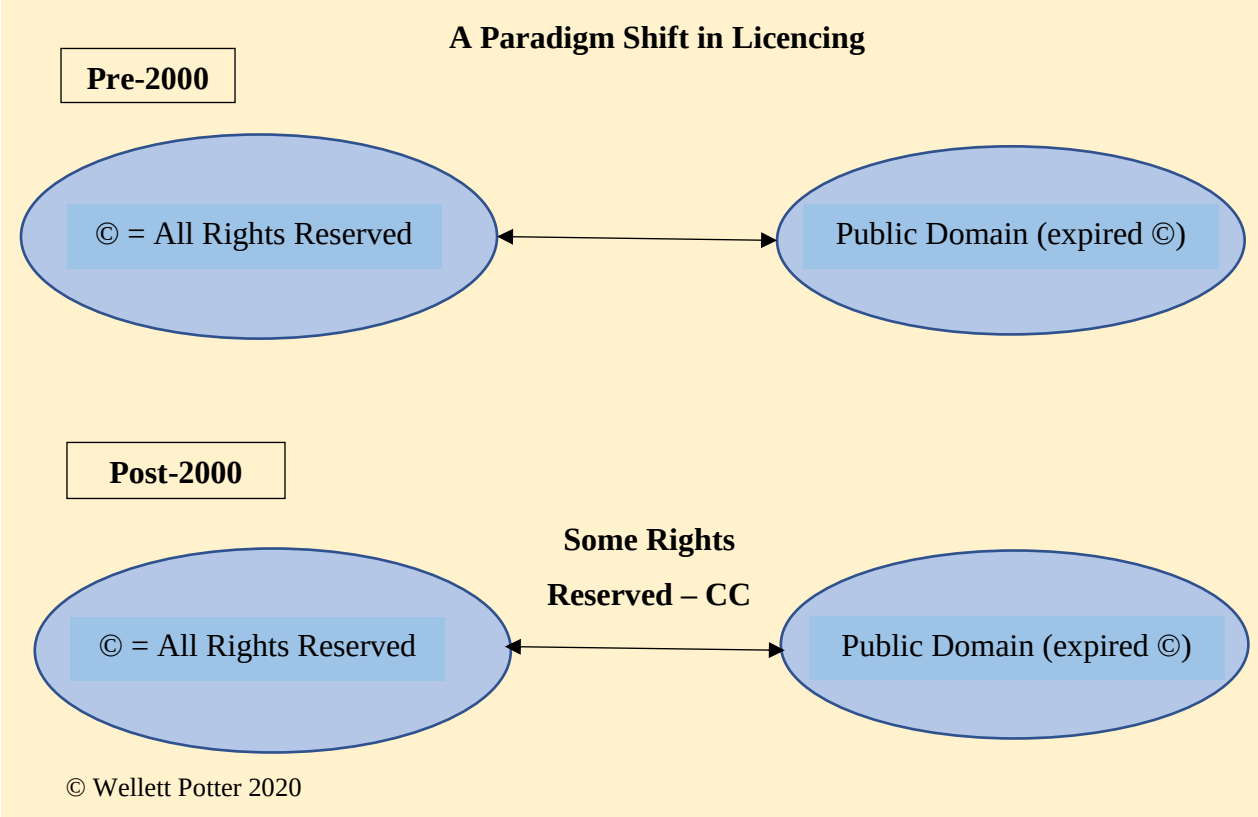

Figure 10.1 – A Paradigm Shift in Licencing

10.2.3 Case Study: Academic Publications

To highlight what happens in practice, it is useful to examine the example of what occurs with traditional academic subscription publication, which uses copyright to incentivise the dissemination of research via publication (as illustrated in Figure 10.1).[2463] In academia, it is standard practice for an author to be publicly funded through their academic work. Although there have long been debates about the privatisation of public research (eg, in patents law), primarily, any publicly funded research output is publicly released.[2464] Once the author has completed their work, they usually submit their final

[2460] Massachusetts Institute of Technology licence.
[2461] An open source software licence, provided by the Free Software Foundation.
[2462] Stefano Leucci, 'Preliminary Notes on Open Data Licensing' (2014) 2 *Journal of Open Access* 1, 10.
[2463] Litman, 'The Economics of Open Access Law Publishing' (n 2405) 780.
[2464] See generally, Rebecca S Eisenberg and Arti K Rai, 'Harnessing and Sharing the Benefits of State-Sponsored Research: Intellectual Property Rights and Data Sharing in California's Stem Cell Initiative' (2006) 21(3) *Berkeley Technology Law Journal* 1187; Corynne McSherry, *Who Owns*

draft to a reputable, peer-reviewed academic journal for publication and licence their rights to that journal.[2465] As a content distributor, it is the publisher who commercially benefits from the publication, not the author, peer reviewers or editors.[2466] The relationships between editors and publishers in academic journals varies, but traditional commercial ownership principles apply.[2467] Economically, this is heavily weighted in the publisher's favour.

The draft undergoes the peer-review process and amendments are usually made. This process often takes months, resulting in demands on the academic community and lengthy delays in the release and dissemination of the research. Once the final draft is completed and undergoes peer-review, it is accepted for publication and undergoes final editing and typesetting. To proceed with this, the author usually assigns their copyright to the publishers, by transferring their exclusive rights in exchange for the publication and dissemination of the work.[2468] This is usually done through an explicit licence (through a contract), but it can also be done through an implicit licence (without a contract).[2469] In association with this process, there is no standard practice for the remuneration of editors of academic journals - some may be remunerated; others may not.[2470] Peer reviewers do not receive remuneration for their contribution, nor does the author, because their work is considered a facet of (publicly funded) academic life. Any subscription fees are kept by the publishers.

When the final work is eventually published in a peer-reviewed academic journal, it is usually held behind a paywall. The rights asserted by the publishers to these works are usually quite stringent and prohibit users from any other reuse rights, except permission to read the work. From an economic perspective, the paywall restricts access to the work, so that a subscription fee must be paid to access the article in the journal.

Academic Work? Battling for Control of Intellectual Property (Cambridge University Press, 2001) 148; John Willinsky, 'Copyright Contradictions in Scholarly Publishing' (2005) 1(1) *Open Journal System Demonstration Journal* 1, 2.

[2465] See, eg, Elena Eugenievna Tarando et al, 'Realization of Copyright in Russia in the Sphere of Scientific Articles: The Experience of Applied Sociological Analysis' (2015) 7(3) *Review of European Studies* 113, 113.

[2466] Sean A Pager (n 2378) 400-1.

[2467] Willinsky, 'Copyright Contradictions in Scholarly Publishing' (n 2464) 2.

[2468] Ibid 4.

[2469] Heather Morrison and Lisa Desautels, 'Open Access, Copyright and Licensing: Basics for Open Access Publishers' (2016) 6(1) *Journal of Orthopaedic Case Reports* 1, 1.

[2470] Willinsky, 'Copyright Contradictions in Scholarly Publishing' (n 2464) 3.

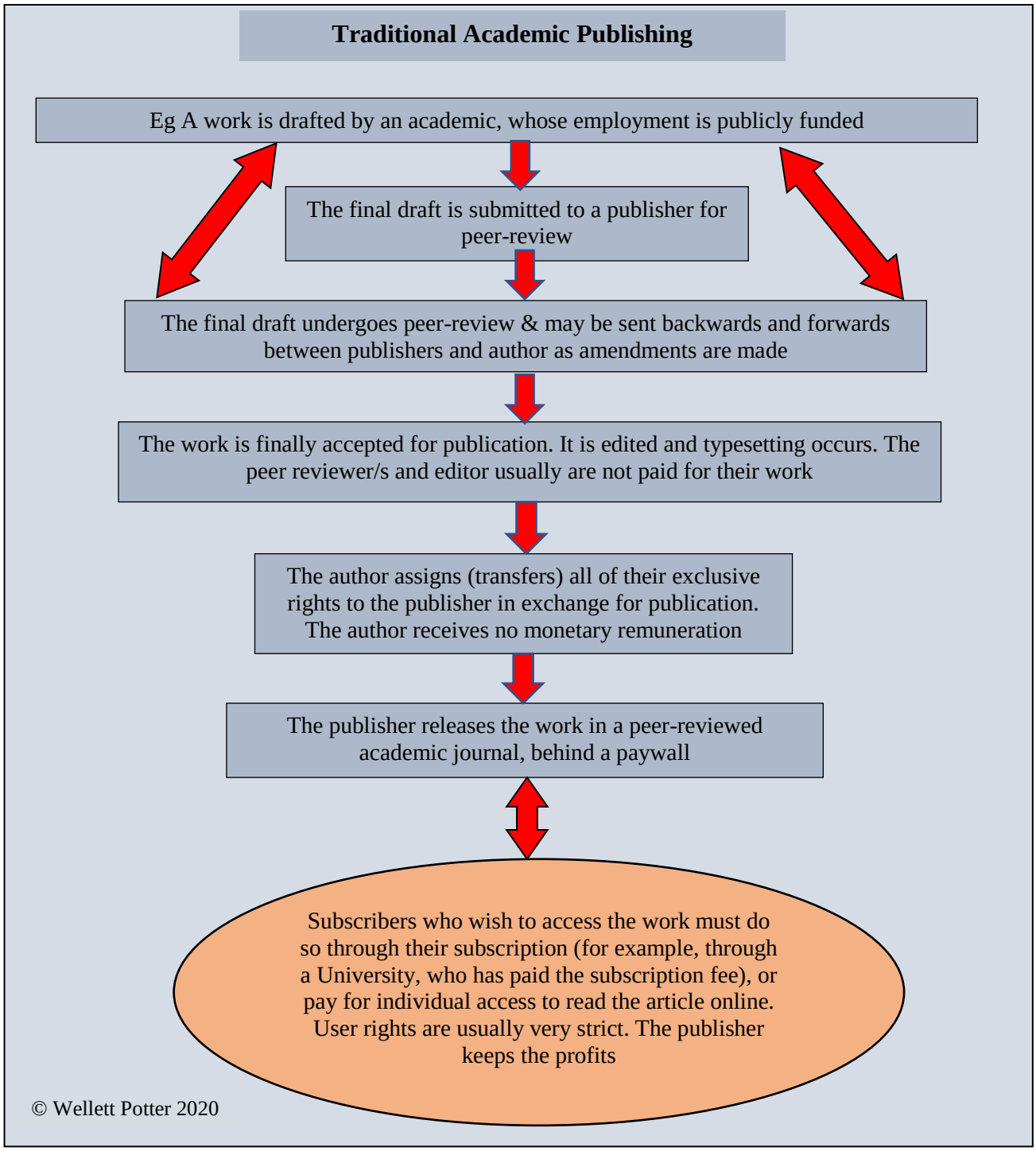

Figure 10.2: Traditional Academic Publishing

Universities, libraries, businesses and research institutions often pay high subscription fees to access journals online through academic databases. For example, in 2017, to

access subscription journals, Australian university libraries spent $282 million in fees.[2472] People who are affiliated with such institutions are able to access works through these avenues. However, any individuals or businesses not affiliated with institutions instead have to privately purchase a work to access it. Libraries also have limited budgets which often constrain which databases are subscribed to.[2473] Access is, therefore, largely dependent on a users' status and overall economic opportunity. Those who are unaffiliated with particular institutions and/or of a lower economic background are at a distinct disadvantage due to economic and technological access barriers (eg, no internet access) — a phenomenon known as the digital divide.[2474]

In contrast to this, OAWs are created in an environment which is underpinned by some private IP rights, but which also fosters the free accessibility and reuse of a work. While the goal is to extend knowledge to benefit the community[2475] and to promote creativity, some more limited private property rights are often upheld, such as authorship attribution and integrity. In this way, the development of the internet and digital resource sharing has spurred a shift in who provides the economics behind publication practices.[2476]

A gradual shift is occurring in the production and distribution of creative works, in part spurred by dissatisfaction about having to assign copyright to publishers in order to be published.[2477] What was once primarily an economic model with a private, market-based focus has shifted to a disseminated, public focus, with 'social sharing'[2478] becoming more popular.[2479] In tandem with this is a change in the dissemination of works, going directly

---

[2472] 'Joint AOASG and CAUL Statement on the Importance of Open Scholarship', *Australian Open Access Strategy Group* (Web Page, 29 November 2018) <https://aoasg.org.au/2018/11/29/joint-aoasg-and-caul-statement-on-the-importance-of-open-scholarship/>.

[2473] Anthea Wheeler, 'Open Access, Creative Commons and Copyright – Navigating the Issues' (PowerPoint presentation from University of Manitoba, October 2018) 10.

[2474] Ann Bartow, 'Open Access, Law, Knowledge, Copyrights, Dominance and Subordination' (2006) 10(4) *Lewis and Clark Law Review* 870, 870; Maria Canellopoulou-Bottis, 'A Different Kind of War: Internet Databases and Legal Protection or How the Strict Intellectual Property Laws of the West Threaten the Developing Countries' Information Commons' (2004) 2 *International Journal of Legal Ethics* 1,1; Peter K Yu, 'Bridging the Digital Divide: Equality in the Information Age' (2002) 20(1) *Cardozo Arts and Entertainment Law Journal* 1, 2–8.

[2475] Willinsky, *The Access Principle* (n 2350) xii.

[2476] Carroll, 'Creative Commons and the Openness of Open Access' (n 2401) 789.

[2477] Esther Hoorn and Maurits van der Graaf, 'Copyright Issues in Open Access Research Journals' (2006) 12(2) *D-Lib Magazine* 1, I Introduction.

[2478] Yochai Benkler, 'Sharing Nicely: On Shareable Goods and the Emergence of Sharing as Modality of Economic Production' (2004) 114(2) *Yale Law Journal* 273, 276,

[2479] Marco Ricolfi, 'Copyright Policy for Digital Libraries in the Context of the i2010 Strategy' (Paper presented at 1st COMMUNIA Conference on the Digital Public Domain, Louvain-la-Neuve, Belgium, 30 June – 1 July 2008) 13.

from the author to the public, with publishers/intermediaries being bypassed altogether. The current COVID-19 pandemic, with its need for humanity to socially isolate, will likely accelerate the actions of authors in disseminating their works online without the use of publishers/intermediaries. Some publishing houses have released more of their collections online for greater dissemination during this time of social isolation.

In recent years, there has also been a move away from traditional, 'closed' publishing practices to an open, decentralised system.[2480] Closed practices use a centralised system, where a publisher promotes a work, users pay to access the work and a small percentage of royalties are passed on to the author; whereas an open system may bypass the publisher altogether. Under an open system, (which may or may not involve a publisher), there are no royalties or remuneration to the author. Anyone may freely access or reuse the work. Instead, in some OA licensing schemes, it is the author who self-funds their work, through an 'article processing charge'.[2481] In some situations, this charge will be waived, or a research institution or funder will cover the cost.[2482]

Therefore, OAWs reject the utilisation of traditional economic IP regimes, which have often been criticised because they have the capacity to limit users' access to knowledge, particularly through economic monopolies.[2483] It is for this reason that some commentators have suggested that the underlying justifications of OAWs are incompatible to IP regimes, to the extent that they are in direct conflict.[2484]

In relation to underlying copyright principles which remain applicable in OA publishing, there are two major rights which are utilised. Free access and reuse of a work does not usually:

1. Negate an author's moral rights over their work (see 4.5);
2. Remove the right of authorial attribution for the work.[2485]

[2480] Teresa Scassa, 'Public Transit Data Through an Intellectual Property Lens: Lessons About Open Data' (2014) 41 *Fordham Urban Law Journal* 1759, 1762–3.
[2481] See 10.3.1.
[2482] Stuart Lawson, 'Fee Waivers For Open Access Journals' (2015) 3 *Publications* 155, 155–7.
[2483] Brian Fitzgerald et al, 'Oak Law Project Report No 1' (n 2342) 87.
[2484] Peter Wayner, 'Whose Intellectual Property Is It, Anyway? The Open Source War', *New York Times Online, Late Edition* (East Coast, 24 August 2000).
[2485] Suber (n 57) 7.

Most OAW authors agree to freely sharing their work to read and re-use in exchange for the non-violation of their moral rights and the correct attribution of their work. The next section shall further discuss the justifications which underpin the free availability of OAWs.

10.3 Justifications for Making Data Freely Available

There are several justifications which underpin the OA movement. First, OA challenges the notion that a monopoly right is necessary produce innovation and generate subsequent innovation. Rather, some authors are genuinely driven by cultural and social incentives rather than by economic ones. The *BSOAP* noted that the underlying philosophical justification for the creation of OAWs was that of 'community standards, rather than copyright law', but would drive the enforcement of correct authorial attribution and users' responsible actions with the work.[2486]

Second, from a socio-cultural perspective, there are many diverse and beneficial opportunities to humanity which stem from open data sharing. Open data is underpinned by the promotion of innovation[2487] and the closeting of data is considered to cause negative outcomes.[2488] Such benefits include: the promotion of social welfare;[2489] improved efficiency in decision-making;[2490] the solving of global problems pertaining to agriculture, such as food insecurity, climate change, health crises and poverty;[2491] growth of important information datasets, such as those pertaining to scientific endeavours such as earth observations[2492] or medicine;[2493] endorsement of the rationale of medical trial participants;[2494] the facilitation of research and development for new methodologies;[2495]

[2486] Suber et al (n 2410).
[2487] Scassa and Singh (n 385) 118.
[2488] Koščík and Myška (n 374) 44.
[2489] Joseph Scott Miller (n 2399) 735; Uhlir et al (n 385) 13–15.
[2490] Scassa and Singh (n 385) 119.
[2491] Jeremy De Beer, 'Ownership of Open Data: Governance Options for Agriculture and Nutrition' (GODAN – Global Open Data for Agriculture and Nutrition Paper, 2016) 5.
[2492] Catherine Doldirina, 'Open Data and Earth Observations: The Case of Opening up Access to and Use of Earth Observation Data Through the Global Earth Observation System of Systems' (2015) 6 *Journal of Intellectual Property, Information Technology and Economic Commerce Law* 73, 74–5.
[2493] Marc A Rodwin, 'Patient Data: Property, Privacy and the Public Interest' (2010) 36 *American Journal of Law and Medicine* 586, 587-8, 590-618.
[2494] Hugelier (n 155) 44.
[2495] Anne Fitzgerald et al, *Building the Infrastructure for Data Access and Reuse in Collaborative Research: An Analysis of the Legal Context – Legal Framework for E-Research Project* (OAK Project, Queensland University of Technology, 2007) 5–7.

more robust innovation,[2496] improvement of educational opportunities for future generations;[2497] and improved legal governance and policies.[2498] There is scope to benefit both public and private interests.[2499]

Third, the nature of data collection and collaboration, particularly in science-based fields, has changed. Scientific collaborations involving many people is becoming more common, as complex issues are being researched which require cross-disciplinary data processing and input.[2500] A by-product of this is increased hyper-authorship.[2501]

Fourth, it has been posited that the digital generation and subsequent generations will have a normative expectation to be able to freely access and reuse data.[2502] If society is unable to access such data, they will simply find other open data (wherever possible).[2503] Restricting access to data has been found to result in negative outcomes, such as the depletion of collateral benefits, the promotion of public mistrust in government and reputation loss.[2504]

Fifth, increased accessibility to OA works has the capacity to generate further future innovation, such as the utilisation of metadata, which will lead to new connections, academic commentary and social utility.[2505]

Sixth, there are ethical and moral concerns that people who live in underdeveloped countries or those who are economically disadvantaged are unable to afford to access the information that is restricted behind paywalls owned by private corporations.[2506] Concerns are raised about the extent to which publishing monopolies restrict access

---

[2496] Uhlir et al (n 385) 16–22.
[2497] Matthew T Bodie, 'Open Access in Law Teaching: A New Approach to Legal Education' (2006) 10(4) *Lewis and Clark Law Review* 885, 886–7; Ibid 22–4.
[2498] Uhlir et al (n 385) 24–7.
[2499] Jyh-An Lee, 'Licensing Open Government Data' (2017) 13(2) *Hastings Business Law Journal* 207, 214.
[2500] Koščík and Myška (n 374) 43–4.
[2501] Ibid 43–4.
[2502] Uhlir et al (n 385) 13.
[2503] Ibid 13.
[2504] Ibid.
[2505] Joseph Scott Miller (n 2399) 737-39.
[2506] Robert Vaagan and Wallace Koehler, 'Intellectual Property Rights vs Public Access Rights: Ethical Aspects of the DeCSS Decryption Program' (2005) 10(3) *Information Research* <http://InformationR.net/ir/10-3/paper230.html>.

through electronic vendors and the way this impacts marginalised people.[2507] Those who can access such information are privileged.[2508] This issue prompts consideration of the extent to which different types of piracy have developed in response these moral, ethical and legal tensions[2509] and the future role of OA initiatives in this dynamic.

Seventh, recent socio-cultural shifts, such as the need to self-isolate during the COVID-19 pandemic is forcing people to communicate online while physically isolating. This practice will likely spur more people to turn to online initiatives such as the OAW movement to disseminate their works widely and quickly to the rest of the world.

Last, as previously stated, in academic publishing, there is a tradition of no economic remuneration to authors for publication of their research. This practice dates from 1665, from the publication of the first journals, the *Philosophical Transactions* (Royal Society of London) and *Journal des Scavans* (Paris).[2510] Rather, scholarly contributions to journals have traditionally been viewed as part of academic work. As academic positions are usually state-funded, the research and data produced in association with this research is considered publicly funded and therefore available to all.

The underlying philosophy of this can be stated as 'a commitment to the value and quality of research carries with it a responsibility to extend the circulation of such work as far as possible and ideally to all who are interested in it and all who might profit by it'.[2511] Most academics and scientists are motivated to build their reputation via dissemination and exposure of their work and the acknowledgement, credit and attribution of their ideas in subsequent citations rather than by economic incentives.[2512] In order to gain recognition, they have to share their work and it is the priority of the work which trumps all.[2513] The lack of economic incentive encourages authors to focus on the search of truth and on

---

[2507] Sara Bannerman, 'Access to Scientific Knowledge' (Paper presented at the International Communications Association (ICA) Conference, San Juan, Puerto Rico, 24 May 2015) 1–2; Benjamin L Hockenberry, 'The Guerilla Open Access Manifesto: Aaron Swartz, Open Access and the Sharing Imperative' (Lavery Library Faculty Staff Publication, Paper 6, 2013) <http://fisherpub.sjfc.edu/library_pub/6>.

[2508] Aaron Swartz, *Guerilla Open Access Manifesto* (2008).

[2509] Lawrence Lessig, *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity* (Penguin Press, 2004) 66; also see Vaagan and Koehler (n 2506) 1–79.

[2510] Suber (n 57) 10.

[2511] Willinsky, *The Access Principle* (n 2350) xii.

[2512] Hoorn and van der Graaf (n 2477) I – Introduction; Mossoff (n 118) 957–9, 960–9.

[2513] Robert J Kelly, 'Private Data and Public Knowledge: Intellectual Property Rights in Science' (1989) 13 *Legal Studies Forum* 366, 370.

scholarly contribution to prior knowledge. In recent years, it has been found that publication via OA increases visibility, which positively impacts scholarly influence and subsequent citations.[2514]

In academic publishing, OAWs usually refers to the use of paperless, peer-reviewed scholarly research (for example, journals or datasets) which are accessible to all via the internet. Some niche fields of study have also been able to establish online research outlets.[2515] Users are usually permitted various rights (including reading, downloading, copying, distributing, linking, and/or communicating the work) without technical, legal or economic barriers.[2516] However, while OAWs are free for everyone to access, the author or publisher may still be required to pay for publication costs. In relation to the underlying economic requirements of such works, there is a spectrum pertaining to the sub-types of works, which will be explored in the next section.

10.3.1 The Open-Access Spectrum – From Gold to Green

Although the overarching aim of OAWs are free access to read and reuse, various sub-types of works are reflected through a sliding scale or spectrum.[2517] It pertains to the level of openness and who pays for the underlying production costs. There are two primary categories: gold and green:[2518]

> **Gold OA – This involves publishing a work through an OA publisher.**[2519] The publication process, as illustrated in Figure 10.3, is that the work is drafted by the author and is submitted to the OA publisher for a peer-review process. If the work is successfully accepted for publication, it undergoes editing etc.

[2514] See generally, Kristin Antelman, 'Do Open-Access Articles Have a Greater Research Impact?' (2004) 65(5) *College and Research Libraries News* 372; Frye, Ryan Jr and Runge (n 2419) 213.
[2515] Mikael Laakso et al, 'The Development of Open Access Journal Publishing from 1993 to 2009' (2011) 6(6) *PLoS One* e20961, 1.
[2516] Australian Open Access Strategy Group, 'What is Open Access', *About Open Access* (Web Page, 17 June 2019) <https://aoasg.org.au/what-is-open-access/>.
[2517] Xiaotian Chen and Tom Olijhoek, 'Measuring the Degrees of Openness of Scholarly Journals with the Open Access Spectrum (OAS) Evaluation Tool' (2016) 42(2) *Serials Review* 108, 108.
[2518] Contreras (n 56) 525–31; Guibault (n 2415) 137–57, 167; Suber, *Open Access* (n 57) 52–65.
[2519] Mikael Laakso et al, (n 2515) 1.

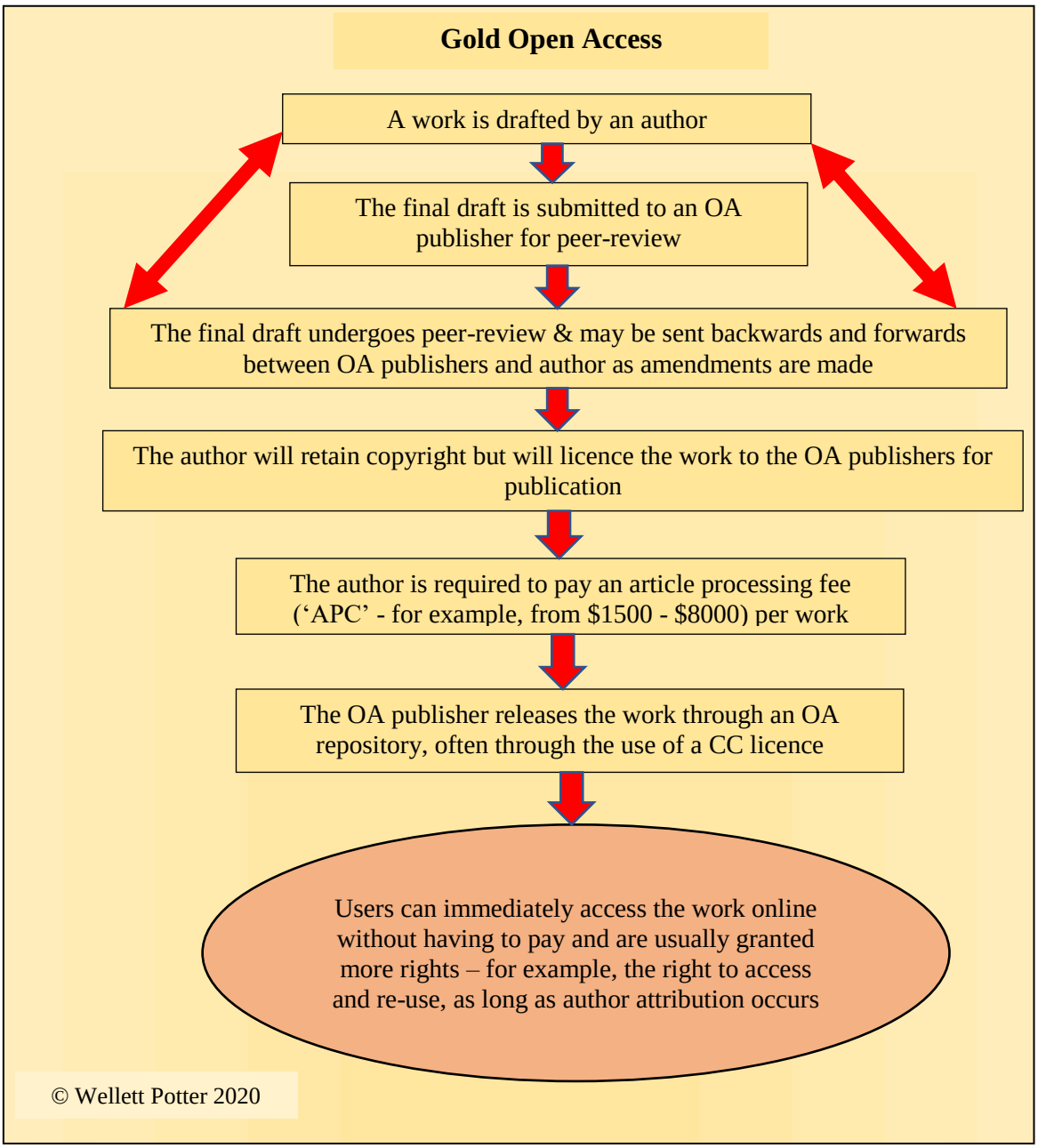

Figure 10.3: Gold Open Access

The author will retain copyright but will licence the work to the OA publishers for publication. An economic distinction here is that the author will also be required to pay the publisher a fee to cover the publication costs of their work.[2522] This fee is known as an 'article processing charge' (APC) and it may be waived in some situations. In Australia in 2018, APCs ranged from $1,500 to $8,000 per work.[2523]

[2522] Toby Green, 'We've Failed: Pirate Black Open Access is Trumping Green and Gold and We Must Change Our Approach' (2017) 30 *Learned Publishing* 325, 326.
[2523] 'Joint AOASG and CAUL Statement on the Importance of Open Scholarship' (n 2472).

A Gold OA work is immediately released so that anyone can access and re-use it. The benefits of this are that knowledge is quickly and freely disseminated. Often a CC licence is utilised, which permits particular re-use rights. CC will be discussed in the next section. Figure 10.3 illustrates publishing via gold:

- **Green OA (delayed OA) – This involves publishing a work through a non-OA repository but also self-archiving a copy in an OA archive.**[2524] Copyright and OA are not mutually exclusive. Therefore, it is possible for an author to release their work via an OA platform but to also retain copyright in the work (eg, the right to republish, the right to reuse etc.). OA can be beneficial in aiding an author to retain copyright to their work, because OA grants the ability to publish and release the work without assigning copyright commercially. Developing OA movements generates innovation through open licensing and the scope to share.

  Under Green OA, the work is drafted by the author and is submitted to a non-OA repository for a peer-review process. If it is successfully accepted for publication, it undergoes editing etc. The author will assign copyright to the non-OA publishers, but will also retain the right to self-archive and disseminate a copy of their accepted manuscript through an OA repository. Usually, the published work will be released via the publisher in a non-OA repository first. For a specified time period, the work will be embargoed behind a paywall in the non-OA repository, where any user must pay a licencing fee to access it. Once the embargo period lapses, a copy of the accepted manuscript of the work will be made available through an OA archive or academic social network.[2525] This often occurs using a pre-peer review format of the work without any formatting, and anyone can freely access and download the work. Sometimes, however, non-OA publishers will allow an author to release a copy of the previously published, formatted journal article alongside the manuscript.[2526]

  The benefits of green OA are that it combines underlying standard economic IP rights with OA because it permits publishers to receive a subscription fee for those

[2524] Mikael Laakso et al (n 2515) 2.
[2525] Mikael Laakso and Juho Lindman, 'Journal Copyright Restrictions and Actual Open Access Availability: A Study of Articles Published in Eight Top Information Systems Journals (2010-2014) (2016) 109 *Scientometrics* 1167, 1167.
[2526] Gadd and Covey (n 2390) 107.

who wish to access the work first. However, after the embargo period, everyone can access the work, which leads to the opportunity to freely disseminate knowledge. The disadvantages of such a system is that it becomes imperative from a practical perspective for authors to be educated in understanding the nuances of the terms and conditions of copyright transfer agreements that they agree to with publishers (CTAs).[2527] An author must comply with such agreements when embarking in Green OA, otherwise they risk formal proceedings for copyright infringement.[2528]

It was this very issue which caused controversy in 2018, when it was alleged that thousands of authors had infringed copyright and breached their respective CTAs with publishers, through academic social networking and repository platform *ResearchGate*. In many instances, the CTAs that authors agreed to did not prohibit them from self-archiving their pre-peer reviewed manuscript in an OA repository. Rather, such authors had infringed copyright by uploading the published version of their work (without authorisation from the publisher) onto *ResearchGate*, instead of the reviewed manuscript.[2529] Legal action commenced in Germany because *ResearchGate* did not review the uploaded files to ensure that they had complied with CTAs and copyright law.[2530] The infringement proceeding led to *ResearchGate* removing more than 1.7 million infringing articles from their site.[2531] Figure 10.4 illustrates the green process of publication.

[2527] Alexandra Kohn and Jessica Lange, 'Confused about Copyright? Assessing Researchers' Comprehension of Copyright Transfer Agreements' (2018) 6 *Journal of Librarianship and Scholarly Communication* eP2253:1, 2–4. Also see generally, Kylie Pappalardo et al, *Understanding Open Access in the Academic Environment* (n 2418).

[2528] Laakso and Lindman (n 2525) 1170.

[2529] Hamid R Jamali, 'Copyright Compliance and Infringement in ResearchGate Full-Text Journal Articles' (2017) 112 *Scientometrics* 241, 242.

[2530] Ibid.

[2531] 'ResearchGate Removes 1.7 Million Articles In Copyright Conflict' *Enago Academy* (Web Page, 8 May 2018) <https://www.enago.com/academy/researchgate-removes-1-7-million-articles-copyright-conflict/>.

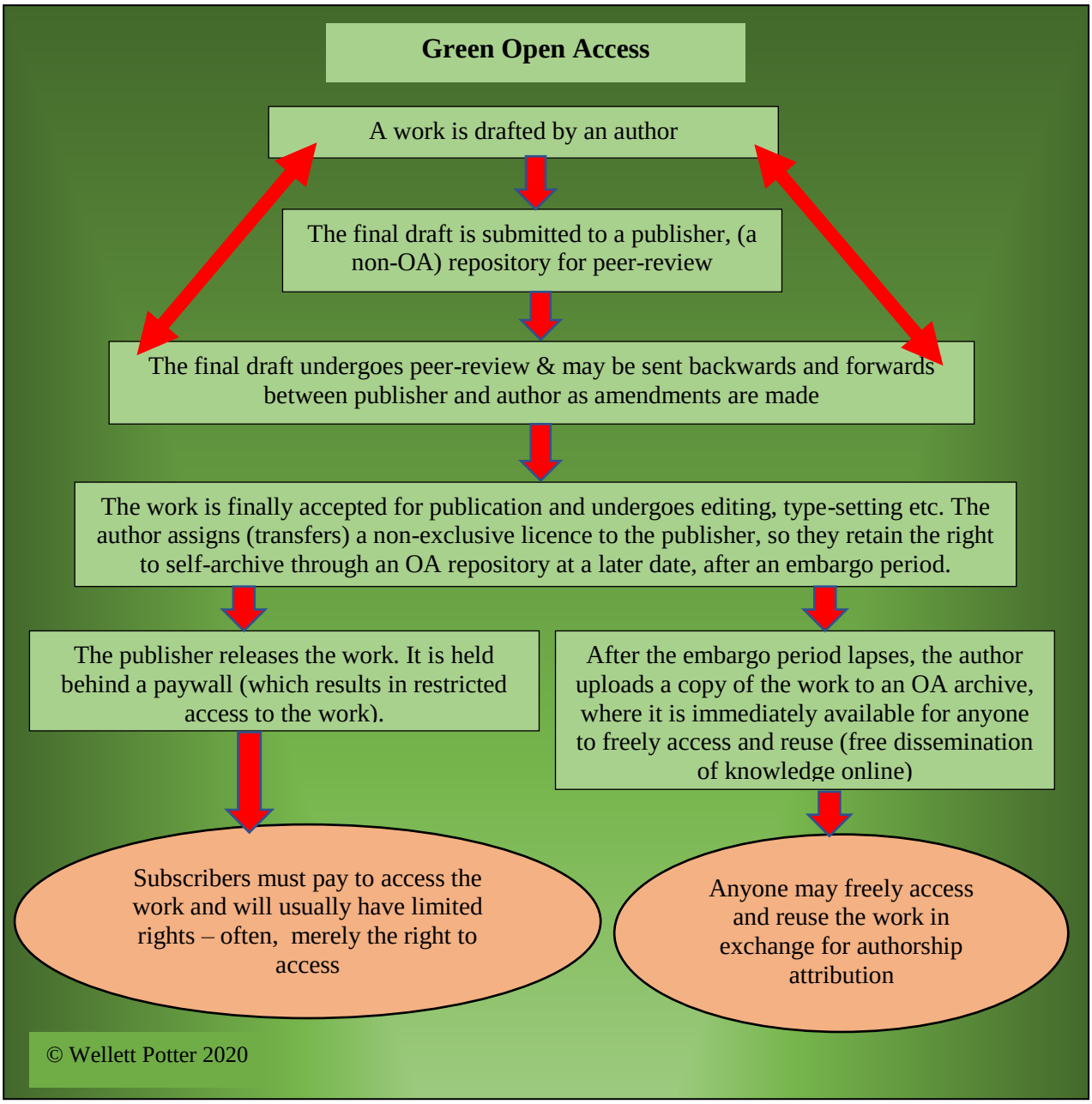

Figure 10.4 – Green Open Access

There are some sub-categories of OAW publishing models, although there remains scholarly debate about their respective nuances:

- **Hybrid OA – This involves an author paying an article processing charge to a non-OA journal so that the work can be published OA in a non-OA publication, usually through a creative commons licence.**[2532] This publishing

[2532] Najla Rettberg, 'The Worst of Both Worlds: Hybrid Open Access', *Openaire.eu* (Blog Post, 26 June 2018) <https://www.openaire.eu/blogs/the-worst-of-both-worlds-hybrid-open-access>.

model is usually expensive and is generally not supported by Australian universities. Hybrid OA journals themselves are attractive to some authors because they are generally well established, offering tradition and prestige.[2533] In 2018, the EC announced that they would no longer reimburse authors for hybrid OA APCs.[2534] Economically, hybrid OA journals are problematic because they engage in 'double dipping' for the publisher — that is, being paid by the author to publish and by the subscribers to access the publications. APCs for hybrid models have been found to average $2,700 but can exceed $5,000.[2535]

Overall, hybrid OA threatens the premises of the movement. This is because it is discriminatory against those authors, institutions and subscribers who are economically disadvantaged; it often leads to decreased discoverability of published articles; and it ultimately hinders the free dissemination of knowledge.[2536]

- **Black OA – This is known as illegal OA, with the namesake referencing pirating and the black market.**[2537] It involves the uploading of replica published articles onto digital platforms without permission from the publishers. Academic social networking sites such as *ResearchGate*, *Academia.edu* and *Mendeley* have been implicated in black OA, when authors have uploaded published articles in breach of their CTA. What is interesting from an economic perspective is that *Academia.edu* is funded by professional entrepreneurs, rather than APCs and it uses the data flows generated by users for further research and development.[2538] As a privately funded company, its business model, therefore, engages in parasitic behaviour by drawing on publicly funded works for private gain.[2539]

  Other examples of parasitic behaviour occur through pirate copy sites, such as *Sci-Hub*. This is an illegal repository, which has by-passed paywalls and

---

[2533] Ibid.
[2534] Ibid.
[2535] Ibid.
[2536] Ibid.
[2537] Bo-Christer Björk, 'Gold, Green, and Black Open Access' (2017) 30 *Learned Publishing* 173, 173.
[2538] Garry Hall, 'What Does Academia edu's Success Mean for Open Access? The Data-Driven World of Search Engines and Social Networking', *London School of Economics and Political Science Impact Blog* (Blog Site, 22 October 2015) <https://blogs.lse.ac.uk/impactofsocialsciences/2015/10/22/does-academia-edu-mean-open-access-is-becoming-irrelevant/>.
[2539] Ibid.

downloaded and stored over 60 million articles from publishers' sites without permission from authors/publishers.[2540] Other types of black OA exist, for example, shadow libraries, which are illegal libraries encompassing copies of all mediums of scholarly works.[2541]

Many people who use black OA do so because of need, convenience, ease of use/access and lack of risk for partaking in such an initiative.[2542] What is currently astounding about black OA is its scope – despite considerable efforts during the past 20 years to encourage authors to partake in OA models, if *Sci-Hub* truly has over 60 million articles available to freely download, then it has become the ultimate OA repository. As one scholar observed, this is troubling and highlights flaws in the system, as pirated OA has trumped green and gold.[2543]

Recent empirical research has suggested that several major changes involving six actors (authors/author's institutions, funders, librarians, publisher and readers) need to occur to encourage OA initiatives to flourish ahead of black OA.[2544] Such change is complex and multi-faceted to implement, with ongoing education and substantial behavioural changes required.[2545]

- **Bronze OA** – this is a work which is released OA, so it is free to access via an OA publisher, but does not contain any licence, so its status is uncertain.[2546]

OA works also fall under two distinct types of permissions, which are:

- Libre — this is where the work is provided gratis — there are no price barriers and there are one or several restrictions lifted;

[2540] Toby Green, 'We've Failed: Pirate Black Open Access is Trumping Green and Gold and We Must Change Our Approach' (2017) 30 *Learned Publishing* 325, 325.

[2541] Balázs Bodó, 'The Science of Piracy, the Piracy of Science. Who Are the Science Pirates and Where Do They Come From: Part 1', *Kluwer Copyright Blog* (Blog Posting, 6 March 2019) <http://copyrightblog.kluweriplaw.com/2019/03/06/the-science-of-piracy-the-piracy-of-science-who-are-the-science-pirates-and-where-do-they-come-from-part-1/>; Balázs Bodó, 'The Genesis of Library Genesis: The Birth of a Global Scholarly Shadow Library' in Joe Karaganis (ed) *Shadow Libraries – Access to Knowledge in Global Higher Education* (MIT Press, 2018) 53-78.

[2542] Björk (n 2537) 174.

[2543] Green (n 2540) 325.

[2544] Ibid 326.

[2545] Ibid.

[2546] Jeroem Bosman and Bianca Kramer, 'Open Access Levels: A Quantitative Exploration Using Web of Science and oaDOI Data' (2018) 6 *Peer J Preprints* e3520v1, 4.

- Gratis — this is where there are no price barriers to access the work, but some re-use rights are included;[2547]

So, as can be seen, the level of openness and permissions vary; therefore, while access does not vary, the associated rights a user has with a work varies throughout the OA spectrum.

A recent trend is that some journals that were once subscription journals are becoming OA journals and visa-versa. Empirical research about 'reverse flip' OA journals is relatively new and further research needs to be performed, to ascertain effectiveness and impact.[2548] It is opined that, globally, OA initiatives are increasing in utilisation with each passing year and ongoing research is occurring to determine current trends in this area.[2549] The recent COVID-19 pandemic could contribute to an acceleration of this process, due to the need for humans to self-isolate.

Examining OA from an economic perspective in consideration of traditional publishing practice, there has been a redistribution between the incentive/access paradigm. Whereas with traditional copyright ownership, the author is economically remunerated through a royalty for creating their work, to incentivise them to create more works, this schema is inapplicable to OAW. Instead, as particularly seen with Gold OA, it is the author who is responsible for bearing the costs in producing their work. Works are freely released, without any economic incentive to the author.[2550] Therefore, OA challenges the traditional roles of the author and user under the incentive/access paradigm. It is irreconcilable with the notion of economically incentivising an author for producing a work. The digital age lends itself to this arrangement, due to the intangible nature and instant communication/dissemination of such works.[2551]

This instant communication/dissemination of such works is often facilitated by licencing regimes, with the availability of several popular open licensing schemes. Examples

---

[2547] Suber, *Open Access* (n 57) 65-75.
[2548] See generally, Matthias, Jahn and Laakso (n 2389).
[2549] See, eg, Jeroem Bosman and Bianca Kramer (n 2546).
[2550] For eg, see Jane Seker, 'It's Lovely Out Here: How We (Self) Published in the Open' (Blog Posting, UK Copyright Literacy, 13 April 2018) <https://copyrightliteracy.org/2018/04/13/its-lovely-out-here-how-we-self-published-in-the-open/>.
[2551] See 2.3.1.

include open content licencing, Wikimedia Commons[2552] GNU General Public Licences and Copyleft.[2553] However, one of the most popular licensing initiatives are issued under CC licencing. This will be explored in the next section.

10.4 Creative Commons Licensing

CC licences may be utilised by Australian authors and database owners. This section will discuss the history of the movement and how utilisation may occur by database owners. CC licencing is an internationally recognised open content licensing protocol, which is the most commonly used within the OAW movement. It contains a suite of open content licences, where the authors retain copyright to their work, but permissions are granted to users that do not involve proprietary reward for investment. It must be noted that while CC licencing is an international model, each national jurisdiction partaking in the protocol have developed their own version of CC licences, which address issues specific to and are enforceable by their national laws.[2554] Also, another commonly overlooked aspect of CC licencing is that a property right must exist in the work for such licences to be applicable.[2555] For databases or datasets, this right must vest in the work as compilations in copyright, because Australia has no specific database right as Europe does.

CC was designed to remedy the situation the world is facing due to changing technology through the rapid transition from tangible works to primarily intangible, digitised works, which can be globally reproduced, adapted or communicated in seconds.[2556] While some authors still wish to assert their rights to such works, there are many others who do not; that is, they are able and willing to share their works with users in return for conditions extraneous to remuneration. As discussed at 4.6, copyright subsists automatically upon reduction of an idea to tangible form (fixation of a work). Up until recently, copyright law has responded through an 'all rights reserved' approach. As long as all the subsistence criteria was satisfied, copyright vested in an author, granting them an exclusive bundle of

---

[2552] Lindman and Nyman (n 2339) 13.
[2553] J H Reichman and Paul F Uhlir, 'A Contractually Reconstructed Research Commons for Scientific Data in a Highly Protectionist Intellectual Property Environment' (2003) 66 *Journal of Law and Contemporary Problems* 315, 430.
[2554] Catharina Maracke, 'Creative Commons International: The International License Porting Project – Origins, Experiences, and Challenges' (2010) 1 *JIPITEC - Journal of Intellectual Property, Information Technology, and Electronic Commerce Law* 4, 6–7.
[2555] Alexander and Jankowska (n 591) 10–11.
[2556] James Boyle, *The Public Domain* (n 2363) 181–2.

rights, which had the capacity to restrict users from reproducing, adapting or communicating the work without permission from the author (usually accompanied by payment of a licensing fee).

At the end of the 1900s, there was growing unease amongst those who valued individual freedom due to the restrictions of access that the use of IP could have upon an individual.[2557] In response, the CC non-profit organisation was launched in 2002 by Professor Lawrence (Larry) Lessig of Stanford University Law, with Hal Abelson, and Eric Eldred.[2558] It aims to give authors the option of 'some rights reserved', instead of an 'all rights reserved' approach. It does this through utilising the same technology which has resulted in the paradigm shifts observed in publishing.[2559]

The underlying catalyst and philosophy that drove the CC movement were the inevitable challenges to pre-existing frameworks occurring through the onset of the internet era. There were marked parallels between the socio-cultural factors which led to the development of the OAW movement and those which led to the development of CC. These factors are compared and contrasted in Figure 10.5, with the factors relating to the development of OAWs shown above the red arrow and the factors relating to the development of CCs shown below the red arrow.

[2557] Richard A Epstein, 'Liberty Versus Property? Cracks in the Foundations of Copyright Law' (John M Olin Program in Law and Economics, Working Paper No 204, 2004) 3.
[2558] Boyle, *The Public Domain* (n 2363) 180–1; Brian Fitzgerald et al, 'Oak Law Project Report No 1' (n 2342) 10.
[2559] Boyle, *The Public Domain* (n 2363) 3.

Timeline - The Relationship Between the History of OAWs with CCs

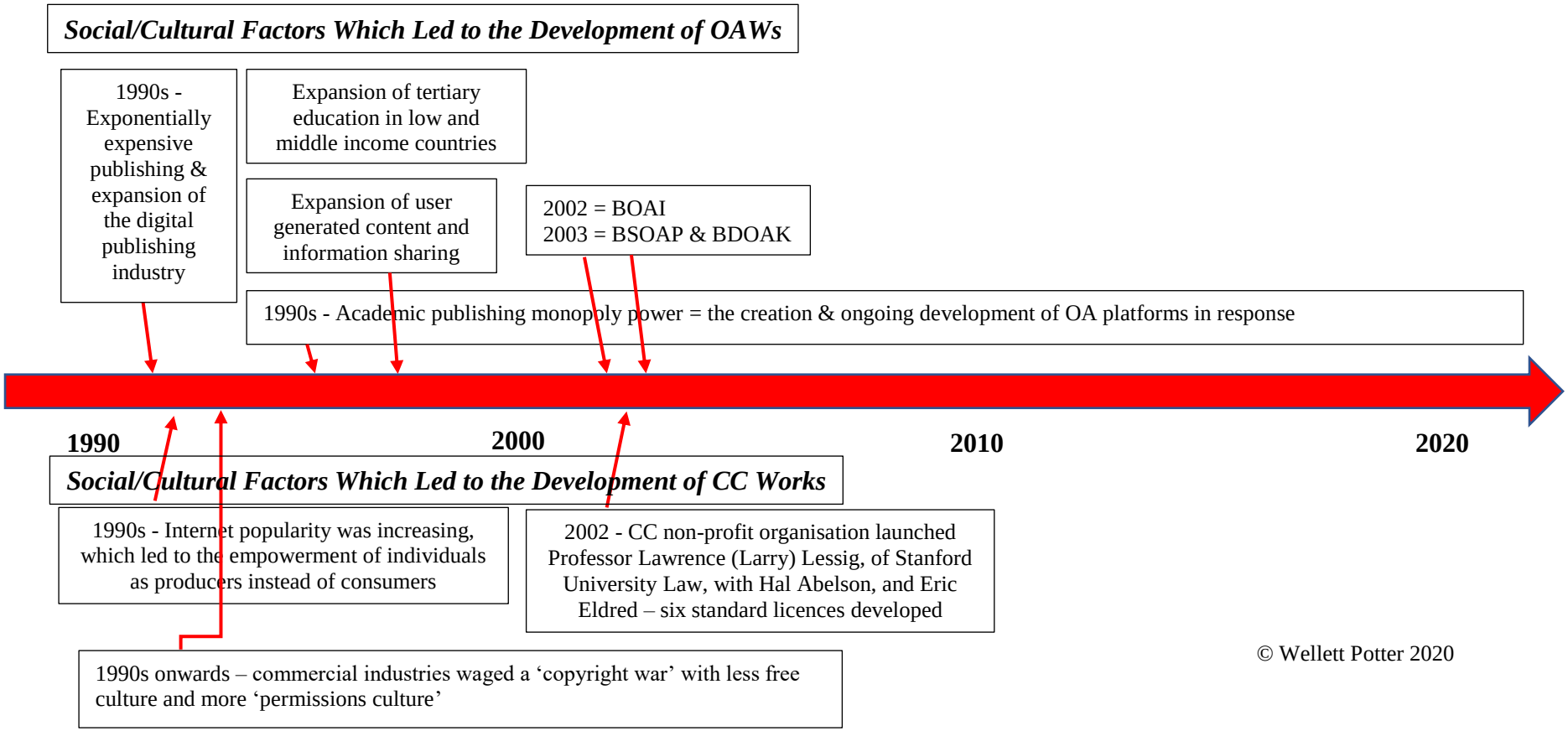

Figure 10.5: The Relationship Between the History of OAWs with CCs

What had once been a controlled system of commercial creativity, which balanced the incentivisation of creators with the release of free creativity on the other, was no more.[2560] The system that once limited some speech in order for other speech to happen had become unbalanced.[2561] The catalyst of the internet had empowered individuals as producers instead of consumers. Their actions in producing content seriously challenged the status quo of consumer consumption as a privately controlled top-down, horizontal approach, to one which was publicly driven from the bottom-up.[2562]

In response to this, particular (private) commercial industries had waged a 'copyright war' through the expansion and strengthening of copyright in an attempt to cease public innovation, creation and learning.[2563] The feared consequence of this was that the world was becoming 'less a free culture [and] more and more a permission culture';[2564] a world which was under threat of losing fundamental values and freedoms.[2565] The public interest was at risk of being compromised to the extent that fundamental needs were being ignored.[2566]

The so-called 'permissions culture' was creating an unbalanced environment, which locked knowledge behind paywalls and forced the public to engage in mass consumption through subscriptions or engage in illegal file sharing and pirating initiatives. From a socio-political aspect, the implications of this was that strict control of access to information was creating considerable power imbalances between mainstream and countercultures. There was empowerment of mainstream cultures and a weakening of countercultures.[2567]

In an attempt to rebalance the structural inequalities of copyright and alleviate the tensions,[2568] the CC organisation developed a set of six standardised licences. The aim

---

[2560] Lessig, *Free Culture* (n 2509) 8.
[2561] Lessig, 'Copyright's First Amendment' (n 1133) 1059.
[2562] Giancarlo Frosio, 'Resisting the Resistance: Resisting Copyright and Promoting Alternatives' (2017) 23(4) *Richmond Journal of Law and Technology* 4, 4.
[2563] Ibid 4, citing William Patry, *Moral Panics and the Copyright Wars* (Oxford University Press, 2009) 25-7.
[2564] Lessig, *Free Culture* (n 2509) 8.
[2565] W Lance Bennett, '1998 Ithiel De Sola Pool Lecture: The UnCivic Culture: Communication, Identity, and the Rise of Lifestyle Politics' (1998) 31(4) *PS: Political Science and Politics* 740, 741–2; Ibid 10.
[2566] Zemer, '"We-Intention" and the Limits of Copyright' (n 921) 100.
[2567] Abraham Drassinower, 'A Note on Incentives, Rights, and the Public Domain in Copyright Law' (2011) 86(5) *Notre Dame Law Review* 1869, 1869–70; Frosio (n 2562) 4, citing Patry (n 2563) 26.
[2568] Miriam Bitton, 'Modernizing Copyright Law' (2011) 20 *Intellectual Property Law Journal* 65, 79.

was to permit sharing, use and reuse of works. Any author can apply a CC licence to their work, which permits sharing, while reserving certain rights for the author.[2569] There are currently six core standardised licences available.

Users are granted baseline permissions under each type of core licence. From a practical perspective, what is fascinating about the licences is that they have been created to be understood by non-specialist lawyers and computers.[2570] The core CC licences have also been developed so that they comply with international copyright treaties. They are as follows:

- **Attribution (BY)** - this applies to all six licences – the author must be credited and attributed for their work, whenever the work is copied or redistributed, with a link to the source;
- **Non-Commercial (NC)** – only permits the distribution, display and performance of the work for non-commercial purposes;
- **No Derivative Works (ND)** – only permits the distribution, display and performance of verbatim copies of the work. No changes or adaptations of the work are permitted;
- **Share Alike (SA)** – permits the remixing and adaptation of the work, but only if the distribution of the derivative work occurs under the same licencing terms that governed the original work;

It is impossible for a work to be licenced with both the conditions of SA and ND works. This is because ND prohibits changes or adaptions of the work and SA permits remixing and adaptations. All six of the licences grant baseline permissions, which are that the material may be copied, distributed, displayed and performed. Four of the licences also grant permission to create a derivative work. The benefits of such licencing conditions are that they allow some rights to be reserved but sharing is made legal and easy.

CC licencing is often utilised to disseminate scientific and medical research; however, restrictions may still be imposed on the re-use of such data, particularly if a more

[2569] Boyle, *The Public Domain* (n 2363) 181.
[2570] Ibid.

restrictive form of licencing permission (such as NC or ND) are chosen. Such licencing permissions therefore have the capacity to still restrict the re-use of data, depending on their application in practice, which is suboptimal to the ideals underlying OAWs. The licencing permissions are best explained using Figure 10.6.

When considering the openness of permissions under copyright, Figure 10.7 demonstrates the most restrictive to the least restrictive options.

When considering the application of a CC licence to a privately produced database produced in Australia, it must be remembered the CC relies on the notion that a property right exists in the work to begin with. In some types of databases, it would, therefore, be uncertain whether a CC licence would extend to any or all information within it. This is because, as per *IceTV*, copyright protects the 'individual intellectual effort' that the author makes in creating the database. The database may not constitute sufficient authorial expression, (as explored in Chapter 6:). Determination of this issue would need to occur on an individual basis.

CC licences are utilised in various jurisdictions around the world and are amended to suit national laws. In considering the application of CC licencing to databases in Europe, section 10.4.1 shall discuss the conflicts that have arisen between CC and the *EU Directive.*

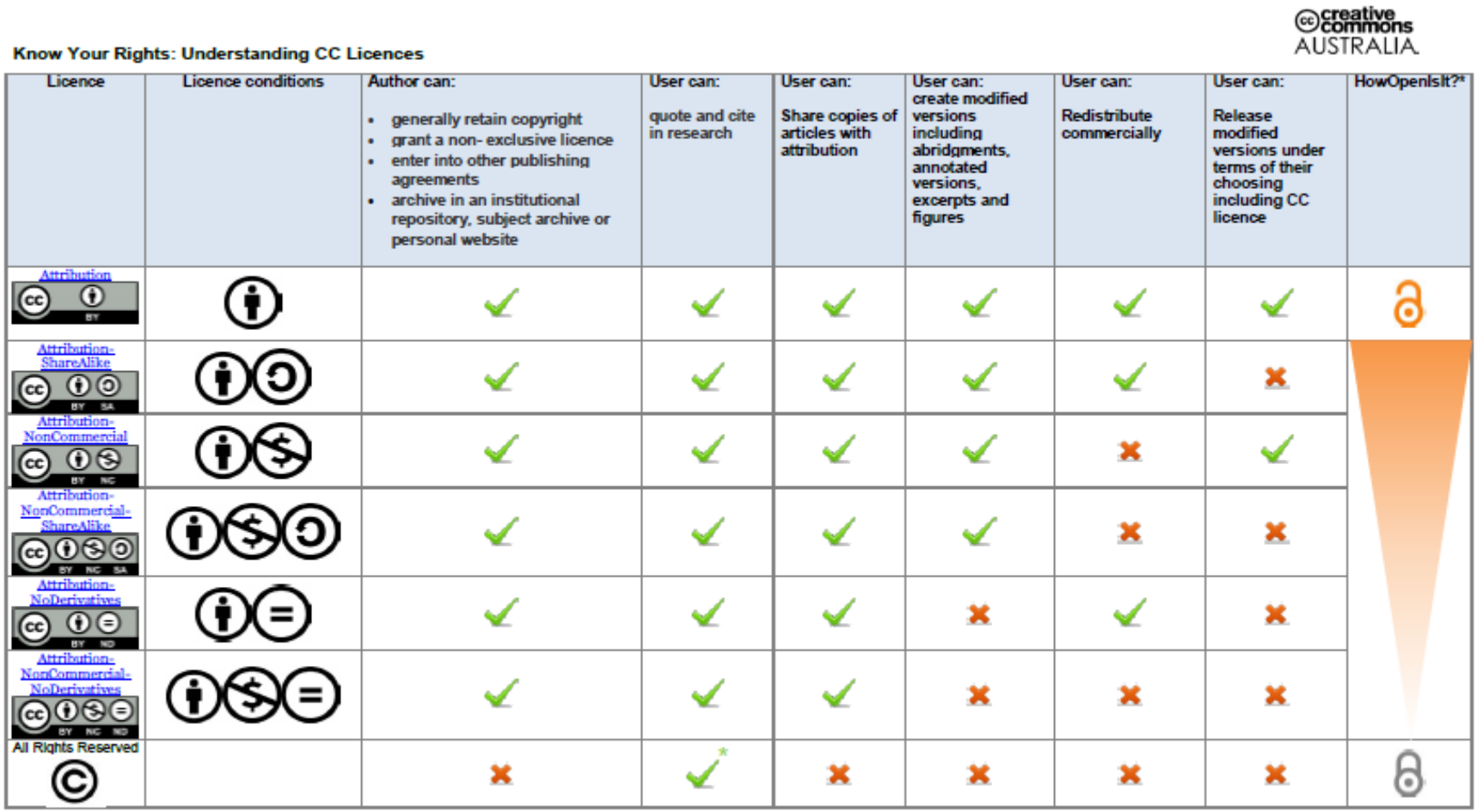

Figure 10.6: Know Your Rights – Creative Commons Australia

Image has been licenced under a Creative Commons Attribution 4.0 Licence from https://creativecommons.org.au/know-your-rights/

Most Restrictive Least Restrictive

COPYRIGHT	CREATIVE COMMONS	CREATIVE COMMONS	CREATIVE COMMONS	CREATIVE COMMONS	CREATIVE COMMONS	CREATIVE COMMONS	PUBLIC DOMAIN
All rights reserved	Attribution, Non-Commercial, No Derivatives (BY, NC, ND)	Attribution, No Derivatives (BY, ND)	Attribution, Non-Commercial, Share Alike (BY, NC, SA)	Attribution, Non-Commercial (BY, NC)	Attribution Share Alike (BY, SA)	Attribution (BY)	(Expired copyright, no limitations)

Figure 10.7: Most Restrictive to Least Restrictive Options

.

10.4.1 Conflicts Between CC and the EU Directive

When considering the legal implications of the interplay between the application of national CC licencing regimes in Europe and the *EU Directive*, some tensions emerge. This is because CC licences are designed to licence works under copyright, and earlier versions of this licence were subsequently irreconcilable with the EU database right.[2571] Initially, CC licences Version 2.0 were amended in the Netherlands, Germany, Belgium and France to encompass the *EU Directive*, by permitting the 'extraction and re-utilisation' of substantial parts of database material.[2572] This created tensions for the following reasons:

1. CC licences protected more than mere investment by encompassing the substance of the work;
2. There was the potential for incompatibilities with CC licences in other non-EU jurisdictions;
3. There was the possibility that some licensors would attempt to enforce CC contractual rights in jurisdictions that did not recognise the *EU Directive* and therefore import the rights associated with *the Directive* to jurisdictions in which it was inapplicable.[2573]

As a result of these issues, Version 3.0 of the EU CC licences included a waiver to disqualify the rights bestowed to database owners under the *EU Directive*.[2574] It has been argued that this, therefore, withdrew and impeded any usefulness that may have been bestowed through utilising any of the licencing conditions under CC for the dissemination of scientific research.[2575] The CC Version 4.0 was subsequently amended to include the EU Directive in its scope.[2576] In non-EU jurisdictions, there has not appeared any significant inherent tensions in utilising the CC licence version that is compatible with the EU Directive.

[2571] Primavera De Filippi and Lionel Maurel, 'The Paradoxes of Open Data and How to Get Rid of It: Analysing the Interplay between Open Data and Sui-Generis Rights on Databases' (2015) 23(1) *International Journal of Law and Information Technology* 1, 8-9.
[2572] Guibault (n 2415) 63–92.
[2573] Maracke (n 2554) 9–10.
[2574] Guibault (n 2415) 63–92.
[2575] Ibid.
[2576] Claudio Artusio and Federico Morando, 'Creative Commons 4.0 Licenses: A Sui Generis Challenge?' in Peter Parycek and Noella Edelmann (eds) *CeDEM14 Conference for E-Democracy and Open Government* (2014 Edition Donau Universität Krims).

The second Evaluation of the *EU Directive* also affirmed the apparent incompatibilities between *the Directive* and OA initiatives, finding that CC licences were often used to waive the database right.[2577] However, the report went on to justify the application of *the Directive*, by stating that OA was merely a way for database owners to exercise their property right and therefore *the Directive* was fully consistent with this.[2578] Overall, 83.6 per cent of the report's respondents used OA databases.[2579] Further statistics suggested that many owners utilised hybrid models of OA databases, in lieu of subscription based ones, where the hybrid models combined subscription and OA initiatives.[2580] The Evaluation found that, despite the possible conflicts with OA initiatives, 63 per cent of the respondents released their works OA, with only 25 per cent selling or licensing their works.

Interestingly, the recent Australian Productivity Commission Report on Data Use has found that, although CC licencing is often used, particularly for PSI, it may also be incompatible with databases.[2581] The incompatibility relates to the potential for the terms of the licencing to impede the re-use of data.[2582] Turning to examine the situation in Australia in more detail, CC licences have been utilised by the government, particularly in relation to PSI. The treatment of PSI data will be discussed in the next section.

10.5 Open Data Policies and Public Sector Information

Around the world, open data policies are more commonly being prescribed by governments, research funding institutions and institutional repositories.[2583] In 2004, the OECD released the document, *Principles and Guidelines for Access to Research Data from Public Funding*, which was one of the first major inter-governmental policies developed to facilitate access to publicly funded research data.[2584] In 2011, the multilateral *Open Data Partnership* was signed, which purports governments to promote transparency, become more accountable and empower citizens to improve governance

[2577] European Commission, 'Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (n 85) 42–3.
[2578] Ibid 43.
[2579] Ibid 54.
[2580] Ibid 54.
[2581] Australian Government Productivity Commission, *Data Availability and Use* (n 6) 65.
[2582] Ibid 17.
[2583] Okediji (n 55) 349–54; Piwowar, et al (n 2347) 2.
[2584] OECD, *OECD Principles and Guidelines for Access to Research Data from Public Funding* (Organisation for Economic Co-operation and Development Publication, 2007).

quality.[2585] Currently 78 countries are members of this initiative.[2586] Open data policies are now used in more than 250 national or local governments.[2587] Material that may be published include digital archives and datasets.[2588]

In conjunction with the implementation of open data policies, there has been a shift towards making PSI and other publicly funded works from governments, public institutes, institutional repositories and organisations OAW by default.[2589] PSI is distinct to scientific information/data and is defined as 'data and information held by public bodies'.[2590] In many jurisdictions, such as within Europe, from an IP perspective, PSI is treated as distinct from scientific data in terms of the scope of protection extended and the extension of user rights.[2591] There exists a complex relationship between PSI and databases protected under the *EU Directive*, to the extent that the sui generis right may also be contraindicative to the public's exclusivity rights to re-use PSI under the European PSI Directive.[2592]

In association with the transition to OA through policy development, PSI OA portals have been developed in various jurisdictions. They often utilise CC licencing[2593] and anonymised datasets can be accessed and reused with greater flexibility than would have once been permitted. Examples include https://www.data.gov.au in Australia, https://www.data.gov.au in the US and https://www.data.gov.uk in the UK.

In the past, within Australia, government departments and museums asserted Crown Copyright in PSI, cultural material and other original literary works which were made[2594]

[2585] Open Government Partnership.org, 'Mission and Strategy' *Open Government Partnership* (Web Page, 14 December 2019) <https://www.opengovpartnership.org/mission-and-strategy/>.
[2586] Open Government Partnership.org, 'An Introduction to OPG' *Open Government Partnership* (Web Page, 14 December 2019) <https://www.opengovpartnership.org/about/>.
[2587] Jyh-An Lee (n 2499) 208.
[2588] Dawson and Yang (n 2417) 7.
[2589] Suber, *Open Access* (n 57) 8.
[2590] Leucci (n 2462) 3.
[2591] M Van Eechoud and B Van der Wal, 'Creative Commons Licensing for Public Sector Information: Opportunities and Pitfalls' (Amsterdam Institute for Information Law IViR, Version 3.0, 2008) 3. Also see *Directive 2019/1024/EU of the European Parliament and of the Council of 20 June 2019 on Open Data and the Re-Use of Public Sector Information* [2019] OJ L 172/56.
[2592] Primavera and Maurel (n 2571) 6–7, 9–14.
[2593] Van Eechoud and Van der Wal (n 2591) 4.
[2594] *The Act* (n 168) s 176.

or published[2595] under the direction of the Crown.[2596] If a person wanted to reuse such works, they, therefore, had to seek permission from the relevant department or office, which was burdensome and time consuming.[2597] In 2008, the *Cutler Review* recommended that information, research and content funded by the Australian government should be made freely available online to contribute to global public commons.[2598]

The *Public Data Policy Statement* requires the Government to publish anonymised PSI material.[2599] This is mostly done under CC,[2600] with the licence condition for commercial re-use and attribution at a minimum of Version 3.0.[2601] However, it has been recommended that this be Version 4.0.[2602] Data.gov.au is the premier source for published Australian public data. It currently contains over 30,000 datasets, comprised of governmental data, publicly funded research data and datasets from private institutions whose datasets are within the public interest.[2603] The data available from this site is available through a CC Attribution 3.0 Australian licence.[2604] There are several benefits from releasing governmental PSI data through CC licencing, including fulfillment of objectives of OA policies, transparency/attribution and aversion of technical lock-out of publicly funded materials.[2605]

Other examples of available PSI data include: documents of the Australian Parliament; datasets from the Bureau of Statistics, Geoscience Australia and the Australian Bureau of

---

[2595] Ibid s 177.
[2596] Greenleaf, 'Beyond Creative Commons: Seeing Copyright's Public Domain as a Whole (An Australian Case Study)' (2008) 1(2) *Global KHU Business Law Review* 12, 20-1.
[2597] Ibid 20.
[2598] Terry Cutler, *Ventourousaustralia: Building Strength in Innovation* (National Innovations System Review Panel, Building Strength in Innovation, Final Report for the Australian Government, 2008) 98, Recommendation 7.14.
[2599] Australian Government, *Australian Government Public Data Policy Statement* (Released by Prime Minister Malcolm Turnbull, 7 December 2015).
[2600] Anne Fitzgerald, Neale Hooper and Cheryl Foong, 'Creative Commons and Government Guide: Using Creative Commons 3.0 Australia Licences on Government Copyright Materials' (CC & Government Guide v 3.2, 16 March 2011) 7-8; see generally, Judith Bannister, 'Open Government: From Crown Copyright to the Creative Commons and Culture Change' (2011) 34(3) *University of New South Wales Law Journal* 1080.
[2601] Australian Government, Department of Communications and the Arts, Guidelines on Licensing Public Sector Information for Australian Government Entities (June 2018) 3-5.
[2602] Ibid.
[2603] Australian Government, 'About', *Data.gov.au* (Web Page, 25 November 2019) <https://data.gov.au/page/about>.
[2604] Ibid
[2605] Fitzgerald, Hooper and Foong (n 2600) 26–9.

Statistics; water information policies; archives from the Australian Broadcasting Corporation; policy materials of the National Library of Australia; photos and documents from the Powerhouse Museum and the Queensland Museum; and documents of various government departments.[2606]

As transition to OAW has occurred in Australia, so has the establishment of frameworks which have facilitated open accessibility of publicly funded research data.[2607] This issue was introduced in 2006 and mandated by Australian public research bodies from 2008.[2608] Subsequently, the National Health and Medical Research Council (NHMRC) require that any peer-reviewed publications arising from their support must be lodged into an OA repository to be made publicly accessible within a 12-month period from the publication date.[2609] It is thought that by openly releasing such data, this will strengthen the knowledge economy.[2610]

The ARC *Research Policy* states that any research outputs must be made openly accessible within a 12-month period from the publication date.[2611] The principal aim is that publicly funded research findings are publicly released as soon as possible, and this correlates with OA policies of other international research funding agencies in the UK and US.[2612] Such works must also acknowledge ARC funding and the project identification.[2613] At rule 12.5, titled 'Publication and Dissemination of Research Outputs and Research Data' it states: '[T]he ARC strongly encourages the depositing of data arising from a Project in an appropriate publicly accessible subject and/or institutional repository' and in their research proposal, to outline how they plan to manage their

---

[2606] 'Government Use of Creative Commons', *Creative Commons.org* (Web Page, 17 July 2019) <https://wiki.creativecommons.org/wiki/Government_use_of_Creative_Commons#Australia>.

[2607] Anne Fitzgerald et al, 'Building the Infrastructure for Data Access and Reuse in Collaborative Research' (n 2495) 1.

[2608] Ibid 4.

[2609] Australian Government, *National Health and Medical Research Council - Open Access Policy* (November 2018) 5; National Health and Medical Research Council, 'Open Access Policy', *NHMRC About Us* (Web Page, January 2018) <https://nhmrc.gov.au/about-us/publications/open-access-policy#block-views-block-file-attachments-content-block-1>.

[2610] Australian Government, 'National Health and Medical Research Council - Open Access Policy' (n 2608) 1.

[2611] 'ARC Open Access Policy', *Australian Research Council* (Web Page, 13 July 2018) <https://www.arc.gov.au/policies-strategies/policy/arc-open-access-policy>.

[2612] Australian Government, *Australian Research Council ARC Open Access Policy* (Version 2015.1, Issued April 2015) 3.

[2613] Australian Government, 'ARC Open Access Policy' (n 2611).

data.[2614] It can be seen from this that OA data output is emphasised as an important product of Australian research.

So, while the Australian Government desires research output (data, databases and datasets) of publicly funded researchers to be released as works of open scholarship, this does not negate the fact that the collection of such data is funded by public monies. When data is freely released, depending on the CC licencing conditions, there is the possibility that it could be utilised by private companies for profit. This prompts the question as to whether the government should impose restrictions on the private commercial data re-use of public data, given its potential value. Such contentious issues remain unresolved, particularly in relation to standardising national OA policy.

In November 2018, a report was released about Government funding arrangements for non-NHMRC research.[2615] It acknowledged the role of OA scholarship and noted that no national coordination exists.[2616] Subsequently, a strategic approach to OA scholarship was recommended.[2617] This report was also endorsed by the Australian Open Access Support Group, who have proposed the establishment of a national body to develop OA scholarship policy over five years.[2618] As has been flagged, more work is needed in developing standardised national OA policy. A national, coordinated strategic approach to OA scholarship, which encompasses such research outputs is needed.

Issues which need to be clarified include:

- Ownership of the data/databases/datasets which are identified by a researcher and selected for OA licencing;
- Issues pertaining to economic benefit of public data by private entities;
- The issue of how the underlying technological infrastructure to facilitate such OA initiatives will be funded and managed; and

---

[2614] Australian Government, *Australian Research Council - Funding Rules for Schemes Under the Discovery Program* (2017 Edition) 23, A12.5.2.
[2615] Australian Government, *Funding Arrangements for non-NHMRC Research* (House of Representatives Standing Committee on Employment, Education and Training, November 2018).
[2616] Ibid 5.17, 60.
[2617] Ibid Recommendation 12, 5.18, xx.
[2618] Joint AOASG and CAUL Statement on the Importance of Open Scholarship' (n 2472).

- The importance of establishing OA repositories and the provision of further education about IP, OA and authorship/ownership.

There are, however, some potential disadvantages of using OA for Australian-produced databases. One of the significant disadvantages of OA publishing generally pertains to the potential for unintended secondary usage or misappropriation of such data, such as unauthorised commercialisation.[2619] Another such example of unintended secondary usage is through the use of a CC. Privacy concerns are another major issue, with the ability of technology to de-anonymisation data.[2620] Another problem is the potential for an over-abundance of material. Currently, most people have the capacity to be a content creator and the ability to generate infinite content.[2621] An effect of this is that it is difficult to know what OA publications and data are reputable or useful and what is not.

In academia, this was one of the benefits of the print publication of peer-reviewed journals (pre-internet era): when a peer-reviewed journal was published, it was recognised as being a reputable and trustworthy source of information.[2622] A flow-on effect from the over-abundance of information will be that an individual's time and attention in reading and evaluating the trustworthiness of such works will become an important skill to possess into the future.[2623]

It is also for this reason that it has been suggested that centralised entities and platforms are becoming the gatekeepers and controllers of how most people access (and therefore reuse) data and will continue to do so in decades to come.[2624] In association with this, there is the danger of vertical integration occurring to the extent that it impacts upon innovation.[2625] The reliance of the internet to access and disseminate OAWs also places

---

[2619] Hugelier (n 155) 44.
[2620] See generally, Sébastien Gambs, Marc-Olivier Killijianb, Miguel Núñez del Prado Cortez, 'De-Anonymization Attack on Geolocated Data' (2014) 80 *Journal of Computer and System Science* 1597; Ibid 45–6.
[2621] Benkler, *The Wealth of Networks* (n 37) 3; Hunter, 'Open Access to Infinite Content or "In Praise of Law Reviews"' (n 2384) 769.
[2622] Madison (n 2422) 903.
[2623] Frank Pasquale, 'Copyright in an Era of Information Overload: Toward the Privileging of Categorizers' (2007) 60 *Vanderbilt Law Review* 135, 173-4.
[2624] Garry Hall (n 2538).
[2625] Lawrence Lessig, *The Future of Ideas* (n 75) 165-7.

necessity on the financial investment to maintain and upkeep technological frameworks and systems that control the storage and dissemination of these works.

Another disadvantage of OA publishing is that just because a work is released under an OA licence does not mean that the work will be accessed and read. Effective promotion of OA articles presents another issue.[2626] In the past, a critical aspect of publishing was publicity – the advertising of the publication. It appears there has been a shift from publicity/advertising to reliance upon personalisation software and search-engine indexing on digital platforms. These platforms are currently relied upon to access OA works and data but, from a consumer and competition-point-of-view, the trustworthiness of such tools is a major issue, as evidenced by recent antitrust debate in the EU and US pertaining to the behaviour of big-tech companies.[2627]

10.6 Conclusion: OA Databases and the Future

In conclusion, this chapter has analysed the lessons that can be learned from current open access initiatives if applied to Australian databases. After examining the relevant history of the OAW movement, it used the case study of academic publishing as a comparison to traditional publishing practices. Of note is that the current diversity and volume of research output, such as databases, data and datasets produced in Australia, generates some complex questions pertaining to data ownership and to what extent such works can and should be made publicly accessible through OA initiatives. As has been examined throughout this chapter, OA licencing regimes such as CC may be utilised for some databases, particularly those funded by public monies and released by the Australian government. It is, however, unlikely that some databases, data or datasets would be suitable to be licenced under this initiative due to the actual data falling outside of protection or the lack of means to recoup economic investment through OA initiatives.

In academia and science, the growing OA movement has provided an alternative method of distributing not only research results but also the underlying data/metadata, source

[2626] Madison (n 2422) 903.

[2627] See, eg, John M Newman, 'Antitrust in Digital Markets' (2019) 72(5) *Vanderbilt Law Review* 1497; Megan Sacher, 'Net Neutrality, Antitrust and Startups in the European Union' (2018) 20(1) *San Diego International Law Review* 161.

materials and any graphs or supporting multimedia and this practice is gaining increased acceptance and utilisation as time progresses.[2628]

Hypothetically, it is likely that, in the future, the production and distribution of Australian databases will continue to originate from what can be distinguished as two primary commercial models:[2629]

- The first one will be based on traditional business models (with underlying copyright doctrines) involving private funding (such as the Telstra Sensis database, or a 'small science' initiatives),[2630] with a centralised system of renumeration for the author/publisher/owner in response for royalties/subscription fees;
- The second will be databases which are created through publicly funded/author-funded and/or decentralised systems (such as academia) and distributed through OA licencing regimes, so that anyone may freely access and reuse such works;

As foreshadowed by a prominent scholar in 2004, at some future time, it is likely that OA regimes will outperform traditional markets in terms of an excess of capacity.[2631] The COVID-19 pandemic may accelerate this process due to the need for people to socially isolate but at the same time to globally disseminate their work. However, clearly some challenges emerge from reliance upon OAWs, one of which is trustworthiness and reputability.[2632] In response to this issue, new platforms and technologies may be utilised in the future.

Overall, the most prominent disadvantage from an economic cost-recovery perspective is that OAWs are irreconcilable with the traditional notion of monetarily incentivising an author for producing a work. Therefore, in the situation where the costs of producing a database or dataset are high and are not publicly funded, such as occurred with the Telstra database, current OA initiatives do not remunerate an author for the economic investment in their database.

Whether a future hybrid open licencing scheme could be developed that provides some type of economic incentive to an author is difficult to conceptualise, as it essentially

[2628] Guibault (n 2415) 63-92.
[2629] Willinsky, 'Copyright Contradictions in Scholarly Publishing' (n 2464) 1.
[2630] Reichman and Uhlir (n 13) 322–3.
[2631] Benkler, 'Sharing Nicely' (n 2478) 329.
[2632] Jyh-An Lee (n 2499) 215-6.

contradicts the underlying rationale of openness — that of a work being free to access and reuse. It may be possible to develop a hybrid model which combines OA models with subscription-based revenues and further innovation is clearly warranted about this issue.

What is likely as technology continues developing is that there will be further innovation between pre-existing licencing models, which could result in new initiatives which are currently unknown which could economically incentivise producers. How copyright, OA and licencing responds in time to such initiatives remains to be seen.

The next section will be the conclusion to this study. It will revise what has been investigated through each chapter of this work by summarising the major findings and then it shall offer recommendations about the future of database production under Australian law.

CHAPTER 11: CONCLUSION — THE FUTURE COPYRIGHT PROTECTION OF AUSTRALIAN DATABASES

11.1 Overall Relevance of this Chapter to the Central Thesis

This chapter comprises the final conclusion to this dissertation. In consideration of the findings throughout each chapter of this study, it will present some ideas and recommendations for the future copyright protection of databases in Australia.

To recap the major analysis throughout this study, Chapter 1: introduced the main themes and the definition of a database, outlined the central thesis and detailed the research methodology, structure, scope and contributions that this study will make to the scholarship and practice of copyright law. Then Chapter 2: addressed the first question, which pertained to the two primary underlying philosophical justifications for the copyright protection of databases: Lockean and Hegelian theory. It also discussed the assumptions made, including the major assumption which underpins the central thesis. This led to an examination of the primary purpose/s for the implementation of copyright. Chapter 2: discussed the evident changes in technology, the social and cultural changes which have impacted the way that databases are currently produced and the assumptions made in response to this.

Chapter 3: then addressed the second question, which asked how the originality and authorship of databases has evolved under international law, in the EU and in the US. To do this, the chapter analysed the three standards of originality which are used in evaluating copyright subsistence around the world. It also discussed the treatment of databases under international law. After this, it contrasted the national laws of the EU and the US to international law and distilled key points which were compared to the protection of databases under Australian law.

PART TWO (Chapter 4: and Chapter 5:) turned to the protection of databases under Australian law. This Part analysed the third question, which asked what the subsistence criteria are and how originality and authorship has judicially evolved to regulate the protection of databases. Chapter 6: addressed the fourth question and the central thesis, which explained how the current judicial application pertaining to originality and authorship under-protects databases.

It proved the central thesis, which is that **the current judicial application of Australian copyright law under-protects some privately funded databases. From an Australian judicial perspective, as was analysed throughout Chapter 5: and Chapter 6:, in recent times originality and authorship have failed due to a lack of traceable human authorship and 'independent intellectual effort'. This has led to the problem of commercially valuable databases which are created through the collaborative efforts of many falling outside of copyright protection and being left open to economic exploitation. The other problem with this from a Lockean perspective is that it discourages investment in database production, due to a lack of incentivisation for authors to invest in or create a database.**

In Australia, this recent lack of the judicial establishment of originality and authorship in databases has led to legal uncertainty, with copyright failing in some expensive privately funded databases. A general destabilisation and unbalancing of rights between database producers and users has ensued. In turn, this has resulted in situations of under-protection, through the minimisation of the economic rights of valuable databases, such as that owned by Telstra.

In response to this problem, this study examined what could be done to protect privately funded Australian databases which fell outside of copyright due to insufficient originality and authorship. Chapters 7 to 9 analysed the lessons that can be learned from the EU sui generis database right if Australia were to implement such a regime. Chapter 7: used the UK as a case study due to the shared legal origins with Australia and examined their implementation of the *EU Directive*. Chapter 8: then analysed the jurisprudence that had been referred by the UK to the CJEU for direction and ruling. After this, Chapter 9: engaged in an evaluation of sui generis protection by examining empirical evidence from the EU, analysing theoretical criticisms levelled at the *EU Directive* and considering the hypothetical application of the *EU Directive* within Australia. The ultimate recommendation was that Australia should not adopt such a regime because the myriad of potential disadvantages outweighed the potential advantages.

Having concluded that enactment of a sui generis right was inappropriate for Australia, Chapter 10: turned to the issue of open access regimes. It analysed the lessons that can be learned from current open access initiatives if applied to Australian databases. Academic publishing was used as a case study. It was seen that open access regimes (including CC

licencing) have an appropriate utility in some situations (eg, for publicly funded databases). The ultimate problem, however, is that the very notion of OAWs omit the aspect of remunerating an author for producing their work. This means that OA regimes provide no such economic benefit to privately funded databases which fall outside of copyright protection in Australia due to a lack of authorial remuneration. At 10.6, this study did, however, find that the future development of hybrid OA models warranted further investigation, where there might be the scope of economic remuneration.

11.2 Graph: The Future Challenge of Balancing Various Interests and the Public/Private Divide

Upon consideration of the future of Australian copyright law and policy, there will always be challenges involved in the delicate balancing of various interests, as reflected in the public (utilitarian)/private (economic) divide. The result of this delicate balance will ultimately determine the scope of database protection and the ramifications are substantial. Ultimately, the future direction of the copyright protection of Australia databases depends on what choices are made as to the weight and merit/priority given to the public (non-economic)/private (economic) divide. Figure 11.1 represents the situation:

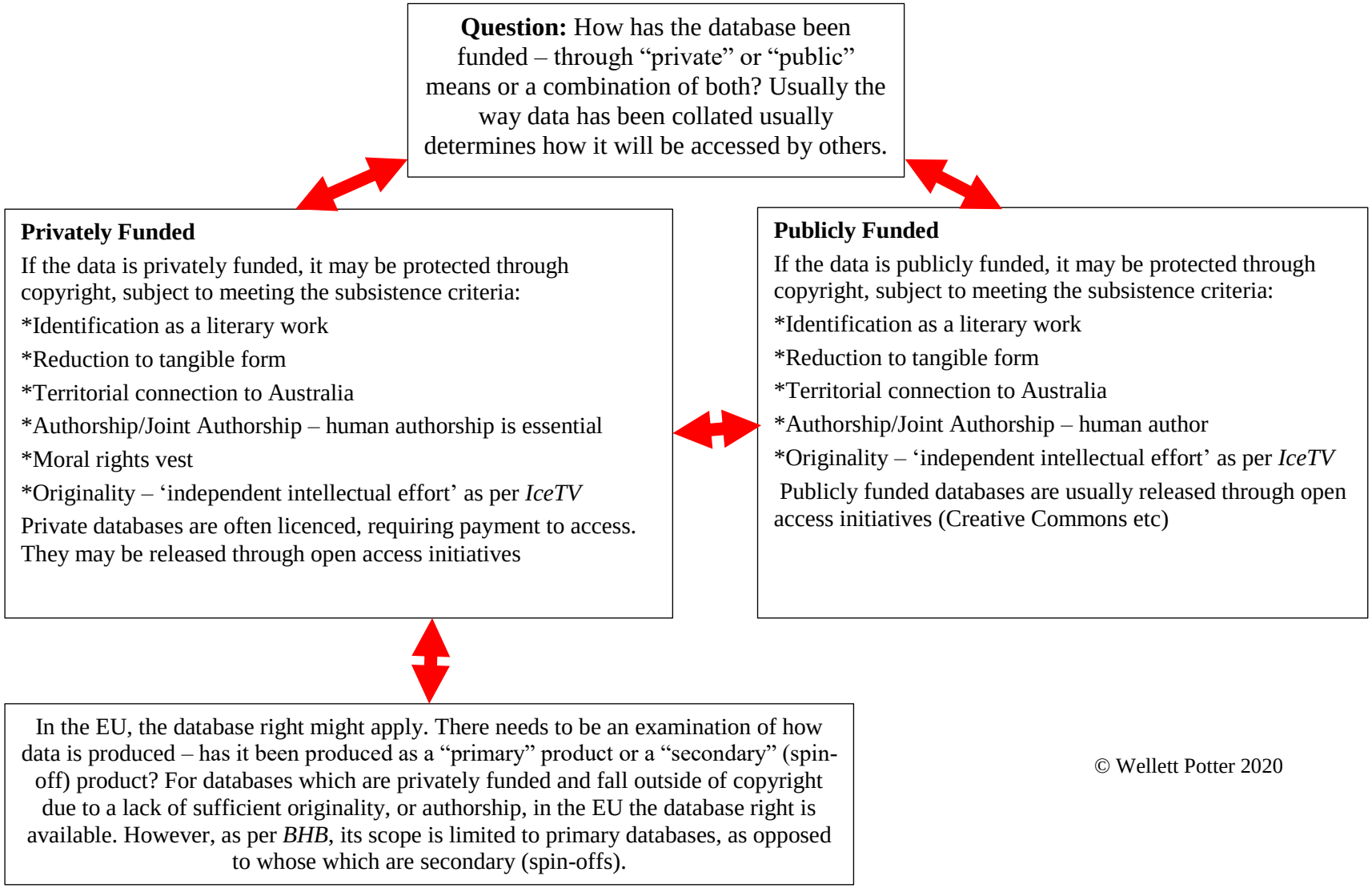

Figure 11.1: Differences Between Private and Public Databases

11.3 In the Future, What Can Be Done to Address the Current Problems?

Taking into consideration the major arguments from each chapter, a multi-pronged approach is advised for the amendment of current copyright law to address the problems outlined above. Copyright, sui generis and open access schemes already contain the underlying philosophies and doctrines which can address the major issues but amendments are needed to the current law.

If Australian policymakers wish to amend copyright law with the goal of strengthening economic protection to extend to most private databases, the following ideas are recommended:

1. The statutory post-*IceTV* originality criterion should remain unchanged, as its judicial interpretation appears stable. Current judicial interpretation reflects an author's 'independent intellectual effort', which reflects a quasi-global harmonisation with the EU and US, as well as international law.

2. In relation to authorship, the problem with amending the statutory authorship construct to include provision for a non-human copyright (so that databases which currently fall outside of subsistence could be included) is that such a notion challenges the underlying justification for the entire copyright regime. As discussed at 2.2.1, a simple elegance of the copyright system is that it has traditionally provided incentive to authors in order to encourage the creation of works. As private databases become more utilised (particularly through AI initiatives) robots do not require incentivisation to continue producing new works. A work-around to address this would be the creation of a new type of neighbouring right, such as that postulated by the EC in their report about 'Building a European Data Economy'.[2633] This warrants further research and investigation, but its particulars lie outside the scope of this study.

3. It is recommended that an amendment be made to *the Act* to make provision for the authorship of CGWs and works when involving DBMS where it is difficult to directly trace the conduct back to a human author. *The Act* would benefit from

[2633] European Commission, 'Building a European Data Economy' (n 2251).

enacting a similar definition as to that used in the UK for CGW by stating that an author is the 'person who makes the necessary arrangements for the creation of the work'. This would provide legal stability to database producers and allow a greater chance of judicially being able to satisfy all copyright subsistence criterion.

4. Another option would be the introduction of a new type of data right or a new category of database right under copyright law (not a Part III or Part IV work).

5. Alternatively, a most extreme change would be the implementation of a sui generis database right, similar to that employed in the EU and UK. It must be stressed that this is not a preferable option for the reasons outlined in the analysis at 9.6. If this occurs, however, it is highly recommended that this be an 'opt-in' scheme, where owners register for the right, instead of a right which automatically subsists. If such a right were to be implemented, it would also be essential to consider how it interacts with open access initiatives and to qualify this interaction up-front.

Alternatively, favouring a utilitarian approach to future Australian database protection, it is recommended that the status quo in copyright be maintained, through:

1. The promotion of ongoing open access initiatives, along with

2. Further research and development about various licencing schemes and compulsory licencing schemes,[2634] which make provision for databases produced through various combinations of public and private initiatives. Some of the most successful future schemes which achieve a balance between renumeration for producers and access to users will likely involve hybrid models, involving a mixture of open access and licencing and this warrants consideration.[2635]

In concluding this study, as stated in the chosen quotation at the very beginning, it must be remembered that databases comprise a unique subject matter due to their very nature,

---

[2634] Alina Ng, 'Authors and Readers: Conceptualizing Authorship in Copyright Law' (2008) 30 *Hastings Communications & Entertainment Law Journal* 377, 414-15.

[2635] See generally, Tanya M Woods, 'Working Towards Spontaneous Copyright Licensing: A Simple Solution for a Complex Problem' (2009) 11 *Vanderbilt Journal of Entertainment and Technology Law* 1141.

which combines information with its literary and artistic expression. The competing tensions between the necessity of freely allowing information to be accessible to everyone on the one hand and the need to incentivise database producers for their significant economic investment on the other hand are substantial. These tensions place an important burden upon the ongoing role of copyright law and the current and future decisions of Australian policymakers.

The difficult choices that must be made in addressing this issue requires sophisticated legal engineering to ensure future certainty as the fourth industrial era continues in earnest. Current and future aims should be to strike an appropriate balance between the renumeration of database producers and the accessibility of databases to users. What must be kept in mind is the added competing pressures of new and changing technology and innovation. It is therefore hoped that the research, analysis, ideas and recommendations investigated throughout this study provide significant contribution towards achieving this.

Bibliography

Journal Articles/Books/Reports

Adduono, Christopher John, *Rebalancing Copyright Law* (PhD Thesis, University of Southampton, 2015)

Adeney, Elizabeth, 'Authorship and Fixation in Copyright Law: A Comparative Comment' (2011) 35(2) *Melbourne University Law Review* 677

Adeney, Elizabeth, 'Research Collaborations and "Authorship": Differentiating Legal From Management Norms' (2016) 44(2) *Australian Business Law Review* 132

Adrian, Angela, *Law and Order in Virtual Worlds: Exploring Avatars, Their Ownership and Rights* (Information Science Reference, 2010)

Albert, Karen M, 'Open Access: Implications for Scholarly Publishing and Medical Libraries' (2006) 94(3) *Journal of the Medical Library Association* 253

Alexander, Isabella, *Copyright Law and the Public Interest in the Nineteenth Century* (Hart Publishing, 2010)

Alexander, Isabella, 'Sayer v Moore (1785)' in Jose Bellido (ed), *Landmark Cases in Intellectual Property Law* (Hart Publishing, 2017) Chapter 3

Alexander, Isabella and Marlena Jankowska, 'Rights in Geospatial Information: A Shifting Legal Terrain' (2018) 41(3) *Melbourne University Law Review* (advance) 2

Allan, Nick, Michael Browne and Anna Carboni, 'Post Brexit IP Rights: What is Agreed and Yet to be Agreed Under the European Commission's Draft Withdrawal Agreement' (2018) 13(8) *Journal of Intellectual Property Law and Practice* 608

Al-Sharieh, Saleh, *A Roadmap for Assimilating Authors' and Users' Human Rights into International Copyright Law* (LLD Thesis, University of Ottawa Faculty of Law 2014)

Anderson, David, 'Inadequate Implementation of EEC Directives: A Roadblock on the Way to 1992?' (1988) 11(1) *Boston College International and Comparative Law Review* 91, 92.

Andrews, Cameron, 'Copyright in Computer-Generated Work in Australia Post-Ice TV: Time for the Commonwealth to Act' (2011) 22 *Australian Intellectual Property Journal* 29

Antelman, Kristin, 'Do Open-Access Articles Have a Greater Research Impact?' (2004) 65(5) *College and Research Libraries News* 372

Aplin, Tanya, 'When Are Compilations Original? Telstra Corporation Ltd v Desktop Marketing Systems Pty Ltd' (2001) 3 *Digital Technology Law Journal* <http://www.austlii.edu.au/au/journals/DTLJ/2001/1.html>

Armstrong, Timothy K, 'Two Comparative Perspectives on Copyright's Past and Future in the Digital Age' (2016) 15(4) *John Marshall Review of Intellectual Property Law* 698

Artusio, Claudio and Federico Morando, 'Creative Commons 4.0 Licenses: A Sui Generis Challenge?' in Peter Parycek and Noella Edelmann (eds) *CeDEM14 Conference for E-Democracy and Open Government* (2014 Edition Donau Universität Krims)

Atkinson, Ben, *The True History of Copyright: the Australian Experience 1905 – 2005* (Sydney University Press, 2007)

Aultman, Elisabeth S, 'Authorship Atomized: Modeling Ownership in Participatory Media Productions' [2014] (36) *Hastings Communications and Entertainment Law Journal* 383

Austin, Anthony, Maree Heffernan and Nikki David, 'Academic Authorship, Publishing Agreements and open Access: Survey Results' (The OAK Law Project, Queensland University of Technology, May 2008)

Australian Government, Department of Communications and the Arts, *Guidelines on Licensing Public Sector Information for Australian Government Entities* (June 2018)

Australian Government, *Funding Arrangements for non-NHMRC Research* (House of Representatives Standing Committee on Employment, Education and Training, November 2018).

Australian Government Productivity Commission, *Data Availability and Use* (Productivity Commission Inquiry Report No 82, 31 March 2017)

Australian Government Productivity Commission, *Intellectual Property Arrangements* (Productivity Commission Inquiry Report No 78, 23 September 2016)

Australian Government, 'Australian Businesses and the EU General Data Protection Regulation' (Privacy Business Resource 21, Office of the Information Commissioner, January 2018)

Australian Government, *Australian Government Public Data Policy Statement* (Released by Prime Minister Malcolm Turnbull, 7 December 2015);

Australian Government, *Australian Research Council - Funding Rules for Schemes Under the Discovery Program* (2017 Edition)

Australian Government, *Australian Research Council ARC Open Access Policy* (Version 2015.1, Issued April 2015)

Australian Government, *National Health and Medical Research Council - Open Access Policy* (November 2018)

Australian Law Reform Commission, *Copyright and the Digital Economy,* Issues Paper No 42 (August 2012)

Ayalp, Sedef, 'Lost in Space: The Copyright Dilemma' (2016) 7(2) *Intellectual Property Brief* 86

Baba, Edward J, 'From Conflict to Confluence: Protection of Databases Containing Genetic Information' (2003) 30 *Syracuse Journal of International Law and Commerce* 121

Babovic, Mihajlo, 'The Emperor's New Digital Clothes: The Illusion of Copyright Rights in Social Media' (2015) 6(1) *Cybaris: An Intellectual Property Law Review* 138

Bainbridge, David, *Intellectual Property* (Pearson Education, 8th ed, 2010)

Balganesh, Shyamkrishna, 'Causing Copyright' (2017) 117(1) *Columbia Law Review* 1

Balkin, Jack M, 'Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society' (2004) 79(1) *New York University Law Review* 1

Balkin, Jack M, 'The Path of Robotics Law' (2015) 6 *California Law Review* 45

Band, Jonathan and Makoto Kono, 'The Database Protection Debate in the 106th Congress' (2001) 62 *Ohio State Law Journal* 869

Band, Jonathan, 'The Database Debate in the 108th Congress: The Saga Continues' (2005) 27(6) *European Intellectual Property Review* 205

Bannerman, Sara, 'Access to Scientific Knowledge' (Paper presented at the International Communications Association (ICA) Conference, San Juan, Puerto Rico, 24 May 2015)

Bannister, Judith, 'Originality and Access: Copyright Protection of Compilations and Databases' (1999) 10 *Journal of Law and Information Science* 227

Bannister, Judith, 'Open Government: From Crown Copyright to the Creative Commons and

Culture Change' (2011) 34(3) *University of New South Wales Law Journal* 1080

Banta, Natalie M, 'Property Interests in Digital Assets: The Rise of Digital Feudalism' (2007) 38 *Cardozo Law Review* 1099

Baron, Jane B 'Property as Control: The Case of Information' (2012) 18 *Michigan Telecommunications and Technology Law Review* 367

Baron, Jane B, 'Rescuing the Bundle-of-Rights Metaphor in Property Law' (2013) 82 *University of Cincinnati Law Review* 57

Baron, Paula, 'Back to the Future: Learning from the Past in the Database Debate' (2001) 62 *Ohio State Law Journal* 879

Barron, Anne, 'Kant, Copyright and Communicative Freedom' (2012) 31(1) *Law and Philosophy* 1

Bartolini, Cesare, 'An Overview of the Limitations to the Dissemination of Data' (Paper presented at Interdisciplinary Centre for Security, Reliability and Trust (SnT), University of Luxembourg, Budapest, 3 June 2015)

Bartow, Ann, 'Open Access, Law, Knowledge, Copyrights, Dominance and Subordination' (2006) 10(4) *Lewis and Clark Law Review* 870

Bastian, Michael J, 'Protection of "Noncreative" Databases": Harmonisation of United States, Foreign and International Law' (1999) 22 *Boston College International and Comparative Law Review* 425

Beck, Henry, 'Copyright Protection for Compilations and Databases After Feist' (1991) 8 *Computer Lawyer* 1

Beldiman, Dana (ed), *Access to Information and Knowledge: 21st Century Challenges in Intellectual Property and Knowledge Governance* (Edward Elgar Publishing, 2013)

Benkler, Yochai, 'Constitutional Bounds of Database Protection: The Role of Judicial Review in the Creation and Definition of Private Rights in Information' (2000) 15 *Berkeley Technology Law Review* 535

Benkler, Yochai, 'Sharing Nicely: On Shareable Goods and the Emergence of Sharing as Modality of Economic Production' (2004) 114(2) *Yale Law Journal* 273

Benkler, Yochai, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (Yale University Press, 2006)

Bennett, W Lance, '1998 Ithiel De Sola Pool Lecture: The UnCivic Culture: Communication, Identity, and the Rise of Lifestyle Politics' (1998) 31(4) *PS: Political Science and Politics* 740

Bently, Lionel and Brad Sherman, *The Making of Modern Intellectual Property Law: The British Experience 1760 – 1911* (Cambridge University Press, 2002)

Bently, Lionel, 'Harmonisation by Stealth? The ECJ and European Copyright Law' (Speech delivered at the 2012 Fordham IP Conference, Fordham University School of Law, 13 April 2012) <http://fordhamipconference.com/wp-content/uploads/2010/08/Bently_Harmonization.pdf>

Bently, Lionel, 'The Return of Industrial Copyright?' (2012) 34(10) *European Intellectual Property Review* 654

Berman, Francine and Vint Cerf, 'Who Will Pay for Public Access to Research Data?' (2013) 341(6146) *Science* 616

Bernstein, Gaia, 'In the Shadow of Innovation' (2010) 31(6) *Cardozo Law Review* 2257

Bessen, James, 'Patent Thickets: Strategic Patenting of Complex Technologies' (Research Paper – Research on Innovation and Boston University School of Law) <https://ssrn.com/abstract=327760>

Beunen, Annemarie, 'A Drafting History and General Overview of the Database Directive' in Annemarie Beunen (ed), *Protection for Databases: The European Database Directive and its Effects in the Netherlands, France and the United Kingdom* (Universiteit Leiden, 2007) 3

Beunen, Annemarie, 'Geschriftenbescherming: The Dutch Protection for Non-original Writings' in Bernt Hugenholtz, Antoon Quaedvlieg and Dirk Visser (eds), *A Century of Dutch Copyright Law, Auteurswet 1912-2012* (deLex, 2012), 57

Bitton, Miriam, 'Modernizing Copyright Law' (2011) 20 *Intellectual Property Law Journal* 65

Bitton, Miriam, 'Trends in Protection for Informational Works Under Copyright Law During the 19th and 20th Centuries' (2006) 13 *Michigan Telecommunications and Technology Law Review* 115

Björk, Bo-Christer, 'Gold, Green, and Black Open Access' (2017) 30 *Learned Publishing* 173

Blansit, B Douglas, 'The Basics of Relational Databases Using MySQL' (2006) 3(3) *Journal of Electronic Resources in Medical Libraries* 135

Bodie, Matthew T, 'Open Access in Law Teaching: A New Approach to Legal Education' (2006) 10(4) *Lewis and Clark Law Review* 885

Balázs Bodó, 'The Genesis of Library Genesis: The Birth of a Global Scholarly Shadow Library' in Joe Karaganis (ed) *Shadow Libraries – Access to Knowledge in Global Higher Education* (MIT Press, 2018)

Bogers, Marcel, Henry Chesbrough and Carlos Moedas, 'Open Innovation: Research, Practices, and Policies' (2018) 60(2) *California Management Review* 5

Bond, Toby and Sarah Blair, 'Artificial Intelligence & Copyright: Section 9(3) or Authorship Without an Author: Editorial' (2019) 14(6) *Journal of Intellectual Property Law & Practice* 423

Borghi, Maurizio, ‘Copyright and Truth’ (2011) 12(1) *Theoretical Inquiries in Law* 1

Borghi, Maurizio, Kris Erickson and Marcella Favale, ‘With Enough Eyeballs All Searches Are Diligent: Mobilizing the Crowd in Copyright Clearance for Mass Digitization’ (2016) 16(1) *Chicago-Kent Journal of Intellectual Property* 135

Bosher, Hayley, *Framework Using the Internal and External Perspectives and its Application to Online Copyright Infringement: An Analysis of Copying and Communication to the Public* (PhD Thesis, Centre for Intellectual Property Policy and Management, Bournemouth University 2016)

Bosman, Jeroem and Bianca Kramer, ‘Open Access Levels: A Quantitative Exploration Using Web of Science and oaDOI Data’ (2018) 6 *Peer J Preprints* e3520v1

Bottis, Maria, ‘How Open Data Become Proprietary in the Court of Justice of the European Union’ in S Katsikas and A Sideridis (eds) E-Democracy: Citizen Rights in the World of the New Computing Paradigms (Springer, 6th International Conference Proceedings, E-Democracy 2015, Athens, Greece, December 10-11, 2015, Vol 570, 2015) 169

Bovenberg, Jasper A, ‘Should Genomics Companies Set Up Database in Europe? The EU Database Protection Directive Revisited’ (2001) 23(8) *European Intellectual Property Review* 361

Bowrey, Kathy, ‘On Clarifying the Role of Originality and Fair Use in 19th Century UK Jurisprudence: Appreciating “The Humble Grey Which Emerges as the Result of Long Controversy”’ (Working Paper 58, University of New South Wales Faculty of Law Research Series, 2008)

Bowrey, Kathy, ‘The Outer Limits of Copyright Law: Where Law Meets Philosophy and Culture’ (2001) 12(1) *Law and Critique* 75

Boyarski, J R, ‘The Heist of Feist: Protections for Collections of Information and the Possible Federalization of ‘Hot News’ (1999) 21 *Cardozo Law Review* 871

Boyle, James, *Shamans, Software and Spleens: Law and the Construction of the Information Society* (Harvard University Press, 1996)

Boyle, James, ‘A Politics of Intellectual Property: Environmentalism for the Net?’ (1997) 47 *Duke Law Journal* 87

Boyle, James, ‘Cruel, Mean or Lavish? Economic Analysis, Price Discrimination and Digital Intellectual Property’ (2000) 53(6) *Vanderbilt Law Review* 2007

Boyle, James, *The Public Domain: Enclosing the Commons of the Mind* (Yale University Press, 2008)

Boyte, Alina Ng, ‘Finding Copyright’s Core Content’ (Mississippi College School of Law, Legal Studies Research Paper No. 2013-09, 2013)

Boyte, Alina Ng, ‘The Conceits of Our Legal Imagination: Legal Fictions and the Concept of Deemed Authorship’ (2014) 17(3) *New York University Journal of Legislation and Public Policy* 707

Bracha, Oren, ‘Standing Copyright Law on Its Head? The Googlization of Everything and the Many Faces of Property’ (2007) 85 *Texas Law Review* 1799

Bracha, Oren, and Talha Syed, ‘Beyond the Incentive-Access Paradigm? Product Differentiation and Copyright Revisited’ (2014) 92(7) *Texas Law Review* 1841

Brand, Stewart, *The Media Lab: Inventing the Future at MIT* (Viking Penguin, 1987)

Bridy, Annemarie, ‘Coding Creativity: Copyright and the Artificially Intelligent Author’ (2012) 5 *Stanford Technology Law Review* 1

Bridy, Annemarie, ‘The Evolution of Authorship: Work Made By Code’ (2016) 39(3) *Columbia Journal of Law & the Arts* 395

Brill, Charles, ‘Legal Protection of Collections of Facts’ (1998) *Computer Law Review and Technology Journal* 1

Brown, Richard, ‘Copyright and Computer Databases: The Case of the Bibliographic Utility’ (1985) 11 *Rutgers Computer and Technology Law Journal* 17

Bruns, Axel and Hallvard MoeKatrin, ‘Structural Layers of Communication in Twitter’ in Katrin Weller, Axel Bruns, Jean Burgess, Merja Mahrt and Cornelius Puschmann (eds) *Twitter and Society* (Peter Lang, 2014) 15

Bruton, Theo Austin, 'Mind-Movies: Original Authorship As Applied to Works From "Mind-Reading" Neurotechnology' (2014) 14(1) *Chicago-Kent Journal of Intellectual Property* 263

Buccafusco, Christopher, 'A Theory of Copyright Authorship' (2016) 102 *Virginia Law Review* 1229

Buccafusco, Christopher, Zachary C Burns, Jeanne C Fromer and Christopher Jon Sprigman, 'Experimental Tests of Intellectual Property Laws' Creativity Thresholds' (2014) 92(7) *Texas Law Review* 1921

Buning de Cock, Madeleine, 'Autonomous Intelligent Systems as Creative Agents under the EU Framework for Intellectual Property' (2016) 2 *European Journal of Risk Regulation* 310

Burk, Dan, 'Copyright and Hypernarrative' (2018) 31 *Law and Literature* 1

Burstyn, Neal F, 'Creative Sparks: Works of Nature, Selection, and the Human Author' (2015) 39(2) *Columbia Journal of Law & the Arts* 281

Butler, Timothy, 'Can a Computer be an Author: Copyright Aspects of Artificial Intelligence', (1982) 4(4) *Hastings Communication and Entertainment Law Journal* 707

Butt, Peter, et al, (eds), *Butterworths Concise Australian Legal Dictionary* (LexisNexis Butterworths, 3rd ed, 2004)

Bygrave, Lee, 'The Data Difficulty in Database Protection' (2013) 35(1) *European Intellectual Property Review* 25

Cairns, Paul and Simone Blakeney, '1-0 to *Football Dataco Ltd* - The Organisers of Professional Football Matches take the Lead in the Battle to Prevent the Unauthorised Use of their Fixture Lists' (2010) 3(4) *International Sports Law Review* 57

Callis, Sherrie, 'Copyright Protection in Factual Compilations: Feist Publications v. Rural Telephone Service Company "Altruism Expressed in Copyright Law"' (1992) 22 *Golden Gate University Law Review* 529

Calo, Ryan, 'Robotics and the Lessons of Cyberlaw' (2015) 103 *California Law Review* 513

Canellopoulou-Bottis, Maria, ‘A Different Kind of War: Internet Databases and Legal Protection or How the Strict Intellectual Property Laws of the West Threaten the Developing Countries’ Information Commons’ (2004) 2 *International Journal of Legal Ethics* 1

Cantatore, Francina, ‘From Vault to Honesty Box: Australian Authors and the Changing Face of Copyright’ (2013) 25(1) *Bond Law Review* 98

Cardinale, Philip J, ‘*Sui Generis* Database Protection: Second Thoughts in the European Union and What it Means for the United States’ (2007) 6 *Chicago-Kent Journal of Intellectual Property* 157

Carey, Peter, *Media Law* (Sweet and Maxwell, 2nd ed, 1999)

Carpenter, Megan and Steven Hetcher, ‘Function Over Form: Bringing the Fixation Requirement into the Modern Era’ (2014) 82 *Fordham Law Review* 2221

Carroll, Michael W, ‘Creative Commons and the Openness of Open Access’ (2013) 368(9) *The New England Journal of Medicine* 789

Carroll, Michael W, ‘The Movement for Open Access Law’ (2006) 10(4) *Lewis and Clark Law Review* 741

Carty, Hazel, and Keith Hodkinson, ‘Copyright, Designs and Patents Act 1988’ (1989) 52(3) *The Modern Law Review* 369

Casey, Anthony J and Andres Sawicki, ‘The Problem of Creative Collaboration’ (2017) 58 *William and Mary Law Review* 1793

Caso, Roberto and Rossana Ducato, ‘Open Bioinformation in the Life Sciences as a Gatekeeper for Innovation and Development’ in Giuseppe Bellantuono and Fabiano Teodoro Lara (eds) *Law, Development and Innovation* (Springer, 2016) 115

Cass, Ronald A and Hylton, Keith N, *Laws of Creation: Property Rights in the World of Ideas* (Harvard University Press, 2013)

Chapdelaine, Pascale, ‘The Property Attributes of Copyright’ (2014) 10 *Buffalo Intellectual Property Law Journal* 34

Chen, Shun-ling, ‘Collaborative Authorship: From Folklaw to the Wikiborg’ (2011) 1 *Journal of Law, Technology and Policy* 131

Chen, Xiaotian and Tom Olijhoek, ‘Measuring the Degrees of Openness of Scholarly Journals with the Open Access Spectrum (OAS) Evaluation Tool’ (2016) 42(2) *Serials Review* 108

Chien, Colleen, ‘Beyond Eureka: What Creators Want (Freedom, Credit and Audiences) and How Intellectual Property Can Better Give it to Them (By Supporting, Sharing, Licensing and Attribution)’ (2016) 114(6) *Michigan Law Review* 1081

Christie, Andrew, ‘Rewriting the Rules on the Form of Protection for Computer Software’ (1993) 4 *Journal of Law and Information Science* 224

Christie, Samantha, ‘Copyright Protection of Computer Program Structure in Australia: Does it Exist?’ (2008) 19 *Australian Intellectual Property Journal* 163

Clare, Janet, ‘Shakespeare and Paradigms of Early Modern Authorship’ (2012) 1(1) *Journal of Early Modern Studies* 137

Clifford, Ralph D, ‘Intellectual Property in the Era of the Creative Computer Program: Will the True Creator Please Stand Up?’ (1997) 71 *Tulane Law Review* 1675

Cohen, Julie, ‘Creativity and Culture in Copyright Theory’ (2007) 40 *UC Davis Law Review* 1151

Cohen, Julie, ‘Lochner in Cyberspace: The New Economic Orthodoxy of “Rights Management”’ (1998) 97 *Michigan Law Review* 462

Collins, Craig and Heather Forrest, *Intellectual Property: LexisNexis Study Guide Series* (LexisNexis Butterworths, 2008)

Colston, Catherine, ‘*Sui Generis* Database Right: Ripe for Review?’ (2001) *Journal of Information, Law and Technology* 3 <http://eprints.cdlr.strath.ac.uk/629/>

Conley, John M, Robert Cook-Deegan and Gabriel Lázaro-Muñoz, ‘Myriad After Myriad: The Proprietary Data Dilemma’ (2014) 15(4) *North Carolina Journal of Law & Technology* 597

Conley, John, Mary Maureen Brown and Robert M Bryan, ‘Database Protection in a Digital World’ (1999) 6 *Richmond Journal of Law & Technology* 2

Contreras, Jorge L, ‘Confronting the Crisis in Scientific Publishing: Latency, Licensing, and Access’ (2013) 53(2) *Santa Clara Law Review* 491

Coombe, Rosemary J, *The Cultural Life of Intellectual Properties: Authorship, Appropriation and the Law* (Duke University Press, 1998)

Coombe, Rosemary J and J Cohen, ‘The Law and Late Modern Culture: Reflections on Between Facts and Norms from the Perspective of Critical Cultural Legal Studies’ (1999) 76 *Denver University Law Review* 1029

Coombe, Rosemary J, ‘Critical Cultural Legal Studies’ (2013) 10(2) *Yale Journal of Law & the Humanities* 463

Cooper, Elena, ‘Joint Authorship in Comparative Perspective: *Levy v Rutley* and Divergence Between the UK and USA’ (2015) 62(2) *Journal of the Copyright Society of the USA* 245

Cornish, William R (ed), ‘Foreword’ in Mark Davison, *The Legal Protection of Databases* (Cambridge University Press, 2003)

Cotropia, Christopher A, ‘The Folly of Early Filing in Patent Law’ (2009) 61 *Hastings Law Journal* 65

Covey, Denise Troll, *Acquiring Copyright Permission to Digitize and Provide Open Access to Books* (Digital Library Federation Council on Library and Information Resources, 2005)

Cox, Wayne M, ‘The Fantastic Failure: How Current Copyright Law Stacks the Deck Against the Original Authors of Justice’ (2015) 55(3) *IDEA: The Intellectual Property Law Review* 361

Craig, Carys J, ‘Locke, Labour and Limiting the Author's Right: A Warning against a Lockean Approach to Copyright Law’ (2002) 28 *Queen’s Law Journal* 1

Craig, Carys J, 'The Evolution of Originality in Canadian Copyright Law: Authorship, Reward and the Public Interest' (2005) 2(2) *University of Ottawa Law & Technology Journal* 425

Craig, Carys J, *Copyright, Communication and Culture – Towards a Relational Theory of Copyright Law* (Edward Elgar, 2011)

Craig, Carys J, 'Globalizing User Rights-Talk: On Copyright Limits and Rhetorical Risks' (2017) 33 *American University International Law Review* 1

Craig, Sarah, 'Protection for Printing: An Analysis of Copyright Protection for 3D Printing' (2017) 1 *University of Illinois Law Review* 307

Cran, David and Paul Joseph, 'Football Dataco: Fixture Lists not Protected by Database Copyright' (2012) 23(5) *Entertainment Law Review* 149

Crennan, Susan, 'Recent Developments in Intellectual Property Law in Australia With Some Reference to the Global Economy' (Paper presented at the Institute of Advanced Legal Studies, University of London, 15 February 2010)

Cuilenburg, Jan van and Denis McQuail 'Media Policy Paradigm Shifts: Towards a New Communications Policy Paradigm' (2003) 18(2) *European Journal of Communication Copyright* 181

Curtin, Rebecca Schoff, 'The Transactional Origins of Authors' Copyright' (2016) 40(2) *Columbia Journal of Law & the Arts* 175

Curtis, Brittany, 'Copyright vs Social Media: Who Will Win?' [2016] (20) *Intellectual Property Law Bulletin* 81

Curtis, Reginald W, 'Compilations and Copyright: Principles and Policy' (1984 – 1986) 8 *University of Tasmania Law Review* 277

Cutler, Terry, *Ventourousaustralia: Building Strength in Innovation* (National Innovations System Review Panel, Building Strength in Innovation, Final Report for the Australian Government, 2008)

Dahl, Robert A and Charles E Lindblom, *Politics, Economics, and Welfare: Planning and Politico-Economic Systems Resolved into Basic Social Processes* (Harper & Row, 1963)

Damstedt, Benjamin G, 'Limiting Locke: A Natural Law Justification for the Fair Use Doctrine' (2003) 112 *The Yale Law Journal* 1179

Davison, Mark J, '*Sui Generis* or Too Generous: Legislative Protection for Databases, Its Implications for Australia and Some Suggestions for Reform' (1998) 21(3) *University of New South Wales Law Journal* 729

Davison, Mark J, *The Legal Protection of Databases* (Cambridge University Press, 2003)

Davison Mark J and P Bernt Hugenholtz, 'Football Fixtures, Horse Races and Spin-offs: The ECJ Domesticates the Database Right' (2005) 27(3) *European Intellectual Property Review* 113

Davison, Mark, 'Nine Network Australia Pty Ltd v IceTV Pty Ltd and Telstra Corp Ltd v Phone Directories Co Pty Ltd: Copyright Protection for Compilations: Australia does a U-Turn' (2010) 32(9) *European Intellectual Property Review* 457

Dawson, Patricia H and Sharon Q Yang, 'Institutional Repositories, Open Access and Copyright: What are the Practices and Implications?' (Research Paper of Rider University, Lawrenceville, New Jersey, 2016)

De Beer, Jeremy, 'Ownership of Open Data: Governance Options for Agriculture and Nutrition' (GODAN – Global Open Data for Agriculture and Nutrition Paper, 2016)

De Búrca, Gráinne, 'Giving Effect to European Community Directives' (1992) 55(2) *The Modern Law Review* 215

De Cock Buning, Madeleine, 'Autonomous Intelligent Systems as Creative Agents Under the EU Framework for Intellectual Property' (2016) 7(2) *European Journal of Risk Regulation* 310

De Sola Pool, Ithiel, *Technologies of Freedom: On Free Speech in an Electronic Age* (Harvard University Press, 1983)

Deazley, Ronan, *On the Origin of the Right to Copy: Charting the Movement of Copyright Law in Eighteenth-Century Britain (1695-1775)* (Hart Publishing, 2004)

Dellit, Elouise and Christopher Kendall, 'Technological Protection Measures and Fair Dealing: Maintaining the Balance Between Copyright Protection and the Right to Access Information' (2003) 1 *Digital Technology Law Journal* <http://www.austlii.edu.au/au/journals/DTLJ/2003/1.html>

Demsetz, Harold, 'Toward a Theory of Property Rights' (1967) 57(2) *The American Economic Review* 347

Demsetz, Harold, 'Toward a Theory of Property Rights II: The Competition Between Private and Collective Ownership' (1992) 31 *Journal of Legal Studies* 653

Denicola, Robert C, 'Copyright in Collections of Facts: A Theory for the Protection of Non-Fiction Literary Work' (1981) 81 *Columbia Law Review* 516

Derclaye, Estelle, 'Do Sections 3 and 3A of the CDPA Violate the Database Directive? A Closer Look at the Definition of a Database in the UK and its Compatibility with European Law' (2002) 24(10) *European Intellectual Property Review* 466

Estelle Derclaye, 'What is a Database? A Critical Analysis of the Definition of a Database in the European Database Directive and Suggestions for an International Definition' (2002) 5 *Journal of World Intellectual Property* 981

Derclaye, Estelle, 'Database '*Sui Generis*' Right: Should We Adopt the Spin-Off Theory?' (2004) 26(9) *European Intellectual Property Review* 402

Derclaye, Estelle, 'An Economic Analysis of the Contractual Protection of Databases' (2005) 2 *Journal of Law, Technology and Policy* 101

Derclaye, Estelle, 'The Court of Justice Interprets the Database *Sui Generis* Right for the First Time' (2005) 30 *European Law Review* 420

Derclaye, Estelle, 'What is the Database Sui Generis Right?' (2005) 9 *Stockholm Network* 7

Derclaye, Estelle, 'Can and Should Misappropriation Also Protect Databases? A Comparative Approach' in Paul Torremans (ed), *Copyright Law: A Handbook of Contemporary Research* (Edward Elgar, 2007) 83

Derclaye, Estelle, 'Database Sui Generis Right: The Need to Take The Public's Right to Information and Freedom of Expression into Account' in Fiona Macmillan (ed) *New Directions in Copyright Law* (Edward Elgar, 2007) 3

Derclaye, Estelle, 'Does the Directive on the Re-use of Public Sector Information Affect the State's Database Sui Generis Right?' in J Gaster, E Schweighofer and P Sint (eds), *Knowledge Rights – Legal, Societal and Related Technological Aspects* (Austrian Computer Society, 2008) 137

Derclaye, Estelle, *The Legal Protection of Databases: A Comparative Analysis* (Edward Elgar Publishing, 2008)

Estelle Derclaye, 'Debunking Some of UK Copyright Law's Longstanding Myths and Misunderstandings' (2013) 1 *Intellectual Property Quarterly* 1

Derclaye, Estelle, 'The Database Directive' in Irini Stamatoudi and Paul Torremans (eds), *EU Copyright Law: A Commentary* (Edward Elgar, 2014) 298

Diaz, Angel Siegfried, 'Fair Use and Mass Digitization: The Future of Copy-Dependent Technologies after Authors Guild v HathiTrust' (2013) 28 *Berkeley Technology Law Journal* 683

Dimchev, Alexander, *To Libraries, With Love – The Library-Information Policy of Bulgaria,* 1989-2013 (St Kliment Ohridski University Press, 2013)

Dingledy, Fred and Alex Berrio Matamoros, 'What is Digital Rights Management?' in Catherine A Lemmer and Carla P Wale (eds) *Digital Rights Management: The Librarian's Guide* (Roman and Littlefield, 2016) 1

Dinwoodie, Graeme B and Rochelle C Dreyfuss, 'Brexit and IP: The Great Unraveling?' (Public Law & Legal Theory Research Paper Series Working Paper No 17-26, New York University School of Law, July 2017)

Dinwoodie, Graeme B and Rochelle C Dreyfuss, 'Brexit and IP: The Great Unraveling' (2018) 39 *Cardozo Law Review* 967

Doldirina, Catherine, ‘Open Data and Earth Observations: The Case of Opening up Access to and Use of Earth Observation Data Through the Global Earth Observation System of Systems’ (2015) 6 *Journal of Intellectual Property, Information Technology and Economic Commerce Law* 73

Dolin, Melissa, ‘Joint Authorship and Collaborative Artwork Created Through Social Media’ (2011) 39(4*) AIPLA Quarterly Journal* 536

Dommering, E J, and P B Hugenholtz (eds), *Protecting Works of Fact* (Kluwer, 1991) 67

Drassinower, Abraham, ‘A Rights-Based View of the Idea/Expression Dichotomy in Copyright Law’ (2003) 16(1) *Canadian Journal of Law and Jurisprudence* 3

Drassinower, Abraham, ‘Sweat of the Brow, Creativity, and Authorship: On Originality in Canadian Copyright Law’ (2003–2004) 1 *University of Ottawa Law and Technology Journal* 105

Drassinower, Abraham, ‘From Distribution to Dialogue: Remarks on the Concept of Balance in Copyright Law’ (2009) 34 *Journal of Corporation Law* 991

Drassinower, Abraham, ‘A Note on Incentives, Rights, and the Public Domain in Copyright Law’ (2011) 86(5) *Notre Dame Law Review* 1869

Drassinower, Abraham, ‘Copyright is Not About Copying’ (2012) 125(1) *Harvard Law Review* 108

Duch-Brown, Nestor, Bertin Martens and Frank Mueller-Langer, ‘The Economics of Ownership, Access and Trade in Digital Data’ (Joint Research Commission Digital Economy Working Paper No 2017-01, European Commission, 2017)

Durdik, Paul, ‘Ancient Debate, New Technology: The European Community Moves to Protect Computer Databases’ (1994) 12 *Boston University International Law Journal* 153

Dusollier, Séverine, ‘Sharing Access to Intellectual Property Through Private Ordering’ (2007) 82 *Chicago-Kent Law Review,* 1391

Dworkin, Gerald, ‘Reports of Committees: The Whitford Committee Report on Copyright and Designs Law’ (1977) 40(6) *The Modern Law Review* 685

Eaddy, Jason H, 'Database Copyright Analysis for Dummies: Protecting your Intellectual Investment is About the Design, Not the Data' (2008) 42 *New England Law Review* 299

Edmundson, Jessica and Elizabeth Townsend Gard, 'Conversations with Renowned Professors and Practitioners on the Future of Copyright' (2011) 14 *Tulane Journal of Technology and Intellectual Property* 1

Edwards, Lilian, 'Brexit: "You Don't Know What You've Got Til It's Gone' (2016) 13(2) *SCRIPTed* 113

Egan, Lisa, 'IceTV: High Court Closes in on Copyright in Compilations' (2009) 22(1) *Australian Intellectual Property Law Bulletin* 2

Egan, Lisa and Christina Maloney, 'Can Copyright Still Protect Databases? After *Telstra v PDC*' (2010) 22(8) *Australian Intellectual Property Law Bulletin* 146

Eisenberg, Rebecca S, and Arti K Rai, 'Harnessing and Sharing the Benefits of State-Sponsored Research: Intellectual Property Rights and Data Sharing in California's Stem Cell Initiative' (2006) 21(3) *Berkeley Technology Law Journal* 1187

Ekstrand, Victoria S, 'Drawing Swords After Feist: Efforts to Legislate the Database Pirate' (2002) 7 *Communication Law & Policy* 317

El-Nazer, Yasmine, 'How Far Has the UK's Intellectual Property Laws Come in Protecting Copyrighted Work on the Internet? Is Reform Necessary and in What Ways Might the Law be Reformed?' (2016) 7 *Queen Mary Law Journal* 2

Elvy, Stacy-Ann, 'Commodifying Consumer Data in the Era of the Internet of Things' (2018) 59 *Boston College Law Review* 423

Eng, Kenneth W, 'Content Creators, Virtual Goods: Who Owns Virtual Property?' (2016) 34 *Cardozo Arts and Entertainment Law Journal* 249

Epstein, Richard A, 'Liberty Versus Property? Cracks in the Foundations of Copyright Law' (John M Olin Program in Law and Economics, Working Paper No 204, 2004)

European Commission, 'Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases' (Final Report prepared by the Joint Institute for Innovation Policy and Technopolis Group, Study SMART number 2017/0084, 2018)

European Commission, ‘A Digital Single Market Strategy for Europe’ (Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels, 6 May 2015, COM (2015) 192 final)

European Commission, ‘A Single Market for Intellectual Property Rights Boosting Creativity and Innovation to Provide Economic Growth, High Quality Jobs and First Class Products and Services in Europe Communication’ (Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels,24 May 2011, COM (2011) 287)

European Commission, ‘Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on A Single Market for Intellectual Property Rights Boosting Creativity and Innovation to Provide Economic Growth, High Quality Jobs and First Class Products and Services in Europe’ (24 May 2011, COM (2011) 287 final)

European Commission, ‘Building a European Data Economy’ (Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels, 10 January 2017, COM (2017) 9 final)

European Commission, ‘Digital Single Market: Commission Calls for Swift Adoption of Key Proposals and Maps Out Challenges Ahead’, (Press Release IP/17/1232, Brussels, 10 May 2017)

European Commission, ‘Study in Support of the Evaluation of Directive 96/9/EC on the Legal Protection of Databases’ (Final Report prepared by the Joint Institute for Innovation Policy and Technopolis Group, Study SMART number 2017/0084, 2018)

European Commission, ‘Evaluation of Directive 96/9/EC on the Legal Protection of Databases’ (Commission Staff Working Document, Brussels, 25 April 2018, SWD (2018) 146 final)

European Commission, ‘First Evaluation of Directive 96/9/EC on the Legal Protection of Databases’ (DG Internal Market and Services Working Paper, Brussels, 12 December 2005)

European Commission, 'Green Paper on Copyright and the Challenge of Technology' (COM (88) 172 final, Brussels, 7 June 1988)

European Commission, *Open Innovation, Open Science and Open to the World: A Vision for Europe* (17 May 2016)

European Commission, 'Synopsis Report on the Responses to the Public Consultation Activities on the Evaluation of Directive 96/9/EC on the Legal Protection of Databases', 2018 <https://ec.europa.eu/digital-single-market/en/news/synopsis-report-public-consultation-evaluation-directive-969ec-legal-protection-databases>

European Commission, 'Towards Better Access to Scientific Information: Boosting the Benefits of Public Investments in Research' (Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels, 17 July 2012, COM (2012) 401 final)

European Commission, 'White Paper on Copyright and Neighbouring Rights in the European Community' (COM 90 (594), Brussels, 1991)

European Union, *Riding the Wave: How Europe Can Gain From the Rising Tide of Scientific Data* (Final Report of the High Level Expert Group on Scientific Data, A Submission to the European Commission, October 2010)

Favale, Marcella and Maurizio Borghi, 'Harmonization of Intellectual Property Rights within and beyond the European Union: The Acquis Communautaire in the Framework of the European Neighbourhood Policy' (SEARCH Working Paper, Document WP5/25, Sharing Knowledge Assets: Interregionally Cohesive Neighbours, September 2013)

Favale, Marcella, Kretschmer and Paul C Torremans, 'Is There an EU Copyright Jurisprudence? An Empirical Analysis of the Workings of the European Court of Justice' (CREATe Working Paper 2015/07, August 2015)

Fernández-Molina, J Carlos, 'The Legal Protection of Databases: Current Situation of the International Harmonisation Process' (2004) 56(6) *Aslib Proceedings* 325

Ficsor, Mihály, *The Law of Copyright and the Internet: The 1996 WIPO Treaties, their Interpretation and Implementation* (Oxford University Press, 2002)

Fischman-Afori, Orit, 'Human Rights and Copyright: The Introduction of Natural Law Considerations into American Copyright Law' (2004) 14 *Fordham Intellectual Property, Media and Entertainment Law Journal* 497

Fischman-Afori, Orit, 'The Evolution of Copyright Law and Inductive Speculations as to its Future' (2012) 19(2) *Journal of Intellectual Property Law* 231

Fisher, William W, 'Recalibrating Originality' (2016) 54(2) *Houston Law Review* 437

Fitzgerald, Anne, 'Computer Software Copyright in Australia: A Review of Recent Developments' (1993) 4(2) *Journal of Law and Information Science* 201

Fitzgerald, Anne and Tim Seidenspinner, 'Copyright and Computer-Generated Materials: Is It Time to Reboot the Discussion About Authorship' (2013) 3 *Victoria University Law and Justice Journal* 47

Fitzgerald, Anne, Brian Fitzgerald, Cristina Cifuentes and Peter Cook, *Going Digital 2000: Legal Issues for E-Commerce, Software and the Internet* (Prospect Media, 2nd ed, 2000)

Fitzgerald, Anne, and Anthony Austin, 'Understanding the Legal Implications of Data Sharing, Access and Reuse in the Australian Research Landscape' in Brian Fitzgerald (ed) *Understanding the Legal Implications of Data Sharing, Access and Reuse in the Australian Research Landscape* (Sydney University Press, 2008)

Fitzgerald, Anne, et al, *Building the Infrastructure for Data Access and Reuse in Collaborative Research: An Analysis of the Legal Context – Legal Framework for E-Research Project*, (OAK Project, Queensland University of Technology, 2007)

Fitzgerald, Anne, Kylie Pappalardo and Anthony Austin, *Practical Data Management: A Legal and Policy Guide* (OAK Project, Queensland University of Technology, 2008)

Fitzgerald, Anne, Neale Hooper and Cheryl Foong, 'Creative Commons and Government Guide: Using Creative Commons 3.0 Australia Licences on Government Copyright Materials' (CC & Government Guide v 3.2, 16 March 2011)

Fitzgerald, Brian and Leif Gamertsfelder, 'A Conceptual Framework for Protecting the Value of Informational Products through Unjust Enrichment Law' (1998) 16(3) *Australian Bar Review* <https://ssrn.com/abstract=137500>

Fitzgerald, Brian, ‘Digital Property: The Ultimate Boundary?’ (2001) 7 *Roger Williams University Law Journal* 47

Fitzgerald, Brian, ‘Theoretical Underpinning of Intellectual Property: “I am a Pragmatist But Theory is my Rhetoric”’ (2003) 16 *Canadian Journal of Law and Jurisprudence* 179

Fitzgerald, Brian and Cheranne Bartlett, ‘Case Notes: Database Protection under Australian Copyright Law: Desktop Marketing Systems Pty Ltd v Telstra Corporation [2002] FCAFC 112’ (2003) 7 *Southern Cross University Law Review* 308

Fitzgerald, Brian, et al, ‘Oak Law Project Report No 1: Creating a Legal Framework for Copyright Management of Open Access Within the Australian Academic and Research Sector’ (Report for the Department of Education Science and Training [DEST], 2006)

Fitzgerald, Brian, et al, *Internet and E-Commerce Law: Technology, Law and Policy* (Thompson Lawbook Co, 2007)

Fitzgerald, Brian and Jessica Coates, ‘Digital Preservation and Copyright in Australia’ (Open Access to Knowledge (OAK) Law, Queensland University of Technology, July 2008)

Ford, Beth, ‘Open Wide the Gates of Legal Access’ (2014) 93(2) *Oregon Law Review* 539

Forder, Jay and Dan Svantesson, *Internet and E-Commerce Law* (Oxford University Press, 2008)

Frankel, Susy, ‘The International Copyright Problem and Durable Solutions’ (2015) 18(1) *Vanderbilt Journal of Entertainment and Technology Law* 39

Fraser, Henry, ‘Computer Generated Phone Books — Not Original Literary Works’ (2011) 23(8) *Australian Intellectual Property Law Bulletin* 190

Freedman, C D, ‘Should Canada Enact a New *Sui Generis* Database Right?’ (2002) 13(1) *Fordham Intellectual Property, Media and Entertainment Law Journal* 35

Frodl, Christian, ‘Commercialisation of Sports Data: Rights of Event Owners over Information and Statistics Generated about Their Sports Events’ (2015) 26(1) *Marquette Sports Law Review* 55

Fromer, Jeanne C, ‘A Psychology of Intellectual Property’ (2010) 104 *Northwestern University Law Review* 1441

Fromer, Jeanne C, ‘An Information Theory of Copyright Law’ (2014) 64(1) *Emory Law Journal* 71

Frosio, Giancarlo F, ‘Resisting the Resistance: Resisting Copyright and Promoting Alternatives’ (2017) 23(4) *Richmond Journal of Law and Technology* 4

Frye, Brian L, ‘Against Creativity’ (2017) 11 *New York University Journal of Law and Liberty* 426

Frye, Brian L, Christopher J Ryan Jr and Franklin L Runge, ‘An Empirical Study of Law Journal Copyright Practices’ (2017) 16(2) *John Marshall Review of Intellectual Property Law* 207

Gadd, Elizabeth and Denise Troll Covey, ‘What Does ‘Green’ Open Access Mean? Tracking Twelve Years of Changes to Journal Publisher Self-Arching Policies’ (2019) 51(1) *Journal of Librarianship and Information Science* 106

Gale, Kristy, ‘The Sports Industry’s New Power Play: Athlete Biometric Data Domination, Who Owns It and What May be Done With It?’ (2016) 6(1*) Arizona State University Sports and Entertainment Law Journal* 7

Gallin, John I and Frederick P Ognibene (eds), *Principles and Practice of Clinical Research* (Academic Press, 2012)

Gambs, Sébastien, Marc-Olivier Killijianb, Miguel Núñez del Prado Cortez, ‘De-Anonymization Attack on Geolocated Data’ (2014) 80 *Journal of Computer and System Science* 1597

Garcia, Maria C Gomez and Ana Ramalho, ‘Copyright After Brexit’ (2017) 12(8) *Journal of Intellectual Property Law & Practice* 669

Garnett, Kevin, Gwilym Davies and Gillian Harbottle, *Copinger and Skone James on Copyright* (Sweet & Maxwell, 15th ed, 2005)

Gasaway, Laura, 'Copyright Basics: From Earliest Times to the Digital Age' (2010) 10(3) *Wake Forest Intellectual Property Law Journal* 241

Gaspar, Michael, 'Protecting a Dream: Copyright Ownership in Dream Decoding' (2014) 42(4) *AIPLA Quarterly Journal* 631

Gaster, Jens L, 'The New EU Directive Concerning the Legal Protection of Databases' (1996) 20(4) *Fordham International Law Journal* 1129

Geiger, Christophe, Giancarlo Frosio and Oleksandr Bulayenko, 'The Exception for Text and Data Mining (TDM) in the Proposed Directive on Copyright in the Digital Single Market – Legal Aspects' (Center for International Intellectual Property, University of Strasbourg, Research Paper No 2018-02, 2 March 2018)

George, Alexandra, 'Reforming Australia's Copyright Law: An Opportunity to Address the Issues of Authorship and Originality' (2014) 37(3) *University of New South Wales Law Journal* 939

Gerber, Joseph A R, 'Locking out Locke: A New Natural Copyright Law' (2017) 27 *Fordham Intellectual Property Media & Entertainment Law Journal* 613

Gervais, Daniel, *The TRIPS Agreement: Drafting History and Analysis* (Sweet & Maxwell, 2nd ed, 2003)

Gervais, Daniel, 'The Compatibility of the Skill and Labour Originality Standard with the Berne Convention and the TRIPS Agreement' (2004) 26(2) *European Intellectual Property Review* 75

Gervais, Daniel, 'The Protection of Databases' (2007) 82(3) *Chicago-Kent Law Review* 1109

Gervais, Daniel and Daniel J Hyndman 'Cloud Control: Copyright, Global Memes and Privacy' (2012) 10 *Journal on Telecommunications and High Technology Law* 53

Gervais, Daniel, 'Authors, Online' (2015) 38(3) *Columbia Journal of Law and the Arts* 385

Ghosh, Shubha, 'Transparent and Commercialized?: Managing the Public-Private Model for Data Production and Use' (Legal Studies Research Paper Series Paper No. 1155, University of Wisconsin Law School, 2011) <http://ssrn.com/abstract=1780486>

Giblin, Rebecca and Kimberlee Weatherall (eds), *What If We Could Reimagine Copyright?* (Australian National University Press, 2017)

Giblin, Rebecca, and Kimberlee Weatherall, 'If We Redesigned Copyright from Scratch, What Might It Look Like?' in Rebecca Giblin and Kimberlee Weatherall (eds), *What If We Could Reimagine Copyright?* (Australian National University Press, 2017) 1

Giblin, Rebecca, and Kimberlee Weatherall, 'A Collection of Impossible Ideas' in Rebecca Giblin and Kimberlee Weatherall (eds), *What If We Could Reimagine Copyright?* (Australian National University Press, 2017) 315

Gibson, James, 'Re-Reifying Data' (2004) 80(1) *Notre Dame Law Review* 163

Gielen, Charles, 'Netherlands: Database Rights – Unlicensed Data Mining' (2002) 24(8) *European Intellectual Property Review* N131

Ginsburg, Jane C, 'Creation and Commercial Value: Copyright Protection of Works of Information' (1990) 90 *Columbia Law Review* 1865

Ginsburg, Jane C, 'No "Sweat?" Copyright and Other Protection of Works of Information After Feist v. Rural Telephone' (1992) 92 *Columbia Law Review* 338

Ginsburg, Jane C, 'Four Reasons and a Paradox: The Manifest Superiority of Copyright Over *Sui Generis* Protection of Computer Software' (1994) 94 *Columbia Law Review* 2559

Ginsburg, Jane C, 'Global Use/Territorial Rights: Private International Law Questions of the Global Information Infrastructure' (1994) 42 *Journal of Copyright Society of the USA* 318

Ginsburg, Jane C, 'Surveying the Borders of Copyright' (1994) 41 *Journal, Copyright Society of the USA* 322

Ginsburg, Jane C 'Putting Cars on the "Information Superhighway": Authors, Exploiters and Copyright in Cyberspace' (1995) 95 *Columbia Law Review* 1466

Ginsburg, Jane C, 'Authors and Users in Copyright' (1997) 45 *Journal of the Copyright Society of the USA* 1

Ginsburg, Jane C, 'Copyright, Common Law and *Sui Generis* Protection of Databases in the United States and Abroad' (1997) 66 *University of Cincinnati Law Review* 151

Ginsburg, Jane C, 'The Cyberian Captivity of Copyright Territoriality and Author's Rights in a Networked World' (1999) 15 *Santa Clara Computer and High Technology Law Journal* 347

Ginsburg, Jane C, 'Copyright and Control Over New Technologies of Dissemination' (2001) 101 *Columbia Law Review* 1613

Ginsburg, Jane C, '"The Exclusive Right to their Writings": Copyright and Control in the Digital Age' (2002) 54 *Maine Law Review* 195

Ginsburg, Jane C, 'The Concept of Authorship in Comparative Copyright Law' (2003) 52 *DePaul Law Review* 1063

Ginsburg, Jane C, 'A Marriage of Convenience? A Comment on the Protection of Databases' (2007) 82(3) *Chicago-Kent Law Review* 1171

Ginsburg, Jane C, 'The Author's Place in the Future of Copyright' (2009) 45 *Williamette Law Review* 381

Ginsburg, Jane C, 'People Not Machines: Authorship and What It Means in the Berne Convention' (2018) 49(2) *International Review of Industrial Property and Copyright Law* 131

Glynn, Dennis Jr, et al, 'DAVID: Database for Annotation, Visualization, and Integrated Discovery' (2003) 4(9) *Genome Biology* R60

Golder, Tim, Adrian Chang and Scott Joblin, 'Copyright in Databases: The Spectre of *IceTV* Lives On' (2015) 28 *Australian Intellectual Property Law Bulletin* 290

Goldstein, Paul and Bernt Hugenholtz, *International Copyright: Principles, Law and Practice* (Oxford University Press, 2nd ed, 2010)

Gomez-Arostegui, Tomás, 'What History Teaches Us About Copyright Injunctions and the Inadequate-Remedy-At-Law Requirement' (2008) 81 *Southern California Law Review* 119

Gómez-Arostegui, Tomás, 'What is the Point of Copyright History? Reflections on Copyright at Common Law in 1774' (CREATe Working Paper 2016/04 - March 2016)

González, Andrés Guadamuz, 'Open Science: Open Source Licenses in Scientific Research' (2006) 7(2) *North Carolina Journal of Law and Technology* 321

Goodenough, Oliver R, 'Pointillism, Copyright and the Droit D'Auteur: Time to See a Bigger Picture' (1994) 5(2) *Entertainment Law Review* 35

Gordon, Wendy J, 'An Enquiry into the Merits of Copyright: The Challenges of Consistency, Consent and Encouragement Theory' (1989) 41 *Stanford Law Review* 1343

Gordon, Wendy J, 'On Owning Information: Intellectual Property and the Restitutionary Impulse' (1992) 78 *Virginia Law Review* 149

Gordon, Wendy J, 'Reality as Artifact: From Feist to Fair Use' (1992) 55(2) *Law and Contemporary Problems* 93

Gordon, Wendy J, 'A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property' (1993) 102 *Yale Law Journal* 1533

Gordon, Wendy J, 'The Core of Copyright: Authors, Not Publishers' (2014) 52(2) *Houston Law Review* 613

Gorman, Robert A, 'The Feist Case: Reflections on a Path Breaking Copyright Decision' (1992) 18 *Rutgers Computer and Technology Law Journal* 731

Gosnell, Sandra, 'Database Protection Down Under: Would a "Sweaty" Australia be Better Off with a Northerly Change?' (2003) 26(3) *University of New South Wales Law Journal* 639

Graf, Fabienne Sarah and Dario Henri Haux, 'Obligation to Open Access: Academic Publishing of the Future?' (2018) *Sui-Generis* 124

Graham, Lawrence, *Legal Battles That Shaped the Computer Industry* (Praeger, 1999)

Granmar, Claes, 'Economic Globalisation and the Rule of Law' (2017) 3 *Europarättslig Tidskrift (European Journal)* 489

Gray, Kevin, 'Property in Thin Air' (1991) 50(2) *Cambridge Law Journal* 252

Green, Michael, 'Copyrighting Facts' (2003) 78 *Indiana Law Journal* 919

Green, Toby, 'We've Failed: Pirate Black Open Access is Trumping Green and Gold and We Must Change Our Approach' (2017) 30 *Learned Publishing* 325

Greenbaum, Dov S, 'The Database Debate: In Support of an Inequitable Solution' (2003) 13 *Albany Law Journal of Science and Technology* 431

Greenberg, Brad A, 'More Than Just a Formality: Instant Authorship and Copyright's Opt-Out Future in the Digital Age' (2012) 59 *UCLA Law Review* 1028

Greenberg, Brad A, 'Rethinking Technology Neutrality' (2016) 100(4) *Minnesota Law Review* 1495

Greenhalgh, Christine and Padraig Dixon, 'The Economics of Intellectual Property: A Review to Identify Themes for Future Research' (University of Oxford Department of Economics Discussion Paper Series No. 135, 2002)

Greenleaf, Graham, 'Beyond Creative Commons: Seeing Copyright's Public Domain as a Whole (An Australian Case Study)' (2008) 1(2) *Global KHU Business Law Review* 12

Griffiths, Jonathan, 'Constitutionalising or Harmonising? The Court of Justice, The Right to Property and European Copyright Law' (2013) 38(1) *European Law Review* 65

Griffiths, Jonathan, 'Dematerialization, Pragmatism and the European Copyright Revolution' (2013) 33(4) *Oxford Journal of Legal Studies* 767

Grimmelmann, James, 'Copyright for Literate Robots' (2016) 101 *Iowa Law Review* 657

Grimmelmann, James, 'There's No Such Thing as A Computer-Authored Work - And it's a Good Thing, Too' (2016) 39(3) *Columbia Journal of Law & the Arts* 403

Grimson, Jane, et al, 'Scientific Publication: Policy on Open Access' (EURAB Research Advisory Board Final Report, December 2006)

Grosheide, F Willem, 'Database Protection: The European Way' (2002) 8 *Washington University Journal of Law and Policy* 39

Guibault, Lucie and Christina Angelopoulos (eds) *Open Content Licences: From Theory to Practice* (Amsterdam University Press, 2011)

Gupta, Indranath, *Was Feist a Catalyst for the Structure of the Database Directive? A Legal Exploration of the Implications of the Feist Decision* (PhD Thesis, Brunel University, 2015)

Gurry, Francis, 'Re-Thinking the Role of Intellectual Property' (Speech delivered at the 5th Francis Gurry Lecture, University of Melbourne Law School, 22 August 2013) <http://www.law.unimelb.edu.au/files/dmfile/dg_speech_melbourne_20131.pdf>

Haber, Eldar, 'Copyrighted Crimes: The Copyrightability of Illegal Works' (2013) 16(2) *Yale Journal of Law and Technology* 454

Haemmerli, Alice, 'Take It, It's Mine: Illicit Transfers of Copyright by Operation of Law' (2006) 63(4) *Washington and Lee Law Review* 1011

Hall, Bronwyn, Christian Helmers, Georg von Graevenitz and Chiara Rosazza-Bondibene 'Technology Entry in the Presence of Patent Thickets' (Report prepared with the support of the UK IPO and NIESR, March 2013)

Hamari, Juho, Mimmi Sjöklint and Antti Ukkonen 'The Sharing Economy: Why People Participate in Collaborative Consumption' (2016) 67(9) *Journal of the Association for Information Science and Technology* 2047

Handa, Sunny, 'A Review of Canada's International Copyright Obligations' (1996 – 1997) 42 *McGill Law Journal* 961

Handig, Christian, 'The Sweat of the Brow is Not Enough! - More than a Blueprint of the European Copyright Term "Work"' (2013) 35(6) *European Intellectual Property Review* 334

Hansen, Hugh C, 'International Copyright: An Unorthodox Analysis' (2013) 23 *Fordham Intellectual Property Media & Entertainment Law Journal* 445

Hardin, Garrett, 'The Tragedy of the Commons' (1968) 162(3) *Science* 1243

Hargreaves, Ian, *Digital Opportunity: Review of Intellectual Property and Growth*, (May 2011)

Hariani, Krishna and Anirudh Hariani, 'Analyzing "Originality" in Copyright Law: Transcending Jurisdictional Disparity' (2011) 51(3) *IDEA – the Intellectual Property Law Review* 491

Harms, LTC (ed), *The Enforcement of Intellectual Property Rights: A Case Book* (WIPO Publication, 3rd ed, 2012)

Harris, Ray, and Susan Rosenfeld, 'Copyright Protection for Genetic Databases' (2004 – 2005) 45 *Jurimetrics* 225

Harrison, Jeffrey L, 'A Positive Externalities Approach to Copyright Law: Theory and Application' (2005) 13(1) *Journal of Intellectual Property Law* 1

Hart, Terry, 'License to Remix' (2016) 23(4) *George Mason Law Review* 837

Hasan, Amar A, 'Sweating in Europe: The European Database Directive' (2005) 9 *Computer Law Review and Technology Journal* 479

Hayden, John F, 'Copyright Protection of Computer Databases After Feist' (1991) 5 *Harvard Journal of Law & Technology* 215

Hegel, Georg Wilhelm Friedrich, *Elements of the Philosophy of Right* (1821), Allen Wood (ed), (Cambridge University Press, 1991)

Helfer, Laurence R, 'Regime Shifting: The TRIPS Agreement and New Dynamics of International Intellectual Property Lawmaking' (2004) 29(1) *Yale Journal of International Law* 1

Heller, Michael A, 'The Tragedy of the Anticommnons: Property in the Transition from Marx to Markets' (1998) 111(3) *Harvard Law Review* 621

Herani, Gobind M, Riaz Ahmad Shirazi, Noor Zaman and Adnan Alam, 'Knowledge Transformation and Economic Development: The Role of Digital Technology - An Analysis - Indus Institute of Higher Education (IIHE), Karachi, Pakistan' (MPRA Paper No 5575, Munich Personal RePEc Archive, 7 November 2007)

Herr, Robin Elizabeth, *Is the Sui Generis Right a Failed Experiment? A Legal and Theoretical Exploration of How to Regulate Unoriginal Database Contents and Possible Suggestions for Reform* (PhD Thesis, Copenhagen Business School, DJØF Publishing Copenhagen 2008)

Hesse, Bradford W, Richard P Moser and William T Riley, 'From Big Data to Knowledge in the Social Sciences' (2015) 659(1) *Annals of the American Academy of Political and Social Science* 16

Hettinger, Edwin, 'Justifying Intellectual Property' (1989) 18(1) *Philosophy & Public Affairs* 31

Heymann, Laura A, 'A Tale of (At Least) Two Authors: Focusing Copyright Law on Process Over Product' (2009) 34(4) *Journal of Corporate Law* 1009

Hicks, Jack B, 'Copyright and Computer Databases: Is Traditional Compilation Law Adequate?' (1986 – 1987) 65 *Texas Law Review* 993

Hill, Jennett M, 'The State of Copyright Protection for Electronic Databases Beyond ProCD v Zeidenberg: Are Shrinkwrap Licenses a Viable Alternative for Database Protection?' (1998) 31(1) *Indiana Law Review* 143

Himma, Kenneth, 'The Justification of Intellectual Property: Contemporary Philosophical Disputes' (2008) 59(7) *Journal of the American Society for Information Science and Technology* 1143

Hinfey, Sally Anne, 'Database Copyright and *Sui Generis* Rights: "Creating" A Problem for the Labourer' (2005) 5 *University College Dublin Law Review* 1

Hinkle, Katharine C, 'Countermeasures in the Cyber Context: One More Thing to Worry About' (2011) 37 *Yale Journal of International Law* 11

HM Government UK, 'The Future Relationship Between the United Kingdom and the European Union' (White Paper, Cm9593, Presented to Parliament by the Prime Minister by Command of Her Majesty, July 2018)

Hockenberry, Benjamin L, 'The Guerilla Open Access Manifesto: Aaron Swartz, Open Access and the Sharing Imperative' (Lavery Library Faculty Staff Publication, Paper 6, 2013) <http://fisherpub.sjfc.edu/library_pub/6>

Hoorn, Esther and Maurits van der Graaf, 'Copyright Issues in Open Access Research Journals' (2006) 12(2) *D-Lib Magazine* 1

Horowitz, Steven J, 'Rethinking Lockean Copyright and Fair Use' (2005) 10(1) *Deakin Law Review* 209

Hugelier, Sara, 'Publishing Open-Access Biomedical Data: Legal Challenges' (2015) 1(1) *Biomedical Data Journal* 43

Hugenholtz, P Bernt, 'Implementing the European Database Directive' in Jan Kabel and Gerard Mom (eds) *Intellectual Property and Information Law: Essays in Honour of Herman Cohen Johoram* (Kluwer Law International, 1998) 184

Hugenholtz, P Bernt, 'The Great Copyright Robbery: Rights Allocation in a Digital Environment' (Paper presented at A Free Information Ecology in a Digital Environment Conference, 31 March – 2 April 2000)

Hugenholtz, P Bernt, 'Program Schedules, Event Data and Telephone Subscriber Listings under the Database Directive: The 'Spin-Off' Doctrine in the Netherlands and Elsewhere in Europe' (Paper presented at the 11th Annual Conference on International Intellectual Property Law and Policy, 14-25 April 2003)

Hugenholtz, P Bernt, 'Abuse of Database Right Sole-Source Information Banks Under the EU Database Directive' (Paper presented at the Antitrust, Patent and Copyright Conference, 15-16 January 2004)

Hugenholtz, P Bernt, Mireille van Eechoud, Stef van Gompel and Natali Helberger, 'The Recasting of Copyright and Related Rights for the Knowledge Economy' (Amsterdam Law School Legal Studies Research Paper No. 2012-44, Institute for Information Law Research Paper No. 2012-38, 2006)

Hugenholtz, P Bernt, 'Owning Science: IPR's as Impediments to Knowledge Sharing, Institute for Information Law' (Paper presented at Communia Conference 2009, Turin, Italy, 29 June 2009)

Hugenholtz, P Bernt, 'Harmonisation or Unification of European Union Copyright Law' (2012) 38(1) *Monash University Law Review* 4

Hugenholtz, P Bernt, 'Copyright in Europe: Twenty Years Ago, Today and What the Future Holds' (2013) 23 *Fordham Intellectual Property Media & Entertainment Law Journal* 503

Hugenholtz, P Bernt, 'Something Completely Different: Europe's *Sui Generis* Database Right' in Susy Frankel and Daniel Gervais (eds) *The Internet and the Emerging Importance of New Forms of Intellectual Property* (Kluwer Law International, 2016) 205

Hugenholtz, P Bernt, 'Data Property: Unwelcome Guest in the House of IP' (Paper presented at the Trading Data in the Digital Economy Conference: Legal Concepts and Tools, Münster, Germany, 4 May 2017)

Hughes, Justin, 'A Short History of "Intellectual Property" in Relation to Copyright' (2012) 33(4) *Cardozo Law Review* 1293

Hughes, Justin, 'The Philosophy of Intellectual Property' (1988 – 1989) 77 *Georgetown Law Journal* 287

Hunsucker, G M, 'The European Union Database Directive: Regional Stepping Stone to an International Model?' (1997) 7(2) *Fordham Intellectual Property, Media and Entertainment Law Journal* 697

Hunter, Dan, 'Cyberspace as Place and the Tragedy of the Digital Anticommons' (2003) 91(2) *California Law Review* 439

Hunter, Dan, 'Culture War' (2005) 83 *Texas Law Review* 1105, 1127

Hunter, Dan, 'Open Access to Infinite Content or "In Praise of Law Reviews"' (2006) 10(4) *Lewis and Clark Law Review* 761

Huse, Charles C, 'Database Protection in Theory and Practice: Three Recent Cases' (2005) 20(1) *Berkeley Technology Law Journal* 23

Hutchinson, Terry and Nigel Duncan, 'Defining and Describing What We Do' (2012) 17(1) *Deakin Law Review* 83

IT IP Law Group Europe, 'IT & IP Litigation in Europe: A Legal Guide for Foreign Lawyers' (Working Guide from IT IP Law Group: A Pan European Network of Specialist Law Firms, 2017)

Jamali, Hamid R, 'Copyright Compliance and Infringement in ResearchGate Full-Text Journal Articles' (2017) 112 *Scientometrics* 241

Janssen, Katleen and Jos Dumortier, 'The Protection of Maps and Spatial Databases in Europe and the United States by Copyright and the *Sui Generis* Right' (2006) 24(2) *The John Marshall Journal of Information Technology & Privacy Law* 195

Jaszi, Peter, 'Towards a Theory of Copyright: The Metamorphoses of "Authorship"' (1991) *Duke Law Journal* 455

Johnson, Julia, 'Database Protection a Reality? How the Professional and Fantasy Sporting World Could Benefit From a *Sui Generis* Intellectual Property Right' (2014) 27 *Intellectual Property Journal* 238

Joint Information Systems Committee, *The Value and Benefit of Text Mining to United Kingdom Further Higher Education* (2012)

Joly, Yann, Zeps, Nik and Bartha M Knoppers, 'Genomic Databases Access Agreements: Legal Validity and Possible Sanctions' (2011) 130 *Human Genetics* 441

Jones, Alex, 'The Protection of Computer Programs Under TRIPS: The Subject Matter Issue' (1999) 10(1) *Journal of Law and Information Science* 7

Jordan, Karen A, 'Financial Conflicts of Interest in Human Subjects Research: Proposals for a More Effective Regulatory Scheme' (2003) 60(1) *Washington and Lee Law Review* 15

Joyce, Craig, and Tyler T Ochoa, 'Reach Out and Touch Someone: Reflections on the 25th Anniversary of Feist Publications Inc. v Rural Telephone Service Co.' (2016) 54(2) *Houston Law Review* 257

Judge, Elizabeth F and Daniel J Gervais, 'Of Silos and Constellations: Comparing Notions of Originality in Copyright Law' (2009) 27(2) *Cardozo Arts and Entertainment Law Journal* 375

Kahler, Jörg, 'EU Database Protection of Website Content with the Online Travel Business as an Example' (2012) 9 *US-China Law Review* 93

Kamateri, Eleni, Evangelos Kalampokis, Efthimios Tambouris and Konstantinos Tarabanis, 'The Linked Medical Data Access Control Framework' (2014) 50 *Journal of Biomedical Informatics* 213

Kapulluoğlu, İsmet Bumin, *The Emerging Need to Allocate Copyright Ownership and Authorship Over Computer Generated Musical Compositions* (LLM Thesis, Tilburg University, 2018)

Karaganis, Joe, (ed) *Shadow Libraries – Access to Knowledge in Global Higher Education* (MIT Press, 2018)

Karnell, Gunnar, 'European Originality: A Copyright Chimera' in (J Kabel and J H M Gerard eds), *Intellectual Property and Information Law* (Kluwer, 1998) 201

Karnell, Gunnar, 'The Nordic Catalogue Rule' in E J Dommering and P B Hugenholtz (eds), *Protecting Works of Fact* (Kluwer, 1991) 67

Kasprowski, Rafal, 'Perspectives on DRM: Between Digital Rights Management and Digital Restrictions Management' (2010) 36(3) *Bulletin of the American Society for Information Science and Technology* 49

Kasunic, Robert, 'Copyright from Inside the Box: A View From the US Copyright Office' (2016) 39(3) *Columbia Journal of Law & the Arts* 311

Katyal, Sonia K, 'Technoheritage' (2017) *California Law Review* 1111

Kelly, Robert J, 'Private Data and Public Knowledge: Intellectual Property Rights in Science' (1989) 13 *Legal Studies Forum* 366

Kemp, Richard, 'Legal Aspects of Managing Big Data' (2014) 30 *Computer Law & Security Review* 482

Kenneally, Michael Edward, *Intellectual Property Rights and Institutions: A Pluralist Account* (Doctoral Dissertation, Harvard University, 2014)

Kenyon, Andrew T and Robin Wright, 'Whose Conflict? Copyright, Creators and Cultural Institutions' (2010) 33(2) *University of New South Wales Law Journal* 286

Kettle, John R III, ‘Conceptual Expression in a Copyright World: Protecting Ideas from the Shadow of Preemption’ (2017) 17(1) *The John Marshall Review of Intellectual Property Law* 1

Khanna, Sankalp, Abdul Sattar and David Hansen, ‘Advances in Artificial Intelligence Research in Health’ (2012) 5(9) *Australasian Medical Journal* 475

Khaosaeng, Khanuengnit, *Online Re-creation Culture in the 21st Century: The Reconciliation between Copyright Holders, Online Re-creators and the Public Interest* (PhD Thesis, Queen Mary, University of London, 2016)

Khong, Dennis W K, ‘Copyright Failure and the Protection for Tables and Compilations’ (Draft paper prepared for the 2004 Annual Meeting of the Society for Economic Research on Copyright Issues, 8-9 July 2004, Turin, Italy)

Khong, Dennis W K, ‘The Historical Law and Economics of the First Copyright Act’ (2006) 2(1) *Erasmus Law and Economics Review* 35

Khoury, Amir H, ‘Intellectual Property Rights for Hubots: On the Legal Implications of Human-like Robots as Innovators and Creators’ (2017) 35 *Cardozo Arts & Entertainment Law Journal* 635

Kimbrough, Julie L and Laura N Gasaway, ‘Publication of Government-Funded Research, Open Access and the Public Interest’ (2016) 18(2) *Vanderbilt Journal of Entertainment and Technology Law* 267

Kmeic, Keenan K, ‘The Origin and Current Meanings of Judicial Activism’, (2004) 92 *California Law Review*, 1441

Knight, Peter, ‘The Federal Court Revisits Copyright in Databases: *Tonnex International Pty Ltd v Dynamic Supplies Pty Ltd*’ (2013) 25(8) *Australian Intellectual Property Law Bulletin* 164

Knight, Peter and Jackson Harrison, ‘Claim for IP Protection for Data Files Fails for Want of Identification of Protected Subject Matter: *Sports Data Pty Ltd v Prozone Sports*’ (2014) 27(8) *Australian Intellectual Property Law Bulletin* 223

Koempel, Florian, Gaetano Dimita, Phil Sherrell and Heather Randles, ‘Impact of Brexit on UK Copyright Law’ (Paper of the British Copyright Council, 2017)

Kohn, Alexandra and Jessica Lange, 'Confused about Copyright? Assessing Researchers' Comprehension of Copyright Transfer Agreements' (2018) 6 *Journal of Librarianship and Scholarly Communication* eP2253:1

Koščík, Michal and Matěj Myška, 'Database Authorship and Ownership of Sui Generis Database Rights in Data-Driven Research' (2017) 31(1) *International Review of Law, Computers & Technology* 43

Krieger, Sibylle, 'Apple v Wombat: Australian Developments in the Copyright Protection of Computer Software' (1984-1985) 9 *Columbia Journal of Art and the Law* 455

Krier, James, 'Evolutionary Theory and the Origin of Property Rights' (2009) 95 *Cornell Law Review* 139

Kuehl, John, 'Video Games and Intellectual Property: Similarities, Differences and a New Approach to Protection' (2016) 7(2) *Cybaris: An Intellectual Property Law Review* 313

Kumar, Ranjit, 'Database Protection – the European Way and Its Impact on India' (2005) 45 *IDEA –The Intellectual Property Law Review* 97

Kwall, Roberta R, 'Commentary on "The Concept of Authorship in Comparative Copyright Law": A Brief Illustration (2003) 52 *DePaul Law Review* 1229

Laakmann, Anna B, 'The New Genomic Semicommons' (2015) 5 *UC Irvine Law Review* 1001

Laakso, Mikael, et al, 'The Development of Open Access Journal Publishing from 1993 to 2009' (2011) 6(6) *PLoS One* e20961

Laakso, Mikael and Juho Lindman, 'Journal Copyright Restrictions and Actual Open Access Availability: A Study of Articles Published in Eight Top Information Systems Journals (2010-2014) (2016) 109 *Scientometrics* 1167

Lai, Stanley, 'Database Protection in the United Kingdom: The New Deal and its Effects on Software Protection' [1998] 1 *European Intellectual Property Review* 32

Land, Molly, 'Rebalancing TRIPS' (2012) 33 *Michigan Journal of International Law* 433

Landes, William M and Richard A Posner, 'An Economic Analysis of Copyright Law' (1989) 18 *Journal of Legal Studies* 325

Lantagne, Stacey M, 'The Copymark Creep: How the Normative Standards of Fan Communities Can Rescue Copyright' (2016) 32(2) *Georgia State University Law Review* 459

Lastowka, F Gregory, and Dan Hunter, 'The Laws of the Virtual Worlds' (2004) 92(1) *California Law Review* 1

Latter, Gareth Paul, *Copyright Law in the Digital Environment: DRM Systems, Anti-Circumvention Legislation and User Rights* (Master of Laws Thesis, Rhodes University, 2010)

Lavik, Erlend, and Stef Van Gompel, 'On the Prospects of Raising the Originality Requirement in Copyright Law: Perspectives from the Humanities' (2013) 60 *Journal of the Copyright Society of the USA* 387

Lawson, Charles, 'Patenting Health-Related Databases and Information in Australia' (2005) 17(1) *Bond Law Review* 58

Lawson, Stuart, 'Fee Waivers For Open Access Journals' (2015) 3 *Publications* 155

Lee, Edward, 'Digital Originality' (2012) 14(4) *Vanderbilt Journal of Entertainment and Technology Law* 919

Lee, Jyh-An, 'Licensing Open Government Data' (2017) 13(2) *Hastings Business Law Journal* 207

Lekešys, Evaldas, 'Does the Telecommunication Company Have Copyrights to the List of the Subscribers?' (2007) 3(1) *International Journal of Baltic Law* 4

Lemley, Mark A, 'Book Review: Romantic Authorship and the Rhetoric of Property' (1997) 75 *Texas Law Review* 873

Lemley, Mark A, 'The Economics of Improvement in Intellectual Property Law' (1997) 75 *Texas Law Review* 989

Lessig, Lawrence, *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity* (Penguin Press, 2004)

Lessig, Lawrence, 'Copyright's First Amendment' (2001) 48(5) *UCLA Law Review* 1057

Lessig, Lawrence, *The Future of Ideas: The Fate of the Commons in a Connected World* (Random House, 2001)

Leucci, Stefano, 'Preliminary Notes on Open Data Licensing' (2014) 2 *Journal of Open Access* 1

Leval, Pierre N, 'Commentary: Toward a Fair Use Standard' (1990) 103 *Harvard Law Review* 1105

Liemer, Susan, 'On the Origins of le Droit Moral: How Non-Economic Rights Came to be Protected in French IP Law' (2011) 19(1) *Journal of Intellectual Property Law* 65

Lim Tze Wei, Daryl, 'Regulating Access to Databases Through Antitrust Law: A Missing Perspective in the Database Debate' (2006) 7 *Stanford Technology Law Review* <http://stlr.stanford.edu/STLR/Articles/06_STLR_7>

Lindgren, Kevin, 'Musings on Copyright Law - Some Current Issues Touching the Basic Principles' (2009) *Federal Judicial Scholarship* 16

Lindman, Juho and Linus Nyman, 'Businesses of Open Data and Open Source: Some Key Similarities and Differences' (2014) *The Technology Innovation Management Review* 12

Lindsay, David, 'Copyright Protection of Electronic Databases' (1993) 4(2) *Journal of Law, Information and Science* 287

Lindsay, David, 'Copyright Protection of Broadcast Program Schedules: IceTV before the High Court' (2008) 19 *Australian Intellectual Property Law Journal* 196

Lindström, Liis, *Automated Processing of Copyrighted Works in the European Union – A Way Forward?* (Master's Thesis, University of Tartu, 2014)

Lipton, Jacqueline, 'Balancing Private Rights and Public Policies: Reconceptualizing Property in Databases' (2003) 18 *Berkeley Technology Law Journal* 773

Lipton, Jacqueline, 'Mixed Metaphors in Cyberspace: Property in Information and Information Systems' (2003) 35 *Loyola University Chicago Law Journal* 235

Lipton, Jacqueline, ‘Information Property: Rights and Responsibilities’ (2004) 56 *Florida Law Review* 135

Lipton, Jacqueline, ‘Wikipedia and the European Union Database Directive’ (2010) 26 *Santa Clara Computer and High Technology Law Journal* 631

Lipton, Jacqueline, ‘Copyright and the Commercialization of Fan Fiction’ (2014) 52 *Houston Law Review* 425

Litman, Jessica, ‘The Public Domain’ (1990) 39 *Emory Law Journal* 965

Litman, Jessica, ‘After Feist’ (1992) 17 *University of Dayton Law Review* 607

Litman, Jessica, ‘The Economics of Open Access Law Publishing’ (2006) 10(4) *Lewis and Clark Law Review* 779

Litman, Jessica, ‘War and Peace: The 34th Annual Donald C Brace Lecture’ (2006) 53 *Journal of the Copyright Society of the USA* 325

Litman, Jessica, ‘Lawful Personal Use’ (2007) 85(7) *Texas Law Review* 1871

Litman, Jessica, ‘The Copyright Revision Act of 2026’ (2009) 13(2) *Marquette Intellectual Property Law Review* 249

Litman, Jessica, ‘Real Copyright Reform’ (2010) 96(1) *Iowa Law Review* 1

Litman, Jessica, ‘What Notice Did’ (2016) 96 *Boston University Law Review* 717

Litman, Jessica, ‘What We Don't See When We See Copyright as Property’ (2018) 77(3) *Cambridge Law Journal* 536

Liu, Joseph P, ‘What Belongs in Copyright’ (2016) 39(3) *Columbia Journal of Law & the Arts* 325

Locke, John, *Second Treatise on Government* (1690)

Lockridge, Lee Ann W, ‘Comment: Intellectual Property in Outer Space: International Law, National Jurisdiction, and Exclusive Rights in Geospatial Data and Databases’ (2006) 32 *Journal of Space Law* 319

Long, Doris Estelle, ‘Dissonant Harmonization: Limitations on “Cash n’ Carry” Creativity’ (2007) 70 *Albany Law Review* 1163

Loshin, Pete, ‘Relational Databases’ (2001) 35(2) *Computerworld* 60

Loughlan, Patricia, ‘The Marketplace of Ideas and the Idea-Expression Distinction of Copyright Law’ (2002) 23 *Adelaide Law Review* 29

Loughlan, Patricia, ‘Pirates, Parasites, Reapers, Sowers, Fruits, Foxes … The Metaphors of Intellectual Property’ (2006) 28 *Sydney Law Review* 211

Lukoseviciene, Aurelija, ‘On Author, Copyright and Originality: Does the Unified EU Originality Standard Correspond to the Digital Reality in Wikipedia’ (2017) 11(2) *Masaryk University Journal of Law and Technology* 215

Lunney, Glenn S, ‘Reexamining Copyright’s Incentives-Access Paradigm’ (1996) 49(3) *Vanderbilt Law Review* 483

Luykx, Christoph, ‘EU General Data Protection Regulation (GDPR): Are You Ready For It?’ (Working Paper of Vanson Bourne, Commissioned by CA Technologies, 2016)

Lynch, Holly C, ‘What Do an Orangutan and a Corporation Have in Common? Whether the Copyright Protection Afforded to Corporations Should Extend to Works Created by Animals’ (2015) 42(1) *Ohio Northern University Law Review* 267

Madison, Michael J, ‘The Idea of the Law Review: Scholarship, Prestige and Open Access’ (2006) 10(4) *Lewis and Clark Law Review* 901

Manap, Nazura Abdul, Siti Naaishah Hambali, and Pardis Moslemzadeh Tehrani, ‘Intellectual Creation in Database: A Superfluous Test?’ (2013) 18 *Journal of Intellectual Property Rights* 369

Manyika, James, et al, ‘Big Data: The Next Frontier for Innovation, Competition and Productivity’ (Report of the McKinsey Global Institute, May 2011)

Maracke, Catharina, ‘Creative Commons International: The International License Porting Project – Origins, Experiences, and Challenges’ (2010) 1 *JIPITEC - Journal of Intellectual Property, Information Technology, and Electronic Commerce Law* 4

Marcowitz-Bitton, Miriam, ‘Commercializing Public Sector Information’ (2015) 97 *Journal of the Patent and Trademark Office Society* 412

Margoni, Thomas, ‘The Harmonisation of EU Copyright Law: The Originality Standard’ (29 June 2016) <https://ssrn.com/abstract=2802327>

Marrett, Paul, *Marrett: Intellectual Property Law: Concise Course Texts* (Sweet and Maxwell, 1996)

Martino, Peter, ‘Clarifying Copyrightability in Databases’ (2006) 4 *The Georgetown Journal of Law & Public Policy* 557

Martin-Prat, Maria, ‘The Future of Copyright in Europe’ (2014) 38(1) *Columbia Journal of Law and the Arts* 29

Masson, A, ‘Creation of Database or Creation of Data: Crucial Choices in the Matter of Database Protection’ (2006) *European Intellectual Property Review* 261

Matthias, Lisa, Najko Jahn and Mikael Laakso, ‘The Two-Way Street of Open Access Journal Publishing: Flip It and Reverse It’ (2019) 7(2) *Publications* 23

Mattioli, Michael, ‘Disclosing Big Data’ (2015) 99 *Minnesota Law Review* 535

Maurer, Stephen M, P Bernt Hugenholtz, and Harlan J Onsrud, ‘Europe’s Database Experiment’ (2001) 294 *Science* 789

Mazumder, Anirban, ‘Anomalies in Copyright Law’ (2006) 9(6) *The Journal of World Intellectual Property* 654

Mazumder, Anirban, ‘Information, Copyright and the Future’ (2007) 29(5) *European Intellectual Property Review* 180

McBride, M Scott, ‘Bioinformatics and Intellectual Property Protection’ (2002) 17 *Berkeley Technology Law Journal* 1331

McCutcheon, Jani, ‘When Sweat Turns to Ice: The Originality Threshold for Compilations Following IceTV and Phone Directories’ (2011) 22 *Australian Intellectual Property Journal* 87

McCutcheon, Jani, ‘Curing the Authorless Void: Protecting Computer-Generated Works Following IceTV and Phone Directories’ (2013) 37 *Melbourne University Law Review* 46

McFarlin, Timothy J, ‘An Idea of Authorship: Orson Welles, The War of the Worlds Copyright and Why We Should Recognize Idea-Contributors as Joint Authors’ (2016) 66(3) *Case Western Reserve Law Review* 701

McGinnis, John O, ‘Accelerating AI’ (2010) 104 *Northwestern University Law Review* 366

McGowan, Glenn, ‘IceTV v Nine Network and the Copyright in Factual Compilations in Australia’ (2009) 83 *Australian Law Journal* 840

McKeough, Jill, ‘Note: Apple Computer Inc v Computer Edge Pty Ltd’ (1984) *University of New South Wales Law Journal Special Issue* 161

McKeough, Jill, Andrew Stewart and Philip Griffith, *Intellectual Property in Australia* (LexisNexis Butterworths, 3rd ed, 2004)

McManis, Charles R, ‘Database Protection in the Digital Information Age’ (2001) 7 *Roger Williams University Law Review* 7

McSherry, Corynne, *Who Owns Academic Work? Battling for Control of Intellectual Property* (Cambridge University Press, 2001)

Merges, Robert, ‘Locke for the Masses: Property Rights and the Products of Collective Creativity’ (2007) 36 *Hofstra Law Review* 1179

Metalitz, Steven J, ‘Copyright Registration After Feist: New Rules and New Roles?’ (1992) 17 *Dayton Law Review* 763

Miller, Joseph Scott, ‘Why Open Access to Scholarship Matters’ (2006) 10(4) *Lewis and Clark Law Review* 733

Miller, Vaughne, ‘Making EU Law into UK Law’ (UK House of Commons Library, International Affairs and Defence Section, Standard Note No SN/IA/7002, 22 October 2014)

Minnaar, Anthony, 'The Growing Use of Malware, Malvertising and Ransomware by Cybercriminals' (2016) 109(11) *Servamus: Community-Based Safety and Security Magazine* 28

Mitchard, Helen and Jim Winkles, 'Experimental Comparisons of Data Entry by Automatic Speech Recognition, Keyboard, and Mouse' (Australian Department of Defence, Defence Science and Technology Organisation, Document No DTSO-RR-2220, November 2001)

Monotti, Ann, 'Works Stored in Computer Memory: Databases and the CLRC Draft Report' (1993) 4 *Journal of Law and Information Science* 265

Moran, Connor, 'How Much is Too Much? Copyright Protection of Short Portions of Text in the United States and European Union After *Infopaq International A/S v Danske Dagblades*' (2011) 6(3) *Washington Journal of Law, Technology and Arts* 247

Morrison, Heather and Lisa Desautels, 'Open Access, Copyright and Licensing: Basics for Open Access Publishers' (2016) 6(1) *Journal of Orthopaedic Case Reports* 1

Mossoff, Adam, 'How Copyright Drives Innovation: A Case Study of Scholarly Publishing in the Digital World' [2015] (3) *Michigan State Law Review* 955

Mtima, Lateef, 'Copyright and Social Justice in the Digital Information Society: "Three Steps" Toward Intellectual Property Social Justice' (2015) 53(2) *Houston Law Review* 459

Müller-Langer, Frank and Richard Watt, 'Copyright and Open Access for Academic Works' (Research Paper of the Max Planck Institute for Intellectual Property, Competition and Tax Law, University of Canterbury, MPRA Paper No. 24095, 24 June 2010)

Murray, Michael D, 'Post-Myriad Genetics Copyright of Synthetic Biology and Living Media' [2014] (10) *Oklahoma Journal of Law & Technology* 72

Murray, Michael, 'Reconstructing the Contours of the Copyright Originality and Idea-Expression Doctrines Regarding the Right to Deny Access to Works' (2014) 1(4) *Texas A&M Law Review* 921

Muse, Jennifer L, ‘Monkeys and Elephants and Koalas, Oh My! Is Originality Still The Touchstone of Authorship in United States Copyright Law?’ (2015) 97(4) *Official Journal of the Patent and Trademark Society* 736

Myška, Matěj and Jakub Harašta, ‘Less is More? Protecting Databases in the EU after Ryanair’ (2016) 10(2) *Masaryk University Journal of Law and Technology* 170

Nabilou, Hossein, ‘A Response to Professor Shavell's “Should Copyright of Academic Works be abolished?”’ (2010) 7(1) *Student's Guide to the U.S. Government Series* 31

Nachbar, Thomas B, ‘Judicial Review and the Quest to Keep Copyright Pure’ (2003) 2 *Journal on Telecommunications and High Technology Law* 33

Nachbar, Thomas B, ‘Rules and Standards in Copyright’ (2014) 52(2) *Houston Law Review* 583

Nadel, Mark S, ‘How Current Copyright Law Discourages Creative Output: the Overlooked Impact of Marketing’ (2004) 19(2) *Berkeley Technology Law Journal* 785

Narayanan, Anant S, ‘Standards of Protection for Databases in the European Community and the United States: Feist and the Myth of Creative Originality’ (1993 – 1994) 27 *George Washington Journal of International Law & Economics* 457

Newell, Bryce Clayton, ‘Independent Creation and Originality in the Age of Imitated Reality: A Comparative Analysis of Copyright and Database Protection for Digital Models of Real People’ (2010) 6 *International Law and Management Review* 93

Newell, Bryce Clayton, ‘Discounting the Sweat of the Brow: Converging International Standards for Electronic Database Protection’ (2011) 15 *Intellectual Property Law Bulletin* 111

Newman, John M, ‘Copyright Freeconomics’ (2013) 66 *Vanderbilt Law Review* 1409

Newman, John M, ‘Antitrust in Digital Markets’ (2019) 72(5) *Vanderbilt Law Review* 1497

Ng, Alina, ‘Authors and Readers: Conceptualizing Authorship in Copyright Law’ (2008) 30 *Hastings Communications & Entertainment Law Journal* 377

Ng, Alina, 'The Social Contract and Authorship: Allocating Entitlements in the Copyright System' (2009) 19 *Fordham Intellectual Property Media & Entertainment Law Journal* 413

Ng, Alina, 'The Author's Rights in Literary and Artistic Works' (2009) 9 *Marshall Review of Intellectual Property Law Journal* 453

Ng, Alina, 'When Users are Authors: Authorship in the Age of Digital Media' (2010) 12(4) *Vanderbilt Journal of Entertainment and Technology Law* 853

Nicol, Dianne and Jane Nielsen, 'The Australian Medical Biotechnology Industry and Access to Intellectual Property: Issues for Patent Law Development' (2001) 23 *Sydney Law Review* 347

Nimmer, David, 'Copyright in the Dead Sea Scrolls: Authorship and Originality' (2001) 38(1) *Houston Law Review* 1

Nimmer, Raymond, 'Information Wars and the Challenges of Context Protection in Digital Contexts' (2011) 13(4) *Vanderbilt Journal of Entertainment and Technology Law* 825

Nipps, Karen, 'Cum Privilegio: Licensing of the Press Act of 1662' (2014) 84(4) *The Library Quarterly: Information, Community, Policy* 494

Northover, Alexander D, '"Enough and as Good" in the Intellectual Commons: A Lockean Theory of Copyright and the Merger Doctrine' (2016) 65 *Emory Law Journal* 1363

O'Leary, Ronald, 'How Treaties and Technology Have Changed Intellectual Property Law' (2016) 16(1) *Journal of International Business and Law* 87

Ochoa, Tyler T, 'Who Owns an Avatar? Copyright, Creativity and Virtual Worlds' (2012) 14(4) *Vanderbilt Journal of Entertainment and Technology Law* 959

Oduor, Frederick Oduol, 'The Internet and Copyright Protection: Are We Producing a Global Generation of Copyright Criminals?' (2011) 18 *Villanova Sports and Entertainment Law Journal* 501

OECD, *OECD Principles and Guidelines for Access to Research Data from Public Funding* (Organisation for Economic Co-operation and Development Publication, 2007)

OECD, 'Legal Aspects of Open Access to Publicly Funded Research' in *Enquiries into Intellectual Property's Economic Impact*, (Organisation for Economic Co-operation and Development Publication, 2015) 373

Ohm, Paul, 'The Underwhelming Benefits of Big Data' (2013) 161 *University of Pennsylvania Law Review* 339

Okediji, Ruth, 'Government as Owner of Intellectual Property? Considerations for Public Welfare in the Era of Big Data' (2016) 18(2) *Vanderbilt Journal of Entertainment and Technology Law* 331

Olufunmilayo B, Arewa, 'Open Access in a Closed Universe: Lexis, Westlaw, Law Schools and the Legal Information Market' (2006) 10(4) *Lewis and Clark Law Review* 798

Osborn, Lucas S, 'The Limits of Creativity in Copyright: Digital Manufacturing Files and Lockout Codes' (2017) 4 *Texas A&M Journal of Property Law* 25

Osborn, Lucas S, 'Intellectual Property Channeling for Digital Works' (2018) 39 *Cardozo Law Review* 1303

Osenga, Kristen, 'Information May Want to Be Free, But Information Products Do Not: Protecting and Facilitating Transactions in Information Products' (2009) 30(5) *Cardozo Law Review* 2099

Pachnanda, Amol, 'Scientific Databases Should Be Protected Under a *Sui Generis* Regime' (2003) 51 *Buffalo Law Review* 219

Pager, Sean A, 'Does Copyright Help or Harm Cultural Diversity in the Digital Age?' (2019) 32 *Kritika Kultura* 397

Pager, Sean, 'Making Copyright Work for Creative Upstarts' (2015) 22(4) *George Mason Law Review* 1021

Pallante, Maria A, 'The Curious Case of Copyright Formalities' (2013) 28 *Berkeley Technology Law Journal* 1415

Pallaras, Luke, 'Falling Between Two Stools: Presumptions under the *Copyright Act 1968* (Cth)' (2010) 21 *Australian Intellectual Property Law Journal* 100

Pappalardo, Kylie, et al, *A Guide to Developing Open Access Through Your Digital Repository* (QUT Printing Services, 2007)

Pappalardo, Kylie, et al, *Understanding Open Access in the Academic Environment: A Guide for Authors* (Elect Printing, 2008)

Pasquale, Frank, 'Copyright in an Era of Information Overload: Toward the Privileging of Categorizers' (2007) 60 *Vanderbilt Law Review* 135

Patry, William, *Moral Panics and the Copyright Wars* (Oxford University Press, 2009)

Pearlman, Russ, 'Recognizing Artificial Intelligence (AI) as Authors and Investors under US Intellectual Property Law' (2018) 24(2) *Richmond Journal of Law & Technology* 1

Perkins, Amanda, 'United States Still No Closer to Database Legislation' (2000) 22(8) *European Intellectual Property Review* 366

Perlmutter, Shira, Jerome H Reichman and Whitmore Gray, 'Copyright and International TRIPS Compliance' (1997) 8 *Fordham Intellectual Property Media and Entertainment Law Journal* 83

Perritt, Henry H Jr, 'Property and Innovation in the Global Information Infrastructure' (1996) *University of Chicago Legal Forum* 261

Perry, Mark and Casey M Chisick, 'Copyright and Anti-Circumvention: Growing Pains in a Digital Millennium' (2000) *New Zealand Intellectual Property Journal* 261

Perry, Mark, 'Rights Management Information' in Michael Geist (ed) *In the Public Interest: The Future of Canadian Copyright Law* (2005) 251

Perry, Mark, 'From Music Tracks to Google Maps: Who Owns Computer-Generated Works?' (2010) 26 *Computer Law and Security Review* 621

Perry, Mark and Thomas Margoni, 'Ownership in Complex Authorship: a Comparative Study of Joint Works' (2012) 34(1) *European Intellectual Property Review* 22

Perry, Mark, ‘The Legacy of the Seasons: Confusion and Misdirection’ in Shubha Ghosh (ed), *Forgotten Intellectual Property Lore: Creativity, Entrepreneurship and Intellectual Property* (Elgar Law and Entrepreneurship Series, forthcoming October 2020)

Perzanowski, Aaron and Jason Schultz, ‘Reconciling Intellectual and Personal Property’ (2015) 90(3) *Notre Dame Law Review* 1211

Peterson, Jonathan, ‘Legal Theory’ (2008) 14(4) *Legal Theory* 257

Peukert, Alexander, ‘Intellectual Property as an End in Itself?’ (2011) 33 *European Intellectual Property Review* 67

Peukert, Alexander, ‘Territoriality and Extraterritoriality in Intellectual Property Law’ in Günter Handl, Joachim Zekill and Peer Zumbansen (eds), *Beyond Territoriality: Transnational Legal Authority in an Age of Globalization* (Brill Academic Publishing, 2012) 189

Pila, Justine, ‘Compilation Copyright: A Matter Calling For “A Certain … Sobriety”’ (2008) 19 *Australian Intellectual Property Law Journal* 231

Pila, Justine, ‘An Australian Copyright Revolution and its Relevance for UK Jurisprudence: IceTV in the Light of Infopaq v Danske’ (2010) 9(2) *Oxford University Commonwealth Law Journal* 77

Pila, Justine, ‘Copyright and its Categories of Original Works’ (2010) 30(2) *Oxford Journal of Legal Studies* 229

Pilichou, Aikaterini, *Originality Under EU Copyright Law* (LLM Thesis, International Hellenic University, Thessaloniki, Greece, 2017)

Piwowar, Heather, et al, ‘The State of OA: A Large-Scale Analysis of the Prevalence and Impact of Open Access Articles’ (2018) *PeerJ* 6:e4375

Polcak, Radim, ‘Digitisation, Cultural Institutions and Intellectual Property’ (2015) 9(2) *Masaryk University Journal of Law and Technology* 121

Polivy, Denise, ‘Feist Applied: Imagination Protects, But Perspiration Persists: The Bases of Copyright Protection for Factual Compilations’ (1998) 8 *Fordham Intellectual Property Media & Entertainment Law Journal* 773

Posner, Richard A, ‘Utilitarianism, Economics and Legal Theory’ (1979) 8(1) *Journal of Legal Studies* 103

Potter, Wellett and Heather Ann Forrest, ‘Musicological and Legal Perspectives on Music Borrowing: Past, Present and Future’ (2011) 22 *Australian Intellectual Property Journal* 137

Potter, Wellett, ‘Music Mash-Ups: The Current Australian Copyright Implications, Moral Rights and Fair Dealing in the Remix Era’ (2012) 17(2) *Deakin Law Review* 349

Potter, Wellett, ‘When Computers Dream of Electric Sheep: Australian Authorship Rights in an Age of Artificial Intelligence’ (2015) 33(3) *Copyright Reporter – Journal of the Copyright Society of Australia* 22

Pountain, Dick, *The Penguin Concise Dictionary of Computing* (Penguin Books, 2003)

Powell, Mark, ‘The European Union Database Directive: An International Antidote to the Side Effects of Feist?’ (1996) 20(4) *Fordham International Law Journal* 1215

Pratap Rao, Udai, Dhiren R Patel and Punitkumar M Vikani, ‘Relational Database Watermarking for Ownership Protection’ (2012) 6 *Procedia Technology* 988

Primavera, De Filippi and Lionel Maurel, ‘The Paradoxes of Open Data and How to Get Rid of It: Analysing the Interplay between Open Data and Sui-Generis Rights on Databases’ (2015) 23(1) *International Journal of Law and Information Technology* 1

Rachum-Twaig, Omri, ‘A Genre Theory of Copyright’ (2016) 33(1) *Santa Clara High Technology Law Journal* 34

Rachum-Twaig, Omri, ‘Recreating Copyright: The Cognitive Process of Creation and Copyright Law’ (2017) 27 *Fordham Intellectual Property Media and Entertainment Law Journal* 287

Rahmatian, Andreas, ‘Originality in UK Copyright Law: The Old “Skill and Labour” Doctrine Under Pressure (2013) 44(1) *International Review of Intellectual Property and Competition Law* 4

Rahmatian, Andreas, ‘Cyberspace and Intellectual Property Rights’ in N Tsagourias and R Buchan (eds), *Research Handbook on International Law and Cyberspace* (Edward Elgar, 2015) 72

Rahmatian, Andreas, ‘European Copyright Inside or Outside the European Union: Pluralism of Copyright Laws and the “Herderian Paradox”’ (2016) 47(8) *International Review of Intellectual Property and Competition Law* 912

Ralston, William T, ‘Copyright in Computer-Composed Music: Hal Meets Handel’ (2005) 52 *Journal of the Copyright Society of the USA* 281

Ramakrishnan, Raghu and Johannes Gehrke, *Database Management Systems* (McGraw Hill Higher Education, 2nd ed, 2000)

Ramesh, Ragavi, *Re-imagining the Principle of National Treatment: Addressing Private International Law Issues in Copyright Infringement in the Internet Era*, (Master of Laws Thesis, University of Western Ontario, 2015)

Ramsey, Gabriel M and Elizabeth A Howard, ‘Databases in the Biological Sciences: A User’s Guide to the Current Copyright Landscape’ (2003) 132 *Plant Physiology* 1131

Reed, Chris and John Angel, *Computer Law – the Law and Regulation of Information Technology*, (Oxford University Press, 6th ed, 2007)

Reese, R Anthony, ‘Copyrightable Subject Matter in the “Next Great Copyright Act”’ (2014) 29 *Berkeley Technology Law Journal* 1489

Reichman, J H, ‘Electronic Information Tools – The Outer Edge of World Intellectual Property Law’ (1992) 17 *University of Dayton Law Review* 797

Reichman, J H, ‘Legal Hybrids Between the Patent and Copyright Paradigms’ (1994) 94 *Columbia Law Review* 2432

Reichman, J H and Pamela Samuelson, ‘Intellectual Property Rights in Data?’ (1997) 50 *Vanderbilt Law Review* 51

Reichman, J H and Paul F Uhlir, ‘Database Protection at the Crossroads: Recent Developments and their Impact on Science and Technology’ (1999) 14 *Berkeley Technology Law Journal* 793

Reichman, J H, 'The TRIPS Agreement Comes of Age: Conflict or Cooperation with the Developing Countries?' (2000) 32 *Case Western Reserve Journal of International Law* 441

Reichman, J H and Paul F Uhlir, 'A Contractually Reconstructed Research Commons for Scientific Data in a Highly Protectionist Intellectual Property Environment' (2003) 66 *Journal of Law and Contemporary Problems* 315

Reichman, Jerome H and Ruth L Okediji, 'When Copyright and Science Collide: Empowering Digitally Integrated Research Methods on a Global Scale' (2012) 96 *Minnesota Law Review* 1362

Reid, Amanda, 'Claiming the Copyright' (2016) 34(2) *Yale Law and Policy Review* 425

Reilly, Tracy, 'Copyright and the Tragedy of the Common' (2014) 55 *IDEA: The Intellectual Property Law Review* 105

Reilly, Tracy, 'Copyright and a Synergistic Society' (2017) 18(2) *Minnesota Journal of Law, Science and Technology* 575

Resnik, D B, 'A Pluralistic Account of Intellectual Property' (2003) 46(4) *Journal of Business Ethics* 319

Rice, M Lee, 'Free Access to Publicly Funded Databases is Vital' (2003) 421 *Nature* 786

Ricketson, Sam, *Law of Intellectual Property* (Law Book Company, 2nd ed, 1984)

Ricketson, Sam, 'The 1992 Horace S Manges Lecture - People or Machines: The Berne Convention and the Changing Concept of Authorship,' (1991) 16(1) *Columbia-VLA Journal of Law & the Arts* 1

Ricketson, Sam, *The Berne Convention for the Protection of Literary and Artistic Works: 1886-1986* (Centre for Commercial Law Studies, Queen Mary College, 1987)

Ricketson, Sam, 'Reflections on Authorship and the Meaning of a "Work" in Australian and Singapore Copyright Law' (2012) 24 *Singapore Academy of Law Journal* 792

Ricketson, Sam, 'The Need for Human Authorship – Australian Developments: Telstra Corp v Phone Directories Co Pty Ltd' (2012) 34(1) *European Intellectual Property Review* 54

Ricolfi, Marco, 'Copyright Policy for Digital Libraries in the Context of the i2010 Strategy' (Paper presented at 1st COMMUNIA Conference on the Digital Public Domain, Louvain-la-Neuve, Belgium, 30 June – 1 July 2008)

Riley, Joellen, 'Use and Abuse of Copyright: the "Sweat of the Brow' Theory Gone Mad' (2005) 30(3) *Alternative Law Journal* 109

Rimmer, Matthew, Submission to the Australian Law Reform Commission – Copyright and the Digital Economy Inquiry, *Copyright and the Digital Economy: The Progress of Science* (2012)

Rodríguez-Doncel, Victor, Cristiana Santos, Pompeu Casanovas and Asunción Gómez-Pérez, 'Legal Aspects of Linked Data – The European Framework' (2016) 32 *Computer Law & Security Review* 799

Rodwin, Marc A, 'Patient Data: Property, Privacy and the Public Interest' (2010) 36 *American Journal of Law and Medicine* 586

Rosati, Eleonora, 'Originality in US and UK Copyright Experiences as a Springboard for an EU-Wide Reform Debate' (2010) 41(5) *International Review of Intellectual Property and Competition Law* 524

Rosati, Eleonora, 'Originality in a Work, or a Work of Originality: The Effects of the *Infopaq* Decision' (2011) 33(12) *European Intellectual Property Review* 795

Rosati, Eleonora, *Judge-Made EU Copyright Harmonisation: The Case of Originality* (PhD Thesis, European University Institute Florence, 2012)

Rosati, Eleonora, 'Towards an EU-Wide Copyright? (Judicial) Pride and (Legislative) Prejudice' (Paper presented at the First International Colloquium on Law and ICT/IP, George-August-Universität Göttingen, Germany, 8-9 November 2012) 2

Rosati, Eleonora, 'Brexit and UK Copyright: The Story of a Loss Among All Other Losses' (2016) 11(8) *Journal of Intellectual Property Law & Practice* 563

Rose, Carol M, 'The Comedy of the Commons: Custom, Commerce and Inherently Public Property' (1986) 53(3) *The University of Chicago Law Review* 711

Rose, Carol M, 'Surprising Commons' (2014) 6 *Brigham Young University Law Review* 1257

Rosenblatt, Elizabeth L, 'Intellectual Property's Negative Space: Beyond the Utilitarian' (2013) 40(3) *Florida State University Law Review* 441

Rosler, Debra B, 'The European Union's Proposed Directive for the Legal Protection of Databases: A New Threat to the Free Flow of Information' (1995) 10(1) *Berkeley Technology Law Journal* 105

Rothman, Jennifer E, 'Copyright's Private Ordering and the "Next Great Copyright Act"' (2014) 29(3) *Berkeley Technology Law Journal* 1595

Rustad, Michael L and Diane D'Angelo, 'The Path of Internet Law: An Annotated Guide to Legal Landmarks' (2011) 12 *Duke Law and Technology Review* 1

Rutsky, R L, 'Information Wants to be Consumed' in Sande Cohen and R L Rutsky (eds), *Consumption in an Age of Information* (Berg, 2005) 61

Sacher, Megan, 'Net Neutrality, Antitrust and Startups in the European Union' (2018) 20(1) *San Diego International Law Review* 161

Sag, Matthew, 'Copyright and Copy-Reliant Technology' (2009) 103(4) *Northwestern University Law Review* 1607

Sainsbury, Maree, 'Databases and Copyright - Finding the Match' (2001) 3 *Digital Technology Law Journal* <http://www.austlii.edu.au/au/journals/DTLJ/2001/3.html>

Sainsbury, Maree, 'Context or Chaos: Statutory Interpretation and the Australian Copyright Act' (2011) 32(1) *Statute Law Review* 54

Samuelson, Pamela, 'Allocating Ownership Rights in Computer-Generated Works' (1985) 47 *University of Pittsburgh Law Review* 1185

Samuelson, Pamela, 'Toward a "New Deal" for Copyright in the Information Age' (2002) 100 *Michigan Law Review* 1488

Samuelson, Pamela, 'Copyright and Freedom of Expression in Historical Perspective' (2003) 10 *Journal of Intellectual Property Law* 319

Samuelson, Pamela et al, 'The Copyright Principles Project: Directions for Reform' (2010) 25 *Berkeley Technology Law Journal* 1175

Pamela Samuelson, 'The Past, Present and Future of Copyright Software: Interoperability Rules in the European Union and the United States' (2012) 34(4) *European Intellectual Property Review* 229

Pamela, Samuelson, 'Evolving Conceptions of Copyright Subject Matter' (2016) 78 *University of Pittsburgh Law Review* 17

Samuelson, Pamela, 'Functional Compilations' (2016) 54(2) *Houston Law Review* 321

Sanks, Terry M, 'Database Protection: National and International Attempts to Provide Legal Protection for Databases' (1998) 25 *Florida State University Law Review* 991

Sartore, Federico, 'Big Data: Privacy and Intellectual Property in a Comparative Perspective' (Trento Law and Technology Research Group, Student Paper n 26, 2016)

Scanlan, Gary, 'The Database Directive – One Step Too Far?' (2004) 13 *Nottingham Law Journal* 38

Scassa, Teresa, 'Public Transit Data Through an Intellectual Property Lens: Lessons About Open Data' (2014) 41 *Fordham Urban Law Journal* 1759

Scassa, Teressa and Niki Singh, 'Open Data and Official Language Regimes: An Examination of the Canadian Experience' (2015) 7(1) *JeDEM – Journal of Democracy* 117

Scassa, Teresa and D R Fraser Taylor, 'Intellectual Property Law and Geospatial Information: Some Challenges' (2014) 6(1) *WIPO Journal* 79

Schatz, James, Bradley W Anderson and Holly Garland Langworthy, 'What's Mine is Yours? The Dilemma of a Factual Compilation' (1992) 17 *University of Dayton Law Review* 423

Shavell, Steven, 'Should Copyright of Academic Works Be Abolished?' (2010) 2(1) *Journal of Legal Analysis* 301

Schellekens, Maurice, 'A Database Right in Search Results? – An Intellectual Property Right Reconsidered in Respect of Computer Generated Databases' (2011) 27(6) *Computer Law and Security Review* 620

Schmitt, Judy and Florian Stahl, 'How the Proposed EU Data Protection Regulation is Creating a Ripple Effect Worldwide' (Paper presented at IAPP Privacy Academy, San Jose, California, 10-12 October 2012)

Schreyer, Amanda, 'An Overview of Legal Protection for Fictional Characters: Balancing Public and Private Interests' (2015) 6(1) *Cybaris: An Intellectual Property Law Review* 50

Schwabach, Aaron, *Internet and the Law: Technology, Society and Compromises*, (ABC CLIO, 2006)

Scott, Gordon H, 'The Economic Theory of a Common-Property Resource: The Fishery' (1954) 62(2) *The Journal of Political Economy* 124

Seltzer, Margo, 'Beyond Relational Databases' (2005) 3(3) *Queue* 50

Serafin, Robert J Paul F Uhlier et al, 'A Question of Balance: Private Rights and Public Interests in Scientific and Technical Databases' (Committee for a Study on Promoting Access to Scientific and Technical Data for the Public Interest Publication, US National Research Council, 1999) <http://nap.edu/9692>

Shaba, Nusrat Jahan, *Big Data Database: Loopholes Regarding Ownership and Access to Data* (LLM Thesis, Uppsala Universitet, 2018)

Shaffer Van Houweling, Molly, 'Author Autonomy and Atomism in Copyright Law' (2010) 96 *Virginia Law Review* 549

Shaffer Van Houweling, Molly, 'Atomism and Automation' (2012) 27 *Berkeley Technology Law Journal* 1471

Shaffer Van Houweling, Molly, 'Authors Versus Owners' (2016) 54(2) *Houston Law Review* 371

Shahrivari, Saeed, 'Beyond Batch Processing: Towards Real-Time and Streaming Big Data' (2014) 3(4) *Computers* 117

Shaver, Lea, 'Copyright and Inequality' (2014) 92(1) *Washington University Law Review* 117

Sheils, Paul and Robert Penchina, 'What's All the Fuss About Feist? The Sky is Not Falling on the Intellectual Property Rights of Online Database Proprietors' (1992) 17 *Dayton Law Review* 563

Sheridan, Jenny Lynn, 'Copyright's Knowledge Principle' (2014) 17(1) *Vanderbilt Journal of Entertainment and Technology Law* 39

Sherman, Brad and Lionel Bently, *The Making of Modern Intellectual Property Law: The British Experience 1760-1911* (Cambridge University Press, 1999)

Shur-Ofry, Michal, 'Databases and Dynamism' (2011) 44(2) *University of Michigan Journal of Law Reform* 315

Siderits, Jonathan, 'The Case for Copyrighting Monkey Selfies' [2016] (84) *University of Cincinnati Law Review* 327

Siebrasse, Norman, 'A Property Rights Theory of the Limits of Copyright' (2001) 51(1) *University of Toronto Law Review* 1

Siitonen, Panu, 'Changing IP Law in Finland' in *Navigating Intellectual Property Law in Europe: Leading Lawyers on Complying with Regional Laws, Leveraging New Technology, and Avoiding Infringement Issues* (Aspatore, 2011)

Siu, Kevin P, 'Technological Neutrality: Toward Copyright Convergence in the Digital Age' (2013) 71 *Toronto Factual Law Review* 76

Siltanen, Markus, 'Database Protection in the European Union and the United States: Comprising an Analysis in Relation to Location-Based Services' (Report of the Support Project of NAVI-Programme: Regulatory Framework, Helsinki Institute for Information Technology, ND)

Smith, Eric H, 'Worldwide Copyright Protection Under the TRIPS Agreement' (1996) 29 *Vanderbilt Journal of Transnational Law* 559

Smith, Joel and Rachel Montagnon, ‘Databases Hosted Outside the UK can Infringe Rights in UK Databases: *Football Dataco Sportradar* (C-173/11)’ (2013) 35(2) *European Intellectual Property Review* 111

Smith, Rachel M, ‘Why Can’t My Waiter Sing Happy Birthday: The Chilling Effect of Corporate Copyright Control’ (2016) 56(3) *IDEA: The Journal of the Franklin Pierce Center for Intellectual Property* 399

Smith, Rebecca and Siabon Seet, ‘*Football Dataco Ltd v Stan James Plc; Football Dataco Ltd v Sportradar GmbH*: The Case and Its Relevance in Australia’ (2013) 26(1) *Australian Intellectual Property Law Bulletin* 9

Sobel, Benjamin L W, ‘Artificial Intelligence's Fair Use Crisis’ (2017) 41 *Columbia Journal of Law & the Arts* 45

Solum, Lawrence B, ‘Download it While It’s Hot: Open Access and Legal Scholarship’ (2006) 10(4) *Lewis and Clark Law Review* 841

Sorjamaa, Tuomas, *I, Author – Authorship and Copyright in the Age of Artificial Intelligence* (LLM Thesis, Hanken School of Economics, Helsinki, 2016)

Sorkin, David, Peter DiCola and Marcelo Halpern (Moderator and Panelists), ‘Legal Problems in Data Management: IT and Privacy at the Forefront: “Big Data”: Ownership, Copyright and Protection’ (2015) 31 *Marshall Journal of Information Technology and Privacy* 565

Sprigman, Christopher Jon, ‘Copyright and Creative Incentives: What We Know (and Don't)’ (2017) 55(2) *Houston Law Review* 451

Stallberg, Christian G, ‘Towards a New Paradigm in Justifying Copyright: An Universalistic-Transcendental Approach’ (2007) 18(2) *Fordham Intellectual Property, Media and Entertainment Law Journal* 333

Stamatoudi, Irini, *Copyright and Multimedia Products: A Comparative Analysis* (Cambridge University Press, 2002)

Sterk, Stewart E, ‘Rhetoric and Reality in Copyright Law’ (1996) 94 *Michigan Law Review* 1197

Stern, Simon, ‘From Author's Right to Property Right’ (2012) 62 *University of Toronto Law Journal* 29

Stillinger, Jack, *Multiple Authorship and the Myth of Solitary Genius* (Oxford University Press, 1991)

Stodden, Victoria, ‘Applying the Creative Commons Philosophy to Scientific Innovation’ (Paper presented at Acesso Livre à Informação Científica, Reitoria UNL - Campolide, Lisbon, 11 February 2010)

Storella, Alison C, ‘It’s Selfie-Evident: Spectrums of Alienability and Copyrighted Content on Social Media’ (2014) 94(6) *Boston University Law Review* 2045

Suber, Peter, *Open Access* (MIT Press Essential Knowledge, 2013)

Suber, Peter, et al, The Bethesda Statement on Open-Access Publishing, *Research Gate* (2003) <https://www.researchgate.net/publication/48547523_The_Bethesda_Statement_on_Open-Access_Publishing>

Sullivan, Amy C, ‘When the Creative is the Enemy of the True: Database Protection in the US and Abroad’ (2001) 29(3) *AIPLA Quarterly Journal* 317

Sun, Haochen, ‘Copyright and Responsibility’ (2013) 4 *Harvard Journal of Sports and Entertainment Law* 263

Suzor, Nicolas, ‘Access, Progress and Fairness: Rethinking Exclusivity in Copyright’ (2013) 15(2) *Vanderbilt Journal of Entertainment and Technology Law* 297

Swartz, Aaron, *Guerilla Open Access Manifesto* (2008)

Tamaroff, David, ‘Bottling the Free Flow of Information: A Comparative Analysis of US and EU Database Protection’ (2011) 12(1) *Wake Forest Journal of Business and Intellectual Property Law* 1

Tarando, Elena Eugenievna, et al, ‘Realization of Copyright in Russia in the Sphere of Scientific Articles: The Experience of Applied Sociological Analysis’ (2015) 7(3) *Review of European Studies* 113

Taylor, Jayme Rebecca ‘Convention Cosplay: Subversive Potential in Anime Fandom’ (Anthropology Masters Thesis, University of British Columbia, 2009)

Tehranian, John, ‘Sex, Drones & Videotape: Rethinking Copyright's Authorship-Fixation Conflation in the Age of Performance’ (2017) 68 *Hastings Law Journal* 1319

Telstra Corporation Limited, *Submission to the Australian Law Reform Commission’s Issues Paper - Copyright and the Digital Economy Issues Paper No 42* (November 2012)

Teplitzky, Samantha, ‘Open Data, [Open] Access: Linking Data Sharing and Article Sharing in the Earth Sciences’ (2017) 5 *Journal of Librarianship and Scholarly Communication (General Issue)* eP2150

Terra, Antoni, ‘Copyright Law and Digital Piracy: An Economic Global Cross-National Study’ (2016) 18(1) *North Carolina Journal of Law & Technology* 69

Tessensohn, John, ‘The Devil’s in the Details: The Quest for Legal Protection of Computer Databases and the Collections of Information Act, H. R. 2652’ (1998) 38 *IDEA: The Journal of Law and Technology* 439

Thakur, Neeta, ‘Database Protection in the European Union and the United States: the European Database Directive as an Optimum Global Model’ (2001) 1 *Intellectual Property Quarterly* 100

Thiruthy, Narendran, ‘Open Source - Is It An Alternative to Intellectual Property?’ (2017) 20 *Journal of World Intellectual Property* 68

Thomas, Deepu Jacob and Prasan Dhar, ‘Of Square Pegs and Round Holes: Towards a New Paradigm of Database Protection’ (2008) 4 *The Indian Journal of Law and Technology* 34

Thomas, Mark, ‘Information as Property: Humanism or Economic Rationalism in the Millennium?’ (1998) 14 *Queensland University of Technology Law Journal* 203

Thomson, Judith, ‘Square Pegs in Round Holes: Are Computer Programs Really Literary Works?’ (2010) 84 *Australian Law Journal* 50

Thorner, Benjamin B, ‘Copyright Protection for Computer Databases: The Threat of Feist and a Proposed Solution’ (1997) 1 *Virginia Journal of Law and Technology* 1522

Thornton, Penelope, 'High Court Decision on Where the Act of "making available" Takes Place for Internet Transmissions: *Football DatacoLtd v Sportradar GmbH*' (2011) 17(3) *Computer and Telecommunications Law Review* 74

Torrance, Andrew W, 'DNA Copyright' (2011) 46 *Valparaiso University Law Review* 1

Torremans, Paul (ed), *Copyright Law: A Handbook of Contemporary Research* (Edward Elgar, 2007)

Treiger-Bar-Am, Kim, 'Kant on Copyright: Rights of Transformative Authorship' (2008) 25(3) *Cardozo Arts and Entertainment* 1060

Trimble, Marketa, 'The Multiplicity of Copyright Laws on the Internet' (2015) 25 *Fordham Intellectual Property Media and Entertainment Law Journal* 339

Trosow, Samuel E, 'The Illusive Search for Justificatory Theories: Copyright, Commodification and Capital' (2003) 16(2) *Canadian Journal of Law and Jurisprudence* 217

Trosow, Samuel E, '*Sui Generis* Database Legislation: A Critical Analysis' (2004-2005) 7 *Yale Journal of Law and Technology* 534

Tschider, Charlotte E, 'Metaphor after Myriad: The Effect of Legal Rhetoric on Intellectual Property Protection for Biological Sequences' (2017) 57 *IDEA - The Journal of the Franklin Pierce Center for Intellectual Property* 519

Tsolis, Dimitrios K, Spyros Sioutas and Theodore Papatheodorou, 'Copyright Protection and Management of Digital Cultural Objects and Data' (Paper presented at 2008 Annual Conference of CIDOC, Athens, Greece, 15-18 September 2008)

Tushnet, Rebecca, 'Legal Fictions: Copyright, Fan Fiction, and A New Common Law' (1997) 17(3) *Loyola Los Angeles Entertainment Law Journal* 651

Uhlir, Paul and Peter Schröder, 'Open Data for Global Science' in Brian Fitzgerald (ed), *Legal Framework for e-Research: Realising the Potential* (Sydney University Press, 2008) 189

Uhlir, Paul F, et al, 'The Value of Open Data Sharing' (CODATA and Group on Earth Observations, 2015)

United States House of Representatives, Committee on the Judiciary, *Copyright Law Revision*, House Report Number 1476, 94th Congress, 2d Session 54 (1976)

US Patent and Trademark Office, 'Database Protection and Access Issues, Recommendations - Patent and Trademark Office Report on Recommendations from the April 1998 Conference on Database Protection and Access Issues' (US Patent and Trademark Office, Department of Commerce, Washington, DC, July 1998)

US Public Policy Committee of the ACM, 'USACM Comments on Legislative Efforts to Expand Protection for Collections of Data' (US Public Policy Committee of the ACM Paper, May 2003)

Vaagan, Robert and Wallace Koehler, 'Intellectual Property Rights vs Public Access Rights: Ethical Aspects of the DeCSS Decryption Program' (2005) 10(3) *Information Research* <http://InformationR.net/ir/10-3/paper230.html>

Van Caenegem, William, 'Copyright, Communication and New Technologies' (1995) 23(2) *Federal Law Review* 322

Van Caenegem, William, *Intellectual Property – Butterworths Tutorial Series* (LexisNexis Butterworths, 2nd ed, 2006)

Van Caenegem, William, *Intellectual and Industrial Property in Australia* (LexisNexis Butterworths, 2009)

Van Caenegem, William, 'Originality, Joint Authorship and Databases Post-*IceTV*' (2011) 24(6) *Australian Intellectual Property Law Bulletin* 150

Van der Sloot, Bart and Sascha van Schendel, 'Ten Questions for Future Regulation of Big Data: A Comparative and Empirical Legal Study' (2016) 7 *JIPITEC - Journal of Intellectual Property, Information Technology, and Electronic Commerce Law* 110

Van der Walt, AJ and M du Bois, 'The Importance of the Commons in the Context of Intellectual Property' (2013) 24 *Stellenbosch Law Review* 31

Van Dijk, Jan, *The Network Society: Social Aspects of New Media* (Sage Publications, 2nd ed, 2006)

Van Eechoud M and B Van der Wal, 'Creative Commons Licensing for Public Sector Information: Opportunities and Pitfalls' (Amsterdam Institute for Information Law IViR, Version 3.0, 2008)

Van Eechoud, Mireille, 'Along the Road to Uniformity: Diverse Readings of the Court of Justice Judgements on Copyright Work' (2012) 1 *JIPITEC - Journal of Intellectual Property, Information Technology, and Electronic Commerce Law* 60

Van Eechoud, Mireille, 'Government Works' in B Hugenholtz, A Quaedvlieg, & D Visser (eds) *A Century of Dutch Copyright Law: Auteurswet 1912–2012* (deLex, 2012)

Van Eechoud, Mireille (eds), *The Work of Authorship* (Amsterdam University Press, 2014)

Van Eechoud, Mireille, 'Bridging the Gap: Private International Law Principles for Intellectual Property Law' (2016) 4 *Nederlands Internationaal Privaatrecht* 716

Van Gompe, Stef and Lavik, Erlend, 'Quality, Merit, Aesthetics and Purpose: An Inquiry into EU Copyright Law's Eschewal of Other Criteria than Originality' (2013) 236 *RIDA - Revue Internationale du Droit d'Auteur* 100

Van Gompel, Stef, 'Copyright Formalities in the Internet Age: Filters of Protection or Facilitators of Licensing' (2013) 28 *Berkeley Technology Law Journal* 1425

Virtanen, Perrtu, 'Football Dataco v Yahoo! The ECJ Interprets the Database Directive' (2012) 9(2) *SCRIPTed* 258

Von Simson, Charles, 'Feist or Famine: American Database Copyright as an Economic Model for the European Union' (1995) 20 *Brooklyn Journal of International Law* 729

Wagner, James, 'Rise of the Artificial Intelligence Author' (2017) 75 *Advocate (Vancouver)* 527

Waisman, Agustin, 'Revisiting Originality' (2009) 31(7) *European Intellectual Property Review* 370

Wald, Julie, 'Legislating the Golden Rule: Achieving Comparable Protection Under the European Union Database Directive' (2002) 25 *Fordham International Law Journal* 987

Waldron, Jeremy, 'From Authors to Copiers: Individual Rights and Social Values in Intellectual Property' (1992) 68(2) *Chicago Kent Law Review* 841

Walker, Kim, 'Brexit: Implications for Copyright and the Digital Single Market' (Shakespeare Martineau LLP, March 2017)

Wang, Xiaodan Randal Burns and Tanu Malik, 'LifeRaft: Data-Driven, Batch Processing for the Exploration of Scientific Databases' (Paper presented at 4th Biennial Conference on Innovative Data Systems Research (CIDR), Asilomar California USA, 4-7 January 2009)

Wayner, Peter, 'Whose Intellectual Property Is It, Anyway? The Open Source War', *New York Times Online, Late Edition* (East Coast, 24 August 2000)

Weatherall, Kimberlee, 'So Call Me a Copyright Radical' (Sydney Law School Legal Studies Research Paper No. 12/44, July 2012)

Weatherall, Kimberley and Emily Hudson, 'Response to the Issues Paper: Fair Use and Other Copyright Exceptions in the Digital Age' (2005), *Intellectual Property Research Institute of Australia (IPRIA) and Centre for Media and Communications Law (CMCL) - The University of Melbourne*

Weeks, Lin, 'Media Law and Copyright Implications of Automated Journalism' (2014) 4(1) *NYU Journal of Intellectual Property and Entertainment Law* 67

Weller, Katrin, Axel Bruns, Jean Burgess, Merja Mahrt and Cornelius Puschmann (eds) *Twitter and Society* (Peter Lang, 2014)

West, Mick, 'Relational Databases' (2008) 15(1) *Game Developer* 44

Wheeler, Anthea, 'Open Access, Creative Commons and Copyright – Navigating the Issues' (PowerPoint presentation from University of Manitoba, October 2018)

Whitford, N K, 'Copyright and Designs Law: Report of the Committee to Consider the Law on Copyright and Designs' (series cmnd 6732, HMSO, 1977) ('Whitford Report')

Whitmore, Nancy, 'Extending Copyright Protection to Combat Free-Riding by Digital News Aggregators and Online Search Engines' (2015) 24(1) *Catholic University Journal of Law and Technology* 1

Whitt, Richard S, '"Through a Glass Darkly" Technical, Policy, and Financial Actions to Avert the Coming Digital Dark Ages' (2017) 33(2) *Santa Clara High Technology Law Journal* 117

Widerquist, Karl, 'Lockean Theories of Property: Justifications for Unilateral Appropriation' (2010) 2(1) *Public Reason* 3

Willinsky, John, 'Copyright Contradictions in Scholarly Publishing' (2005) 1(1) *Open Journal System Demonstration Journal* 1

Willinsky, John, *The Access Principle: The Case for Open Access to Research and Scholarship* (Massachusetts Institute of Technology, 2006)

Wilson, Nigel, 'E-Risks and Insurance in the Information Age' (2011) 24 *New Zealand Universities Law Review* 550

Winn, Jane Kaufman and James R Wrathall, 'Who Owns the Customer? The Emerging Law of Commercial Transactions in Electronic Customer Data' (2000 – 2001) 56 *The Business Lawyer* 213

Wood, Ethan L, 'Copyrighting the Yellow Pages: Finding Originality in Factual Compilations' (1994) 78 *Minnesota Law Review* 1319

Wood, Jessica A, 'The Darknet: A Digital Copyright Revolution' (2009) 16(4) *Richmond Journal of Law and Technology* 1

Woods, Tanya M, 'Working Towards Spontaneous Copyright Licensing: A Simple Solution for a Complex Problem' (2009) 11 *Vanderbilt Journal of Entertainment and Technology Law* 1141

Wordsworth, William, *Preface to Lyrical Ballads* (Published 1802, Cambridge University Press, 1968)

World Intellectual Property Organisation, 'Intellectual Property Handbook: Policy, Law and Use' (WIPO Publication No 489 (E), WIPO 2008)

World Intellectual Property Organisation, *Conventions, Treaties and Agreements Administered by WIPO* (WIPO Publication, 2013)

World Trade Organisation, 'The World Trade Organization… In Brief' (WTO Publication, 2014)

Wright, Robertson and Julia Baird, 'Competition and Intellectual Property: The Intersection of Competition and Intellectual Property Law and the "New Economy"' (2008) 16 *Competition & Consumer Law Journal* 143

Wu, Andrew J, 'From Video Games to Artificial Intelligence: Assigning Copyright Ownership to Works Generated by Increasingly Sophisticated Computer Programs' (1997) 25(1) *AIPLA Quarterly Journal* 131

Wu, Xuqiong, 'E C Data Base Directive' (2002) 17(1) *Berkeley Technology Law Journal* 571

Yamamoto, Shizuo, 'Applications of Earth Satellite Observations: Serving Society, Science and Industry', (Report of CEOS – Committee on Earth Observation Satellites and JAXA – Japan Aerospace Exploration Agency, 2015)

Yanisky-Ravid, Shlomit, 'Generating Rembrandt: Artificial Intelligence, Copyright, and Accountability in the 3A Era - The Human-like Authors Are Already Here - A New Model' (2017) 2017 *Michigan State Law Review* 659

Yanisky-Ravid, Shlomit and Luis Antonio Velez-Hernandez, 'Copyrightability of Artworks Produced by Creative Robots and Originality: The Formality-Objective Model' (2018) 19(1) 19 *Minnesota Journal of Law Science and Technology* 1

Yen, Alfred C, 'Restoring the Natural Law: Copyright as Labor and Possession' (1990) 51 *Ohio State Law Journal* 517

Yezril, Forina, 'Somewhere Beyond the ©: Copyright and Web Design' (2015) 5(1) *New York University Journal of Intellectual Property and Entertainment Law* 43

Yon Jin, Park and Marko Skoric, 'Personalized Ad in Your Google Glass? Wearable Technology, Hands-Off Data Collection, and New Policy Imperative' (2015) *Journal of Business Ethics* <DOI 10.1007/s10551-015-2766-2>

Yoo, Christopher, 'Copyright and Personhood Revisited' (Faculty Scholarship Paper 423, University of Pennsylvania Law School, 2012)

Yu, Peter K, ‘Bridging the Digital Divide: Equality in the Information Age’ (2002) 20(1) *Cardozo Arts and Entertainment Law Journal* 1

Yu, Peter K, ‘The Escalating Copyright Wars’ (2004) 32 *Hofstra Law Review* 907

Yu, Peter K, ‘The Trust and Distrust of Intellectual Property Rights’ (Legal Studies Research Paper Series No 02-04, Michigan State University College of Law, 2004)

Yu, Peter K, ‘Intellectual Property and the Information Ecosystem’ (2005) 1 *Michigan State Law Review* 1

Yu, Peter K, ‘P2P and the Future of Private Copying’ (2005) 76 *University of Colorado Law Review* 653

Yu, Peter K, ‘The Political Economy of Data Protection’ (2010) 84(3) *Chicago-Kent Law Review* 777

Yu, Peter K, ‘Digital Copyright and Confuzzling Rhetoric’ (2011) 13(4) *Vanderbilt Journal of Entertainment and Technology Law* 881

Yu, Peter K, ‘The TRIPS Enforcement Dispute’ (2011) 89 *Nebraska Law Review* 1046

Yu, Peter K, ‘The Copy in Copyright’ (Legal Studies Research Paper No 17-15, Texas A & M University School of Law, 2016)

Yu, Robert, ‘The Machine Author: What Level of Copyright Protection is Appropriate for Fully Independent Computer Generated Works’ (2017) 165 *University of Pennsylvania Law Review* 1245

Zech, Herbert, ‘Information as Property’ (2015) 3 *JIPITEC - Journal of Intellectual Property, Information Technology, and Electronic Commerce Law* 192

Zech, Herbert, ‘A Legal Framework for a Data Economy in the European Digital Single Market: Rights to Use Data’ (2016) 11(6) *Journal of Intellectual Property Law & Practice* 460

Zeitlin, Martin, *Everything Counts in Large Amounts: Protection of Big Data Under the Database Directive* (LLM Thesis, Uppsala Universitit, 2018)

Zemer, Lior, ‘The Conceptual Game in Copyright’ (2006) 28 *Hastings Communication and Entertainment Law Journal* 409

Zemer, Lior, ‘The Making of a New Copyright Lockean’ (2006) 29 *Harvard Journal of Law and Public Policy* 891

Zemer, Lior, ‘“We-Intention” and the Limits of Copyright’ (2006) 24 *Cardozo Journal of Arts and Entertainment* 99

Zemer, Lior, ‘What Copyright Is: Time to Remember the Basics’ (2007) 4 *Buffalo Intellectual Property Law Journal* 54

Zemer, Lior, *The Idea of Authorship in Copyright* (Ashgate, 2007)

Zhang, Shujing, ‘Research on Copyright Protection of AI Creation’ (Conference Paper, International Symposium on Innovation and Education, Law and Social Sciences (IELSS 2019), August 2019)

Zimmerman, Diane Leenher, ‘Authorship Without Ownership: Reconsidering Incentives in a Digital Age’ (2003) 52(4) *De Paul Law Review* 1121

Zimmerman, Diane Leenher, ‘It’s an Original! In Pursuit of Copyright’s Elusive Essence’ (2005) 28 *Columbia Journal of Law & the Arts* 187

Zimmerman, Diane Leenher, ‘Living Without Copyright in a Digital World’ (2007) 70 *Albany Law Review* 1365

Zimmerman, Diane Leenher, ‘The Statute of Anne and Its Progeny: Variations Without a Theme’ (New York University Law and Economics Working Papers, Paper 238, 2010)

Zimmerman, Diane Leenher, ‘Copyrights as Incentives: Did We Just Imagine That?’ (2011) 12(1) *Theoretical Inquiries in Law* 29

Case Law

Aalmuhammed v Lee, 202 F 3d 1227 (9th Cir, 2000)

Acohs Pty Ltd v Ucorp Pty Ltd and Another (2012) 201 FCR 173

Acohs v Ucorp (2010) 86 IPR 492

ADV-Firmenbuch II, Austrian Supreme Court [Oberste Gerichtshof], 28 May 2002

ADV-Firmenbuch, Austrian Supreme Court [Oberste Gerichtshof], 9 April 2002

AG Rostock v Datenbankeigenschaft von Hyperlinksammlungen, 49 C 429/99, Lower Court Rostock, [Amtsgericht], 20 February 2001

Ager v Collingridge (1886) 2 TLR 291

Ager v Peninsular & Oriental Steam Navigation Company (1884) 26 Ch D 637

Algemeen Dagblad et al v Eureka, President District Court Rotterdam, [Arrondissementsrechtbank], 22 August 2000

Allibert SA v O'Connor [1981] FSR 613

Angelidaki v Organismos Nomarkhiaki Aftodiikisi Rethimnis (C-378/07) [2009] ECR I-3071

ANP v Novum, Court of Appeal Amsterdam, [Gerechtshof], 21 July 2005

ANP v Novum, District Court Amsterdam, [Voorzieningenrechter], 11 November 2004

Antiquesportfolio.com Plc v Rodney Fitch & Co Ltd [2001] FSR 23

A-One Accessory Imports Pty Ltd v Off Road Imports Pty Ltd (1996) 65 FCR 478 ('*A-One Accessory Imports*')

Apis-Hristovich EOOD v Lakorda AD (Case C-545/07), 5 March 2009

Apple Computer Inc v Computer Edge Pty Ltd (1983) 50 ALR 581

Apple Computer Inc v Computer Edge Pty Ltd (1984) 1 FCR 549

Art Research & Contact v S Boas, Belgium Supreme Court [Hof van Cassatie/Cour de Cassation], 11 May 2001

Association Premier League Ltd and Others v QC Leisure and Others (Cases C-403/08 and C-429/08), 4 October 2011

Attheraces (UK) Ltd v The British Horseracing Board Ltd [2005] EWHC 3015 (Ch)

Australian Consolidated Press Ltd v Morgan (1965) 112 CLR 483

Australasian Performing Right Association Ltd v Telstra Corporation Ltd (2019) 369 ALR 529

Autocaps (Aust) Pty Ltd v Pro-Kit Pty Ltd (1999) 46 IPR 339

Autodesk Inc v Dyason (1992) 173 CLR 330

Autonet v Promasy, District Court Arnhem, [Voorzieningenrechter], 27 December 2004

Autospin (Oil Seals) Ltd v Beehive Spinning (a firm) [1995] RPC 683

Baigent v Random House Group Ltd [2007] EWCA Civ 247

Baillieu v Australian Electoral Commission (1996) 63 FCR 210

Baker v Selden, 101 US 99, 102 (1879)

Barfield v Nicholson (1824) 2 Siml St 1; 57 ER 245

Bauman v Fussell (1953) [1978] RPC 485

Baumarkt.de, Higher Regional Court Düsseldorf, [Oberlandesgericht], 29 June 1999

Beechwood House Publishing (t/a Binleys) v Guardian Products Limited, Precision Direct Marketing Limited [2011] EWHC 22 (Admin) (‘*Beechwood*’)

Beckingham v Hodgens [2004] ECDR 6.

Bell v Whitehead [1839] Ch 8 LJ (NS) Ch 141

Berlin Online, District Court Berlin, [Landgericht], 8 October 1998

Berlin v EC Publications Inc 379 US 822 (1964)

Bezpečnostní softwarová asociace - Svaz softwarové ochrany v Ministerstvo kultury (Case C-393/09) [2010] ECR I-13971

BHB Enterprises plc v Victor Chandler (International) Limited [2005] EWHC 1074 (Ch)

Biotrading & Financing OY v Biohit Ltd [1998] FSR 109

Blackie & Sons Ltd v Lothian Book Publishing Co Pty Ltd (1921) 29 CLR 396

Blizzard Entertainment Inc v Lilith Games (Shanghai) Co 149 F 3d 1167 (ND Cal, 2015)

Bolig.ofir.dk v. Home.dk, Danish Maritime and Commercial Court, 24 February 2006

Bookmakers' Afternoon Greyhound Services Ltd v Wilf Gilbert (Staffordshire) Ltd [1994] FSR 723

Branchenbuch, District Court Düsseldorf, [Landgericht], 7 February 2001

Breen v Williams (1996) 186 CLR 71

Brighton v Jones [2005] FSR 16, 288

British Horseracing Board v William Hill Organisation Ltd [2001] RPC 31

British Horseracing Board v William Hill Organisation Ltd [2002] EEC 460

British Horseracing Board Ltd v William Hill Organisation Ltd [2005] ECDR 28

British Horseracing Board v William Hill (C-203/02) [2004] ECR I-10461 (‘*BHB*’)

British Northrop Ltd v Texteam (Blackburn) Ltd & Another [1974] RPC 57

Burlington's Home Shopping Ltd v Chibber (1995) Patent & Trademark Cases 278

Burrow-Giles Lithographic Company v Sarony 111 US 53 (1884)

CA Inc and Another v ISI Pty Ltd (2012) 201 FCR 23

Cadremploi v Keljob, District Court Paris, [Tribunal de Grande Instance], 5 September 2001

Cala Homes (South) Ltd v Alfred McAlpine Homes East Ltd (No. 1) [1995] FSR 818

Cambridge University Press v University Tutorial Press (1928) 45 RPC 335

Campbell v Acuff-Rose Music Inc 510 US 569 (1994)

Canterbury Park Race Course Company Ltd v Hopkins (1931) 49 WN(NSW) 27

Carnan v Bowles [Ch 1786] 29 ER 45

Cary v Faden (1799) 5 Ves Jr 24; 31 ER 453

Cary v Kearsley (1802) 4 Esp. 168; 170 ER 679–680

Cary v Longman & Rees (1801) 1 East 358; 102 ER 138–140

CBS Records Australia Ltd v Gross (1989) 15 IPR 385

CCH Canadian Ltd v Law Society of Upper Canada [2004] 1 SCR 339

C-Compass, Austrian Supreme Court, [Oberste Gerichtshof], 28 November 2000

Chilton v Progress Printing & Publishing Co [1895] 2 Ch 29

Churchill Insurance Co Ltd v Wilkinson [2010] EWCA Civ 556

Coco v AN Clark (Engineers) Ltd [1969] RPC 41

Collis v Cater, Stoffell & Fortt Ltd (1898) 78 LT 613

Computer Edge Pty Ltd v Apple Computer Inc (1986) 161 CLR 171

Conagra Inc v McCain Foods (Aust) Pty Ltd (1992) 23 IPR 193

Copyright Agency Ltd v New South Wales (2013) 102 IPR 85

Corby and Others v Allen & Unwin Pty Ltd (2013) 297 ALR 761

Cox v Land & Water Journal Company (1869) LR 9 Eq 324

Cramp and Sons v Frank Smythson [1944] 2 All ER 92; AC 329

Cummins v Bond [1927] 1 Ch 167

C-Villas, Austrian Supreme Court [Oberste Gerichtshof], 10 July 2001

D P Anderson & Company Ltd v Lieber Code Company [1917] 2 KB 469

D'Almaine and Another v Boosey [1835] 1 Y & C Ex 297

Data Access Corporation v Powerflex Services Pty Ltd (1999) 202 CLR 1

De Telegraaf v NOS and HMG, Netherlands Competition Authority [Nederlandse Mededingingsautoriteit, NMa], 10 September 1998

De Telegraaf v NOS and HMG, Netherlands Competition Authority, [Nederlandse mededingingsautoriteit, NMa], 3 October 2001

Derpoet.de, District Court Cologne, [Landgericht], 2 May 2001

Designer Guild Ltd v Russell Williams (Textiles) Ltd [2001] 1 All ER 700

Desktop Marketing Systems Pty Ltd v Telstra Corporation Limited (2002) 119 FCR 491 ('*Desktop Marketing*')

Deutsche Grammophon Gesellschaft mbH v Metro-SB-Großmärkte GmbH & Co KG (Court of Justice of the European Communities, Case 78-70, 8 June 1971)

Dicks v Yates (1881) 18 Ch D 76

Dictionnaire Permanent des Conventions Collectives, District Court Lyon, [Tribunal de Grande Instance], 28 December 1998

Directmedia Publishing GmbH v Albert-Ludwigs-Universität Freiburg (Case C-304/07), 9 October 2008 ('*Directmedia*')

Donaldson v Beckett (1774) 17 Parliamentary History England 953 (HL)

Donoghue v Allied Newspapers Limited (1937) Ch 106

DP Anderson and Company Ltd v Lieber Code Company [1917] 2 KB 469

Dynamic Supplies Pty Limited v Tonnex International Pty Limited (2011) 91 IPR 488 ('*Tonnex*')

eBay International AG, District Court Berlin, [Landgericht], 27 October 2005

EF Cultural Travel BV v Zefer Corporation, 318 F 3d 58 (1st Cir, 2003)

Elanco Products Ltd v Mandops (Agrochemical Specialists) Ltd [1979] FSR 46

Électre v TI Communication and Maxotex, Commercial Court [Tribunal de Commerce], 7 May 1999

Elwood Clothing Pty Ltd v Cotton On Clothing Pty Ltd (2008) 76 IPR 83

E-mailadressdatenbank, District Court [Landgericht], 23 April 2003

EMI Electrola GmbH v Patricia Im-und Export Verwaltungsgesellschaft mbH (Court of Justice of the European Communities, C-341/87, 24 January 1989)

Erica Vale Pty Ltd v Thompson & Morgan (Ipswich) Ltd (1994) AIPC 91-068

European Commission v Ireland (Case C-370/99), 11 January 2001

European Commission v Luxembourg (Case C-348/99), 13 April 2000

Eva-Maria Painer v Standard VerlagsGmbH and Others (Case C-145/10), 1 December 2011

Express Newspapers Plc v Liverpool Daily Post & Echo Plc and Ors [1985] 1 WLR 1089 (‘*Express Newspapers*’)

Exchange Telegraph Company Ltd v Gregory and Company [1896] 1 QB 147 (CA 1895)

Express Newspapers Plc v News (UK) Ltd [1990] 1 WLR 1320

Exxon Corporation v Exxon Insurance Consultations International Ltd [1982] RPC 69

Fairfax Media Publications Pty Ltd v Reed International Books Australia Pty Ltd (2010) 189 FCR 109 (‘*Fairfax v Reed*’)

Feist Publications Inc v Rural Telephone Service Co Inc 499 US 340 (1991) (‘*Feist*’)

Finn Eiendom AS and Finn.no AS v Supersøk AS and Ekko It AS, Frostating Court of Appeal, 2 March 2005

Finn Eiendom AS and Finn.no AS v Supersøk AS and Ekko It AS, Trondheim District Court, 17 March 2006

Fixtures Marketing Limited v Organismos Prognostikon Agonon Podosphairou AE

Single-Judge Court of First Instance, Athens [Monomeles Protodikio Athinon], 11 July 2002

Fixtures Marketing Ltd v Organismos Prognostikon Agonon Podosfairou (OPAP) (C-444/02) [2004] ECR I-10590

Fixtures Marketing Ltd v Oy Veikkaus AB (C-46/02) [2004] ECR I-10396

Fixtures Marketing Ltd v Svenska Spel AB (C-338/02) [2004] ECR I-10532

Football Association Premier League Ltd v QC Leisure (Joined case of the Court of Justice of the European Communities, C-403/08, 4 October 2011) with *Karen Murphy v Media Protection Services Limited* (Joined case of the Court of Justice of the European Communities, C-429/08, 4 October 2011)

Football Dataco Ltd and Others v Sportradar GmbH and Others [2010] EWHC 2911 (Ch)

Football Dataco Ltd and Others v Sportradar GmbH and Others [2011] EWCA Civ 330 (Ch)

Football Dataco Ltd and Others v Sportradar GmbH and Others [2012] EWHC 1185 (Ch)

Football Dataco Ltd and Others v Sportradar GmbH & Others (Case C-173/11), 18 October 2012

Football Dataco Ltd and Others v Sportradar GmbH [2013] EWCA Civ 27 (Ch)

Football Dataco Ltd and Others v Yahoo! UK Ltd and Others (Case C-604/10), 1 March 2012 (‘*Football Dataco*’)

Football Dataco Ltd v Britten Pools Ltd [2010] RPC 17 522

Football Dataco Ltd v Stan James (Abingdon) Ltd [2011] RPC 9, 295

Football League Limited v Littlewoods Pools Ltd [1959] Ch 637

Forensic Telecommunications Services Limited v The Chief Constable of West Yorkshire Police [2011] EWHC 2892 (Ch)

France Télécom v MA Editions, Commercial Court Paris, [Tribunal de Commerce], 18 June 1999

Francis, Day & Hunter Ltd v Twentieth Century Fox Corporation Ltd [1940] AC 112

Fraser v Evans [1969] 1 QB 349

Fylde Microsystems Ltd v Key Radio Systems Ltd [1998] FSR 449

GA Cramp & Sons Ltd v Frank Smythson Ltd [1944] 2 All ER 92; AC 329

Gerechtshof te Amsterdam (Court of Appeal, Amsterdam), 13 March 2012

GFK and Stichting Nederlandse Top 40 v Van Oeffelen, District Court Amsterdam, [Voorzieningenrechter], 30 June 2005

Godfrey v Lees [1995] EMLR 307

Gratiz.nl, Court of Appeal Leeuwarden [Gerechtshof], 23 July 2003

Groupe Moniteur et al v Observatoire des Marchés Publics, Court of Appeal Paris, [Cour d'Appel], 18 June 1999

Hadley v Kemp [1999] EMLR 589

Hanfstaengl v Baines [1895] AC 20

Harman Pictures NV v Osborne [1967] 1 WLR 723

Harmony v De Ruijter, District Court Arnhem, [Voorzieningenrechter], 4 April 2003

Harper & Row Publishers Inc v Nation Enterprises 471 US 539 (1985)

Harpur v Lambourne (1999) 45 IPR 213

Henkel KgaA v Holdfast New Zealand Ltd [2007] 1 NZLR 577

Hit Bilanz, Federal Supreme Court Germany, [Bundesgerichtshof], 21 July 2005

Hodgson and Another v Isaac and Another [2011] All ER (D) 43 (Dec)

Hogg v Scott (1874) LR 18 Eq 444

Hollinrake v Truswell [1894] 3 Ch 420

IBCOS Computers Ltd v Barclays Mercantile Highland Finance Ltd [1994] FSR 275

IceTV Pty Ltd v Nine Network Australia Pty Ltd (2009) 239 CLR 458 (‘*IceTV’*)

IMS Health v PharmaVision, President District Court Haarlem, [Arrondissementsrechtbank], 21 April 2000

IMS Health v Pharma Internet, 11 U 67/00, Court of Appeal Frankfurt, [Oberlandesgericht], 17 September 2002

Infopaq International A/S v Danske Dagblades Forening (Case C-5/08) [2009] ECR I-6569 (‘*Infopaq*’)

Innoweb BV v Wegener ICT Media BV, Wegener Mediaventions BV (Case C-202/12) 19 December 2013

Interlego AG v Croner Trading Pty Ltd (1992) 39 FCR 348

Interlego AG v Tyco Industries Inc [1989] 1 AC 217 (‘*Interlego*’)

Interlego v Tyco [1988] RPC 343

Jakata and Pierre M v EIP District Court Strasbourg, [Tribunal de Grande Instance] 22 July 2003

Jarrold v Houlston (1857) 3 K&J 708; 69 ER 1294

Jeffreys v Boosey (1854) IV HLC 815

Jobsearch Ltd v Relational Designers Ltd [2004] EWHC 661 (Ch)

John Fairfax & Sons Pty Ltd v Australian Consolidated Press Ltd (1960) SR(NSW) 413

John Kaldor Fabricmaker UK Ltd v Lee Ann Fashions Ltd [2014] EWHC 3779 (IPEC)

Jones v Tsige (2012) ONCA 3

K & S Lake City Freighters Pty Ltd v Gordon & Gotch Ltd (1985) 60 ALR 509

Kalamazoo (Australia) Pty Ltd v Compact Business Systems Pty Ltd (1984) 84 FLR 101 (‘*Kalamazoo*’)

Kammergericht v Vervielfältigung von Datenbankteilen, 5 U 2172/00, Court of Appeal Berlin, [Kammergericht], 9 June 2000

Kelly v Morris (1865-66) LR 1 Eq 697

Kenrick & Company v Lawrence & Company (1890) 25 QBD 99

Kidnet v Babynet, District Court Cologne, [Landgericht], 25 August 1999

Kilty v Green 4 H & McH 345 (Gen Ct Md 1799)

KPN v Denda International et al, Court of Appeal Arnhem, [Gerechtshof], 15 April 1997

KPN v Denda International et al, District Court Almelo, [Arrondissementsrechtbank], 6 December 2000

KPN v XSO, President District Court The Hague, [Arrondissementsrechtbank], 14 January 2000

Kregos v Associated Press, 937 F 2d 700, 703 (2nd Cir, 1991)

Krisarts SA v Briarfine Ltd (t/a Lenton Publications) [1977] FSR 557

L'Oréal SA and Others v eBay International AG and Others (Case C-324/09), 12 July 2011

La Sociéte Sonacotra v le Syndicat Sud Sonacotra District Court Paris, [Tribunal de Grande Instance] 25 April 2003

Ladbroke (Football) Ltd v William Hill (Football) Ltd [1964] 1 All ER 465

Larrikin Music Publishing Pty Ltd v EMI Songs Australia Pty Ltd (2010) 263 ALR 155

LB (Plastics) Ltd v Swish Products Ltd [1979] RPC 551

Le Monde v Microfor, *Cour de Cassation* [French Court of Cassation], 9 November 1983, reported in 1984 *Droit de l'informatique* 1984/1, 20

Les Éditions Néressis v France Télécom Multimédia Services, District Court Paris [Tribunal de Grande Instance], 14 November 2001

Leslie v J Young & Sons [1894] AC 335

Levola Hengelo BV v Smilde Foods BV [2018] All ER (D) 85 (Nov)

Levy v Rutley (1871) LR 6 CP 523

Lewis v Fullarton (1839) 2 Beav 6; 48 ER 1080

LG Berlin v Zulässigkeit von 'Deep Links', 16 O 792/00, District Court Berlin, [Landgericht], 30 January 2001

LG München I v Elektronische Pressespiegel, 21 O 9997/01, District Court Munich [Landgericht], 1 March 2002

Linksammlung als Datenbank, District Court Cologne, [Landgericht], 12 May 2000

Litster v Forth Dry Dock & Engineering Co Ltd [1990] 1 AC 546

Longman v Winchester (1809) 16 Ves Jr 269; 33 ER 987

Lucasfilm Ltd v Ainsworth [2009] EWCA Civ 1328, [2011] UKSC 11

MacMillan & Company v Cooper (1924) 93 LJPC 113

MacMillan Publishers Ltd v Thomas Reed Publications Ltd [1993] FSR 455

Mál og Menning hf v Landmælingum Íslands, Supreme Court Iceland [Høyesterett], 19 September 2002

Mander v O'Brien [1934] SASR 87

Marktstudiën, High Court Germany, [Bundesgerichtshof], 21 April 2005

Marleasing SA v La Comercial Internacional de Alimentacion SA (C-106/89) [1990] ECR I-4135

Mars v Teknowledge [1999] EWHC 226 (Pat)

Martin v Kogan [2020] FSR 3

Martin v Wright (Ch 1833) 58 ER 605

Mason v Murray [1777] Dick 536; 21 ER 378

Matthewson v Stockdale (1806) 12 Ves Jr 270; 33 ER 103

Mawman v Tegg (1826) 2 Russ 385; 38 ER 380

McCrum v Eisner [1918] 87 LJ Ch 99

Media.net Adver FZ-LLC v NetSeer Inc 156 F 3d 1052 (ND Cal, 2016)

Medizinisches Lexicon I, District Court Hamburg, [Landgericht], 12 July 2000

Medizinisches Lexicon II, Higher Regional Court Hamburg, [Oberlandesgericht], 22 February 2001

Mei Fields Designs Ltd v Saffron Cards and Gifts Ltd and Another [2018] EWHC 1332 (IPEC)

Merlet v Mothercare Plc [1986] RPC 115

Microsoft Corporation v Business Boost Pty Ltd (2000) 49 IPR 573

Millar v Taylor (1769) 98 ER 201

Miller Freeman v Neptune Verlag, District Court Paris, Tribunal de Grande Instance, 31 January 2001

Milwell Pty Ltd v Olympic Amusements Pty Ltd (1999) 85 FCR 436

Mirror Newspapers Ltd v Queensland Newspapers Pty Ltd (1982) Qd R 305 (‘*Mirror Newspapers*’)

Morris v Ashbee (1868-69) LR 7 Eq 34

Morris v Wright (1870) LR 5 Ch App 279

Naruto v Slater No 16-15469 (9th Cir, 2018)

NationaleVacaturebank.nl v NVM, District Court, The Hague, [Voorzieningenrechter], 21 July 2004

Newsbooster.com, District Court Copenhagen, [Byret], 16 July 2002

Newspaper Licensing Agency v Meltwater Holdings BV [2010] EWHC 3099 (Ch) (‘*Meltwater*’)

Newspaper Licensing Agency Ltd & Others v Meltwater Holding BV & Others (2011) 93 IPR 341

Nicholas Martin v Julia Kogan [2018] FSR 9, 234 (‘*Kogan*’)

Nine Network Australia Pty Ltd v IceTV Pty Ltd (2007) 73 IPR 99

Nine Network Australia Pty Ltd v IceTV Pty Ltd (2008) 168 FCR 14

NOS v De Telegraaf, Court of Appeal The Hague, [Gerechtshof], 30 January 2001

NOS v De Telegraaf, Netherlands Supreme Court, [Hoge Raad], 6 June 2003

NOS v De Telegraaf, President District Court The Hague, [Arrondisementsrechtbank], 5 January 1999

Notrefamille.com v Department of Vienna [Notrefamille.com / Département de la Vienne] Administrative Tribunal of Poitiers [Tribunal administratif de Poitiers] Second Chamber Judgement of 31 January 2013 [2ème chambre Jugement du 31 Janvier 2013] Record no. 1002347

Nova Productions Ltd v Mazooma Games [2006] RPC 14

Nutzung von Datenbanken, AZ: 6U 123/02, District Court [Landgericht], 30 October 2002

NV Syllepsis v NV Wolters Kluwers Belgium, Court of Brussels, 28 July 2000

NVM v De Telegraaf, Court of Appeal The Hague, [Gerechtshof], 21 December 2000

NVM v De Telegraaf, Netherlands Supreme Court [Hoge Raad], 22 March 2002

NVM v De Telegraaf, President District Court The Hague, [Arrondissementsrechtbank], 12 September 2000

Oberlandesgericht, 29 U 4008/02, Court of Appeal Munich, 10 October 2002

O'Brien v Komesaroff (1982) 150 CLR 310

Odhams Press Ltd v London & Provincial Sporting News Agency (1929) Ltd [1936] Ch 357

Ogden Industries Pty Ltd v Kis (Aust) Pty Ltd [1982] 2 NSWLR 283

Ogunkoya v Harding [2017] EWHC 470 (IPEC)

Pammer-v-Reederei Karl Schlüter GmbH & Co KG and Hotel Alpenhof GesmbH v Oliver Heller (Joined Cases C-585/08 & C-144/09), 7 December 2010

Paperboy, Federal Supreme Court Germany, [Bundesgerichtshof], 17 July 2003

Perez v Fernandez [2012] FMCA 2

Pfeiffer v Deutsches Rotes Kreuz Kreisverband Waldshut eV (C-397/01) [2004] ECR I-8835 [113]–[117]

Pharma Intranet Information AG v IMS Health GmbH & Co OHG [2005] ECC 12

Phipps v Boardman [1967] 2 AC 46

Pitman v Hine (1884) 1 TLR 39 (QB 1994)

Presscorp v GoldNet Media, District Court Almelo, [Arrondissementsrechtbank], 28 December 2000

Primary Healthcare v Commissioner of Taxation (2010) 186 FCR 301 (‘*Primary Healthcare*’)

Prior v Lansdowne Press Pty Ltd (1975) 12 ALR 685

Productores de Música de España (Promusicae) v Telefónica de España SAU (Court of Justice of the European Communities, C-275/06, 29 January 2008)

PRLine v Newsinvest, Commercial Court Nanterre, [Tribunal de commerce], 16 May 2000

Public Relations Consultants Association Ltd v Newspaper Licensing Agency Ltd and Others [2013] 2 All ER 852

Publishers v Euroclip et al, District Court Amsterdam [Arrondissementsrechtbank], 4 September 2002

Purefoy Engineering Co Ltd v Sykes Boxall & Co Ltd (1955) 72 RPC 89

Quote Media and MTV v SBS, District Court Amsterdam, [Voorzieningenrechter], 16 June 2005 and 28 July 2005

R (On the application of IDT Card Services Ireland Ltd) v Customs and Excise Commissioners [2006] EWCA Civ 29

Raft Ltd v Freestyle of Newhaven Ltd and Others [2016] EWHC 1711 (IPEC)

Ray v Classic FM PLC [1998] FSR 622

Real Estate Institute of New South Wales v Wood (1923) 23 SR (NSW) 349

Redrock & Hotline Communications v Adam Hinkley (2001) 50 IPR 565

Redwood Music Ltd v Chappell & Co Ltd [1982] RPC 109

Revenue and Customs Commissioners v IDT Card Services Ireland Limited [2006] EWCA Civ 29

Robertson v Lewis [1976] RPC 169 (‘*Robertson*’)

Robin Ray v Classic FM Plc [1998] FSR 622

Robinson v Sands & McDougall Pty Ltd (1916) 22 CLR 124

Roland Corporation v Lorenzo & Sons Pty Ltd (1991) 22 IPR 245

Roworth v Wilkes (1807) 107 ER 889

Royal Mail Group Plc v i-CD Publishing (UK) Limited [2004] All ER (D) 250

Rundell v Murray (1821) Jacob 311; 37 ER 868

Ryanair Ltd v PR Aviation BV (Court of Justice of the European Communities, C-30/14, 15 January 2015) (‘*Ryanair*’)

Sands & McDougall Pty Ltd v Robinson (1917) 23 CLR 49

Sanofi-Aventis Australia Pty Ltd v Apotex Pty Ltd (No. 3) (2011) 281 ALR 705 (‘*Sanofi-Aventis*’)

SARL News Invest v SA PR Line Court of Appeal Versailles, [Cour d’Appel], 11 April 2002

SAS Institute v World Programming Limited [2010] EDCR 15

SAS Institute v World Programming Limited (C-406/10) [2012] ECR I-259

SAS Institute v World Programming Limited [2015] ECDR 17 (‘*SAS*’)

Sawkins v Hyperion Records Ltd (2005) 64 IPR 627

Sayer and Others v Moore (1785) 1 East 359; 102 ER 139

Scott v Stanford (1867) LR 3 Eq 718

SIA ‘CV-Online Latvia’ v SIA ‘Melons’ (Court of Justice of the European Communities, Case C-762/19)

Sietech Hearing Limited v. Russell Borland, James Eley, Digital Hearing (UK) Limited, Outer House, Court of Session, Scotland, 19 February 2003

Sifam Electrical Instrument Co Ltd v Sangamo Weston Ltd [1973] RPC 899

Skidmore v Led Zeppelin 905 F 3d 1116 (9th Cir, 2018)

Skybase Nominees Pty Ltd v Fortuity Pty Ltd (1996) 36 IPR 529

Sony Corporation of America v Universal City Studios Inc 464 US 417 (1984)

Southco Inc v Kanebridge Corporation, 258 F 3d 148 (3rd Cir 2001)

Spiers v Brown (1858) 31 LT 16

Sports Data Pty Ltd v Prozone Sports Australia Pty Ltd (2014) 107 IPR 1

Spot (Cinebel.be) v Canal Numédia (Allocine.be), District Court Brussels, [Tribunal de Première Instance] 18 January 2002

SPRL Noir d’Ivoire v SPRL Home Boutique, Court of Appeal of Brussels, [Jurisprudence de Liège, Mons et Bruxelles] 7 December 2001

Sté Tigest Sarl v Sté Reed Exposition France et al, Court of Appeal Paris, [Cour d’Appel], 12 September 2001

Stepstone, District Court Cologne [Landgericht], 28 February 2001

Stevens v Kabushiki Kaisha Sony Computer Entertainment (2005) 224 CLR 193

Stichting Vrije Recreatie v Vakantieboerderij.nl, President District Court Zutphen [Arrondissementsrechtbank], 2 September 2003

Stoffell & Fortt Ltd (1898) 78 LT 613

Stuart v Barrett [1994] EMLR 448

Süddeutsche Zeitung, District Court Cologne [Landgericht], 2 December 1998

Sunlec International Pty Ltd v Electropar Ltd (High Court of New Zealand, Wylie J, 24 September 2008, Wylie J, Auckland CIV-2007-404-5044)

T R Flanagan Smash Repairs Pty Ltd v Jones (2000) 102 FCR 181

Taylor v Maguire [2014] ECDR 4, 45

Technos, Court of Appeal Amsterdam, [Gerechtshof], 15 September 2005

Tele-Direct (Publications) Inc v American Business Information Inc (1997) 154 DLR 4th 328

Tele-Direct (Publications) Inc v American Business Information Inc [1998] 2 FC 22

Tele-Info-CD, Bundesgerichtshof [German Federal Court of Justice], 6 May 1999 reported in (1999) GRUR 923

Telstra Corporation Limited & Anor v Phone Directories Company Pty Ltd & Ors [2011] HCATrans 248 (2 September 2011)

Telstra Corporation Limited v Desktop Marketing Systems Proprietary Limited (2001) 181 ALR 134

Telstra Corporation Limited v Phone Directories Company Pty Ltd (2010) 264 ALR 617 (‘*Telstra*’)

Telstra Corporation Limited v Phone Directories Company Pty Ltd (2010) 194 FCR 142 (‘*Telstra Appeal*’)

Temple Island Collections Ltd v New English Teas Ltd [2012] FSR 9

The Public Prosecutor v AB et al, Court of Milan, Section III, n 5407, 9 August 2004

TM Hall & Company v Whittington & Company (1892) 18 VLR 525 (‘*TM Hall*’)

Tonnex International Pty Ltd v Dynamic Supplies Pty Ltd (2012) 99 IPR 31 (‘*Tonnex Appeal*’)

Topware v KPN Telecom BV (NL-info-CD), District Court Almelo, [Rechtbank], 18 August 2004

Total Information Processing Systems Ltd v Daman Ltd [1992] FSR 171

United States v LaMacchia, 817 F Supp 535, 536 (D Mass, 1994)

University of London Press Limited v University Tutorial Press Limited [1916] 2 Ch 601

University of Sydney v Objectivision Pty Ltd (2019) 148 IPR 1

UNMS v Belpharma Communication, District Court Brussels, [Rechtbank van Eerste Aanleg], 16 March 1999

Urheberrechtsschutz von HTML-Quelltext, Court of Appeal Frankfurt, [Oberlandesgericht], 22 March 2005

Vermande v Bojkovski, President District Court The Hague, [Arrondissementsrechtbank] 20 March 1998

Victor Lalli Enterprises Inc v Big Red Apple Inc 936 F 2d 671, 673 (2nd Cir, 1991)

Victoria Park Racing and Recreation Grounds Company Limited v Taylor (1937) 58 CLR 479 (‘Victoria Park’)

Victoria v Pacific Technologies (Australia) Pty Ltd (No 2) (2009) 177 FCR 61

Walter v Lane [1899] 2 Ch 749

Walter v Lane [1900] AC 539

Walter v Steinkopff [1892] 3 Ch 489

Warwick Film Productions v Eisinger [1967] 3 All ER 367

Waterlow Publishers Ltd v Rose [1995] FSR 207

Weatherby & Sons v International Horse Agency & Exchange Ltd [1910] 2 Ch 297

Wegener et al v Hunter Select, Court of Appeal Leeuwarden [Gerechtshof], 27 November 2002

Wilkins v Aiken [1810] 17 Ves Jun 424

William Maclean and Ors v Andrew Moody (1858) 20 Dunl (Ct of Sess) 1154

Winterbottom for the Western Australian Turf Club v Wintle (1947) 50 WALR 58

Wiseman v George Weidenfeld & Nicholson Ltd [1985] FSR 525

Zoekallehuizen.nl v NVM , District Court Arnhem, [Arrondissementsrechtbank], 16 March 2006

Zoekallehuizen.nl v NVM, Court of Appeal Arnhem, [Gerechtshof], 4 July 2006

Legislation

An Act to Amend the Law in Relation to International Copyright 1844 (Imp)

Australian Constitution

Australian Courts Act 1828 (UK)

Collections of Information Antipiracy Act, HR 354, 106th Congress (1999)

Competition and Consumer Act 2010 (Cth)

Consumer and Investor Access to Information Act, HR 1858, 106th Congress (1999)

Copyright and Rights in Databases Regulations 1997 (UK) ('*CRDR*')

Copyright Act 1790 (US),

Copyright Act 1801 (UK) 41 Geo III, c 107

Copyright Act 1814 (UK) 54 Geo III, c 156

Copyright Act 1852 (NSW)

Copyright Act 1879 (NSW)

Copyright Act 1869 (Vic)

Copyright Act 1878 (SA)

Copyright Act 1887 (Qld)

Copyright Act 1895 (WA)

Copyright Act 1905 (Cth)

Copyright Act 1911 (Imp) (1 & 2 Geo 5, ch 46)

Copyright Act 1912 (Cth)

Copyright Act 1912 (Netherlands)

Copyright Act 1956 (UK)

Copyright Act 1960 (Sweden)

Copyright Act 1961 (Norway)

Copyright Act 1968 (Cth) ('*The Act*')

Copyright Act of 1976, 17 USC (1976)

Copyright Act 1995 (Denmark)

Copyright Amendment Act 1842 (UK) 5 & 6 Vict, c 45

Copyright Amendment Act 1984 (Cth)

Copyright Amendment Act 2006 (Cth)

Copyright Amendment (Digital Agenda) Act 2000 (Cth)

Copyright Amendment (Moral Rights) Act 2000 (Cth)

Copyright, Designs and Patents Act 1988 (UK) ('*CDPA*')

Directive 91/250/EEC of 14 May 1991 on the Legal Protection of Computer Programs [1991] OJ L 122/42, amended through *Directive 2009/24 of the European Parliament and of the Council of 23 April 2009 on the Legal Protection of Computer Programs* [2009] OJ L 111/16

Directive 92/100/EEC of 19 November 1992 on Rental Right and Lending Right and on Certain Rights Related to Copyright in the Field of Intellectual Property [1992] OJ L 346/61, amended through *Directive 2006/115 of the European Parliament and of the Council of 12 December 2006 on Rental Right and Lending Right and on Certain Rights Related to Copyright in the Field of Intellectual Property* [2006] OJ L 376/28

Directive 93/83/EEC of 27 September 1993 on the Coordination of Certain Rules Concerning Copyright and Rights Related to Copyright Applicable to Satellite Broadcasting and Cable Retransmission [1993] OJ L 248/15

Directive 93/98/EEC of 29 October 1993 Harmonizing the Term of Protection of Copyright and Certain Related Rights [1993] OJ L 290/9, amended through *Directive 2006/116/EC of the European Parliament and of the Council of 12 December 2006 on the Term of Protection of Copyright and Certain Related Rights* [2006] OJ L 372/12

Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the Protection of Individuals with Regard to the Processing of Personal Data and on the Free Movement of Such Data [1995] OJ L 281/31

Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases [1996] OJ L 77/20 ('*The Directive*', '*EU Directive*', '*The Database Directive*')

Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society [2001] OJ L 167/10

Directive 2001/84/EC of the European Parliament and of the Council of 27 September 2001 on the Resale Right for the Benefit of the Author of an Original Work of Art [2001] OJ L 272/32

Directive 2003/98/EC on the Re-Use of Public Sector Information [2003] OJ L 345/90, revised by *Directive 2013/37/EU of the European Parliament and of the Council of 26 June 2013 amending Directive 2003/98/EC on the Re-Use of Public Sector Information Text with EEA Relevance* [2013] OJ L 175/1 ('*PSI*')

Directive 2006/115/EC of the European Parliament and of the Council of 12 December 2006 on Rental Right and Lending Right and on Certain Rights Related to Copyright in the Field of Intellectual Property [2006] OJ L 376/28

Directive 2006/116/EC of the European Parliament and of the Council of 12 December 2006 on the Term of Protection of Copyright and Certain Related Rights [2006] OJ L 372/12

Directive 2009/24/EC of the European Parliament and the Council of 23 April 2009 on the Legal Protection of Computer Programs [2009] OJ L 111/16 ('*EU Software Directive*')

Directive 2012/28/EU of the European Parliament and of the Council of 25 October 2012 on Certain Permitted Uses of Orphan Works [2012] OJ L 299/5

Directive 2014/26/EU of the European Parliament and of the Council of 26 February 2014 on Collective Management of Copyright and Related Rights And Multi-Territorial Licensing of Rights in Musical Works for Online Use in the Internal Market [2014] OJ L 84/72

Directive on Copyright in the Digital Single Market 2016/0280(COD)

Directive 2019/1024/EU of the European Parliament and of the Council of 20 June 2019 on Open Data and the Re-Use of Public Sector Information [2019] OJ L 172/56

Directive 2019/790/EU of the European Parliament and of the Council of 17 April 2019 on Copyright and Related Rights in the Digital Single Market and Amending Directives 96/9/EC and 2001/29/EC [2019] OJ L 130/92

Dramatic Copyright Act 1833 (Imp)

Duration of Copyright and Rights in Performances Regulations 1995 (UK)

Engraving Copyright Act 1734 (Imp)

European Communities Act 1972 (UK)

European Union (Notification of Withdrawal) Act 2017 (UK) c 9

European Union (Withdrawal Agreement) Act 2020 (UK) c 1

Fine Arts Copyright Act 1862 (Imp)

Health Records and Information Privacy Act 2002 (NSW)

Information Act 2002 (NT)

Information Privacy Act 2009 (Qld)

Information Privacy Act 2014 (ACT)

International Copyright Act 1886 (Imp)

Lectures Copyright Act 1835 (Imp)

Licensing of the Press Act 1662 (UK) 14 Car II, c 33

National Health Act 1953 (Cth)

Patent Act 1990 (Cth)

Personal Information Protection Act 2004 (Tas)

Privacy Act 1988 (Cth)

Print Copyright Act 1777 (Imp)

Privacy and Data Protection Act 2014 (Vic)

Privacy and Personal Information Protection Act 1998 (NSW)

Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L 119/1 ('*CDPR*')

Sculpture Copyright Act 1798 (Imp)

Statute of Anne 1710 (UK) 8 Anne, c 19

Telecommunications Act 1997 (Cth)

United States Constitution

Treaties

Agreement on the Withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community

Agreement on Trade-Related Aspects of Intellectual Property Rights, opened for signature 15 April 1994, 1869 UNTS 299 (entered into force 1 January 1995) ('*TRIPS*')

Australia-United States Free Trade Agreement 2005 (entered into force 1 January 2005)

Berne Convention for the Protection of Literary and Artistic Works, opened for signature 9 September 1886, 943 UNTS, 178 (entered into force 14 April 1928) ('*Berne*')

Consolidated Treaty on the Functioning of the European Union (opened for signature 13 December 2007, (OJ C 326, 26.10.2012) (entered into force 13 December 2007)

Treaty between the Kingdom of Belgium, the Federal Republic of Germany, the French Republic, the Italian Republic, the Grand Duchy of Luxembourg, the Kingdom of the Netherlands (Member States of the European Communities) the Kingdom of Denmark, Ireland, the Kingdom of Norway and the United Kingdom of Great Britain and Northern Ireland concerning the accession of the Kingdom of Denmark, Ireland, the Kingdom of Norway and the United Kingdom of Great Britain and Northern Ireland to the European Economic Community and to the European Atomic Energy Community, opened for signature 22 January 1972, OJ L 73, 27.3.1972 p 5 (entered into force 1 January 1973)

Treaty Establishing the European Atomic Energy Community, opened for signature 25 March 1957, (OJ C 327, 26.10.2012) (entered into force 1 January 1958).

Treaty on the Functioning of the European Union (Treaty Establishing the European Economic Community), Rome, signed 25 March 1957, 298 UNTS 3 (entered into force 1 January 1958).

Treaty on the Functioning of the European Union, opened for signature 13 December 2007, (OJ C 306, 17.12.2007) entry into force 1 December 2009 ('*Treaty of Lisbon*')

Treaty on European Union, opened for signature 7 February 1992, (OJ C 191, 29.7.1992) 11992M/TXT (92/C 191/01) (entered into force 1 November 1993) ('*Treaty of Maastricht*').

WIPO Copyright Treaty, opened for signature 31 December 1997, CRNR/DC/94 (entered into force 6 March 2002) ('*WCT*')

WIPO Performances and Phonogram Treaty 1996, opened for signature 13 February 1997, TRT/WPPT/001 (entered into force 14 March 2010)

Other

Acosta, Raquel, 'Artificial Intelligence and Authorship Rights' *JOLTDigest* (Web Page, 17 February 2012) <https://jolt.law.harvard.edu/digest/artificial-intelligence-and-authorship-rights>

Agreement on the Withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community (Brussels and London, 24 January 2020)

Amended Proposal for a Council Directive on the Legal Protection of Databases COM (93) 464 final – Brussels 4 October 1993 OJ C 308/1

'ARC Open Access Policy', *Australian Research Council* (Web Page, 13 July 2018) <https://www.arc.gov.au/policies-strategies/policy/arc-open-access-policy>

Australian Government, 'About', *Data.gov.au* (Web Page, 25 November 2019) <https://data.gov.au/page/about>

Australian Open Access Strategy Group, 'What is Open Access', *About Open Access* (Web Page, 17 June 2019) <https://aoasg.org.au/what-is-open-access/>

Beunen, Annemarie, 'The Dutch 'Geschriftenbescherming' After the ECJ's Football DataCo Decision' *Leiden Law* (Blog Post, 27 April 2012) <http://leidenlawblog.nl/articles/the-dutch-geschriftenbescherming-after-the-ecjs-football-dataco-decision>

Bodó, Balázs, 'The Science of Piracy, the Piracy of Science. Who Are the Science Pirates and Where Do They Come From: Part 1', *Kluwer Copyright Blog* (Blog Posting, 6 March 2019) <http://copyrightblog.kluweriplaw.com/2019/03/06/the-science-of-piracy-the-piracy-of-science-who-are-the-science-pirates-and-where-do-they-come-from-part-1/>

Chan, Leslie, et al, 'Read the Budapest Open Access Initiative', *Budapest Open Access Initiative* (Web Page, 14 February 2002) <https://www.budapestopenaccessinitiative.org/read>

Champeau, Guillaume, 'L'Open Data fragilisé par le droit d'auteur sur les bases de données, [Open Data Weakened by the Copyright in Databases]' (Web Page, 11 February 2013) *Numerama* <http://www.numerama.com/magazine/25038-l-open-data-fragilise-par-le-droit-d-auteur-sur-les-bases-de-donnees.html>

Chappell, David, 'What is Application Lifecycle Management?', *David Chappell and Associates* (Web Page, December 2008) <http://www.davidchappell.com/writing/white_papers/What-is-ALM--Chappell.pdf>

Common Position (EC) No 20/95 with a view to adopting Directive 95/ /EC of the European Parliament and of the Council of the European Union on the legal protection of databases [30 October 1995] OJ C 288/14

Commonwealth of Australia, *Australia's Digital Economy: Future Directions*, (2009) Department of Broadband, Communications and the Digital Environment <www.dbcde.gov.au/digital_economy/final_report>

Cukier, Kenneth, 'Data, Data Everywhere', *The Economist Online* (Web Page, 25 February 2010) <http://www.economist.com/node/15557443?story_id=15557443>

Davies Collison Cave, 'High Court Refuses Application For Leave to Appeal Telstra v PDC', *Davies Collison Cave Intellectual Property* (Web Page, 2 September 2011) <https://dcc.com/services/litigation-dispute-resolution/high-court-refuses-application-for-leave-to-appeal-telstra-v-pdc/>

'Definition of Budapest Compliant Open Access', *KF Open Access Working Group* (Web Page, 25 March 2019) <https://access.okfn.org/definition/index.html>

Derclaye, Estelle, 'Football Dataco: Skill and Labour is Dead!' Kluwer Copyright Blog (Blog Post, 1 March 2012) <http://copyrightblog.kluweriplaw.com/2012/03/01/football-dataco-skill-and-labour-is-dead/>

Dodds, Francis, 'Conflicting Academic Attitudes to Copyright Are Slowing the Move to Open Access' (Blog Posting, 10 May 2018) <http://blogs.lse.ac.uk/impactofsocialsciences/2018/05/10/conflicting-academic-attitudes-to-copyright-are-slowing-the-move-to-open-access/>

Duportail, Judith, 'I Asked Tinder for my Data. It Sent Me 800 Pages of My Deepest, Darkest Secrets', *The Guardian Online* (Web Page, 26 September 2017) <https://www.theguardian.com/technology/2017/sep/26/tinder-personal-data-dating-app-messages-hacked-sold>

EU Commission, 'Stakeholder Consultation' (Web Page, 19 June 2013) *The EU Commission – the EU Single Market – Protection of Databases* <http://ec.europa.eu/internal_market/copyright/prot-databases/index_en.htm>

EUROPA, 'Member Countries – United Kingdom', *EUROPA – European Union, Official Website of the European Union* (Web Page, 10 January 2020) <http://europa.eu/about-eu/countries/member-countries/unitedkingdom/index_en.htm>

Europa EU, *Court of Justice of the European Union - Overview*, (Web Page, 26 March 2020) <https://europa.eu/european-union/about-eu/institutions-bodies/court-justice_en>

European Parliament, 'Towards a Digital Single Market Act - European Parliament resolution of 19 January 2016 on Towards a Digital Single Market Act (2015/2147(INI)' *European Parliament* (Web Page, 2020) <https://www.europarl.europa.eu/doceo/document/TA-8-2016-0009_EN.html>

European Publishers Council, 'Response from the European Publishers Council to the First Evaluation of Directive 96/6/EC on the Legal Protection of Databases' (Web Page, 10 March 2006) *European Publishers Council Website* <https://www.epceurope.eu/>

'Government Use of Creative Commons', *Creative Commons.org* (Web Page, 17 July 2019) <https://wiki.creativecommons.org/wiki/Government_use_of_Creative_Commons#Australia>

Hall, Garry, 'What Does Academia_edu's Success Mean for Open Access? The Data-Driven World of Search Engines and Social Networking', *London School of Economics and Political Science Impact Blog* (Blog Site, 22 October 2015) <https://blogs.lse.ac.uk/impactofsocialsciences/2015/10/22/does-academia-edu-mean-open-access-is-becoming-irrelevant/>

HM Government, 'Political Declaration Setting Out the Framework for the Future Relationship Between The European Union and the United Kingdom' - Presented to Parliament pursuant to Section 1 of the *European Union (Withdrawal) Act (No. 2) 2019* and Section 13 of the *European Union (Withdrawal) Act 2018* (19 October 2019)

HM Government, 'Statement That Political Agreement Has Been Reached And That The United Kingdom Has Concluded An Agreement With The European Union Under Article 50(2) Of The Treaty On European Union' - Presented to Parliament pursuant to Section 1 of the *European Union (Withdrawal) Act (No. 2) 2019* and Section 13 of the *European Union (Withdrawal) Act 2018* (19 October 2019)

Hugenholtz, P Bernt, et al, 'The Database Right Case-Law Collection' (Web Page, 13 December 2006) *IViR Institute for Information Law, Faculty of Law*, University of Amsterdam <https://www.ivir.nl/database-right-case-law-collection/>

'Joint AOASG and CAUL Statement on the Importance of Open Scholarship', *Australian Open Access Strategy Group* (Web Page, 29 November 2018) <https://aoasg.org.au/2018/11/29/joint-aoasg-and-caul-statement-on-the-importance-of-open-scholarship/>

Kaye, Laurence**, '**The Directive on the Legal Protection of Databases of 11 March 1996: Does it Have a Future?' (Web Page, 2019) *Copyright in the Digital Age* <https://www.copyright-debate.com/database-directive-future-lawrence->

Lessig, Lawrence, 'For the Love of Culture: Google, Copyright and Our Future', *New Republic* (Web Page, 26 January 2010) <https://newrepublic.com/article/72706/the-love-culture>

Letter from Theresa May, British Prime Minister, to Donald Tusk European Council President, 29 March 2017

Maiden, Malcolm, 'Telstra Calls on Attorney-General Over Copyright', *The Age Online* (Web Page, 8 September 2011) <http://www.theage.com.au/business/telstra-calls-on-attorneygeneral-over-copyright-20110907-1jxnu.html>

Manea, Alex, 'Over 33,000 Databases Hacked in Largest Ever Ransomware Attack', *Inside Blackberry Blog* (Blog Post, 9 February 2017) <http://blogs.blackberry.com/2017/02/over-33000-databases-hacked-in-largest-ever-ransomware-attack/>

Max-Planck-Gesellschaft München, 'Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities', *Open Access Max-Planck-Gesellschaft - Berlin Declaration* (Web Page, 2019) <https://openaccess.mpg.de/Berlin-Declaration>

Millman, Rene, 'Hackers Now Hit MySQL DBS with Ransomware', *SC Magazine UK* (Web Page, 27 February 2017) <https://www.scmagazineuk.com/hackers-hit-mysql-databases-ransomware/article/1475201>

Miniwatts Marketing Group, 'Internet Usage Statistics', *Internet World Stats – Usage and Population Statistics* (Web Page, 6 November 2019) <http://www.internetworldstats.com/stats.htm>

Munroe, Randall, 'Google's Datacentres on Punch Cards', *What If? The Book: What If? Serious Scientific Answers to Absurd Hypothetical Questions* (Web Page, 2012-2017) <https://what-if.xkcd.com/63/>

National Health and Medical Research Council, 'Open Access Policy', *NHMRC About Us* (Web Page, January 2018) <https://nhmrc.gov.au/about-us/publications/open-access-policy#block-views-block-file-attachments-content-block-1>

Nemschoff, Michelle, 'A Quick Guide to Structured and Unstructured Data', *Smart Data Collective* (Web Page, 28 June 2014) <https://www.smartdatacollective.com/quick-guide-structured-and-unstructured-data/>

Opinion on the proposal for a Council Directive on the Legal Protection of Databases [25 January 1993] OJ C 19/2

Open Government Partnership.org, 'An Introduction to OPG' *Open Government Partnership* (Web Page, 14 December 2019) <https://www.opengovpartnership.org/about/>

Open Government Partnership.org, 'Mission and Strategy' *Open Government Partnership* (Web Page, 14 December 2019) <https://www.opengovpartnership.org/mission-and-strategy/>

Oracle Corporation, 'Why MySQL?' *MySQL* (Web Page, January 2020) <https://www.mysql.com/why-mysql/>

Pisani, Bob, 'It's Google vs Amazon to Create the Biggest Database in History', *CNBC.com* (Web Page, 27 April 2016) <http://www.cnbc.com/2016/04/26/its-google-vs-amazon-to-create-the-biggest-data-base-in-history.html>

Proposal for a Council Directive on the Legal Protection of Databases COM (92) 24 final – SYN 393 Brussels 13 May 1992 [23 June 1992] OJ C 156/4

Rentoul, John, 'Article 50: Six Ways Britain Leaving the EU Will Affect You', *The Independent UK* (Web Page, 29 March 2017) <http://www.independent.co.uk/voices/article-50-six-ways-britain-leaving-the-eu-will-affect-you-a7656351.html>

'ResearchGate Removes 1.7 Million Articles In Copyright Conflict' *Enago Academy* (Web Page, 8 May 2018) <https://www.enago.com/academy/researchgate-removes-1-7-million-articles-copyright-conflict/>

Rettberg, Najla, 'The Worst of Both Worlds: Hybrid Open Access', *Openaire.eu* (Blog Post, 26 June 2018) <https://www.openaire.eu/blogs/the-worst-of-both-worlds-hybrid-open-access>

Seker, Jane, 'It's Lovely Out Here: How We (Self) Published in the Open' (Blog Posting, UK Copyright Literacy, 13 April 2018) <https://copyrightliteracy.org/2018/04/13/its-lovely-out-here-how-we-self-published-in-the-open/>

Shaban, Hamza, 'Twitter Reveals Its Daily Active User Numbers For The First Time', *The Washington Post Online* (Web Page, 8 February 2019) <https://www.washingtonpost.com/technology/2019/02/07/twitter-reveals-its-daily-active-user-numbers-first-time/>

Suber, Peter, et al, 'The Bethesda Statement on Open-Access Publishing', *ResearchGate* (Web Page, 20 June 2003) <https://www.researchgate.net/publication/48547523_The_Bethesda_Statement_on_Open-Access_Publishing>

Suber, Peter, et al, 'BOAI15', *Budapest Open Access Initiative* (Web Page, 14 February 2017) <https://www.budapestopenaccessinitiative.org/boai15-1>

The Economist, 'A Different Game: Information is Transforming Traditional Business', *The Economist Online – Special Report* (Web Page, 27 February 2010) <https://www.economist.com/special-report/2010/02/27/a-different-game>

The Economist, 'All Too Much: Monstrous Amounts of Data – Special Report', *The Economist Online* (Web Page, 25 February 2010) <http://www.economist.com/node/15557421>

UK Department of Trade and Commerce, 'Intellectual Property and Innovation' (White Paper, cmnd 9712, April 1986)

UK Department of Trade and Commerce, 'Reform of the Law Relating to Copyright, Designs and Performers' Protection' (cmnd 8302, 1981)

UK Department of Trade and Commerce, 'Intellectual Property Rights and Innovation' (cmnd 9117, 1983)

UK Department of Trade and Commerce, 'Recording and Rental of Audio and Video Copyright Material', (cmnd 9445, 1985)

UK Intellectual Property Office, *Changes to Copyright Law in the Event of No Deal* (26 October 2018) UK.Gov Website <https://www.gov.uk/government/publications/changes-to-copyright-law-in-the-event-of-no-deal/changes-to-copyright-law-in-the-event-of-no-deal#fnref:3>

US Copyright Office, 'Copyright Protection for Databases in the United States', *Report on Legal Protection for Databases* (PDF file, August 1997) <https://www.copyright.gov/reports/db4.pdf>

US Office of the General Counsel, 'Database Protection and Access Issues, Recommendations Patent and Trademark Office Report on Recommendations from the April 1998 Conference on Database Protection and Access Issues', *United States Patent and Trade Mark Office* (Web Page, 7 April 2009) <http://www.uspto.gov/ip/events/database/dbase498.jsp>

WTO, 'Intellectual Property: Protection and Enforcement', *World Trade Organisation* (Web Page, 2020) <https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm>