Copyright and Publicly-Funded Arts and Humanities Research

Identifying and Developing Sustainable Exploitation Models in the Digital Economy

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Executive Summary

In this pilot project, we examine the relationships between copyright, publicly funded arts and humanities research, and research processes in the digital era based on case studies of six different AHRC-funded projects: three funded under the Digital Transformations theme, and three funded by one of the Knowledge Exchange Hubs for the Creative Economy, Research and Enterprise in the Arts and Creative Technologies (REACT).

To study the six cases, we conducted semi-structured interviews with selected participants from each of these funded projects. We used this empirical data to address the following research questions:

- How do researchers engage with copyright during the research process and in the production of creative works, and what copyright related challenges emerge?
- How is researchers' engagement with copyright affected by digitisation, collaboration, legislation, and government policies?
- Does copyright provide benefits to researchers as they undertake publicly funded research?
- What range of works is produced during research, what do researchers identify to be of value in their projects, and can any of the benefits provided by copyright be mapped onto these values?

In Chapters 3 and 4, we address questions around copyright challenges and copyright workarounds, respectively, and in Chapters 5 and 6 we address questions around reputation and process, respectively.

Our main findings are:

- Consistent with the existing, albeit limited, empirical research on copyright exceptions, researchers find the existing laws to be challenging in practice.
- To our surprise, we found that researchers faced a variety of challenges in negotiating access to and the use of out-of-copyright materials in archives.
- While economic benefit potentially arises from exploiting copyright in the outputs of research, neither
 academic researchers nor creative industry partners were interested in this direct benefit. Of much more
 importance was the benefit that could be derived from asserting the right to be identified as an "author"
 of the output.
- There was value for all case study participants to be derived from the collaborative research processes.

Our main recommendations for future research include:

- Further case study research should be carried out with research projects that use a range of third party
 copyright-protected material (literary, dramatic, musical and artistic) to ascertain whether the copyright
 exceptions, as amended, help them to meet their research aims.
- Case study analysis should be carried out to determine the impact of copyright on research design, project implementation, and display of outputs, and whether the quality and value of research outputs is diminished where researchers have to make compromises in accessing or using rights-protected works (for example, when content or findings are not fully accessible to the public).
- Case study research should be conducted across a range of funded projects to ascertain if the rules in the amended Re-Use of Public Sector Information Directive (latest implementation date 18 July 2015) are operated as intended, and if they do benefit researchers. Relatedly, clear policy guidelines should be

- developed for libraries, archives and museums. These should cover exploitation of their digitised content for research purposes, both content that is protected by copyright, and content that is out of copyright.
- Case study research should be carried out tracking project outputs as they reach and are disseminated in
 the digital economy and society, to ascertain the socio-cultural values realised within the creative
 economy. Such research may be combined with our recommendation for the assessment of whether the
 quality and value of research outputs is diminished for specific users and/or the public, where researchers
 have to make compromises in accessing or using rights-protected works.
- Research should be carried out to ascertain whether the right of attribution could or should reflect
 reputational value in collaborative projects where the law may not recognise individuals as copyright
 authors of all of the works that the group creates, an aspect which our case study subjects felt to be most
 important.

We have also made a series of methodological recommendations.

- Future research should deepen our understanding of projects funded under individual funding streams, rather than to cross compare different funding streams including other AHRC funded KE hubs.
- The views of early and mid-career researchers should be brought into future research projects, where appropriate.
- Creative industry members partnering with academic researchers should be encouraged to contribute to future publicly funded research projects.
- Short-term pilot projects attempting to conduct follow-up research with interviewees should use themeled conferences and meetings as potential venues to reconnect with interviewees.

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1. Introduction

The AHRC, Publicly Funded Research, and Copyright

The Arts and Humanities Research Council (AHRC), which has more than 50 disciplines within its remit (AHRC, 2013: 5), is a major funder of arts and humanities research in the UK. It has made a total of more than £700 million of funding available for arts and humanities research since it received its Royal Charter in 2005 (AHRC, 2013: 6). In recent years, the AHRC has funded increasingly innovative research and used increasingly innovative mechanisms to distribute funding to targeted projects. Starting with the Beyond Text funding stream, the Council has sought to identify and celebrate the diversity of forms of research, content, and outputs in the arts and humanities. While appreciating the importance of text based outputs, it has acknowledged that these are only one form of output, and that for the arts and humanities there exist a rich and diverse range of activities and artefacts that deserve serious attention. Recognising the growing importance of "digital," the AHRC established the Digital Transformations theme, which was designed to fund projects rooted in the expectation of transformation and experimentation. Conscious also of the opportunities for arts and humanities researchers to engage with the creative industries, the AHRC funded a series of Knowledge Exchange Hubs for the Creative Economy (KE Hubs), which in turn have funded partnerships between researchers and creative industry partners in relation to projects that straddle the academy and the creative economy.

In this pilot project, we examine the relationships between copyright, publicly funded arts and humanities research and research processes in the digital era based on case studies of six different AHRC-funded projects: three funded under the Digital Transformation theme and three funded by one of the KE hubs, REACT.

To study the 6 cases, we conducted semi-structured interviews with selected participants from each of these funded projects. We use this empirical data to address the following research questions:

- How do researchers engage with copyright during the research process, and in the production of creative works, and what copyright related challenges emerge?
- How is researchers' engagement with copyright affected by digitisation, collaboration, legislation, and government policies?
- Does copyright provide benefits to researchers as they undertake publicly funded research?
- What range of works is produced during research, what do researchers identify to be of value in their projects, and can any of the benefits provided by copyright be mapped on to these values?

As this is a pilot project, we also sought to ascertain whether systematic in-depth research in this field can identify the potential benefits that copyright confers on the building of sustainable models and exploitation pathways for publicly funded research content. Finally, we considered whether the methodology used in the pilot project would be adequate to address such research questions.

Our original proposal focused on the law of copyright. However, because we found that accessing archives and reusing information from those archives were the major themes that emerged from our case studies, we have extended the legal analysis to include the Database Directive¹ and the Re-use of Public Sector Information Directive.²

Value and Benefit

During the course of this study we refer to "value," and we distinguish this from "benefit". We use the term of "value" to refer to what our case study participants identify as being of value, which may have arisen or been diminished, and which occurs during the course of collaboration and in relation to the outputs protected by copyright. In other words, we use a subjective notion of value, which relates to both the process of research and the output of the research.

We use the term "benefit" to refer to one or more of the types of benefits that stem directly from the granting of copyright and from exploitation of the protected work. The main benefits that we explore are the economic and moral benefits that can arise from the dissemination and exploitation of a work protected by copyright.

The Copyright Framework in the Digital Era

The modern era—characterised by social media, Web 2.0 technologies, and the "Open Access" movement—is one of the most challenging legal, technological, political, economic and social environments that the copyright framework has dealt with since it was formally recognised in the Statue of Anne in 1709. The legal environment is in a state of flux: on the one hand, European and national initiatives vie to broaden the scope of copyright, while on the other hand, relaxations are introduced to support creative re-use. The political view is that content produced by the creative industries and protected by copyright will contribute to economic regeneration. The UK's Creative Industry strategy, launched in 2014 (CREATE UK, 2014), states that the sector generated £71.4 billion gross value added in 2012, representing a 9.4 percent increase and surpassing the growth of any other UK industry sector (CREATE UK, 2014: 2). There were 1.68 million jobs within the creative sector in 2012, and a further 866,000 people in creative occupations outside of the sector.

At the same time, technology has enabled and encouraged new modes of creative use and re-use. This is built around social communities where sharing is a key feature, where innovative works may be developed beyond the boundaries of the law, and where enforcement of copyright is challenging. Increasingly there are calls for the fruits of publicly funded research to be freely available at the point of publication to the public in general, as seen in the recent movement towards open access to scholarly articles (although not at present other digital artefacts). These three strategies: economic regeneration; creative re-use; and open access, result in tensions around copyright: broader copyright protection and stronger enforcement is called for to support the creative industries; more flexible copyright protection is called for to support creative re-use; and flexible exploitation of copyright to support open access.

This pilot project sits within a rich tradition of general copyright scholarship, and more recent scholarship focusing on the challenges posed to copyright by digital technologies. Scholars have explored, analysed, and critiqued the

¹ Council Directive No. 96/9/EC of 11 March 1996 (O.J. No. L77, 27.3.96, page 20) on the legal protection of databases implemented in the UK in The Copyright and Rights in Databases Regulations 1997 SI no 3032.

² Directive 2003/98/EC as amended by Directive 2013/37/EU on the reuse of public sector information. The Re-use of Public Sector Information Regulations 2005 (S.I. 2005/1515) transposed the 2003 Directive into UK law. The amended Directive is due to be implemented into national law by 18 July 2015.

challenges posed to copyright law by digital technologies. Analyses have been historical, theoretical, doctrinal, and practical. Outputs, mostly in the form of the written word, agree almost without exception that digital practices challenge the current law. Proposed solutions vary from building contractual commons to suggesting far reaching changes in the law.

This copyright framework seems always to have raised challenges for arts and humanities researchers, research processes and for the content that they develop. Copyright was established with individual authorship, limited borrowings, and analogue copying in mind. With digitisation and digital technologies that embrace co-creation, unlimited re-use, and the absence of barriers to copying, these challenges are intensified. "Digital" changes processes of research, the way researchers work, and the outcomes of research. Processes and modes of working are increasingly collaborative and draw in ever more sources. Researchers use a plethora of different platforms to engage with each other and with users, as research outcomes are disseminated in increasingly innovative digital ways. Some research takes place within academic environments, while other research links with commercial concerns; the majority embraces the fluidity of digital working, remaking, reusing, and rehashing. While research content was once predominantly text based, it now takes many and varied forms, making the application of copyright increasingly convoluted. Tensions arise at the interface of creating, managing and exploiting copyright content, and also of conducting innovative research which is accessible, exchangeable and engaging.

This project uses qualitative empirical research to investigate how copyright impacts arts and humanities researchers and research processes. Although empirical research is increasingly being conducted in the broader copyright sphere, a notable example being the work carried out under the auspices of CREATe, the AHRC/RCUK Centre based at Glasgow University and set up specifically to look at copyright and new business models, little work has focused on the researcher and the impact of copyright on his/her work. A report from the British Academy (2006) considered the challenges posed by the restrictive interpretation of exceptions and limitations to copyright law for researchers in the humanities and social sciences, while a more recent collection of essays from the British Library (2010) provided practical examples of how copyright affects the broader research community in the UK. This project goes further: it examines AHRC-funded projects that are experimental and transformative, as well as projects that are undertaken in collaboration with creative partners, to highlight two major areas of question and concern:

- Copyright challenges: it considers the challenges posed by the exceptions to copyright for arts and
 humanities researchers as they carry out their research processes, and also the challenges that they face
 in accessing both in and out-of copyright material held in archives.
- Copyright benefit and non-copyright value: it considers the benefits that copyright may provide, as well as the value of the research and processes to the researcher.

Overall, the project seeks to deepen our understanding of the relationships between copyright, publicly funded research and research processes in the digital era.

Copyright Challenges

Navigating the Copyright Exceptions Landscape

While the copyright framework poses a range of potential challenges for researchers in the arts and humanities, it has been argued—in the albeit limited empirical literature—that a key challenge lies around copyright exceptions. Copyright law in the UK provides for a number of exceptions, which are designed to give to the user of a copyright-

protected work a defence to an action of infringement of copyright if the use falls within the exception. The most important of these exceptions for researchers are (1) fair dealing with any kind of work for the purposes of criticism and review, if accompanied by sufficient acknowledgement³, and (2) fair dealing with a literary, dramatic, musical, or artistic work for the purpose of non-commercial research, if accompanied by sufficient acknowledgement.⁴ However, these exceptions have posed problems for researchers, both in terms of how they are applied and interpreted in practice, and also in terms of the scope and nature of copying and use that they permit.

For example, the British Academy report (2006) found that researchers in the humanities and social sciences were facing challenges due to copyright law, and noted that "recent developments in technology, legislation and practice have meant that the specific exemptions, which are provided by copyright to enable scholarly work to advance, are not in some cases achieving the intended purpose" (British Academy, 2006: 3). While the exceptions for criticism and review and non-commercial research "[were] normally sufficient for academic and scholarly use," such use in practice was impeded by the narrow interpretation of these exceptions by right owners and publishers (British Academy, 2006: 8). In relation to the exception for non-commercial research, the report noted that there was uncertainty around the meaning and scope of this exception, and that it required clarification. The report recommended that the terms "research" and "non-commercial" should be broadly interpreted to give the text of the statute its full effect. It also recommended expansion of the scope of the exception to cover fair dealing with sound recordings, films, and broadcasts (British Academy, 2006: 17). Similarly, the compilation of short essays collated by the British Library (2010), which provided "practical examples of how copyright affects the UK research community", contained references to both the restrictive interpretation and limited scope of existing fair dealing exceptions available to educators and researchers in the UK (British Library, 2010).

In the last 10 years, copyright exceptions have also been a key issue in the discussions on copyright reform at both the UK and EU level. Both the Gowers Review (2006) and the Hargreaves Review (2011) in the UK focused considerably on copyright exceptions, especially on how they could be adapted suitably to the digital environment. The Hargreaves Review recommended the reform of copyright exceptions for researchers and scholars, suggesting that copyright was a barrier to text and data mining in the academic and scientific community, and that the existing exception allowing non-commercial research was limited in scope (Hargreaves, 2011: Chapter 5). Legislative reforms addressing these challenges came into force on 1 June 2014, with a new text and data mining exception, which permits copying of works for text and data analysis for non-commercial research. In addition, the existing fair dealing exception for the purpose of non-commercial research has been amended to allow copying of all types of copyright works, and not just literary, dramatic, musical and artist works. However, the effect of these reforms in practice, and particularly for arts and humanities researchers, remains to be seen.

Negotiating and Obtaining Access to Copyright and Out-of-Copyright Materials

The British Library collection of essays (British Library, 2010) also flagged several practical challenges that researchers and scholars face in negotiating and obtaining access to copyright materials for use that does not fall within the scope of the available exceptions. While researchers may be willing to obtain a licence for rights-protected content, they often face challenges in accessing such materials. These challenges stem from: limited time, limited project budgets and/or limited to no financial return on their outputs, lack of expertise or knowledge that may be required to secure a licence, refusal by the rights owners to license, or prohibitive cost of a licence for commercially owned content. In our research, several participants faced one or more of such challenges.

³ s.30(1) Copyright Designs and Patents Act 1988 (CDPA)

⁴ s.29(1) CDPA.

⁵ s.29A CDPA

Arts and humanities scholars are particularly interested in materials that are not themselves in copyright, but which reside in the collections of libraries, archives and other cultural and private institutions. Some of the practical challenges noted above in the context of access to copyright materials can also arise when researchers wish to access and reproduce out-of-copyright materials. For example, the British Academy report (British Academy, 2006) noted that copyright protection of photographs not only allowed museums and galleries "to claim fees for non-copyright works in their possession," but that "this has become more severe as museums and galleries all over the world, driven by the need to find additional sources of income, have demanded fees to use their photographs even in scholarly non-commercial publications" (British Academy, 2006: 10).

The policy and law underpinning the controls on the copyright protection of, access to, and re-use of out-of-copyright materials to be found in public libraries and archives is complex and confused. Government policy seeks to encourage the re-use of public sector content in the interests of re-generation of the economy. But in the face of shrinking public sector funding, the Government, as noted above, also encourages libraries and archives to contribute towards and support their costs.

Consequently, institutions seek to exploit digitised images and other information in several ways. They assert copyright in the newly digitised image, arguing that it is protected by a new copyright.⁶ They control access to and the re-use of content, some of which may be protected by copyright, some of which may not. For example, institutions may limit the time period for which access is given, or the amount of and manner in which content may be displayed. This strategy rests on two legal foundations: the first, applicable within Members States of the EU, is the Database Directive,⁷ which protects copyright in the structure and arrangement of the content of the database, and grants and database rights in the content of a database where there has been substantial investment in the obtaining, verifying or presentation of the contents of the database. The right, which is intended to protect the investment in compiling the database, prevents the unauthorised extraction and/or re-utilisation of the whole or part of the contents.

The second legal foundation is the Re-Use of Public Sector Information Directive as amended in 2013.⁸ The amended Directive extends the scope of the original directive to public sector museums, libraries, and archives where information is made available for reuse.⁹ The presumption in this amended Directive is that public sector information should be available for re-use. Institutions can charge, but this should in principle be limited to marginal cost. Where an Institution needs the financial help of a third party for a digitisation programme, an exclusive arrangement can be entered into with that third party in relation to access, but only for a period of up to ten years. These new rules are due to come into force on 18 July 2015. As with the amendments to the copyright exceptions, the effect of these changes in practice for arts and humanities researchers remains to be seen.

⁶ Whether this is the case or not is a moot point. The emerging European standard for originality in copyright requires that a work be the authors' own intellectual creation in that she must stamp her own personal touch on a work and that it must not follow pre-set rules.

⁷ Note 2 above.

⁸ Note 3 above.

⁹ Ibid.

Copyright Benefit and Non-Copyright Value

Economic Benefit

Copyright grants a series of exclusive rights to the copyright owner, who can then assign or license these rights to third parties in return for royalties or other monetary benefit. The rationale is that if copyright did not exist, there would be no incentive for the author to produce these works, and so no—or fewer—new works would be created. There is, in other words, an economic benefit that is intrinsic to the law.¹⁰ Also central to the law is the notion of a public interest benefit that results from the grant of copyright. This public interest benefit arises from the theory that because the author has the economic incentive to create new works, there is a continuous supply of new works—such as music, art, literature and film—for the benefit of the public. The focus here is not on the benefit for the author, but on the benefit to the public. The economic benefit theory is seen most clearly in those countries whose copyright law is embedded in the Anglo Saxon tradition.¹¹

The cycle can be illustrated thus:

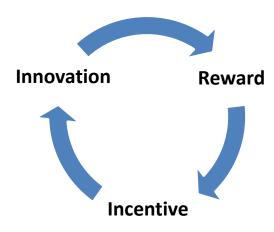


Figure 1: The Cyclical Pattern of Intellectual Property Production and Protection

¹⁰A related but more far reaching economic theory, rooted in neoliberal economics, would seek to justify the protection of all value. Private ownership is justified in pursuit of optimal exploitation because common ownership leads to the tragedy of the commons. While also allied to the incentive theory, this justification would argue for an increase in the scope of copyright and a reduction in the exceptions and limitations to copyright.

¹¹ A not dissimilar justification lies in the theory of reward, but starts from an objective rather than subjective perspective: copyright protection is granted because it is thought to be fair to reward an author for the effort expended in creating a work and making it available to the public. — In this case, copyright is a "legal expression of gratitude to an author for doing more that society expects or feels that they are obliged to do" (Bently and Sherman, 2014: 37). The continuing expansion of copyright law has led to newer thinking that copyright should be justified by reference to the democratic paradigm (Netanel, 1996: 283). While copyright encourages more works to be produced, it also seeks to "secure the qualitative condition for creative autonomy and expressive diversity" (Netanel, 1996: 339). From this intervention, other scholars have developed ideas around the communicative function of copyright, arguing that copyright fosters communication, but also acts as a brake on communication.

Moral Benefit

By contrast, under the Civil Law tradition, copyright is rooted in the protection of the personality of the individual author. In this tradition, protection extends beyond the purely economic benefit, and is most clearly seen in the protection given to the author through moral rights. These include the right to be identified as the creator of a work, and the right to have the integrity of the work respected. These moral rights, which are more extensive in some countries than others, are tied to the individual author. In the UK, the right of attribution, called the paternity right in the CDPA 1988, has a number of functions. It enables management of works e.g. through indexing, it makes clear to whom royalties should be paid when the right to receive royalties remains with the author, and it constructs the individual as the author of the work within a body of work by the author (Bently and Sherman, 2014: 275). The right is often linked to the ability to develop a reputation and relatedly to make an income. The benefits from moral rights (referred to as moral benefits) may thus have both monetary and non-monetary welfare aspects (Rushton, 1998)

Theoretically, copyright may provide various types of benefits—economic, moral, social, educational, and communicative—to a variety of beneficiaries. In our research, we outline the various types of copyright protected outputs emerging from the six case studies, and consider the relevance of both economic and moral benefits that copyright provides to our participants in relation to these outputs.

Non-Copyright Value

As noted above under the heading Value and Benefit, we asked our case study participants for their subjective notion of value, which may have arisen or diminished, in relation to both the process of research and the output of the research. In relation to the outputs of the research, we have explained above how the copyright framework may provide economic and moral benefits to our participants when they disseminate and exploit copyright protected outputs.

However, researchers may also place value on aspects of their research projects other than the copyright protected outputs themselves, such as the process of research itself, or outputs from projects which aren't themselves protected by copyright. We outline such values identified by our participants that are not underpinned by any copyright benefit and refer to them as non-copyright value.

Report Overview

This study is divided into seven chapters, including this introduction and the conclusion. Chapter 2 explains the methodology, while Chapters 3-6 are divided into two main sections which focus on the empirical findings of the pilot project.

The first section, which encompasses Chapters 3 and 4, focuses on copyright challenges. It begins with a preface introducing the issues that arise in the case studies within their legal framework, which enables the reader to reflect on the main legal issues when reading the case studies in Chapters 3 and 4. Consequently, Chapters 3 draws on case studies to highlight issues surrounding the access and re-use of content, while Chapter 4 draws on case studies to highlight researchers' use of copyright workarounds stemming from the inaccessibility of source materials.

¹² Tolnay v Criterion Film Productions [1936] 2 All ER 1625.

The second section, which encompasses Chapters 5 and 6, focuses on benefit and value. It begins with a preface discussing the economic and moral benefit arising from the projects, and goes on to highlight the non-copyright value that was of importance to the participants mostly through enhanced reputations, and those instances in which the participants felt that the value in a project may have been diminished due to the inaccessibility of source materials or to the inability to display results as the research design intended. We highlight where these notions of value intersect with the copyright framework. As with the preface to Chapters 3 and 4, the purpose of this introduction is to give the reader the legal tools needed when reflecting on the case studies in Chapters 5 and 6. Chapter 5 draws on case studies to highlight the issues surrounding reputation, while Chapter 6 draws on case studies to highlight the issues surrounding research processes.

The final concluding Chapter draws the threads of the discussion together, highlighting the projects findings, and making a series of recommendations for further research.

2. Methodology

AHRC-Funded Projects as Case Studies

The research projects funded by the AHRC and selected as case studies for this pilot project entail a diverse range of methods and collaborations. Three are supported by a specific funding theme, Digital Transformations in the arts and humanities, which aims to foster transformation and experimentation with digital technologies. The other three are supported by Impact and Knowledge Exchange initiatives, namely the Knowledge Exchange Hubs for the Creative Economy (KE Hubs), which aims to foster cross-sector research in the creative industries and in public sector ventures.

The Digital Transformations Theme

The Digital Transformations theme is one of four research themes within the AHRC, and aims to encourage experimentation around the transformative potential for digital technologies in the arts and humanities. The theme has provided support under several different funding rounds, which include Exploratory Grants of several thousand pounds awarded in 2012, and Large Grants of over £1 million pounds awarded in 2013, both of which make up our case studies in this theme. The theme is driven by research rather than infrastructures, standards, and tools, particularly with regards to issues like innovation, cultural memory and identity, and communication. As such, Digital Transformations projects celebrate the increasingly wide range of formats—not just text, but also sound, images, animations, and visualisations—that characterise arts and humanities research. Recognising that the emergence of the internet and the centrality of the digital era has opened up opportunities for people and organizations to enhance access and creativity, the theme also considers complex questions of responsibility, identity ethics, privacy, and security. Within the Digital Transformations Themes, intellectual property is managed by each of the Higher Education Institutions who are awarded grants. This provides opportunities to negotiate IP in a contextual way.

The REACT Knowledge Exchange Hub for the Creative Economy

REACT is one of four KE Hubs, whose goals are to bring together academics and creative partners to stimulate knowledge exchange and process learning. It is a collaboration between the University of the West of England, Watershed—a cross-artform media centre—and the Universities of Bath, Bristol, Cardiff and Exeter. REACT has provided support for 60 projects, which receive an average of 50k of funding, providing support for collaborative work over a 3-month timespan. Such collaborations provide tangible benefits to both academics and creative partners: for academics, they create opportunities for knowledge transfer, impact, and publications, as well as the time and space to create new methodologies and strands of research. For creative partners, they create opportunities to have a first-mover advantage, to develop new intellectual property, and to pursue financially-infeasible high-risk projects. Although the value and success of such collaborations is difficult to measure, the projects result not only in traditional academic outputs like books and research papers, but also novel methods, know-how, and long-standing collaborations.

Within REACT, intellectual property is managed through a fixed contract between the University of the West of England and iShed—a subsidiary of Watershed—as well as the other participating Higher Education Institutions. The broad framework for REACT's collaborative works and IP management is handled through the "Sandbox" model of collaboration, which was developed by iShed in 2008, and entails a three-month intensive process of

meetings and research and development. Because REACT is not a legal entity, it does not own any of the potential outputs once the Sandbox process has started. Instead, contractual matters are dealt with by participating higher education institutions, who have established policies and procedures for dealing with IP, and who are the primary recipients of AHRC funding. The Sandbox model provides significant benefits for REACT, which has the advantage of being able to base its mechanics on iShed's Sandbox. Although the Sandbox model requires the participating parties to share their background IP, it fosters a successful combination of ownership and confidentiality, while leaving some flexibility around the specific IP arrangements that develop through the collaborative projects. This is particularly important because many of the creative partners are micro enterprises, and thus need to be able to create commercialisable outcomes while participating in the open exchange of ideas. Recognising this need, the REACT agreement sets out that all foreground IP generated during REACT projects is owned by creative partners, but can be used by academics for research purposes.¹³

Methodology

This pilot project, which was carried out from November 2013 to December 2014, was based on case studies of six different AHRC-funded projects: three in the Digital Transformations Theme, and three in the REACT KE Hub. We selected cases from both the Digital Transformations Theme and KE Hubs because these two flagship funding streams represent research that is conceptually-driven and close-to-market, respectively In particular, the REACT KE Hub in Bristol provided an ideal context for selecting case studies for a short-duration pilot project, given its close proximity to the University of Exeter, as well as its clear attempt to deal with IP upfront. Further, we selected our cases in consultation with people who knew about the projects: namely, John Dovey, the director of the REACT KE Hub, and Andrew Prescott, the Digital Transformations Theme leadership fellow. During the course of our analysis we refer to "bigger" and "smaller" case studies. The "bigger" case studies are the two projects funded under the Digital Transformations theme as Large grants, and are bigger in the sense that they attracted more funding (up to £1.6 million as opposed to £50k for the REACT projects), and that they, for the most part, will last for a longer period of time (up to four years as opposed to three months for the REACT projects). At the time of our interviews the three REACT projects had finished, while only one of the Digital Transformations projects—which was funded as a pilot project--had completed. In contrast, the other two Digital Transformations projects were in the early stages of funding.

To study the 6 cases, we conducted 12 semi-structured interviews, lasting approximately 2 hours each, between May and July 2014. A brief overview of the projects, including with whom the interviews were carried out, is as follows:

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¹³ Although from an analysis of the legal arrangements made available by Inngot it is not clear that the documentation on IP sets out the position on ownership as clearly as this. See Martin Brassell Inngot REACT IP notes 2012.

Table 1: Overview of Case Studies

	Case Study	Funding Scheme	Interviewees	Position
1.	Digital Panopticon	Digital Transformations	Robert Shoemaker Michael Pidd	Professor of Eighteenth-Century British History, University of Sheffield
				Digital Director of Humanities Research Institute, University of Sheffield
2.	Transforming Musicology	Digital Transformations	Tim Crawford	Professorial Research Fellow in Computational Musicology, Goldsmith's University
			Muriel Swijghuisen Reigersberg	Research Development Officer, Goldsmith's University
			David Kuper	Solicitor, Goldsmith's University
				Solicitor, Goldsmith's Oniversity
5.	JtR125	REACT	Janet Jones	Professor of Media, Middlesex University
				Design Director, Auroch Digital
			Tomas Rawlings	
3.	Data Objects	Digital Transformations	Ian Gwilt	Professor of Design and Visual Communication, Sheffield Hallam University
4.	The Risk Taker's	REACT	Matt Golding	Creative Director, Rubber Republic
	Survival Guide		James Lyons	Senior Lecturer in Film, University of Exeter
6.	Ghosts in the Garden	REACT	Steve Poole	Professor of History and Heritage, University of West of England
			Rosie Poebright	Creative Director, Splash and Ripple

Case Study Methodology

The case study methodology is a widely accepted approach in qualitative research (Creswell, 2012), and has been successfully used to study other government-funded research (Searle, 2011).¹⁴ It entails an in-depth study of a small number of "cases," entities that are bounded in some way, but which are also nested within particular contexts (Yin, 2011). Robert Stake (2013: 6) refers to the grouping or situation that bounds the cases together as the "quintain," a device that is useful for thinking about how the cases are simultaneously rich in detail and also

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¹⁴ We are aware of the debate around references to case study 'method' and to case study 'methodology': Creswell 2012 'methodology'; Searle 2011, 'business model methodology'; Yin 2011, 'case study method'; Stake 2013, 'qualitative research method'; Encyclopedia of Case Study Research: L – Z 2010 pg.xxxii; Introduction xxxiii: "Third, we have chosen to call case study a research strategy rather than a method or methodology. Method implies a research tool, such as surveys, interviews, or observations, and case study cannot be reduced to a single method. Methodology can refer to the use of a particular method or methods and the theoretical framework that informs its use." While we acknowledge this debate we have chosen to refer to our approach as 'case study methodology'.

linked together. In this report, we studied each of the individually-awarded projects as a case, analysing them in relation to the broader context of the two AHRC funding streams: the Digital Transformations Theme and the REACT KE Hubs for the Creative Economy.

The goal of the case study methodology is to give researchers an in-depth understanding of real-world behaviors and contexts. Case studies are focused on the particular rather than the general, such that their main strength is in their attention to local contexts and situations. Unlike more comparative methodologies, the case study approach assumes that the contexts and complex conditions in which each case is set are integral to the researchers' overall understanding of the cases. Case studies are therefore suitable for descriptive (the "what") or exploratory (the "why") studies, but not for comparative ("how often") or efficacy ("how well") studies (Stake, 2013).

Semi-structured interviews, among other qualitative methods, are a common source of evidence and data for case studies. For our interviews, we developed a an interview guide with questions and prompts around the themes of: (1) project overview, (2) copyright works and outputs, (3) collaboration, (4) dissemination and users, (5) copyright values and challenges, (6) government policies, (7) broader issues. These questions sought to identify (a) the range of sources, technologies and platforms, and outputs used and produced during each case study, (b) the process of collaboration and dissemination, (c) the range of non-copyright-related values encapsulated in each case study, (d) the main challenges faced by researchers in relation to legislation and government policies.

Following the interviews, audio recordings were transcribed and imported into the qualitative data analysis program NVivo, where the transcripts were coded and analysed. In the case study methodology, there is no "right" or defined procedure for doing data analysis. In this report, we allowed the research question to guide the analysis: we started with a broad thematic analysis to pick out key issues, and then moved into specific cases to identify themes in relation to contexts. Concurrent with this data analysis, the preliminary results of the project, along with observations and experience during interviews, were posted on the project website/blog.

There were several limitations in this pilot project. Firstly, our case studies of the 6 projects relied on the accounts of only a small number of people, making it difficult to ascertain the extent to which the views of the interviews corresponded to the views of other researchers involved in each of the cases. For example, because the majority of the people interviewed were principal investigators (PIs), at an advanced stage of their career, this pilot project is unable to reflect on any of the copyright experiences and challenges faced by early- and mid-career researchers.

Secondly, we ran into some difficulties getting access to the creative partners involved in the REACT projects. This was because people involved in the creative industries were extremely busy, and were working on both a faster timescale and more limited budget compared to academics working in higher education institutes. Because creative partners lacked incentives to speak about REACT-funded projects, it was difficult to arrange interviews and follow-up work with the creative partners. We would suggest that, where possible, creative industry project partners should be encouraged to engage in follow-up work as a best practice standard in collaborative work.

Thirdly, we were not able to carry out focus groups, as we had originally set out in the pilot project proposal. Although we aimed to use the pilot projects to ask additional questions and determine the views of all interviewees, we found that it was difficult to collect additional data after the interviews during the 9 month empirical portion of the project. This was particularly due to the challenge of encouraging busy people—from a variety of different universities, settings, and creative industries—to participate in follow-up work. Moreover, because many of the projects operated on different timescales—for example, the Digital Panopticon project was set to run for 4 years, while the JtR125 project was set to run for 3 months—and timelines—for example, the Data Objects project had been complete for several years, while the Transforming Musicology project had only just begun—it was difficult to follow up with some of the interviewees, as they had already completed their research.

As a result, we would suggest that similar short-term pilot projects attempting to conduct follow-up research with interviewees use theme-led conferences and meetings as potential venues to reconnect with interviewees. This provides a convenient method for conducting follow-up research in a time- and cost-effective way.

The Case Studies

1. Transforming Musicology

Transforming Musicology¹⁵ is a three year project (2013-2016), funded as a Large Grant through the AHRC Digital Transformations Scheme. The goal of the project is to demonstrate how musicology, scholarly research into music, can be transformed through digital culture and digital methods. In particular, the project focuses on how software tools using pattern-recognition—known as Music Information Retrieval (MIR) tools—have potential uses and values for musicology.

The project is a collaboration between a number of UK institutions, as well as one international partner. These include Goldsmiths University of London, Queen Mary University of London, University of Oxford, Lancaster University, and Utrecht University. For our case study of this project, we spoke to Tim Crawford, a Professorial Research Fellow in Computational Musicology, who is the Principal Investigator on the grant. We also spoke to Muriel Swijghuisen Reigersberg, the Research Development Officer overseeing the Transforming Musicology grant, and David Kuper, a solicitor working for Goldsmiths.

The project is divided into three main strands of research, which focus on (1) analysing patterns within, and comparing early printed scores of 16th-century lute and vocal music with commercial recordings and self-recorded performances; (2) analysing recurring themes in Richard Wagner's music; and (3) analysing how social media communities on the internet engage with music, and also how musical phenomenon are adopted and spread through online communities. In addition, the project has established four mini-projects, which are being administered by collaborators at Lancaster University. Selected several months into the project, the mini-projects have focused on the history of mid-20th century electronic music, building a digital archive of musical ephemera, big data and medieval music, and ornamentation in Irish traditional music¹⁶.

The main outputs of the project include work on a searchable online system/database for analysing collections of music, which will be available to any users (not just professional academics) from the worldwide musical community. The project is also generating a collection of software tools for musicological analysis, which are aimed at developing and promoting new data analysis methods, and at improving the quality and accessibility of musical data on the Web. The project team aims to allow users of the online resource to use these MIR software tools to run their own analysis on the project's or their own musical collections, to see and publish the results of an analysis, and for others to repeat it, if desired, with altered settings or on a different musical repertory. The project is also producing a musical database, containing copies of musical recordings and musical scores, which it uses in developing MIR tools. Moreover, the project plans to produce a number of academic outputs, including journal articles and conference proceedings.

2. The Digital Panopticon

¹⁵ http://www.transforming-musicology.org/

¹⁶ http://www.transforming-musicology.org/news/2014-05-13 mini-projects-selected/

The Digital Panopticon¹⁷ is a four year project (2013-2017), funded as a Large Grant through the AHRC Digital Transformations Scheme. The goal of the project is to use digital technologies to bring together a variety of datasets—genealogical, biometric, criminal justice—to explore the impact of penal punishments on 18th and 19th century prisoners. The project focuses on the impact of punishments on the lives of more than 90,000 people sentenced at The Old Bailey prison in central London, many of whom were transported to Australia. Because detailed records were kept about prisoners as they were put through the penal system, the project aims to explore the impacts that particular types of punishment, such as imprisonment, transportation, and indentured servitude, had on various types of prisoners.

The project is a collaboration between a number of UK institutions, as well as one international partner. These include the University of Liverpool, University of Sheffield, University of Oxford, University of Sussex, and the University Tasmania, Australia. For our case study of this project, we spoke to two researchers at the University of Sheffield: Robert Shoemaker, a Professor of Eighteenth-Century British history and one of the Principal Investigators on the grant, as well as Michael Pidd, the Digital Director of the Humanities Research Institute (HRI)¹⁸. Robert was in charge of identifying the relevant sources of data and identifying the main research questions and aims for the project. Mike had been involved in negotiating access to and developing a technical infrastructure for the project's data.

The main output of the project will be a searchable online resource that will appear like a website to public users, and will enable users to access the data analysis, linkage results, and data visualisations that are being produced during the project. The website will be run through the HRI as a federated search engine, with links to their data, existing open access data, and commercial data. The project also plans to produce a number of academic outputs, including journal articles, a monograph/book, and PowerPoint presentations.

3. JtR125

Jack the Ripper¹⁹ was a three month project (2013) funded through the Future Documentary Sandbox in the REACT Knowledge Exchange Hub for the Creative Economy. The goal of the project was to develop a "playable documentary" about the Jack the Ripper murders, which combined historical photography and media with modern 3D game elements. The project was developed in commemoration of the 125th anniversary of the murder of Mary Jane Kelly, the Ripper's first victim, and was an attempt to develop the emerging genres of "playable documentaries" and "news games"²⁰.

The project was a collaboration between academic partners Janet Jones, a Professor of Media at Middlesex University, and Patrick Crogan, a Senior Lecturer in Film Studies and a games theorist at the University of the West of England, as well as creative partner Tomas Rawlings, the Design Director of Auroch Digital, a games consultancy and independent development studio²¹. Consequently, the project also entailed the creative efforts of several paid members of Auroch Digital, who helped with the technical development of the game. For our case study of the project, we spoke to both Tomas and Janet, who was the lead academic on the project, and had worked with Tomas for more than six years in a variety of journalism-related projects.

¹⁷ http://www.digitalpanopticon.org

¹⁸ http://hridigital.shef.ac.uk

¹⁹ http://www.react-hub.org.uk/future-doc-sandbox/projects/2013/jtr125/

²⁰ http://www.gamezebo.com/2013/11/26/jtr125-preview/

²¹ http://www.aurochdigital.com/#what-we-do

The main output of the project was a prototype video game called JtR125²², which was undergoing further development at the time of writing this report. Tomas and the Auroch Digital team planned to release the game on Steam, an internet-based distribution, digital rights management (DRM), and social networking platform.²³ As part of their work on the JtR125 game, the project team produced a number of gaming scripts and ideas, as well as transcripts of historical experts that they had interviewed. The team also produced several software plugins/apps for the video games engine and development tool Unity 3D, as well as 3D renderings of historical content from 18th century newspapers and archival sources. Moreover, the project planned to produce a number of academic outputs, including journal articles and a book on digital journalism.

4. Ghosts in the Garden

Ghosts in the Garden²⁴ was a three month project (2012) funded through the Heritage Sandbox of the REACT Knowledge Exchange Hub for the Creative Economy. The goal of the project was to develop an immersive game-like experience by which people could experience the "ghosts" of the modern-day Holburne Museum in Bath²⁵, whose grounds were formerly occupied by a Georgian pleasure garden called the Sydney Gardens²⁶. In the original Sydney Gardens, which contained swingboats and a labyrinth, the Holburne Museum formed the Gardens' entry-point, tearoom, and hotel. The project aimed to create an experience that was "part game, part story, part immersive sound scape," whereby visitors could meet and interact with historical characters from the Garden's heyday.

The project was a collaboration between academic partner Steve Poole, a Professor of History and Heritage at the University of the West of England (UWE), as well as creative partner Rosie Poebright, the founder and creative director of the company Splash & Ripple²⁷. The project also entailed a collaboration with the director of the Holburne Museum, a public art gallery and temporary exhibition space, as well as a number of contracted actors, script writers, and sound designers, who helped to create the various components of the Ghosts in the Garden immersive experience. For our case study of this project, we spoke to both Steve and Rosie, who discussed their experiences participating in REACT and collaborating together.

The main output for the project was the Ghosts in the Garden experience, which revolved around the "Georgian listening device," a physical object made out of wood, which visitors could carry around the garden to listen to the stories and histories of the former occupants of the Sydney Gardens. This device consisted of a low-budget mobile phone and a minirig portable speaker, which ran a variety of proprietary and open source software, enabling the team to produce an application for playing GPS-triggered content on the mobile phone. To produce the immersive Ghosts in the Garden experience, the project produced a number of scripts for the scenes that portrayed the "ghosts" of the gardens, recordings of actors enacting those scripts, and sound effects to make the acting more realistic. These were based on the archival research developed by Steve, and followed a choose-your-own-adventure schematic that had been developed by Splash & Ripple. For publicity around the project, the team produced a short film about the project, as well as a leaflet describing the historical "ghosts" of the garden. Moreover, the project culminated in two academic papers, and helped shape a conference on "Georgian Pleasures" hosted at the Holburne Museum and co-organised by Steve.

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²² https://www.youtube.com/watch?v=2rKprmntnAE

²³ http://store.steampowered.com/

²⁴ http://www.react-hub.org.uk/heritagesandbox/projects/2012/ghosts-in-the-garden/

²⁵ http://www.holburne.org/

²⁶ http://visitbath.co.uk/things-to-do/sydney-gardens-p56491

²⁷ http://www.splashandripple.com/

5. Data Objects

Data Objects²⁸ was a 1 year project (2011-2012), funded as an Exploratory Grant through the AHRC Digital Transformations Scheme. The goal of the project was to explore how data—typically encountered in digital contexts, on computer screens or graphs—could be re-interpreted and given new meanings through the creation of physical "data objects". The project focused on healthcare data in order to explore how (if at all) statistics and graphs could be more appropriately and efficiently communicated to non-science and non-specialist audiences. It asked if statistical and graph-based information could be translated into physical artefacts, such that people might be able to have a stronger and more insightful relationship with data. In other words, it examined if the "creation of physical artefacts based on data extracted from complex digital information systems [could] change the way people read, interpret, and respond to digital information."

The project was a collaboration between researchers at Sheffield Hallam University and the University of Sheffield. For our case study of this project, we spoke to Ian Gwilt, a Professor of Design and Visual Communication, and the Principal Investigator on the grant. He had collaborated with a number of other researchers on the project, including a healthcare engineer and a product designer, as well as a visiting researcher-ceramicist from Japan.

The main output of the project was the array of physical "data objects," which had been produced through a codesign process out of several different materials, and in relation to several different concepts. To make the data objects, the project team had produced prototype data object sketches, and prototype data objects made out of paper. The final data objects had been produced out of bronze, wood, plaster, and 3D printed designs. Moreover, the project had produced a number of academic outputs, including photographs of people interacting with the data objects, journal articles, and PowerPoint presentations.

6. Risk Taker's Survival Guide

The Risk Taker's Survival Guide²⁹ was a 3 month project (2013) funded through the Future Documentaries Sandbox of the REACT Knowledge Exchange Hub for the Creative Economy. The goal of the project was to develop a short documentary exploring how people perceive, experience, and calculate risk. Tackling topics such as extreme sports and coffee consumption, the project engaged with the emerging field of "interactive documentary," in which traditional audio, video, and photographic content is combined with web-based multimedia tools. The project aimed to give viewers input and interactivity, as well as personalized statistics about their own daily risks, as they watched the documentary.

The project was a collaboration between James Lyons, a Senior Lecturer in Film in the Department of English at the University of Exeter, as well as creative partner Matt Golding, a founder and Creative Director at Team Rubber³⁰, a creative media company specializing in the production of viral videos. The project also entailed collaborative work with the team members at Rubber Republic³¹, a subsidiary company of Team Rubber, whose work focused on making viral advertising campaigns for brands and agencies. While James' contribution was on the psychology of risk and emerging documentary formats, and Matt's contribution was on the technical aspects of producing a short film, the two collaborators were brought together around a mutual interest in film and interactivity. For our case study of this project, we spoke to both James and Matt, who discussed their experiences participating in REACT and collaborating to produce an interactive documentary.

²⁸ http://www.shu.ac.uk/research/c3ri/projects/data-objects

²⁹ http://www.react-hub.org.uk/future-doc-sandbox/projects/2013/the-risk-takers-survival-guide/

³⁰ http://www.teamrubber.com/

³¹ http://www.rubberrepublic.com/

The main output of the Risk Taker's Survival Guide project was a draft version of the interactive documentary titled "The Risk Taker's Survival Guide," which was an attempt to experiment with creating a new documentary format. To produce the documentary, James had generated a body of research on risk and risk perception, while Matt had produced a variety photos, audio, and video—some licensed, and some generated by Rubber Republic. The project team had worked together to produce a script for the documentary, and also planned to generate user data from the interactive components of the documentary. Moreover, the project was planning to produce a number of academic outputs, including book chapters, PowerPoint presentations, and a book titled *Documentary*, *Performance and Risk*, to be published by Routledge, which would be based on James' research on the perception and psychology risk.

Preface: Copyright Challenges

As noted in the Introduction, copyright exceptions have been a focus of recent reviews and reforms. Copyright exceptions also emerged as an important issue in one of our case studies. In the Transforming Musicology project, the text and data mining exception (forthcoming, at the time of the interviews), came up in our discussions with various of the Transforming Musicology case study participants. Here, the researchers involved in the case study wished to exploit data and metadata from musical works, create new linkages through analysis, and represent such data and linkages in new forms. They believed that the new exception would allow them to carry out the computational analysis of data and metadata from musical works. They also believed that they would encounter challenges with the future dissemination of the findings of such analysis without the aid of the actual data (see below): in other words, they believed that the current state of the copyright exceptions (coupled with restrictive access to the contents of databases) would make it difficult for them to present their findings in the ways that they wanted to. The existing exception allowing non-commercial research also emerged as potentially problematic in this case study due to its opaque boundaries, as researchers expressed uncertainty over its scope and the meaning of "non-commercial" in relation to "non-commercial research and private study."

In both the Transforming Musicology and Digital Panopticon projects, there was also doubt over what constituted copyright infringement. The researchers found it challenging to assess how much of a work protected by copyright could lawfully be made available for use on a website.³² When researchers considered making research results available on public websites, they expressed a desire to illustrate how certain digital tools might work to produce research results, or to illustrate the possibilities made available through linking different datasets. In these instances, the rules around copyright infringement and copyright exceptions posed—explicitly or implicitly—challenges for the dissemination of research.

Moreover, a number of case study participants recounted challenges with negotiating and obtaining access to out-of-copyright materials in archives and libraries. Some researchers, most notably in the smaller projects, perceived this as an inconvenience, though not necessarily a hurdle. In seeking to accomplish their objectives, they tried to employ several workarounds to overcome the issue. Generally these smaller projects were seeking to use only small amounts of archival material. In contrast, bigger projects wanting to use extensive amount of content found it prohibitively expensive to re-digitise content. Agreements, therefore, had to be reached for access to and re-use of such content.

The following two chapters explore these issues in further detail through case studies of the Digital Panopticon, Transforming Musicology, and JtR125 projects. The two larger projects, Digital Panopticon and Transforming Musicology, faced challenges around access and re-use but demonstrated contrasting approaches and solutions to copyright related challenges. The three smaller projects, JtR125, Risk Taker's Survival Guide and Ghosts in the Garden, also all faced challenges in accessing and re-using archival materials, to which they developed pragmatic solutions.

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³² Recent case law from the Court Appeal in England and Wales has suggested that reproducing as few as eleven words on a website can be an infringement of copyright *The Newspaper Licensing Agency and others v Meltwater Holding BV and others* [2011] EWCA Civ 890.

3. Access and Re-use

Chapter Overview

This chapter illustrates and reflects on the challenges surrounding access to content, which is both out-of-copyright and copyright-protected, as well as the challenges surrounding the re-use of such content. To do so, this chapter contrasts two different case studies—and strategies—for accessing and re-using content: it highlights the challenges surrounding the Transforming Musicology project's use of musicological audio and textual content, and the Digital Panopticon's use of historical archival content.

Transforming Musicology

The main output of the project, as discussed in Chapter 2, will be an online system/database for analysing music, which will enable users from the musical community to see the results of the project's analysis, and to use the project's MIR software tools to run their own analysis on musical collections. When we spoke to the project team in June 2014, which was within the first year of the project, they were unsure what the final form of such a system/database would be. Tim Crawford, the PI on the project, explained that it would appear like a website, which would allow users to explore the patterns and links between musical sources (in what is known as "linked data"). In this system, users would likely not see original data, and instead would search through the results of the MIR analysis of musical sources.

To carry out its research, the project will draw on large collections of recorded music, much of which is protected by copyright. Some of this music is contained within collections of commercial CDs and self-recorded audio, which were purchased personally by members of the project, or had been legally obtained (purchased) through previous projects. Some of the previously obtained music had been acquired through the publicly-funded Electronic Corpus of Lute Music (ECOLM) ³³ and Online Musical Recognition and Searching 2 (OMRAS2)³⁴ projects, in which Tim had previously been involved.

In addition to music, the project will draw on patterns of social media usage and commentary from the website and online community Rap Genius³⁵, a forum for annotating the lyrics to rap songs, whose copyright status, Tim noted, was contentious (Borghi, 2014; Sisario, 2013; Straumsheim, 2014). The project will also draw on several collections of musical scores, many of which were out of copyright because the author had died more than 70 years ago. Some of the scores were obtained from the British Library, from archives of photographed and digitised books containing the scores for 16th century music, while others will be obtained through online repositories such as Europeana³⁶ and the International Music Score Library Project³⁷, which contains out-of-copyright scores that have been scanned and uploaded by the music community under an open access Creative Commons Attribution-

³³ http://www.ecolm.org

³⁴ http://www.omras2.org

³⁵ http://genius.com

³⁶ http://www.europeana.eu/

³⁷ http://imslp.org

ShareAlike 4.0 License. The project was also in the process of negotiating access to some copyright-protected scores from music publishers.

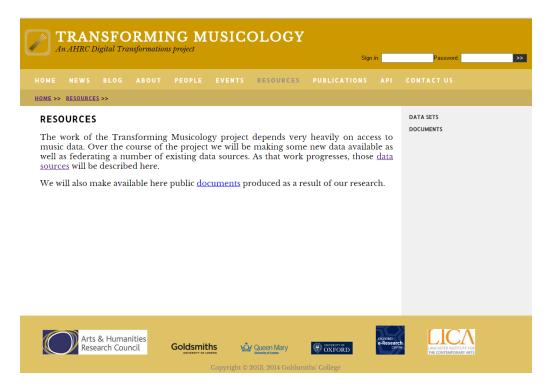


Figure 2: A screenshot of the Transforming Musicology website.

Permission given by Tim Crawford.

To carry out MIR methods on these sources of recorded audio and musical scores, the project will use a number of in-house, custom-made software tools—the majority of which are open-source and free software—for analysing patterns in musical data. To a lesser extent, the project will also use optical scanning technology, and commercial software programs such as Sibelius for musical composition and notation, R for statistical analysis, and MATLAB for signal processing.

The Back End: Managing Musical Data

The main copyright-related challenge of the Transforming Musicology project perceives is in developing the final website in a way that does not infringe copyright for the rights-holders of musical data, in the form of recordings and scores. In other words, the copyright status of the project's main output is unclear, raising questions about (1) what rights-protected content could remain within the online resource—and accessible to public users—at the end of the project, and (2) in what format public users would have access to rights-protected content—as metadata and links, as full recordings and scores, or as snippets. Influenced by previous experiences with copyright—as the former president of the International Society for Music Information Retrieval—Tim explained that the project had undergone significant discussion and planning as to how to manage and protect against the infringement of the copyright-protected works, upon which the project relied for research and results.

Due to the collaborative nature of the Transforming Musicology project, the Oxford e-Research Centre³⁸ was tasked with developing a storage system for the project data. When we spoke to the Transforming Musicology team, this phase of the project was still in-progress, but aimed to develop an infrastructure for enabling researchers to carry out data analysis on musical data, and also for enabling end users to gain access to the results of the analysis and the musical collections via the final web-based resource.

As mentioned previously, many of the musical recordings used in the project were obtained through personal purchase, and used for academic analysis by members of the project. Early in the project proposal stage, the project team had become aware of the potential copyright infringement that this might pose. They knew that they were working with copyright-protected recordings and scores, but because they were not planning to make any money from their work, they did not know if they were allowed to copy or reproduce parts of the works that were protected by copyright for research purposes. For example, it did not occur to Tim that copying music from a personal laptop onto a server in Oxford might be a copyright infringement. He noted:

On my laptop, I've got copies of...I mean, I bought...actually before the project started, from money from a previous project...about eight recordings of Wagner's Ring Cycle. You know, that's quite a lot of stuff, and that's all on my laptop. I mean, I ripped them onto my laptop, and I'm doing this work on them. I think that would be acceptable. Now, sharing that with someone else gets a bit more problematic, and we have to make sure that we [aren't] treading on too many toes

Worried about the legality of this academic use and sharing—of personally-purchased copies of copyright-protected music, which formed such a key component of the project's research—the staff overseeing the administration of the Transforming Musicology grant decided to formally address the issue of the copyright status of the musical material. According to Muriel, the Project Development Officer involved in the project, an integrity committee was formed to draw up a data management plan (DMP), which was subsequently checked over by a solicitor. Muriel commented that the project "was a nice test case" for "thinking more carefully about discipline-specific needs when it comes to copyright and data management."

Anticipating the introduction of the UK Government's copyright exception for text- and data-mining for non-commercial research (UK Intellectual Property Office, 2014a; UK Intellectual Property Office, 2014b), the Transforming Musicology team decided to go ahead with the grant, albeit with relatively lax guidelines for how the storage of music in Oxford would proceed. With the introduction of these new laws into Parliament in 2014, the project members determined that the copying and sharing music for academic purposes, and within the time bounds of the project, was not an infringement of copyright. They determined that putting music onto a project server, and limiting access to members of the project, would be lawful.

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³⁸ http://www.oerc.ox.ac.uk



Wagner's Ring Cycle

Leitmotif search interface



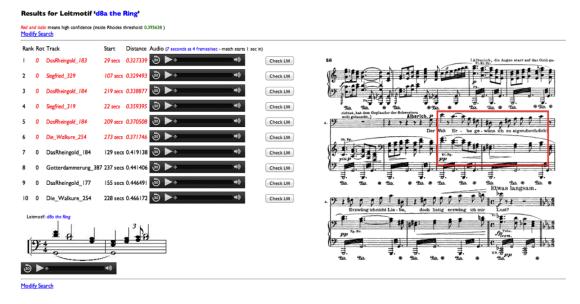


Figure 3: Mock-up of an interface for searching for Wagnerian leitmotifs in Transforming Musicology.

Permission given by Tim Crawford.

In this sense, the project members "tempered the scope and scale of the project to the knowledge that there are copyright issues." They adapted the way in which the project was designed—the way that data sources and outputs were designated—in order to anticipate and avoid any copyright-related problems. Consequently, they identified that the main questions surrounding the collection in Oxford were: (1) which, if any, collections would users be able to run software analysis on, and (2) to what extent—in links only, or in small musical segments—could the users see the results of the software analysis?

The Unclear Copyright Status of Project Outputs

One of the main copyright challenges in the Transforming Musicology project concerned what would happen to the musical data—consisting of a mixture of in- and out-of-copyright recordings and scores—at the end of the project. During the project, the data would be acquired and used for academic purposes among the team members, but after the project, the data would be stored indefinitely and potentially made available to users of the web-based resource. Tim questioned whether it would be necessary to delete the data after the end of the project, despite its potential use in future projects, or whether it would be necessary to negotiate for a particular licence with the various rights holders. He questioned what collections future users of a web-based resource would be able to access or run data analysis tools on. He said:

It gets more complicated, doesn't it, when we start saying...What happens at the end of the project? Should we then delete all that stuff from the Oxford servers, or do we keep it there because we know how useful it'll be in future, you know, for a future project under the same terms?... Some of these are purely logistic issues, I mean...it's ridiculous to delete everything and then have to upload it all again. I mean...that would be logistically ridiculous, but I think technically speaking...we should negotiate with the rights holders before we do that uploading, [we should] take it down at the end of the project and redo it.

Such comments hint at issues of sustainability, at the ability of publicly-funded projects to continue being of use and value to the researchers and the public users. However, they also raise questions about how the text-mining exception might play out in practice, when resources are developed in academic projects and for non-commercial purposes, but when it is also difficult to ascertain whether the use of such resources is commercial or non-commercial.

Another main copyright challenge in the Transforming Musicology project concerned the format in which the users of the web-based resource would be able to see the results of the data analysis. To avoid infringing copyright, the project planned to give the pubic users access to the metadata—the relationships between scores and recordings—without giving them the ability to see the original scores or listen to recordings. This was an approach that had already been previously established by a project called the "Million Song Dataset"³⁹, a freely-available collection of audio features and metadata for a million contemporary popular music tracks. Importantly, the Million Song Dataset only gave users access to derived features, and not directly to audio, making it impossible to reconstruct the original audio from the features and metadata. Echoing this approach, the Transforming Musicology project planned to give public users access to the intellectual property that it had generated, rather than to the songs themselves, in an attempt to avoid infringing the rights of any of the copyright holders of the musical works. Tim commented, "It's the results of analysis that we want to share mostly, except where we can and we will share what we can or any of our own data." He said:

It won't necessarily be either piece of data. You say you have to buy the score from Oxford University Press and you'll need to buy the CD from so-and-so. So there's one level of remove...I don't think that's controversial from the point of view of copyright, because there we're saying... 'This is a copyrighted material at one end, and that's copyright material at the other.' We're just saying 'They link.'

It was not only the use of copyright-protected content that concerned the researchers in the Transforming Musicology Project. There were also significant issues with using publically available, supposedly copyright-free material, such as that contained in the public resources Europeana and IMSLIP. Tim expressed concern that the use of content from these public resources could lead to the unknowing copyright infringement with rights holders, because it was difficult—for a number of reasons—to determine the copyright status of much of the content. Firstly, different countries had different regulations surrounding copyright, and secondly, the copyright status of much of the content was not rigorously checked when users uploaded scores or songs. Consequently, although Tim felt that Europeana and IMSLIP were rich resources for musicians, he was concerned that they entailed an "abuse of copyright." He said:

We're hoping to work with Europeana which is a big digital library project. If you've ever looked at it, it's impossible to find anything...But actually, the whole rights issue with that is complicated, because that's international and different countries have different laws, and quite a lot of the stuff that's on there and looks like open access you can actually listen to, I'm absolutely sure it's not copyright-free. You know, for instance, recordings made in the 70s and 80s...that's too recent,

³⁹ http://labrosa.ee.columbia.edu/millionsong

you know, that cannot be right that these commercial LPs...which have been digitised are, you know, you couldn't just listen to them willy-nilly.

Tim also worried that providing access to metadata and links, rather than to the original content itself, would diminish the value of the web-based resource for public users. Although the Transforming Musicology project sought to use automated pattern-recognition software and MIR tools to establish links within and between music, it still required human beings to validate the relevance or "correctness" of particular searches and results. The overall quality of the website would be better, he asserted, if it allowed human beings—perhaps in the form of public users—to test out musical links. But in order to do this, it would be necessary for public users to have access to the original musical data in its entirely, to the original scores and recordings. Tim commented:

Once the analysis has been run...the only reason you need to have access to the data is when you want to audition something to make sure it's right...So if you say 'I found a quotation from...a guitar lick from Jimi Hendrix'...Suppose[e] I think I've found that at a point 4.8 seconds into track x. If I want to tell my friends about it they'll say, 'well, 4.8 seconds into track x.' What they want to do is press a button and listen to that little bit.

While Tim raised a number of questions about the legality of allowing public users to access copyright-protected musical data, he also questioned whether a lack of access to primary data would diminish the value of the resource as a tool for musical communities, and also the academic "impact" of the project. He noted that sometimes it was necessary for musicians to play entire songs, in order to analyse their content or appreciate their performance. One of the ways of measuring the "impact" of an online resource was to track the number of people who access and use it. If one of the main values of the Transforming Musicology project was in sharing the results of the musicological analysis, this could be achieved by giving public users the ability to listen to music in order to verify links and associations. Without this ability, Tim wondered if users would see less value in the web-based resource and visit it less, and ultimately diminish the impact of the Transforming Musicology project. He said:

There's a kind of circular problem here, because [there is] benefit to the project of being able to share everything...Supposing it was a complete free-for-all [with copyright]...we could effectively get lots of hits on our websites by saying, 'oh, listen to Wagner's Das Rheingold in eight different performances.' You know, we could offer a special streaming service for people who are interested in that. Obviously we aren't going to do that, but...not having to think about these things would make those kinds of ...impact related issues much easier to deal with.

Tim recognised that giving public users access to sections of copyright-protected works would be a copyright infringement. Yet, on the one hand, he raised the question of whether allowing a "snippet view" of music—a short section, of 5 or 30 seconds—could fall within the remit of the "fair dealing" copyright exception for non-commercial research or teaching, which so far has not been the case (Pritchard, 2009; UK Intellectual Property Office, 2014a; UK Intellectual Property Office, 2014b). Not knowing the legality of such an approach, he also questioned whether giving access to a collection of snippets would be sufficient to allow people to piece together enough short sections to make a more holistic piece of music, and in a way that subsequently infringed copyright. On the other hand, he raised the idea of negotiating a way to provide links to existing commercial content on websites like Spotify and Amazon. Making connections to content that public users could buy might "sweeten the deal for the rights holders," by encouraging public users to download and pay for licensed content, and to generate royalties for rights holders. He commented:

There's no reason why we shouldn't put Amazon links, for instance, to a particular track that we're playing. 'If you want to buy this, you know, download this, you can do it from...Amazon, Spotify'...whatever pay site is involved, whereby a royalty or whatever would go back to the

original...I mean, that is a possibility. It's just an added layer of complication, but I think it's perfectly possible that we will do something like that.

Tim also discussed the possibility that the project's outputs could be developed into a tool for the music industry. Although still largely hypothetical, the software tools and annotated musical libraries could be commercialized and used by software developers in the music industry to better classify and understand music for clients, providing "added value" through links within and across music. This created tensions, however, between commercializing the project outputs and promoting their communal use. Because the project aimed to make many of its software tools open source, and to develop resources and infrastructures for the musical community, Tim was concerned that commercialization, which would create economic value for the researchers/university, could reduce the social and cultural value of the project for the public users.

The Digital Panopticon

The main output of the project, as discussed in Chapter 2, will be a searchable online resource that will appear like a website to public users, and which will include links to existing resources, open access data, and commercial data. When we spoke to Professor Shoemaker, one of the PIs on the project, and Mike Pidd, the Digital Director of Humanities Research Institute who had been involved in negotiating access to datasets, they explained that the Digital Panopticon website would give public users access to the results of the data analysis—investigating the effects of penal punishment at The Old Bailey—carried out by the Digital Panopticon team. The team was therefore attempting to figure out if and how primary data—from both public and commercial resources—could be displayed on the project website.

To carry out its research, the project will draw on a variety of datasets held in the UK and Australia, many of which are publicly available, but some of which are commercially owned. One of the main public datasets used in the project will be The Proceedings of the Old Bailey Online 1674-1913⁴⁰, a collection of 197,745 criminal trails held at the Old Baily, London's central criminal court, and the largest published body of texts detailing the lives of non-elite people. The other main public dataset is Founders and Survivors⁴¹, a collection of historical, genealogical, demographic, and population health records on Australian life courses from 1803-1920. The dataset detailed the founding populations of the 73,000 people who were transported to Tasmania from the UK, many of whom survived their conviction and transportation and went on to help build Australian society. Moreover, several of the Digital Panopticon project members had been involved in these projects, and could draw from their experiences to address potential challenges with the Digital Panopticon project. In addition to The Old Bailey and Founders and Survivors, the project will draw on other public datasets, including London Lives, a collection of digitised records about 18th century London from eight London archives and 15 smaller datasets, and the London Metropolitan Archives⁴², and The British Convict Transportation Registers 1787-1867⁴³. In addition, the project will draw on several newspaper collections at the British Library⁴⁴, including the Burney Collection⁴⁵ on 17th and 18th century

⁴⁰ http://www.oldbaileyonline.org

⁴¹ http://foundersandsurvivors.org

⁴² http://www.cityoflondon.gov.uk/lma

⁴³ http://www.slq.qld.gov.au/resources/family-history/convicts

⁴⁴ http://www.bl.uk/reshelp/findhelprestype/news/newspdigproj/index.html

⁴⁵ http://www.bl.uk/reshelp/findhelprestype/news/newspdigproj/burney/

English news media, and the 19th Century British Library Newspapers Database⁴⁶, a collection of national and local titles managed by the publisher Gale Cengage.

Much of the Digital Panopticon's work, in its attempts to develop and use digital methodologies, requires access to digitised copies of historical content. For this, the project will be able to drawn on existing records from past projects like The Proceedings of the Old Bailey Online 1674-1913, or had obtained funding to digitise records from public archives like the London Metropolitan Archives. In some cases, however, the digitisation of records was too time-consuming or expensive to be carried out through the project. For example, the project had sought access to digital copies of prison licences, which included detailed records of the history of a convict. For these, one of the team members had spent several months transcribing records of female convicts into digital form, but because this only comprised ten percent of the overall record, and because there was not enough time and funding to carry out the rest of the transcription within the project, the team decided to try to get the rest of the prison licences from commercial sources.

To obtain digital copies of prison licences, and other historical content, the project had been involved in negotiations to access two rights-protected datasets—available by subscription only—from the commercially-owned genealogical services Findmypast⁴⁷ and Ancestry⁴⁸. Both Findmypast, which was founded in 1965 by professional genealogists, and Ancestry drew on historical public records such as the census, in order to provide birth, marriage, and death records for the United Kingdom. Both databases, which contain data dating back to the mid-1800s, allow users to search indexes for free, but require a payment or subscription to access the full data.

To analyse and exploit this diverse collection of datasets, the project is seeking to develop new methodologies and techniques for dealing with large and heterogeneous datasets. Following the core aims of the HRI, the project will use open source technologies like JavaScript and HTML5 to organise and make data accessible. As Mike explained, open source tools provided "core functionality" without have to "reinvent the wheel with programming." Because they came with documentation and standards, they will enable the project to be sustainable and lower-cost in the long run. Mike commented: "We've got sites [where] everything still works, that we produce[d]...10, 20 years ago...They might not look as pretty today, because tastes have changed, but they still work." Ultimately, these tools enable researchers to create searchable databases, and to visualise their data analysis in interactive ways.

⁴⁶ http://www.bl.uk/reshelp/findhelprestype/news/newspdigproj/database/index.html

⁴⁷ http://www.findmypast.co.uk/

⁴⁸ http://www.ancestry.co.uk/



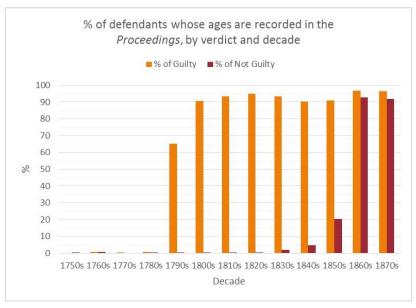


Figure 2: A data visualisation of the Digital Panopticon project. Permission given by Robert Shoemaker.

Negotiating Access to Commercially-Owned Content

The main copyright-related challenge of the Digital Panopticon project was in negotiating access to commercial databases owned by the companies Findmypast and Ancestry. The content owned by these companies was available from the National Archives. However, both companies had negotiated a relationship with the National Archives to sell digitised content from the historical census records, in which they charged for the "added value" of digitisation. As Mike commented: "The evidence is actually not in copyright. So we can quote from the original sources, nobody owns that copyright." Thus, both companies' ownership and copyright claims over historical data stemmed from the work that they had done to transcribe and digitise publicly-available content. However, the researchers needed access to the commercial datasets—particularly for prison licences—in order to process the data and use it for analysis and linking to other datasets. Shoemaker commented:

It's that peculiar thing, where the copyright lies in the form in which it's disseminated, rather than in the actual information... which is freely available. So that... in a nutshell, is the distinctive nature of the problem we face. Or not the problem, but the way in which we have to deal with copyright.

The researchers were not only faced with the challenge of negotiating access to digital content, but also with negotiating how to display the material that had been scanned and digitised by Findmypast or Ancestry on the final project website.

On the whole, the project had not encountered any content that was "totally exclusive or inaccessible," but rather had to find creative ways to negotiate with companies like Findmypast and Ancestry. Mike commented:

People...think that because data is owned by a commercial company...they're never ever going to be able to do any...research with it on that scale that we do with Digital Panopticon...Actually, copyright doesn't just mean that you can't...the point is you go and ask and talk to them about it.

A significant challenge for the Digital Panopticon project, therefore, had been in negotiating particular terms and licences—which were to the companies' liking—for already existing content.

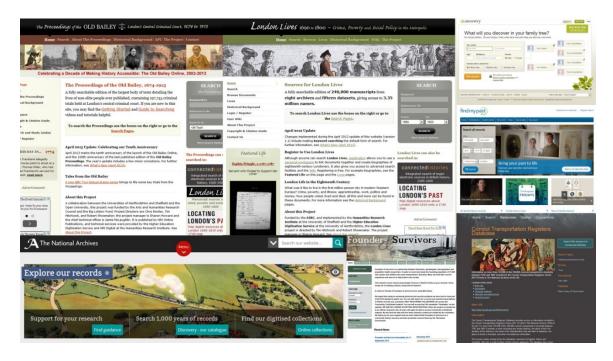


Figure 3: A collection of databases used in the Digital Panopticon project. Permission granted by Robert Shoemaker.

For this, both Robert and Mike had learned from past experiences working on Connected Histories ⁴⁹, a JISC-funded project (2009-2011) which provided an integrated search tool for examining records on early modern and 19th century British history, and for which Robert had been a Principal Investigator. The Connected Histories project had not created any new content, but rather provided access to a variety of existing electronic content which was available from a number of distributed sources. The project had indexed and organised this data, and had aimed to display the data indexes rather than the data itself on the final project website. During this process, the researchers had to negotiate access to proprietary resources that were only available via subscription. They had negotiated a licence with the companies that allowed them full access to data for research purposes, with the understanding that not all of the data would be made available to the public at the end of the project. The end result of these negotiations had been a system whereby public users could search the commercial resources and examine "snippet results"—short sections of text—free of charge, but were not given full access to the commercial content. Robert commented:

We learned a lot through the Connected Histories project, because there we were doing something similar. We were indexing all these commercial databases...and putting them together in a finding aid that was... very carefully set out. So that we [were] not giving away too

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⁴⁹ http://www.connectedhistories.org

much from the snippets that we provide on the website. And what we're doing is, we [were] directing traffic, that's our pitch.

With this snippet approach, the Connected Histories project had been able to display small sections of rights-protected text to public users without infringing copyright. The deal they had struck was to provide clear online links to commercial resources alongside such snippets, such that anyone wanting to access the full records would be required to do so by click through to the commercial website, and paying for a subscription.

Thus, one of the main copyright challenges in the Digital Panopticon project concerned the manner in which the researchers negotiated access to commercial content. Similar to their work in the Connected Histories project, the researchers planned to use a snippet view approach for the Digital Panopticon's commercial content. Mike explained:

What we're proposing to them is that we...use those datasets for the data linking and the underlying search...but when [users] are shown results on the final Digital Panopticon site...the amount [of data] that [users] can see from Ancestry and Findmypast is restricted.

In the end, to see the full commercial content from Ancestry of Findmypast, the users would have to go to the commercial website and pay for full access to the content.

With a track record of negotiating with commercial companies, the Digital Panopticon team had set a precedent for using the "snippet view" approach. There was still a copyright challenge, however, in negotiating access to census data. While the researchers wanted census data for its academic and educational value—for its ability to highlight population statistics—the companies considered census data to be economically valuable. As a result, the researchers were unsure how to go about negotiating access to supposedly economically-valuable data. They acknowledged that they could access census data in other ways—most notably through the primary sources contained within public archives—but that this would take too much time and too many resources.

Another copyright challenge in the Digital Panopticon project concerned what and how much rights-protected content could be displayed on the final project website. Genealogy companies had business models centered on "the individual subscribers," where the goal was to provide each person with the means to track and find information about their ancestors. In contrast, many of the other resources used by the project—such as the British Library Newspaper Collections—had business models focused on institutional subscriptions, which were provided in bulk, at a higher cost, to groups of academics or researchers. The concern for genealogy companies like Ancestry and Findmypast was that the Digital Panopticon's efforts to provide public users with a "snippet" of information might deter individuals from paying for a subscription to the commercial resource. In contrast, this issue was unlikely to affect resources covered by institutional licences, as displaying snippets of information was not likely to deter institutions from paying for access to content. Mike explained:

But the danger is that, I would expect, from...Find My Past, would [say] 'Well, actually some people will stop when the pay wall comes up.' And so we've got to make sure that we don't give [people] an opportunity to stop.

The researchers asserted that the issue was unlikely to be substantial, noting that genealogists and people interested in family history would often still want to see the documents underlying facts and statistics. Robert said: "if we only gave them the... the data of the document, for many people that wouldn't be enough. They'd still want to pay to get the document." However, the researchers still had to determine how best to convince the genealogy companies that they would not lose subscription revenue, and that they should participate in the project.

A main copyright challenge of the Digital Panopticon project, therefore, was in negotiating with Ancestry and Findmypast over what was considered the "correct" amount of information to display to public users in snippet view. What amount of research or text, in other words, would facilitate research, but not make companies lose out on the business of individual subscribers? Accordingly, the researchers were "getting into the nitty-gritty" of negotiating what they could and could not display to end users, and were in the process of developing a formal agreement with Ancestry and Findmypast. Robert commented:

They've asked us precisely what information we're going to display. We've made our suggestions, and that's where we are now. We're waiting for them to come back, and we're well aware that that may well be a process of negotiation.

In addition to setting terms for the amount of information that could be displayed under "snippet view," the researchers were also involved in negotiations to give the companies access to the academic resources—like Connected Histories and The Old Bailey Proceedings—under a commercial licence. In this way, they would further incentivise the companies to participate in the Digital Panopticon project, by "enriching their commercial data." The academic researchers would also benefit, as the commercial websites would contain links to the academic resource, which would facilitate increased exposure and potential "impact." As Mike described, such negotiations involved finding the correct amount of give and take in the relationship with the commercial companies:

I think it's always easier to negotiate with [commercial companies]...I've worked in the private sector myself, [I] know how they think, and...as long as you understand that...they will want to know what is in it for them, what you are asking them for, and what they are going to get out of it—and accept that they're not a charity, they need to make some money...They tend to be quite straight with you.

In discussing the amount of rights-protected content that would be available to public users, the researchers expressed concerns that limited access to primary documents and research materials might diminish the value of the Digital Panopticon website to the public. One of the main goals of the project was to give the public access to tools and information that would provide new perspectives on the nature of punishment, as well as ancestry and family history. The challenge was not so much in the Digital Panopticon team's ability to conduct good research, as they would have full access to rights-protected content for non-commercial purposes. The challenge, in contrast, was in providing the public with a useful resource, which would contain sufficient information to allow people to ask and answer questions. Shoemaker commented:

We can leave out most of the stuff [from the website] because we can still do our research, we can still tell our stories. It will just mean that what we put on the website at the end of the day will be less informative for the user, to others.

The researchers also expressed concerns that the commercial agreements could render the sustainability of the Digital Panopticon resource problematic. The researchers hoped to negotiate access to rights-protected content with a 5-7 year agreement, with the possibility of renewal thereafter. With an agreement that only spanned a certain number of years, they worried about what would happen to the Digital Panopticon resource at the end of the period—to its content and to its value—if Ancestry and Findmypast did not decide to renew their agreement. The researchers acknowledged the possibility that this might happen, that the commercial companies might not want to cooperate further down the timeline of the project. To address the potential issues with sustainability, the researchers asserted that while the commercial databases added value to the Digital Panopticon resource, they were not crucial to the success of the project. The project team would be able to carry out data analysis and draw valuable conclusions—and even to get data from alternative sources—without access to the rights-protected

content. As Shoemaker commented: "We had to, sort of, address this and make it clear that the datasets that they have will add value and enrich what we're trying to do, but they're not crucial."

Conclusions: Copyright Challenges Surrounding Access and Re-Use

A key copyright-related challenge for the Transforming Musicology project surrounded which rights-protected content could remain within the online website—and be accessible to public users—at the end of the project. Another key copyright-related challenge surrounded in what format public users would have access to rights-protected content: as metadata and links, as full recordings and scores, or as "snippets" of content. The project had also encountered challenges with storing and sharing of rights-protected content on servers, but the UK Government's exception for text- and data-mining for non-commercial research, introduced in 2014, could enable the project to make and use copies of rights-protected content for academic purposes. Lastly, the project had encountered challenges with knowing the copyright status of public resources available through portals such as Europeana and IMSLP, the latter of which, because of its curation by musical communities, had an unclear adherence to copyright laws.

In contrast, the main challenge for the Digital Panopticon project surrounded the terms under which the project team was able to negotiate access to rights-protected content. For example, the project team realised early on that it did not make sense within the time and funding constraints of the project to create their own digital copies of historical records, and thus decided to negotiate with companies like FindMyPast and Ancestry for access to previously digitised content. Thus, the challenge was not with being able to re-use content, per se, but with finding acceptable terms under which such re-use could occur. The project team had to negotiate the types of content they could access and use for their research, as well as what content could be displayed and made accessible to public users of the project website.

Ultimately, such a contrast between these two case studies highlights the importance to the digital humanities of experience with working with copyright law and rights-protected content, both in terms of negotiating with commercial entities, and also in terms of creating databases containing a combination of publicly- and commercially-available content. In particular, the Digital Panopticon project's successful strategy to negotiate a "snippet view" of rights-protected content was largely due to previous experience with the Connected Histories project. The success of this strategy relied on the project team's ability to make sure that FindMyPast and Ancestry did not feel that they were losing out on their ability to reap commercial value from individual subscriptions to their genealogical resource.

Overall, this chapter raises several questions about how access and re-use to content can and should be dealt with in the realm of arts and humanities research. Firstly, does a reliance on commercial agreements and licensing affect the sustainability of research projects? The Digital Panopticon project, despite its success, raises questions about the cost and duration of agreements with commercial entities. This may become all the more marked as the Re-Use of Public Sector Information Directive enters into force. This may entail changes in patterns of licensing, as more records are digitised, and as more commercial entities become involved in digitisation projects. While conditions on which content is available from public sector libraries and archives should become more uniform, licensing may also become more challenging if increasing numbers of commercial parties are involved in digitisation projects and subsequently seek to obtain a commercial return over an exclusive period of up to ten years. Secondly, is there a diminished value of research projects if the content or findings are inaccessible to the

public because of copyright and related protections or negotiations? In the Transforming Musicology project, for example, if users are not able to listen to the patterns and nuances contained within music, does the value of the project website as a tool for musicological research and learning diminish? On the other hand, in the Digital Panopticon project, if users are only able to view the links between—rather than the content of—historical records, does the value of the project website as a tool for educational and historical research on the nature of punishment diminish?

4. Workarounds

Chapter Overview

This chapter illustrates and reflects on researchers' abilities to carry out creative workarounds in the face of copyright-related challenges. It considers how researchers, when faced with challenges surrounding access to out-of-copyright materials in archives, choose to pursue strategies whereby they do not negotiate with rights-holders, and instead create their own content or look for rights-free content elsewhere. To do so, this chapter discusses the challenges surrounding the JtR125 project's attempts to access historical content—to generate the look and feel of a videogame based on the Jack the Ripper story—and the project's ensuing attempts to devise copyright workarounds.

JtR125

The main output of the project, as discussed in Chapter 2, was the JtR125 game, which the Auroch Digital team planned to release on Steam, an internet-based distribution, digital rights management (DRM), and social networking platform⁵⁰. Developed by Valve Corporation, Steam has more than 100 million active users, such that the majority of games purchased online are downloaded through Steam (Edwards, 2013). As Tomas Rawlings, the Design Director of Auroch Digital and creative partner on the project, described, the combination of social networking and DRM made it such that video games developers valued having their video games released on Steam over other platforms, and considered it prestigious to be a Steam developer. Moreover, the inclusion of a social networking platform made Steam-released games interesting and valuable for the academics involved in the Jack the Ripper project, as they could study the forum, commentary, and online communities associated with video games.

Janet Jones, the academic on the project, described that the game was an attempt to engage critically and ethically with the gruesome and sexual nature of the Ripper murders, but at the same time provide an entertaining story for players. The team designed the game from the perspective of a journalist investigating the Jack the Ripper murders in 19th century London. The team sought to have the game play explore notions of crime, news reporting, and ethics, while also enabling players to discover clues and piece together the story. Thus, to create the JtR125 game in a historically-accurate and ethically responsible way, the project drew on a variety of historical out-of-copyright materials about the Jack the Ripper murders, such as photos and illustrations, to create a gaming environment that had the look and feel of 19th century London rather than a modern first-person shooter videogame. These historical materials were located in several public archives, including The British Library—which contained collections of The Illustrated Police News, one of the earliest British tabloid newspapers, and which featured sensationalised illustrations of murders and hangings—as well as The Wellcome Trust Library—which contained articles from The Lancet, a journal which was founded in 1823 and featured medical reports of the Jack the Ripper murders.

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⁵⁰ http://store.steampowered.com/



Figure 4: A screenshot of the JtR125 prototype came. Permission given by Tomas Rawlings.

In addition to materials in public archives, the project drew on large collections of material—thought to be out of copyright—that had been amassed into public websites⁵¹ devoted to the history and controversy surrounding the unsolved Jack the Ripper murders, which have achieved a cult following in contemporary society. This material included images and sketches, documents and letters, newspaper and journal articles, and contemporary books. As Tomas commented: "It's a vast array of public material. And one of the things I would like to do with the game is... we want to pull a lot of that material into the game, so that as you explore the world and unlock stuff, we unlock archives of this material." To generate further content around ethical issues, the project team also conducted interviews with six experts on gender, forensic science, and prostitution in 19th century London. This resulted in audio recordings that were incorporated into the gaming experience, and which provided a context for the primary source material uncovered in The British Library and the Wellcome Library.

To develop the technical aspects of the game, Tomas and the Auroch Digital team members used Unity 3D⁵², a "cross-platform game creation system" which included a games engine and development tool. Developed by Unity Technologies and used in a variety of different platforms (including Nintendo Wii), Unity 3D was a proprietary platform that had fuelled the creation of a so-called "indie video games industry," of which Auroch Digital was a part. One of the main attractions of Unity 3D was the Asset Store, a marketplace where Unity developers sold plugins, which were either proprietary or open source, and could be incorporated, used, and in some cases modified by games developers who purchased them. To this end, Tomas and the Auroch Digital team members were able to produce the JtR125 game using a variety of custom-made and pre-existing components, allowing them to focus on developing the thematic and interactive aspects of the game rather than "re-creating the wheel."

With the JtR125 game, Tomas and the Auroch Digital team aimed to develop expertise and skills (see Chapter 5) in the emerging genre of new gaming, positioning themselves in a competitive position to get future work and to elevate the profile of the studio. Janet, on the other hand, aimed to distribute news content to wider audiences with new technologies and channels, engaging younger publics in contemporary and historical issues.

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⁵¹ See for example http://www.jack-the-ripper.org/ and http://www.casebook.org/

⁵² http://unity3d.com/

Accessing Content in Archives

The main copyright-related challenge of the JtR125 project, as discussed in the following sections, was in accessing out-of-copyright material in archives. We spoke to both Janet and Tomas about their experiences with this issue in the British Library and the Wellcome Trust Library. Access to out-of-copyright materials—such as the cartoon-style images contained within The Illustrated Police News, and the original medical reports contained within The Lancet—was important because it enabled the games designers and artists at Auroch Digital to create the look and feel of the JtR125 game.

Both The Illustrated Police News and The Lancet had been produced more than 100 years ago, and were therefore out-of-copyright and in the public domain. Although both resources were housed in publicly-accessible archives, their content was made available to the public through digitised copies only, as the archives had entered into agreements with commercial entities to carry out the digitisation of and develop a digital infrastructure for historical records. This meant that the originally out-of-copyright content could only be accessed in the form of digitised copies, which were subject to copyright protection. As part of a two wave digitisation project—first in a joint venture with the Joint Information Systems Committee (JISC) and the publisher Gale Cengage, and secondly with the British company brightsolid, who own the genealogy company Findmypast (see Chapter 3)—the British Library Newspapers, which included the Illustrated Police News, were made available through an online portal to users and institutions via a subscription. Through this digitisation initiative, users were only given access to digitised images, and could not visit the original physical newspapers (JISC, 2009)⁵³.

In order to access content and images from the Illustrated Police News, Janet visited the British Library News Archive in Colindale. There, she examined microfiche copies of the original Illustrated Police News documents, which had been temporarily moved to a warehouse in North England as part of the closure of the British Library News Archive in Colindale in 2013. These copies, according to Janet, were only of "average quality" in comparison to the originals. Although the library charged her £100 to make A3 print copies of the microfiche, she explained that the JtR125 team was then able to use the printout images in the game development. She said:

No, there aren't any limitations on what you can do with the images, because they [a]re in there for public domain, they're copyright free. So...what you're paying for is the labour of giving us a quality reproduction of it. So, in that particular instance, it's free.

⁵³ http://digitisation.jiscinvolve.org/wp/2011/11/29/1966/



Figure 5: "Oscarwildetrial" by Unknown - The Illustrated Police News, May 4 1895.(Previously uploaded to the English language Wikipedia (log by Jack1956 (talk)). Licensed under Public domain via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:Oscarwil

In contrast, Tomas described the challenges of accessing the Illustrated Police News content at the British Library's main location in London. He was able to use the British Library computer systems to access on-screen digital versions of The Illustrated Police News, but was only able to get a copy of the content as a physical print-out, and was unable to save a copy of the digital file. This was problematic, because only having access to a physical print-out made it difficult to use the content in the video game. To use a print-out, the Auroch Digital team would have to scan it and digitally retouch it, which Tomas saw as "a whole load of resources to get a less than desirable outcome," and which he also attributed to "complicated copyright laws." Moreover, Tomas claimed that the print-outs were of an "absolutely awful, unusable quality," as only sections of the digital scan could be printed, and the images could not be digitally manipulated before printing⁵⁴. Tomas described:

The British Library [experience] was massively frustrating. To go down there to see these digital images on the screen, and I can't just right click 'save as' and grab them. They are like, 'No, you're not allowed to do that on our computers, you have to print them out.'

Similarly, Tomas described the challenges of accessing content from The Lancet from the Wellcome Trust Library in London. Although he was able to view copies of old and out-of-copyright Lancet articles, as in the British Library, he was unable to make digital copies of the on-screen images. The staff at the library explained to him that because a particular company had been involved in the digitisation of The Lancet and subsequently had rights to the digital copies, he would need to speak to the company if he wanted to make a digital copy of a particular article or image. He explained: "The text is out of copyright, but the digitised version of that's not, because somebody's effectively taken a photograph of it...and they claim the copyright of the photograph they've taken." In order to use the material, he had to manually copy down the information and work with the Auroch Digital team to "recreate something that look[ed] like a page from The Lancet." Although he found the process frustrating, he noted that at least the Wellcome Trust Library, in contrast to the British Library, was explicit about its copyright agreements, with clear labels and indications as to what was and was not rights-protected.

⁵⁴ Although Tomas' comment imply that the digitisation agreement prohibited the use of digitised images by the public, and only permitted access via physical printouts, we could not find official documentation prohibiting the printouts of high-quality jpegs, except for in the website http://www.digitalvictorianist.com/2011/12/the-british-newspaper-archive-2/, which claims:

Articles can only be downloaded as full-page pdfs. If you want to paste an article into a word document, slot it into a PowerPoint presentation, or upload it to twitter, you'll have to convert it back into a jpg. To make matters worse, the quality of these files is embarrassingly low – in fact, it's virtually impossible to read them...Fortunately, a solution is at hand: for the low, low price of £35.95 the good people at brightsolid will print out a high-quality version of the page and send it to you through the post. Alternatively, you might prefer to use the print-screen key or the 'Snipping Tool' included with recent versions of Windows and save a more readable version for free.

Ghosts in the Garden: Accessing Content in Archives

The Ghosts in the Garden project, as discussed in Chapter 7, experienced similar issues accessing content in archives. Steve Poole, the academic and PI in the project, described his attempts to access 18th century engravings of the Sydney Gardens, on whose premises the contemporary Holburne Museum in Bath was located, and where the project was based. These engravings were housed at the Bath Local Studies Library, a part of the City of Bath Central Library, and had been digitised by Bath in Time, a local company that had a contract with the library.

Steve described visiting the Bath Local Studies Library, and examining and taking photographs of the original engravings. He recounted how, to his surprise, the owner of Bath in Time had approached him inside of the library, and had encouraged him to buy official digital copies of the engravings, instead of Steve using his own photographs. As Steve recounted:

He came along and caught me, and he said "I'm sorry you can't do that.... you can buy [copies] from me." And there was a [discussion] about how [he had] proper copy cameras, and [I would] get a much better result. "I don't care, I just need this to put on the web, I've got a blog to maintain for this project, and I need to put a picture up to show what I'm doing." But he said "Well you can buy it from me."

In the end, Steve did not use the engravings, because he said that it was "too much of a hassle" to get them, and the price—which the owner of Bath in Time quoted as £100 per photo—was too high for Steve to pay for a relatively small aspect of his research project. Although Steve would have liked to have used that and other engravings of the Sydney Gardens, he ultimately used a different engraving that was freely accessible from the British Library. He said: "Usually if it's a printed source, then you can find it somewhere else if you look for long enough." In other words, although copyright protections prevented Steve from using particular content, he was able to adapt and improvise, and use other forms of content to almost the same effect.

Doing Copyright Workarounds

Although the JtR125 project encountered issues with accessing digital copies of out-of-copyright material, the Auroch Digital team was able to creatively work around this copyright challenge. In most instances, and with a variety of games including but not limited to JtR125, the team was able to create their own creative content, instead of paying to use or license rights-protected content. As Tomas explained, if it was expensive or difficult to procure a licence for content, his team would usually not pay for content, and instead would look to other sources of content or other ways of achieving their goals. He said:

Anything more complicated than 'we can use it' we just don't use it. There's plenty of other stuff to draw from...There's so much material we could cover, there's loads of stuff, even if we had the full development budget I'd like, we wouldn't be able to get to cover everything I'd like to cover. So as soon as something becomes complicated, it just gets dropped in favour of something else.

Similarly, Janet commented that in her experience, small creative companies made of only a handful of employees, like those involved in the indie games industry, looked to use and create content cheaply. They did not have the money to "to invest in huge rights...to buy music...to buy copyright to images." Instead, smaller companies used digital means to access content—such as looking for open source content on Google or Wikipedia—or creative

means to make new content—such as working with artists or designers to create visuals or sounds for virtual reality environments. Tomas commented:

I've got a team of writers in there, and if we want something we can create it ourselves, and then we've got no copyright problems at all 'cos it's ours. So a lot of the time it's easier not to use copyrighted material and create your own thing, than use copyright material.

To illustrate this, Tomas described his previous work on another video game based on "The Great Escape," a 1963 film about World War II, featuring Steve McQueen, James Garner, and Richard Attenborough—a game which because of its age still contained copyright-protected content. In trying to develop the dialogue for the game, the developers had to draw up licences with the film production company to use original parts of the film, which they felt was important for giving the video game an authentic feel. The developers were able to license use of the script, but had trouble licensing any parts of the film in which the actors were speaking script, as the copyright of that type of content was part-owned by the actors. Consequently, the developers ran into significant problems licensing the opening dialogue of the actors Richard Attenborough and Steve McQueen, because they wanted a sum of money that the publisher of the game was unable to afford.

According to Tomas, the video game team was able to creatively work around the copyright challenge of not being able—or wanting—to pay for copyright-protected film content. The developers attempted to re-create the scene, but using an actor who had the likeness of Richard Attenborough. However, to do so in a legal way they were unable to recruit actors by advertising for people who looked similar to Richard Attenborough, as that was thought to be a copyright infringement. To develop a creative way of working around this, the game developers launched a competition for people—for which they asked for photos—to see if anyone would like to be in the Great Escape Game. From the photos people sent in, the developers found a person who "coincidentally" looked similar to Richard Attenborough, and because copyright law in the UK does not protect lookalikes, they were able to come up with a solution whereby they avoided paying for licensed material.

Despite the benefits that the project team's ability to do creative copyright workarounds brought, the team questioned whether the quality and value of the end product, the JtR125 game, would be diminished if they used copyright workarounds instead of using original content. For example, Janet asserted that the accuracy of the sound effects and visual was important for conveying the historical and ethical nuances of the Jack the Ripper murders. Consequently, she felt it was important for the team strike a balance between paying for historically-accurate content, and making the project economically viable. As Janet described:

If you're going to create a London cityscape, the sound of that, it can't be too crude. So there'll be times when I'll want Tomas to pay for something, and there will be times when we'll say 'just get it free.'...That's what his creative team will be doing... and trying to make it as economically viable as I possibly can.

In some cases, the quality—and importance to the Jack the Ripper story—of original sound recordings or images was sufficiently high that it merited paying for rights-protected content. In fact, the Auroch Digital team emphasised that, in many cases, the value of rights-protected content was not sufficiently high to merit paying to license the content. According to Tomas, many people assumed that if something was protected by copyright it was automatically valuable and had "untapped" potential. This was, however, not the case: unless something was sufficiently valuable or central to a project, as perhaps the London cityscape was for the JtR125 game, the team would not pay for works protected by copyright. If they wanted to use or develop a particular idea, they had a variety of options available to produce new content. As Tomas commented:

And as I say time and time again...we have a lot more options open to us, the biggest of which is, we simply just don't do it. But right through to us recreating things, us doing something different...as a developer, you're going to take not necessarily the path of least resistance, but you are going to use those options available to you. And if copyright becomes a problem, there's a solution to it, which is not necessarily paying the copyright dues.

Overall, the Auroch Digital team had an ambivalent attitude towards copyright, as project members articulated both its challenges and its benefits. Despite the team's frustration at times with the overzealous use of copyright, they still acknowledged that copyright was central to their video games business and allowed them to derive economic benefit from their work. Tomas said: "Copyright is the foundation of our business...We sell games, and so people pay for a proprietary copy of what we sell...You need copyright because that's what enables us to pay our staff." He emphasised that some aspects of copyright law were "archaic" and made it difficult to do creative work, but also asserted that copyright was necessary "to be able to justify the costs and resources and investments we put into creating something." His comments articulated, in other words, the fact that copyright had to strike a balance between bringing benefits to individuals and society.

Due to the digital nature of their work in video games, the team had a "give and take" relationship with copyright. Tomas emphasised that there were times when he was happy to provide content "openly" or for free, particularly in projects funded by public money. There were other times where he made efforts to protect proprietary content, such as in the case of REACT, when "[we] are specifically trying to create new commercial opportunities...[we] have to then engage with copyright, because otherwise what are we commercialising." For open source content, the concern was with protecting claims to ownership and authorship, while for proprietary content, the concern was with protecting use and economic rights. Thus, in some cases it was appropriate to pursue a more open approach to content, while in others it was appropriate to pursue a more proprietary approach.

Because of this ambivalent attitude and "give and take" relationship with copyright, Tomas did not perceive illegal downloads of games as a major copyright-related challenge. Because of the practical nature of working in a highly-digital industry, Tomas accepted that sometimes his company's content would be used without permission or payment. He said:

The various copyright industries like to claim that every piece of downloaded stuff is a lost sale, and I just don't think that's right. You know, there's plenty of people who have pirated games that I've created, and of course I'd rather they all bought it because then I would be very wealthy, but they don't. But then at the same time...I don't bear them massively ill will, because I suspect they just wouldn't have bought it otherwise.

Given his own attitude towards copyright—of doing workarounds when it was not worth paying for content—
Tomas did not see the pirating or improper use of video games content as a "big deal." For him, the use of his product—particularly by someone who otherwise would not have paid for or used it—was more important than protecting his economic rights.

Risk Taker's Survival Guide: Ability to do Workarounds

The Risk Taker's Survival Guide project, as discussed in Chapter 7, was similarly able to do copyright workarounds—when presented with content that was difficult or expensive to access—to achieve creative goals. Matt Golding, the Creative Director of Rubber Republic, the creative partner, who produced the Risk Taker's Survival Guide, described his experiences getting access to footage of a wingsuit flyer for the interactive documentary. Matt and Rubber Republic's cinematographer had flown over to Portugal to interview this particular wingsuit flyer, with whom Matt had a previous relationship. Because this wingsuit flyer was quite well known, it would have been prohibitively expensive to film him doing a wingsuit run, mostly because they would have had to pay for his insurance.

Because of the limited budget for the Risk Taker's Survival Guide, Matt had to strike a deal: he arranged for Rubber Republic to license existing footage of the wingsuit flyer, meaning that they only had to film an interview with the wingsuit flyer. Matt said:

We did a deal with [the wingsuit flyer] where we basically approached him and said, "Can we film you to interview you for this thing, and we can't afford to pay you, but we can afford to pay you to license some of your footage.

Overall, Matt emphasised that Rubber Republic tended to take the "path of least resistance" by creating as much of their own IP as possible, in an effort to save on time and money. He said: "Our general approach is, do everything yourself if you can, because then you know you own it." In some cases, however, as Matt explained with the wingsuit flyer, it was more cost-effective to license existing content. But in others, if licensing became too complicated, he would follow other avenues or choose to use particular content.

Conclusions: Copyright Challenges and Workarounds

Like the Transforming Musicology and Digital Panopticon projects discussed in Chapter 3, a key challenge for the JtR125 project surrounded access to out-of-copyright materials in archives. Such content was required to generate an "authentic" look and feel of the JtR125 game. And yet, accessing original content in archives proved challenging, because many archives made historical content available to the public in the form of digitised copies, which were rights-protected. Another key copyright-related challenge surrounded not only accessing content, but accessing it in a format that made it re-usable and useful for creative purposes. Because the academic partner was able to use the content because of its ideas rather than the form of its copy, this challenge primarily concerned the use of content by the creative partner, who struggled to use low-resolution pdfs and screen-grabs.

The JtR125 project also highlights the challenges—and confusion—surrounding the copyright policies of archives. As has been noted, such challenges relate to broader government policies encouraging the privatisation of digitisation efforts within archives, which is seen as something that can both stimulate the economy and provide a more sustainable route towards the digitisation of historical records (Deazley and Stobo, 2013; Hansen, Forthcoming; Maron et al., 2011). However, the commercialisation of archival content, as the JtR125 project highlights, provides key challenges for researchers, who struggle to determine which content they can access, in what format, and how much they must pay for such content. In this regard, the confusing copyright status of content within archive was not seen as a barrier, but rather as a hindrance to cost- and time-effective research.

Ultimately, the JtR125 case study highlights how copyright-related challenges prompt researchers to do copyright workarounds. Instead of carrying out negotiations for access to and the re-use of rights-protected content—as the academic researchers in Digital Panopticon did in Chapter 3—creative industry partners often find ways to avoid copyright infringement. Creative partners "take the path of least resistance," either by creating new content, or by getting rights-free content from other sources. In particular, the JtR125 project's strategy to create their own renderings of 18th century London, and to bypass the need to draw directly from The Illustrated Police News, was enabled by digital technologies, which allowed them to draw on a wide variety of online digital resources. Digital technologies were thus integral to Auroch Digital's efforts—as a small company—to carry out creative work with limited capital and capacity. Consequently, the project's ability to carry out copyright workarounds involved assessments of value-for money: assessments of which content was worth paying for, and which content was worth creating a workaround for.

Overall, this chapter raises questions, similar to Chapter 3, about how copyright workarounds should be dealt with in the realm of arts and humanities research. Firstly, is the value of the research, both to the researcher and to the user, diminished if projects do not use original content because of copyright and access challenges, and instead rely on creative workarounds? As the JtR125 project highlights, the use of digitally-rendered copyright workarounds poses questions about the quality of the research, and of its value to the public, because of potential issues surrounding the accuracy and authenticity of the material used.

Secondly, given the necessity of at times paying for rights-protected content, how do researchers strike the right balance between judging what content is considered valuable enough to pay for, and what content is considered invaluable enough to do a copyright workaround for? The JtR125 project highlights researchers' frustrations with what they feel is the over-assumption of the economic value of rights-protected content, which prevents them from accessing and re-using content that provides value to the public. While copyright is certainly important for generating revenue around creative works, researchers often feel that it is an unnecessary hindrance to their work. In this regard, researchers followed a combination of proprietary and open-source approaches to copyright as a potential solution to the perceived over-valuation of rights-protected content.

Preface: Copyright Benefit and Value

While the preceding chapters highlighted the copyright challenges faced by the researchers, in this section we explore the two types of benefit—economic and moral—that copyright provides to the researchers in our case studies. In the Introduction, we noted that copyright may provide various types of benefits (economic, moral, social, educational, and communicative) to a variety of beneficiaries. We only discuss economic and moral benefits here because our investigation was designed to end mostly at the point at which the output of the project—the documentary, the game, the steampunk-esque box and content—entered the digital economy. In other words, the project was not designed to investigate the other benefits of the outputs of the projects in practice, the link between copyright and these benefits, or whether the works would have been made even if copyright had not existed. Consequently, this study identifies what copyright protected outputs have been produced during the course of the projects, and the ways in which the outputs are, and are intended to be, used. A list of these can also be found in Chapter 7, in our Conclusions. Along with copyright's benefits, we also discuss non-copyright value, which, as noted in the Introduction, are those aspects of the research projects that the participants considered to be valuable but which are not protected by copyright. Consequently, we highlight the ways in which researchers place value on the process of collaboration and research, some times over and above the value placed on the copyright protected outputs and any related benefits.

Benefit

Economic Benefit

In the Introduction, we refer to the economic benefit that may arise from the grant of exclusive rights to the copyright owner, who can then assign or license these rights to third parties in return for royalties or other monetary benefit. As noted in the description of the case studies, and in the list in the Conclusion, a large number of copyright protected outputs emerged from the six projects, and there was great diversity in the non-academic outputs by the projects (as opposed to those directed to the academic community), from databases and software to a prototype game and interactive documentary. Each of these outputs had the potential for economic benefit, should researchers decide to exploit their work. However, in most of our case studies, we found that the economic benefit provided by copyright was the least relevant form of copyright benefit for researchers. In other words, in no case study did a third party pay directly to access or use content: to view the Risk Taker's Survival Guide documentary, play the JtR125 game, or interact with the Ghosts in the Garden experience.

The Risk Taker's Survival Guide won a monetary award of £3,000 from the Ramillas Sheffield Interactive Fund at the Sheffield Doc/Fest, but this was not a benefit arising directly from exploitation of the copyright in the documentary. The Ghosts in the Garden took £5 each time a member of the public borrowed a steampunk-esque box to take around the garden, but this was in the form of a deposit, repaid once the box was returned. JtR125 made an interactive documentary prototype that was freely available to the audience at the point of use. Neither Data Objects nor the Digital Panopticon had any aspirations towards monetisation of their outputs. While Transforming Musicology noted some aspirations in this direction, whether those will be fulfilled in the fullness of time remains to be seen. Whether it would have been possible to get any form of direct economic return from the outputs of the projects is can only be speculated upon, and is not within the scope of this study.

Moral Benefit

In the introduction, we refer in particular to the moral benefits that may arise (from the right to be identified and to have the integrity of the work respected) which can have both monetary and non-monetary aspects. The copyright authors of a majority of the copyright protected outputs that emerge from the six projects would also be able to assert moral rights (except outputs which are, for example, computer programs or computer-generated works). Common across all of the projects are academic outputs. These come in the form of presentations, journal articles, book chapters and books. An academic may be presumed to not be interested in the commercial value of the non-academic outputs. Instead they may be presumed to consider the most important aspect of a project to be the opportunity to build a reputation through being identified with a wide range of academic outputs. In such a case, the right moral to be identified as the author of the work could underpin this benefit, as it would mandate attribution of the academic (see below). While we found that this presumption held for all the academics involved, we found that it also held for the creative partners, who equally considered as important the opportunity to build a reputation by being identified with innovative outputs (games/documentary format) in their own sectors.

Beyond Copyright Benefit: Value

We have noted above and in the Introduction that being identified as the author of a body of work is a function of the moral right of attribution, of which reputational value may be a part. For the participants in the REACT case studies, value often arose both from the process of collaboration, and also from the enhanced reputation generated from such collaborations.

In relation to attribution, the ability to develop a reputation emerged as the most important value for the majority of the creative partners. Researchers in the JtR125 case study discussed their intentions to monetise the documentary, but noted that the industry partner would not have been interested in the pursuing this strategy. However, they emphasised the value they gained from having the opportunity to speak at developer conferences, which not only enhanced the reputation of the developer as the key player in the collaboration, but also of the developer's company as the leading player in the field of interactive gaming. Similarly, researchers in the Ghosts in the Garden case study emphasised the value of gaining a reputation, although the creative partner was more interested in having her company associated with the output—for example, through a promotional video on the REACT website—rather than having the company name appear on the steampunk-esque box. In this way, the creative partner's company, Splash and Ripple, could become known as the market leader in this field without ruining the "magic" of the artistic output. Overall, the case studies indicate that careful thought was given by all projects as to how individuals and organisations should be featured in relation to the outputs, on the promotional videos and on the websites and due credit was given whether or not they would be considered by the law to be an author of the particular work in respect of which they were attributed.

We also found that both academics and some creative partners identified the collaborative process—the skills, knowledge, and know-how gained from the collaboration—to be highly valuable. In such cases, copyright provided no economic or socio-cultural benefit, because it did not protect the process, skills, knowledge, or know-how that was exchanged in the collaboration. Overall, enhanced reputations seemed to be a good trade-off against the fact that no economic benefit was expected from the projects. This enhanced reputation could attach to the academic, the creative partner, or more commonly to the creative partner's company. It ultimately resulted in increased visibility in the field and more commissions for further work.

The following two chapters explore these issues in greater depth. Chapter 5 considers the value of reputation focusing on the three smaller projects, Risk Taker's, Ghosts in the Garden and JtR125. Chapter 6 considers the value that arises from the process of collaboration through a smaller project, Ghosts in the Garden, and a larger project, Data Objects. In making this analysis consideration is given as to whether copyright underpins or can support these values.

5. Reputation

Chapter Overview

This chapter reflects on the value that reputation holds for researchers. It reflects on how deriving money and economic benefits from projects, though important, is often not the primary goal. Instead, researchers attempt to develop their reputation, in order to create future opportunities for collaborative work, or for reaping long-term economic benefits. This chapter examines the process of collaboration in the Risk Taker's Survival Guide case study, in order to reflect on the value that reputation holds for both academic researchers and creative partners. However, this chapter also reflects on how protecting reputation can, at times, be at odds with enforcing copyright, as the value of reputation exceeds the value of attribution or economic benefit.

Risk Taker's Survival Guide

The main output of the project, as discussed in Chapter 2, was a draft version of the interactive documentary titled "The Risk Taker's Survival Guide," which was an attempt to experiment with creating a new documentary format, which the project team hoped would form a new way of engaging audiences with a particular topic. By using the power of film and interactivity to convey the complexities of risk, they hoped to use new tools and technologies to make the topic accessible and engaging to audiences. Although other REACT projects, such as Jack the Ripper, sought to produce prototype versions of their outputs, the Risk Taker's Survival Guide project aimed to produce a "rough cut" of the entire documentary rather than polished section. With this goal, Rubber Republic wanted to showcase a complete work at the end of the three-month period, so that they could emphasise their ability to make viral films which might be picked up by websites like BoingBoing, or news outlets like The Guardian or Channel 4.

To carry out research on the subject of risk, James Lyons, the academic on the project, drew on a variety of academic literature on risk, including Paul Slovic's work on the psychology and perception of risk, Daniel Kahneman's work on fast and slow thinking, and David Spiegelhalter's work on the statistics of risk. To produce the interactive documentary, Matt Golding, the Creative Director of Rubber Republic and the creative partner on the project, drew on a variety of creative content. The creative partner Rubber Republic used a combination of licensed and newly created content, to try keep the overall cost of the documentary low, but to also try to avoid "reinventing everything." Many of the documentary scenes featuring interviews with or shots of individuals were filmed by Rubber Republic, whose filmmaker's travelled to various locations. Other scenes were licensed from the rights holders when the cost of shooting was too high. For example, Rubber Republic could not afford to pay the insurance to film a wingsuit flyer, so they arranged to pay a small fee to license content that was owned by him. In addition, Rubber Republic licensed a number of images from stock photo websites like iStock⁵⁵ and ShutterStock⁵⁶, and also licensed music to play as a backing track to the documentary.

⁵⁵ http://www.istockphoto.com/

⁵⁶ http://www.shutterstock.com/



Figure 6: Screenshot of the Risk Taker's Survival Guide. Permission from Matt Golding.

To produce an interactive documentary from this content, but in a low-cost way, the project drew on a variety of open source technology and commercially-available software. To produce the documentary, the project used Final Cut Pro, a video editing software produced by Apple, which is used by both amateur and professional film editors. To produce the interactive features of the documentary, Rubber Republic used HTML5, an open source technology markup language, and Popcorn, an open source video maker for HTML5 media developers, which is developed by the company Mozilla. The reason for using open source technology, Matt explained, was to produce an output that would be both low cost and sustainable. To make the documentary available on the internet, Rubber Republic hosted the video on Vimeo, a video sharing website that allows users to upload, share, and view videos. This allowed them to reach a broad audience without having to pay a large sum of money for bandwidth costs.

The Value of Reputation

Overall, Matt and James placed value on producing and maintaining their reputation—as a producer of viral advertisements, and as a pioneering academic, respectively—as a pathway to future work. As a viral ad agency, the main goal for Rubber Republic in the Risk Taker's Survival Guide project was to create "viral" films, videos that would be taken up, shared, and distributed through online websites and communities. By producing viral films, the company hoped to develop a name for itself and carve out a niche in viral advertising. Although the REACT project had funded the creation of a prototype, Matt emphasised the importance of producing a finished product, so that he could share it with viewers and distribute it—even as a rough draft—as a "viral" outcome. He explained:

We went into it very much from the point of view, if we don't finish a film there's no point starting...Because we can't go out to people and say, 'Yeah, we tried half making a film once, but we can't show it to you, 'cause it's never been finished.' That is of limited value to us.

Because the interactive documentary was a new genre that had not yet experienced commercial success, it was difficult to know its economic value, and to consequently know the benefits that would result from protecting it with copyright. Matt said: "So the copyright itself doesn't...have much value. It should do, and it does...when you start probing about questions, like if someone...nicked the film...but...[first] we need to work out the value of this thing." For Matt, the value of the film was not related to its economic worth—to the royalties that could be collected through the exploitation of copyright—but rather to the number of views, shares, and "likes" it could achieve on the internet. He explained:

The film is worth the number of people I can reach it with, and how much depth of engagement I can get with those people, and what they think of it...So if we could take 1000 pounds and turn it into a film that a million people watch...that film has massive value, but if I take a million pounds and make a film nobody watches, it's worth nothing.

In contrast, James' work on the interactive documentary allowed him to develop new research on risk, through the creation of a book, and through an invitation to run an AHRC round-table on risk. It also allowed him to develop new mediums for conveying risk, particularly through film and online content, as well as a report to the Government⁵⁷. The project also allowed James to develop new research methods, particular in his collaboration with a creative industry partner, which gave him insight into the role and value of different types of media.

One of the challenges of the Risk Taker's Survival Guide project was in aligning the academic goals of research with the entertainment goals of film-making. Having two sets of values—for the creative partner and the academic—was at times problematic for the project, as educating audiences on the nuances and complexities of risk could be at odds with creating entertaining and engaging videos for audiences. As Matt explained, the biggest downside of collaborating with James would be "if people looked at it and said, 'It feels a little academic and a little dry.'" This would be detrimental to Rubber Republic's goals as a viral ad agency, which required people to become so intrigued by a film that they wanted to see more films like it, or share the film with their friends. For Matt, the value of the interactive documentary would be diminished if audiences felt that the topic was too complicated or dry. He explained that sticking too closely to the "academic backbone of things" would be like "shooting myself in the foot," in that it would show that he had worked on an idea, but had not successfully pulled it off.

Despite these creative tensions, both James and Matt recognised the importance and value in developing a reputation in the genre of interactive documentaries (also known as iDocs). James explained that by the end of the project, both partners had learned about interactivity and risk, and were able to say promote themselves as people who "know how to do this...[who[know how to create interactive content." For Matt, this manifested specifically as the ability to create a "brand" for Rubber Republic, or in other words, to create a reputation for producing successful viral advertisements. Having a brand, he explained, was valuable for attracting potential clients, and for getting future work opportunities. He said: "By 'brand' I mean...the best thing you could do as a film maker is get known for a certain kind of thing, so people come to you for that kind of thing."

In discussing how the project would help their reputations, both Matt and James emphasised that the main value of the film was not monetary, but rather was in its ability to help them develop expertise in the area of interactive documentaries. Matt explained that the main goal of the project was "not...to make money," but rather to work out a repeatable system for designing interactive documentaries, so that Rubber Republic "could do it again in another way." Developing capacity and expertise was much more valuable than selling the film for several thousand pounds, as Rubber Republic could derive more money in the long term from developing its reputation as a viral ad agency. Matt explained: "I want to be able to go back to people and say, 'I know how to make these kind

⁵⁷ http://www.exeter.ac.uk/news/university/title 422866 en.html

of films, and I know how to make them so they appeal to lots of people, now pay me." Consequently, it was not that Rubber Republic did not want to make any money from the film, but rather that that were other sources of value—beyond the money it would earn by being sold or licensed—contained within the interactive documentary.

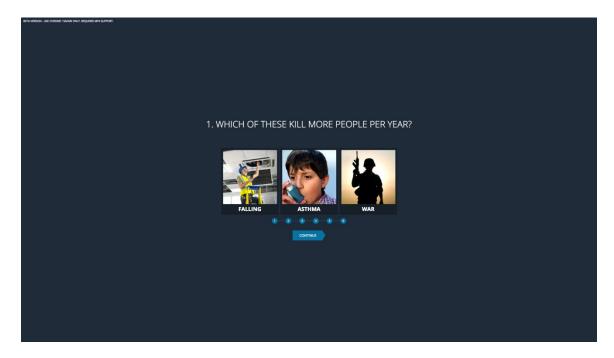


Figure 7: Screenshot of the Risk Taker's Survival Guide. Permission from Matt Golding.

Emphasising the value of reputation, Matt highlighted the way in which copyright, and in particular the moral right of attribution, could ensure that reputation and expertise were protected. Because the value of the project was in the reputation and capacity it generated, rather than in monetary worth of the film, it was fundamental for James and Matt to be recognised as the authors and to receive credit for their work. As Matt commented, "so the copyright thing does matter...who owns the thing does matter." His ability to make money as a film-maker was enabled by his reputation, and protected by copyright recognition of his company's expertise in making viral ads. He explained:

The last...eight years I've been making my money as a film maker... from being able to say, 'I made that film, it reached a million people, they liked it.'...If somebody wants to make a film that reaches a million people that they like, then I'm in a good place to say, 'Well, I've done that a number of times, so here's my show reel of films that have achieved that goal. If you want somebody to achieve that goal, then you should talk to me because I can do that and I've done it before.' That's what people pay for. They don't pay for the film or the value of the, you know, the crew...We're more expensive than most film companies because we only sell to people who want to buy that thing, and if you want to buy that thing we know how to do it better. And we're more expensive because we have a process that we've developed that allows us to try...and achieve that.

Emphasising the importance and value of reputation, in June 2014, around the time we interviewed James and Matt, the project was awarded the Ramillas Interactive Fund Award at the Sheffield Doc/Fest. This entailed both

money and mentorship by Ramillas, an angel investor seeking to co-finance and co-produce original interactive documentaries⁵⁸. As a result of this success, the project was able to enter into preliminary conversations with Channel 4 about the possibility of developing a spin-off TV program on risk. Rubber Republic's reputation, therefore, provided the potential to reap economic value from the Risk Taker's Survival Guide in the future.

Policing Copyright or Preserving Reputation?

Given the value of—and importance of protecting—reputation, the main copyright-related challenge of the Risk Taker's Survival Guide project was in figuring out whether or not to police copyright infringement in cases where such infringement benefited Rubber Republic's reputation as a "viral ad agency." To this end, Matt recounted his experiences developing advertisements for companies such as Fiat, Gillete, and Audi, which had commissioned Rubber Republic to produce short and entertaining videos⁵⁹. These videos simultaneously allowed companies to advertise their brand and products, and to provide consumers with highly-entertaining, visually-appealing content. The problem Rubber Republic faced was in figuring out if and how to enforce copyright during the viral sharing of their advertising videos.

To this end, Matt discussed a challenging situation in which The Daily Mail, a British daily tabloid newspaper, had shared Rubber Republic's viral advertising videos on their website. Rubber Republic had made an advertisement for Audi about two cars having a paintball fight. For this advertisement, Rubber Republic had licensed music that could be played with the video, which was hosted in YouTube, with terms stipulating "it couldn't be played anywhere with anything, and it couldn't really be hosted off somebody else's website." To share the video with its readers, The Daily Mail had posted the video on their website. But instead of using Youtube or Vimeo, the players through which the video had originally been hosted, The Daily Mail had embedded it within their own player and had placed advertisements in front of it, from which The Daily Mail would gain revenue.

In this situation, Matt was concerned that The Daily Mail's usage of the video violated the musical licence terms. The Daily Mail, because their usage of the video involved their own player and advertisements, was "technically stealing, because the film had been made and paid for by Audi "with a licence for the music...for use by Audi in the context they licenced it." The issue, according to Matt, was that The Daily Mail was using licensed content for their own commercial gain, and in the process, violating the rights of the owners of the licensed content. As he explained:

We pay...fourteen grand to licence a track from a record label if it's...a decent artist, for a couple of years sync licence with a certain piece of film. If the Daily Mail then break that sync licence, presumably the record label, who are trying to work out how to monetise that artist's back catalogue, are missing a sale.

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⁵⁸ https://sheffdocfest.com/view/crossovermarket

⁵⁹ http://www.rubberrepublic.com/portfolio/

JtR125: The Value of Reputation

The JtR125 project, as discussed in Chapter 5, placed similar value in achieving and protecting its reputation as a video game company. Tomas Rawlings, the Creative Director of Auroch Digital, the creative industry that produced the JtR125 game, described the importance of releasing the JtR125 on Steam, an internet-based distribution, digital rights management (DRM), and social networking platform. Developed by Valve Corporation, Steam was considered highly prestigious because it had more than 100 million active users, such that the majority of games purchased online were downloaded through Steam. As Tomas described, the combination of social networking and DRM made it such that video game developers valued having their products released on Steam rather than on other platforms. Tomas' company Auroch Digital, because of their successful work on a number of games, had become an official "Steam developer," which gave Tomas the ability to distribution his future games on Steam, and buoyed his company's reputation for making games.

Tomas recounted how, because of Auroch Digital's reputation as a Steam developer, another company had approached him asking to host their own game on his account. The company recognised the value that being a Steam developer—and having access to Steam distribution—held. The company asked if Tomas would take their game and put it through the Auroch Digital Steam account, and offered Tomas a cut of the money they game would generate through Steam sales. As Tomas said: "That's how valuable being a Steam developer is, that they are willing to let us be the portal for the game in order to get it on Steam."

Beyond his reputation as a Steam developer, Tomas emphasised that doing news games like JtR125 gave Auroch Digital distinction and reputation as a studio that was "pushing the barriers" and doing unique work. He emphasised that his work on news games had create a profile for Auroch Digital, enabling them to generate commercial work, and also generating interest from academics and journalists. This elevated publicity and attention that his reputation brought was particularly valuable, because it gave rise to the possibility of future work. He said: "If we were just making zombie games, no one [would ask me] to give a talk about it, because there's thousands of them. But the fact that we're doing this interesting stuff gives us a profile. So indirectly it does act as an advert for us as a studio."

Overall, Tomas' work on news games like JtR125 enabled him to develop both a reputation and expertise and know-how, which gave Auroch Digital the ability to derive future value from other, similar work. Because there was not yet a proven market for news games, the value in making them was not in generating income, but rather with generating a reputation and IP that would enable Auroch Digital to do other, related work in the future.

While The Daily Mail's infringement of copyright did not necessarily cause harm to Rubber Republic, Matt was concerned that the violation of a licence could make it such that his company could "get caught in the legal crossfire." He was concerned that both the company on whose behalf Rubber Republic had made the advertisement, and also the rights holder of the licensed content, could involve him in legal proceedings. In this situation, dealing with copyright infringement could get him "caught in the crossfire," which could lead to lost time and productivity, which would be particularly detrimental in the competitive environment of producing viral ads.

Ultimately, making sure that entities like The Daily Mail adhered to the terms of licences was not always consistent with Rubber Republic's aim of producing and disseminating viral videos. Matt explained that, somewhat counter-

intuitively, it was beneficial for his company to have their video posted on The Daily Mail website, as it was likely to increase the video's viewership due to the high volume of traffic on The Daily Mail website. This was made complicated, however, by the fact that Rubber Republic relied on being able to count the number of times its videos were viewed in order to judge their success with "going viral." The metrics that allowed them to measure the success of their ads were the number of vies and shares their videos received. Matt commented:

The success that allows me to have work...is the number of people who watch that video, which means it has to be on YouTube where the views are being counted. Anyone who steals it and puts it somewhere else where I can't see the views...it's not actually helping me.

In this situation, The Daily Mail's actions "slightly diminish[ed]" the value that Rubber Republic was able to derive from its products. However, The Daily Mail's actions still provided benefits to Rubber Republic, by increasing the virality of their ads, and ultimately buoying their reputation as a viral ad agency.

Consequently, Matt was faced with the challenge of deciding what the benefits and drawbacks were for policing and enforcing copyright. The Daily Mail example highlighted what Matt referred to as a "grey area" around copyright, in which people allowed their content to be stolen "because it is in their interest." Having content stolen, in particular by website with a large number of visitors, provided benefits to creative industries who relied on their content being widely circulated and shared, and derived value from their reputation rather than from intellectual-property enabled income. Matt explained:

In the grand scheme of things, the amount of money we're going to be paid to licence a minute and a half of video...it's not worth the blockers it puts in place...The fact that we can say 'This was broadcast on TV in all these countries,' is...more useful than the...\$300 we'd get paid for the licensing.

In such cases, enforcing copyright could actually diminish the value Rubber Republic could glean from its videos, as it might decrease the virality of the video. In such grey areas, Matt explained, the prevailing strategy was "to not police [copyright] too hard," and to find a balance between the benefits and drawbacks policing copyright would bring.

Ghosts in the Garden: The Value of Reputation

The Ghosts in the Garden team placed similar value in achieving and protecting their reputation. Rosie Poebright, the Creative Director of Splash & Ripple, the creative industry that produced the Ghosts in the Garden project, emphasised that she was more concerned with protecting her reputation—by producing high-quality products and fostering product collaborations—than with protecting her intellectual property or putting restrictions around the use of her products. She preferred to focus on being a leader and innovator in her field, rather than on protecting the potentially valuable outputs of her work.

Rosie recounted how her main concern in developing the Ghosts in the Garden project had been to reinforce her company's reputation as "architects of extraordinary experiences." Wanting to preserve the magic of the Georgian listening devise, and the presence that it had been discovered as a relic of the past in the Holburne Museum's basement, she highlighted how having her company's name or logo printed on the device would have been detrimental to the project, and would have "broken the fiction." Anyone interested in working

with Splash & Ripple, she asserted, would know to look for signs of the company's involvement and authorship. She said: "If you're somebody who might want to commission us, then...you'll look at the bottom of the leaflet to see... 'This was made by Splash & Ripple with these other people.'" The name and reputation of her company would be reinforced by producing a high-quality experience, and not necessarily by putting a logo on the product. She explained: "The more good things you make, the more people might be like, 'Oh, that was made by these people!'"

For Rosie, reputation was valuable because it gave her and her company visibility as a successful creative media enterprise, and enabled her to pursue future opportunities. Rosie explained that the success of the Ghosts in the Garden project had enabled her and Steve to broker an agreement with the National Trust at Bodiam Castle, where they would develop a similar experience. In this follow-up project, Rosie had established in a formal contract that the National Trust could not take any of the content and make something new without the permission of Splash & Ripple. This was an attempt to ensure that the National Trust could not produce an inferior product to sit alongside her company's product, with the express goal of protecting Splash & Ripple's reputation and ensuring the possibility of future work. She said: "[The issue would be] reputation risk, really. We built something for them that is as good as we can make it, and it would be to protect us...Our name is still attached to it, and that's how we get...future work."

Similarly, for Steve, reputation was valuable because it gave him visibility as an academic who could "think outside of the box." Steve explained that his work with Rosie had enabled him to cultivate a reputation at his University for successfully working with creative companies like Splash & Ripple. Most notably, this reputation helped him to secure additional funding and work opportunities. He explained:

[This project] makes me bankable doesn't it...That makes me a better bet on the next research bid. I [can] come back to the AHRC and say, 'Hey I'm the guy that made the funny box, you know, the Splash and Ripple guy. And now I want a big research grant to do this and this.

Moreover, he contemplated if his being "known for in my faculty now as someone who does this stuff, works with artists...geographers...anthropologists, and makes weird things" had contributed to his recent promotion to the academic status of Professor. He acknowledged that it was difficult to articulate the value of such a reputation, but nonetheless said "I've got a reputation of doing that, for good or ill, but it's done, I can see how it's worked for me."

Conclusions: The Value of Reputation

This chapter reflects on the value that reputation holds for researchers and creative industry partners. It reflects on how deriving money and economic benefits from projects is often not the primary goal. Instead, researchers and creative industry partners attempt to develop their reputation, in order to create future opportunities for collaborative work, or for reaping long-term economic benefits. This chapter examines the Risk Taker's Survival Guide case study, in order to reflect on the value that reputation holds for both academic researchers and creative partners. However, this chapter also reflects on how protecting reputation can, at times, be at odds with enforcing copyright, as the value of reputation exceeds the value of attribution or economic benefit.

For the Risk Taker's Survival Guide project, the researchers placed value on their reputation—both in the academic realm of expertise in film studies, and in the creative realm of producing viral advertisements—for gaining future work. For example, Matt emphasised the importance of his reputation as a producer of "viral films," which enabled him to develop working relationships with future employers and collaborators—such as the wingsuit flyer who formed the focus of a section of the Risk Taker's Survival Guide documentary—even if the economic value of such ventures remained unknown. On the other hand, James emphasised the importance of his reputation as a pioneer of new educational methods and media formats, such as interactive documentaries. Although these values in reputation were at times at odds—for example, if educating audiences on risk was at odds with entertaining consumers of viral media—the project converged around a shared value in expertise and reputation in the emerging area of interactive documentaries.

Ultimately, this chapter highlights the value that researchers place in developing their reputation—for academic partners, forms of "expertise," and for creative partners, "brands"—rather than in deriving monetary value. The process of collaboration and experimentation produces outputs, but these outputs are valuable in a long-term rather than immediate sense. These outputs may have a monetary value, but that value is overshadowed by the overall value in developing a reputation for making outputs such as interactive documentaries—and making them better than competitors. In this sense, the Risk Taker's Survival Guide project emphasised that its success with the documentary had enabled the researchers to garner future work, in the form of the Ramillas Interactive Fund Award, and a possible spin-off documentary project with a TV producer. More broadly this chapter also highlights how the moral right of attribution can underpin the value of reputation, as being recognized as the author of a particular work enables researchers to garner future opportunities and income.

Overall, this chapter raises questions about what happens when the value of reputation is at odds with policing copyright infringements. For example, Matt's discussion of the situation in which The Daily Mail infringed the copyright of one his viral advertisements shows the tensions that exist between, on the one hand, protecting Rubber Republic's reputation as a producer of viral films, and, on the other hand, ensuring the Rubber Republic and it's employers reap economic value from their outputs. Ensuring the virality of films—which occurs through the sharing and copying of digital content—can often entail copyright infringement. In such cases, should researchers protect their reputation rather than enforcement copyright? Such challenges signal the inherent ambivalence surrounding copyright in the arts and humanities, as researchers must evaluate their strategic approaches to copyright—in the form of deciding whether to pay for or license content—as well as the importance of copyright for their work—in the form of evaluating the value of economic benefits versus the value of reputation or process.

6. Process

Chapter Overview

Following from the discussion of reputation in the previous chapter, this chapter reflects on the value that the process of research and collaboration holds for researchers. It reflects on how researchers' main priority is not in deriving or protecting the economic value of their work through copyright: instead, their main priority is in deriving and protecting know-how and experience, which ultimately bring about benefits such as future collaborations and work opportunities. This chapter examines two case studies—the Ghosts in the Garden project, and the Data Objects project—to highlight how researchers produce unique processes of working and working together, which are ultimately more valuable that discrete forms of intellectual property.

Ghosts in the Garden

The main output of the project, as discussed in Chapter 2, was the Ghosts in the Garden experience, which combined history, theatre, gaming, and digital technology. To carry out the project, the team drew on a combination of historical sources and creative material. This was an attempt to combine "history from below," generated by academic Steve Poole's work on 18th century history, with an "extraordinary adventure," generated by creative partner Rosie Poebright's work with her company Slash & Ripple. To investigate the characters who made up the "ghosts" of the garden—the thieves, maids, performers, and local residents who worked at and visited the Sydney Gardens—Steve first researched the existing (secondary) literature on 18th century pleasure gardens. He also carried out archival research at the Somerset Heritage Centre⁶⁰—to examine the Quarter sessions for historical sketches of the "unsavoury" characters who would have attended special events at the Sydney Gardens—as well as the Bath Local Studies Library⁶¹—to draw on their collection of historical photos and engravings. In addition, he drew on material in the British Library and National Archives, and online collections available through the university's JISC subscription, including newspaper databases and Historic Texts⁶².

To produce the Ghosts in the Garden experience, Rosie Poebright drew on a variety of materials and technologies to create a "Georgian listening device," a physical object that visitors could carry around the garden to listen to the stories and histories of the former occupants of the Sydney Gardens. This device consisted of a low-budget mobile phone, which ran a variety of software and applications, and which was hidden inside of a box made of wood, brass, and pieces of old clocks and antiques. The phone, which was attached to a minirig, ran a platform called App Furnace⁶³ developed by Calvium, which enabled Rosie to work with a software developer to develop a custom application for GPS-triggered content. From this, the project was able to develop the Ghosts in the Garden experience as a "choose your own story" game logic, in which visitors to the Holburne Museum could experience different story lines as they walked around different zones within the grounds.

⁶⁰ http://www.somerset.gov.uk/libraries-and-heritage/heritage-and-archaeology/somerset-heritage-centre/

⁶¹ http://www.bathnes.gov.uk/services/libraries-and-archives/local-studies/introduction-bath-libraries-local-studies

⁶² http://www.bl.uk/reshelp/findhelprestype/catblhold/estchistory/estchistory.html

⁶³ http://appfurnace.com/feature-tour/

As part of the experience, and to fully immerse the public in the history of the Sydney Gardens, the project team created a story that the devices were "time capsules" that had been found in the basement of the Holburne Museum during its refurbishment. Wanting to avoid producing a cell-phone or tablet application—and also wanting to improve on the headphone-based museum audio-guide, which Rosie and Steve claimed would create a closed-off and individual experience—the Ghosts in the Garden team created a device that enabled visitors to the Holburne Museum to walk around the gardens and participate in a communal experience, in which they could interactively participate in the escapades of the "ghosts" that inhabited the Sydney Gardens. This, according to Steve and Rosie, gave the visitors agency and input, allowing them to make choices about what they wanted to hear. It also aided Steve's attempts to provide a non-didactic "history from below," in that it avoided giving visitors an authoritative narrative, and allowed them to explore their own historical story through their choices about where to walk in the museum grounds. The overall intention, according to Steve, was to "stimulate learning and understanding without visitors consciously signing up to a learning activity."

To develop the content that played through the "Georgian listening device," Rosie and Steve worked together to produce a variety of creative media at the Pervasive Media Studio⁶⁴, a creative space in central Bristol for artists, creative companies, technologists and academics to explore design and creative technology. They commissioned professional scriptwriters to produce scripts for the scenes that portrayed the "ghosts" of the gardens, produced and directed recordings of actors enacting those scripts, and brought in a sound designer to create a background soundscape which included original sheet music, retrieved from the British Library, and performed by students on period instruments. Steve reviewed the scripts and sound effects to ensure their historical accuracy, while Rosie and Steve co-conducted workshops with the director and staff at the Holburne Museum, and the script writers, to see how they could best develop a "choose your own adventure" style storyline.

Although most of the device's software, including the application developed for the GPS-trigger content, was published as open source and was therefore freely available to the public, the device was kept locked and made un-openable. This was an attempt to maintain the magic and mystery of the device—and to reinforce the story that the device had been found in the basement of the Holburne Museum—rather than to protect the technology inside of it. As Rosie described, it was a sense of playful secrecy, such that if visitors looked inside of it, "it [would] spoil it, [they would] see it's a phone and lots of wire and a mini rig system."

The Value of the Collaborative Process

For Steve and Rosie, one of the most valuable aspects of their project was the process of working together to produce the Ghosts in the Garden experience. Rosie recounted that her collaboration with Steve had been characterised by—and had worked because of—mutual respect for each other's realms of expertise in the project. She said: "I don't know anything about...Georgian history...and he wouldn't know the first thing about how to design a...logic tree for an interactive narrative, so [we're] quite respectful of...what [we each] know." With these different realms of expertise, Rosie and Steve had developed a particular process of working together, which involved pursuing an idea with "a great deal of particular talents and skills." As a result, Rosie and Steve saw the main outcome of the Ghosts in the Garden as the process of working together, to which Steve said: "[The] process of research and collaboration and construction is the product, sometimes...The process is the product."

Consequently, the project members struggled to understand if and how copyright would be relevant to the Ghosts in the Garden project, partly because the project—and Rosie's company Splash & Ripple—was in an early stage. They commented "I've always assumed that we can't copyright the stuff that we did in Ghosts in the Garden" and

⁶⁴The Pervasive Media Studio is a collaboration between UWE and Bristol, and is managed by Watershed. http://www.watershed.co.uk/pmstudio/welcome-pervasive-media-studio

"I can't see that really any of it is copyright-able." Steve asserted that he could not see how a collaborative process involving the shared expertise of a great many creative professionals could be copyrighted, as it would be both impossible—and inappropriate—to try to protect a collaborative way of working. He said:

You can't copyright a process where a historian works with someone who knows how to bring in scriptwriters and sound designers and game designers, and [together they] make an experience...[You can't] say 'We are the only people who can do that.' You just can't.

The project members asserted that their way of working together, and their process of producing the Georgian listening device, was unique and highly valuable. Their collaboration entailed a great deal of know-how. They recounted, for example, how by producing the Ghosts in the Garden experience, they had gained practical experience with selecting and training script-writers. It was very difficult to get writers to produce scripts for choose-your-own-story type game, because it involved writing short scenes that were "believable, gripping, with the right information, and a choice at the end." After working with a variety of writers, Rosie and Steve knew the right people for the right job, such that it would be highly unlikely for someone to claim that they could repeat or produce a similar Ghosts in the Garden experience. Steve said: "There's a lot of...private knowledge that we've acquired about how to do it, that will really make it difficult for someone else to do." Their unique way of working together was valuable, in that gave them a set of capabilities and experiences that could lead to future work opportunities.

One concern for the Ghosts in the Garden team, therefore, was to find the right balance between collaborating with a wide range of creative industries people, and not giving away too much of their practical knowledge and know-how. Rosie commented that she did not want to leave a "how-to" guide for another company, but that she also did not want to live in a "restrictive universe." Because of her background doing work in the broad area of "street games," and also because of her work at the Pervasive Media Studio, she had been indoctrinated into a creative culture where people shared and built on each other's ideas. This had made her "quite magnanimous about...sharing stuff." Although she had had negative experiences with not being acknowledged, it had not impacted her work enough to make her "do anything about it."

Similarly, Steve emphasised the importance of not being over-protective of ideas and outputs, as he viewed the exchange of ideas as a key aspect of research. Having a give and take relationship with other researchers was part of normal academic life, and facilitated creativity and the creation of new projects. It was important not to encase research in restrictive intellectual property frameworks, of which copyright could have been see as one. He said: "you can't tie everything down with legal chicanery, to stop anyone else from making something up." While he did not want to be exploited or taken advantage of, he emphasised the importance of facilitating a culture in which "we trust one another to make stuff together in an open way, and we borrow one another's ideas."

As such, Steve explained that he derived value from being involved in a continual collaboration—and exchange of ideas—with Splash & Ripple through his follow-up work at Bodiam Castle. Following the success of the Ghosts in the Garden project, the project team also developed a further collaboration with the National Trust at Bodiam Castle in East Sussex⁶⁵. With help from a medieval historian, Rosie and Steve developed a "medieval adventure" in relation to the history of the Castle, whereby visitors could walk around with devices shaped like medieval hunting horns in a similar choose-your-own-adventure style experience. For this, the team worked together to develop new technologies for RFID-triggered content, as the indoor environment of the castle precluded the use of GPS. Although Steve's relationship with Rosie was built on trust and the open exchange of ideas, it had been important to him to cement his ongoing relationship with Rosie. When Rosie made Steve an associate member of her

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⁶⁵ http://www.nationaltrust.org.uk/bodiam-castle/

company Splash & Ripple—ensuring that their collaboration would continue in the near future—Steve considered this commitment extremely valuable. He said: "My attitude...was, 'Well, [Rosie is] serious about doing more work with me, and...that's good for me.'"



Figure 8: Rosie Poebright showcasing the Ghosts in the Garden project at the Holburne Museum. Permission given by Rosie Poebright.

Because they had placed such value in developing a unique way of working together, Steve and Rosie recounted how their approach to intellectual property—including copyright—had been very casual, and not thoroughly discussed. Rosie said: "It was very informal, there weren't any...contracts or agreements signed. It was...me commissioning freelancers or other companies to make things for me...them doing it and invoicing me for the work." Although there were many instances in which copyright could have been invoked—for example, in the production of the character sketches, the scripts, and the audio recordings—Rosie and Steve were not concerned with protecting the content they had generated. Their approach to intellectual property for the Ghosts in the Garden project stood in contrast, however, to the approach they had taken in their work with the National Trust at Bodiam Castle. For that project, which was done on a bigger scale, they had drawn up formal agreements and projects. Because they were working with a bigger budget, with a large organisation, and on a project that was set to run for a longer time period, they had had to "get a little bit more professional about it." Thus, in the Ghosts in

the Garden project, Rosie and Steve had valued the process of working together than the protection of IP or the generation of a commercial product.

During the Ghosts in the Garden project, Steve had found working with Rosie extremely productive, as it had pushed him to explore new research topics, and to carry other forms of publically-engaged research. His collaboration had pushed him to move beyond the confines of his discipline, and to change the way people experienced history and heritage beyond the medium of text and books. It had inspired him to use his skills and knowledge to "mak[e] people think differently, and chang[e] the way they perceive the world." He said: "It's all about...going away from what you normally do, and not sitting in the archive writing monographs...[It's about making] something." Because of his collaborative experiences, Steve had subsequently worked with a poet and sound artist to create a collaborative and locative public performance about the ritual culture of 18th century public execution, commissioned in Somerset and Wiltshire by Being Human: A Festival of the Humanities. He had found his work with Rosie so valuable, that he had sought to find other avenues to engage with audiences beyond conventional academic streams.

Data Objects

The main output of the project, as discussed in Chapter 2, was the collection of physical "data objects"—physical instantiations of data—which had been produced through a co-design process out of several different materials, and in relation to several different concepts. To carry out the project, the team drew on a dataset generated from the Engineered Packaging Research Group and Departments of Mechanical Engineering and Engineering Materials at the University of Sheffield. This data concerned the ability of elderly or disabled people to open various packaging containers—made of different materials and apertures, with different levels of opening difficulty—through the administration of a scientific grip test. The data explored the relationship between aging and dexterity, comparing the grip strength and dexterity of males and females of various ages. It showed, through statistical charts and graphs, that as people age they can preferentially open some containers over others.

lan Gwilt, the PI on the Data Objects project, explained that generating such data objects involved an interactive co-design process among the Data Objects team members, as well as user-centered testing of the physical objects with various audiences. To make the data objects, the researchers "s[a]t down [to] look at [the] data, and draw up different pages of ideas." Thinking about the different possible ways to interpret data, and the metaphors these might invoke, they came up with a series of prototypes and pilot models out of cardboard and paper, which each presented the same information in different forms. From these pilot models, the researchers developed three main concepts: the metaphor of the landscape, a series of jar lids related to the original data, and a more abstract form. Realising the importance not only of visual metaphors, but also of material forms, the researchers subsequently developed "more robust and developed models" using traditional crafting with wood and plaster, bronze casting, plastic moulding, and 3D printing methods⁶⁶.

With these data objects, the Data Objects researchers then carried out user testing on three different audiences – designers, engineers/healthcare specialists, the general public—to see if and how people might gain understandings of data with various physical objects. Using a total of 30 semi-structured interviews lasting 15-20 minutes each, the researchers explored how the different concepts and materials used to construct the data objects informed peoples' ability to engage with and interpret data.

⁶⁶ https://research.shu.ac.uk/DataObjects/Includes/Data-objects research sml.pdf



Figure 9: A collection of "data objects" made out of bronze and plastic. Permission given by Nadine Levin.

The Value of the Research Process

Overall, lan explained that the most valuable aspect of the Data Objects project had been the process of collaboration and experimentation, rather than the IP residing within the physical data objects. As a result, the project team gave little consideration to matters of intellectual property, and had little awareness over if and how copyright could be either helpful or problematic for their research. Ian claimed that the practice-oriented nature of his work in the field of design—and the fact that he and his colleagues saw their work as both research and art—led to a more relaxed approach to copyright and IP more generally. For example, when asked about the copyright status of the various data objects produced during the project, Ian commented:

We haven't spent a lot of time...obviously as you can tell, thinking about [copyright]. ...I think designers and creatives tend to be more practice orientated, so we tend to like making things and doing things and not worrying about who's going to pick up the pieces at the end of it. So...we're probably pretty remiss, really, with all that side of things.

According to Ian, the project was not preoccupied with determining copyright, or other forms of intellectual property, in their everyday work. Intellectual property was "below the radar," because people did not yet "have a sense of [the] value" of their early-stage work. Designers were more concerned with experimenting and producing things, such that IP only arose as an afterthought. Because the Data Objects project involved work on a series of prototypes, and because the data objects did not have a clear commercial value or life beyond the project, there was not enough interest in them to generate concern over their potential economic value. Subsequently, the

project team did not see a need to protect such economic value with copyright or other forms of intellectual property.

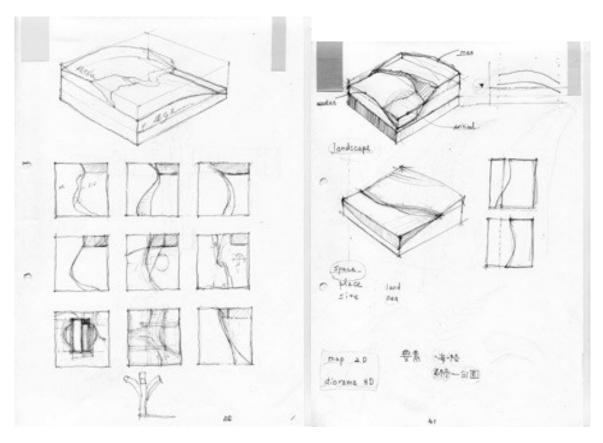


Figure 10: Prototype sketches of the data objects. Permission given by Ian Gwilt.

In discussing the various outputs of the Data Objects project, Ian also expressed a relatively relaxed approach to the ownership of the various objects that the project team had collaboratively produced. The prototype drawings were technically owned by their Japanese ceramist-researcher, but because he had scanned and uploaded them to a shared project hard drive before he left to go back to Japan, Ian saw them as "part of the research," such that the project team collaboratively owned them. In addition, the physical data objects, which were located in his and his colleagues' offices in Sheffield, were owned by various members of the research team rather than the AHRC or Sheffield Hallam University. This was with the "blessing" of the Japanese researchers-ceramicist who had created the data objects, and who could technically be credited as the artist and owner.

Overall, lan was hesitant to claim that the Data Objects project could—or should—be protected by copyright, or any form of intellectual property⁶⁷. The main output, and most important aspect, of the project was the process of transforming data into physical objects, which had been generated through a specific methodology involving quantitative data, drawing, the construction of physical objects, and qualitative interviews. As a result, the main output of the project was not the collection of physical data objects, or any type of finished "product" or artefact,

⁶⁷ In these circumstances, know-how, patenting, and design rights would have been more relevant for protecting a process.

but was rather the overall process of representing data in a three-dimensional way. Although Ian acknowledged that there was copyright wrapped up in the project, noting that there was authorship—and therefore ownership—associated with the physical data objects, he emphasised that the main value of the project was encapsulated in the process of creation and experimentation.

Despite the value placed on the process of creating the data objects, lan emphasised the importance of not protecting or commercializing this process, but rather of sharing it with the design community. He would not be concerned if other researchers repeated his methods—particularly because he was able to garner published outputs, and therefore derive other types of (educational?) value from the research—and even welcomed the uptake and reuse of his work. Sharing the data objects process would facilitate "social innovation," such that the value of the project as a resource and tool could emerge through its communal use. He said:

The process is the thing we want to share with people, in the sense there's no point in taking the same data, it'd be much better if somebody else had a different start point and went through a similar process. And hopefully the end result will look completely different, because they shouldn't necessarily look the same. So it is about the process.

Here, the Data Objects project's willingness to share and be "open" with its research process was intertwined with the fact that the project was run as a prototype or pilot study, given that it was funded as an Exploratory Grant under the Digital Transformations Theme. Ian recounted how the project team had "never discussed selling" the data objects, such that there was no intended commercial collaboration or output resulting from the project. This was in part driven by Ian's view that the value of the data objects, as well as the process of creating them, emerged through their communal use. He said: "I would much prefer [the project] to...gain its value through use...and through the recognition of its use." In this way, his work was aligned with the drive to be more "open" with research papers and data, and to encourage the value of objects and processes through communal use and re-use.

Conclusions: The Value of Process

For the Ghosts in the Garden Project, the researchers placed value in the process of producing an enriching experience that moved beyond a digital app, and engaged with audiences through the mediums of sound, performance, games, and history. While the project entailed a large amount of creative content—in the form of computer programming, sound recordings, acting scripts—the researchers placed little value on protecting their intellectual property. Instead, the placed value on developing a successful collaboration: on bringing together a particular set of skills and talents, on learning from each other, and on pursuing follow-up projects, such as their collaboration with the National Trust at Bodiam Castle. The project's collaborative research process—which was based on trust, informal exchange, and know-how—was so unique that the contributors felt that there was no need to protect it with forms of intellectual property.

For the Data Objects project, the researchers similarly placed value on the process of experimentation and the exchange of ideas, rather than on the protection of intellectual property. The researchers emphasised that the main output of the project was the *process* of creating the data objects, rather than the physical data objects themselves. This was in part influenced by the practice-oriented nature of the project, which meant that the outputs were seen as both research and art, such that ownership and intellectual property were not a main concern. It was also in part influenced by the project's early-stage work, which resulted in prototype processes and objects that had little commercial or economic value. Here, it should be noted that all of the other REACT and AHRC projects discussed in this report involved either collaborations with commercial providers of data (as

discussed in the Transforming Musicology and Digital Panopticon projects), or efforts to develop outputs with potential commercial value (as discussed in the JtR125 and Ghosts in the Garden projects). Because of the prototypic nature of the Data Objects project, the researchers sought to share—and placed value in—their process of creating the data objects. As such, the researchers emphasised that the value of the data object project emerged through the communal use and re-use of the research process, which would enable other researchers to carry out experimental research and produce new ideas.

Ultimately, this chapter highlights the ways in which researchers place value on the process of collaboration and research, rather on the outputs or economic benefits. The process of collaboration and experimentation brings tangible benefits, in the form of informal agreements and arrangements, as well as the potential for future opportunities. Because of the value researchers placed on process, concerns over copyright—which researchers could use to protect the various forms of benefit encapsulated in their work—were not central to the various projects. Apart from the specific instances discussed through this report, many of the researchers we spoke to did not have an in-depth knowledge of or concern for the copyright protection of their outputs. Moreover, many researchers did not articulate or identify the economic benefit encapsulated in their work: economic benefit may have been present, may not have been identified, or may not have been a priority. Consequently, researchers identified the value of process and collaboration.

7. Conclusions and Recommendations

For this pilot project, our research questions, as set out in the introduction, were:

- How do researchers engage with copyright during the research process and in the production of creative works, and what copyright related challenges emerge?
- How is researchers' engagement with copyright affected by digitisation, collaboration, legislation, and government policies?
- Does copyright provide benefits to researchers as they undertake publicly funded research?
- What range of works is produced during research, what do researchers identify to be of value in their projects, and can any of the benefits provided by copyright be mapped on to these values?

We used empirical data from our case studies to address the first two questions in Chapters 3-4 and the last two in Chapters 5-6. In the following sections, we highlight some of the key findings in relation to these substantive issues and also make a series of recommendations for future research.

Copyright Protected Outputs

As noted in Chapter 2, a large number of copyright protected outputs have emerged from the six projects. The works protected by copyright produced in each project are shown in Table 2. While we have captured most of the works for the projects that are complete given the scope of copyright, it is likely that there will be some works that we have missed. We have identified these works through our interviews and through web searches. At the time of writing some were aspirational (e.g. an article to be written).

Table 2: Project Ouptuts

Transforming Musicology	Digital Panopticon	JtR125	Risk Taker's Survival Guide	Ghosts in the Garden	Data Objects
searchable project website: www.transforming- musicology.org	searchable online website: www.digitalpanopticon org	prototype game: www.youtube.com/wat ch?v=2rKprmntnAE	prototype interactive documentary: www.vimeo.com/1002 93591	steampunk-esque box, made of a phone and minirig	physical data objects, made of wood, bronze, plaster, 3D printing material
software tools for MIR analysis	open source code (for digital humanities algorithms)	news gaming manual	Interactive player template (hypothetical)	gps-triggered content software	prototype data objects, made of paper
project data (analysis results/linkage)	project data (analysis results) in XML format	scripts	data from users	short film about project: http://vimeo.com/6023 9838	prototype data object sketches
grant application	digitized records	transcripts from experts	spin off documentary series (hypothetical)	leaflet about project	3D printer source code
data management plan	digital visualizations: www.digitalpanopticon .org/?page id=216	apps in Unity3D	research on the psychology of perception	sound recordings	photographs of people interacting with data objects
data store in oxford (hypothetical)	journal articles (hypothetical)	renderings of illustrated police news, lancet, and other old documents	original footage	scripts	original data
copies of musical data	book (hypothetical)	book on digital journalism (hypothetical)	scripts	choose your own story schematic	Powerpoint presentations
possible commercializable outputs	Powerpoints presentations: www.digitalpanopticon org/?page_id=503	journal articles (in press)	Powerpoints presentations	biographical research from archives	journal articles: https://research.shu.ac .uk/DataObjects/
journal articles: www.transforming- musicology.org/publica tions			monograph on risk (in press)	conference papers (hypothetical)	
			book chapters (hypothetical)	journal articles (hypothetical)	

Common across all of the projects are academic outputs. These come in the form of presentations, journal articles, book chapters, and books. Also common across all of the projects are websites where information about the project can be found. To a greater or lesser extent, each of the projects uses other forms of social media—including blogs and twitter—for which the content will be protected by copyright.

Unsurprisingly there is greater diversity in the non-academic outputs of the projects. While the main outputs from the Digital Panopticon and Transforming Musicology projects will be databases and software, the other projects have produced a variety of outputs: Data Objects has produced 3D representations of data, JtR125 has produced a prototype game, Risk Taker's Survival Guide has produced a documentary, and Ghosts in the Garden has produced an immersive experience. Each of these is protected by a number of different types of copyright and allied rights. The databases will be protected by copyright and database rights, while the software, JtR125 game, Risk Taker's Survival Guide documentary, steampunk-esque wooden box, and 3D representations of data will be protected by copyright (these latter two as sculptures perhaps). In the game and the documentary there are layers of copyright: while the software in the game will be protected by copyright in and of itself, other content in the game will be protected by a separate copyright (this would include the renderings of the Illustrated Police News and The Lancet that Tomas found so difficult to procure in a format that would have been useful for the project). For the documentary, some of the footage was licensed, and there are separate copyrights in elements including the artistic works and literary text. For Ghosts in the Garden, there is copyright in the sound recording played on the mobile phone in the box, as well as in the text that is spoken as the game is played in the garden. Beyond the main output in each of these projects, there is a plethora of other copyright protected works including a user manual, scripts, graphics and transcripts for JtR125; gps-triggered content software, a leaflet, scripts and recorded archival research for Ghosts in the Garden; an initial script and recorded footage for Risk Taker's Survival Guide. In terms of the use of third party platforms, Risk Taker's Survival Guide documentary is hosted on vimeo, while JtR125 was developed in Unity3D, an open source software program, and released on STEAM, a proprietary platform. These will require that JtR125 and Risk Taker's Survival Guide and their users abide by the terms and conditions of the host site.

Copyright Challenges

Copyright Exceptions

As we noted in the section on copyright challenges in Chapter 1, the literature interrogating the utility of the copyright exceptions for researchers has highlighted how difficult exceptions are in practice. While the British Academy review (2006) suggested that at least some of these challenges could be overcome by more expansive interpretation of the exceptions, the British Library essays (2010) emphasised both the restrictive interpretation of the exceptions in practice, and the difficulties for researchers in dealing with the limited scope of the exceptions. Our findings suggest that the scope and interpretation of copyright exceptions continue to be a persistent challenge for researchers: while exceptions may be a more important challenge to researchers working away from the market and with third party works protected by copyright, they are also relevant, even if less important, for those working closer to the market with creative industry partners.

Overall, copyright exceptions could pose a particularly important challenge for those researchers who are working at the experimental end and away from the market. Our analysis indicates that researchers who may wish, and also be encouraged, to extend the boundaries of their disciplines by creating new datasets, analyses, and resources can find the landscape of copyright exceptions to be at odds with their goals and also difficult to navigate. To this end, the Transforming Musicology project demonstrates how uncertainty over the scope and limitations of both

existing and new copyright exceptions not only causes concerns over what research can be undertaken, but also over how such research can be suitably disseminated and sustained. As noted in the Introduction, UK law around copyright exceptions has recently changed: a new exception for text and data mining has been added, and the scope of the exception for fair dealing for the purpose of non-commercial research has been amended to include all types of works. Our findings from the Transforming Musicology project suggest that the text and data mining exception could be crucial to the methodology of the project and to realising some of its ambition. However, the ability of the newly introduced and reformed exceptions to enable conduct of experimental research, which can also meet the dissemination and sustainability expectations of the funders, needs further investigation.

Recommendation #1

We would **recommend** that further case study research be carried out with research projects that use a range of third party copyright-protected material (literary, dramatic, musical and artistic) to ascertain whether the exceptions, as introduced and amended, allow them to meet their research aims. The recent Digital Transformations call for projects exploring the potential for digital environments to facilitate collaborative research and dialogue between practice-based research in the arts and other forms of AHRC-funded research may provide some fruitful material in this regard. In addition, the Intellectual Property Office (IPO) will be conducting an evaluation strategy and post implementation review of the amended exceptions to copyright. We would **recommend** investigating opportunities to work with the IPO when undertaking this review, in order to ascertain whether the needs of researchers in the arts and humanities are being met.

In contrast to the Transforming Musicology project, the Digital Panopticon researchers planned to use their previous experience in negotiating and obtaining access to rights protected datasets owned by commercial entities. While the rights protected content was not crucial to the project's data analysis, the researchers did have concerns over the sustainability of their planned resource in light of the commercial arrangements they were hoping to negotiate. Whether commercial arrangements such as these may prove problematic for the digital resources created by researchers remains to be seen.

Copyright Workarounds

In Chapter 4 we highlighted the workarounds that arts and humanities researchers—in particular, REACT participants—used in order to realise their projects in the face of issues around third party rights. These ranged from licensing in works where there was no alternative (Risk Taker's Survival Guide), to recreating scenes from information in original documents (JtR125), and finally to going elsewhere to find the same—or at least comparable—information (Ghosts in the Garden). Two of these were not copyright related — or at least not if it is accepted that the act of digitisation does not result in a new copyright coming into being in the digitised object. These were JtR125 and Ghosts in the Garden. These concerned restrictive access to and re-use of out-of-copyright archival material, the challenges surrounding which have been discussed above.

These REACT case studies demonstrate that researchers working closer to the market, and under the pressures of having to get something to the market quickly and cheaply, may be quite reluctant to rely on copyright exceptions and prefer to do creative workarounds. In such cases, where researchers had wanted to use third party works protected by copyright, and where difficulties arose in so doing, workarounds provided a pragmatic solution. At no point did any of the REACT projects discuss resorting to a copyright exception as a way to use copyright protected works. Moreover, the attitudes of the creative industry partners in both JtR125 and the Risk Taker's Survival Guide

demonstrated a general reluctance towards procuring licences for content, particularly if it was expensive or difficult to negotiate. Overall, the REACT case studies indicate that copyright workarounds are common among creative partners, both in the process of creating works mostly from scratch, such that questions over third party rights do not arise, and also in the process of finding creative solutions in order to recreate difficult-to-obtain content.

While copyright workarounds seemed satisfactory, researchers expressed lingering concerns about whether the quality or value of their outputs was diminished by the use of copyright workarounds, rather than the use of original content. This was particularly a concern for the JtR125, Digital Panopticon, and Transforming Musicology projects, where researchers worried that their work would be of less value to other researchers or to the public if original source materials were not used. Moreover, researchers expressed concern about whether the value of the output would be compromised if the research results could not be displayed or conveyed to the end user in the way intended—as occurred in the Transforming Musicology and Digital Panopticon projects—because of copyright and/or contractual restrictions on the amount of material that could be used.

Copyright may also be an impediment to research in that some research may be conceived of but the ideas may not taken any further because of fears surrounding the impact of copyright when implementing the research. It was hinted at in Transforming Musicology that during the design of the project it was feared that the copyright challenges could prove to be overwhelming. Ultimately the University decided to support the project using it as a test case for copyright and data management in the Institution.

Recommendation #2

While legal frameworks will always constrain the type of research that can be carried out, as well as the way that it is carried out on a number of different levels, we **recommend** that more case study analysis is carried out exploring the impact that the copyright framework has on research design, project implementation, and the display of outputs. This is particularly important as increasing amounts of research monies are devoted to this area, and as greater emphasis is placed on the potential for collaborations between researchers and creative industries in order to contribute to economic regeneration.

Relatedly, we also **recommend** that further research be carried out to assess whether the quality and value of research outputs is diminished for specific users/the public, where researchers have to make compromises in accessing or using rights-protected works. For example, if content or findings are not fully accessible to the public such as may be the case in Transforming Musicology, where it is unlikely that users will be able to listen to the patterns and nuances contained within music, does the value of the project website as a tool for musicological research and learning diminish? Or, if workarounds are deployed because rights protected content is expensive or time-consuming to obtain, such as in JtR125, where users do not see or hear historically accurate content, does the value of the video-game diminish? Moreover, if historical content is not fully accessible to the public, such as in the Digital Panopticon, where users are likely only able to view the links between, rather than the content of, historical records, does the value of the project website as a tool for educational and historical research on the nature of punishment diminish? Consequently, we **recommend** an examination of the outputs of research after they become part of the digital economy, an analysis which may require a different methodology.

Accessibility of Materials in Archives

As we noted in the section on copyright challenges in Chapter 1, when researchers wish to access and reproduce out of copyright materials, they may face a complex and confused landscape. Four out of six case studies—
Transforming Musicology, Digital Panopticon, JtR125, Ghosts in the Garden—faced challenges when seeking to access and use works in archives and/or archival material that had been digitised. These took a number of forms.

Some researchers felt that archives had a lack of clear processes and mechanisms for licensing material, which hindered access to content and, at times, involved time-intensive negotiations. While some archives had clearly worked out strategies for the licensing of content, researchers felt that others were "making up" policy in response to individual requests for access and re-use of material. For example, Ghosts in the Garden experienced instances in which private archives have entered into exclusive digitisation agreements with third parties, such that researcher were denied access to the original materials, while the commercial partner dictated the terms of access and re-use of the digitised copies. JtR125 experienced instances in which public archives did not permit the digital reproduction of their content, and only allowed researchers to make print copies. This resulted in extra work by the researchers to produce something that was usable in the project. Moreover, both the Digital Panopticon and Transforming Musicology experiences instances where permission was given to use materials from archives, but in a way that only a snippet view could be made available to the public on the project website.

Such challenges in accessing public archives may be the result of confusion in policy surrounding the accessibility of works in archives when digitised. As we noted in the Introduction and in the Preface on Copyright Challenges, there are tensions between Government policy on accessing content, on institutions needing to contribute to their financial sustainability, and on open access policies. When the researcher is caught at the intersection of these policies, difficulties with accessing and re-using archival material can occur.

Overall, previous experience in dealing with archives helped researchers to reach creative, commercially acceptable deals, such as in the Digital Panopticon. This may be an indication of growing experience within digital humanities as a discipline. However, for many of the projects agreements between researchers and archives for access to content were time limited, and gave rise to concerns arose over what would happen to the projects at the end of the research period. For example, in the Digital Panopticon, researchers who had come to agreements with third parties wondered whether the project would be sustainable.

Recommendation #3

In this study we were surprised at the extent and variety of the challenges faced by researchers in accessing and re-using digital archival material that is, at least nominally, out of copyright. We recommend that more work be done to facilitate access to and re-use of information in archives and libraries for researchers.

When the amended Re-use of Public Sector Information Directive comes into force (latest implementation date 18 July 2015, the existing rules will be extended to include museums, libraries and archives. We **recommend** that further case study research be carried out across a range of funded projects to ascertain if the laws are being operated as intended, and if they do benefit researchers.

We also **recommend** that clearer policy guidelines be developed for libraries, archives and museums over exploitation of their digitised content, at least for research purposes. While the amended Re-use of Public Sector Information rules, combined with the amendments to the copyright exceptions, may help to streamline and make more transparent frameworks for accessing and re-using content, they will not solve the policy tension between open access, the use of digitised cultural heritage by creative industries and the need for the institutions to generate income.

Copyright Benefits and Non-Copyright Value

Copyright Benefits

Our case studies produced an array of works protected by copyright, which were directed to academic audiences and beyond. Surprisingly, our findings suggest that none of the case studies placed value on the direct economic benefits that could have arisen from the exploitation of copyright in the outputs. Our findings suggest, on the other hand, that moral benefit was important across all the case studies, for both academic researchers and creative partners. While copyright may provide a range of benefits—social educational, and communicative—our project was designed to follow research outputs only until they reached the digital economy, but not track them further. As such, we have not ascertained whether these other benefit had been, or could have been, realised.

Recommendation #4

In order to understand whether a range of benefits—beyond economic and moral—arises from the copyright protection of AHRC funded research, we **recommend** that further case study research be carried out to track the project outputs as they are disseminated in the digital economy and used within society. Such research may also be combined with our recommendation above for the assessment of whether the quality and value of research outputs is diminished for specific users/the public where researchers have to make compromises in accessing or using rights-protected works.

Value and Reputation

As discussed in the Preface on Benefit and Value, and in Chapter 5, reputation was of significant value to all the participants in the REACT projects. It was important to the project participants that they be identified in relation to the project outputs of their choosing, whether or not they would be considered, in law, as the copyright author of the particular work. Given the importance of this function to all of the partners involved, the question arises as to whether the law should be amended to reflect this practice, and if it should, what that amended law would look like.

Recommendation #5

Noting that there are discontinuities between the legal right of attribution and copyright law's narrow conception of authorship and social practice, some work has been done on re-thinking the scope of the right to achieve consistency between the law and social practice (Bently and Biron, 2014). Similarly we **recommend** that further work be done in this area, with a particular focus on how the right may reflect the value of reputation in collaborative projects where the law may not recognise individuals as copyright authors of all of the works that the group creates.

Value and Process

In Chapter 6 we highlighted the value that the participants placed on collaboration and the research process. For example, both Ghosts in the Garden and Data Objects emphasised that collaboration during the research process was one of the most important aspects of the project. By contrast, copyright was seldom mentioned as an important part of the collaboration. Elsewhere the importance of the collaborative process for the participants has been highlighted, where it has also been noted that this makes policy intervention difficult (Waelde and Schlesinger, 2011). Our findings suggest that for researchers process is more important than product for knowledge exchange that might ultimately result in impact. This is consistent with recent research (Upton et al., 2014) suggesting that the process of knowledge exchange and research is a more effective driver of research impact than outcomes, a conclusion which is supported by the AHRC 2013 guidance on planning and demonstrating effective policy engagement (Upton et al., 2014).

Methodological Suggestions

Overall, our findings suggest that the case study methodology illuminated the processes, outcomes, and challenges surrounding copyright, and could be used to form the basis of a larger piece of research. Moreover, we suggest that this methodology could be successfully used to examine and compare practices in the other KE Hubs, and more generally across funded arts and humanities research projects.

Our findings have shown that there are key differences as between REACT projects and Digital Transformations projects, and that these contribute to copyright processes, challenges, and values. With Digital Transformations projects there was generally never any intention of commercialising the outputs as they were more about transforming research than the REACT projects. By contrast commercialisation seemed an implicit if not explicit assumption for the REACT projects, although ultimately none were directly commercialised. In addition, Digital Transformations projects occurred on a significantly longer timescale, lasting up to four years, while REACT

projects lasted for only three months. Moreover, Digital Transformations projects received significantly more funding, receiving up to £1.6 million in comparison to the £50k received by most REACT projects. Nonetheless, as we have shown, the issues that have arisen in terms of copyright hurdles and benefit are similar.

Our findings have shown that the REACT IP agreement was instrumental in avoiding any conflicts over IP between creative partners and academic researchers, or within the academic's institution.⁶⁸ Our findings also suggest that at least one of the projects, JtR125, would not have gone ahead without a clear provision for ownership of IP. This immediately raises question as to what happens at the other KE hubs, where the approaches to copyright differ.

Recommendation #6

Consequently, we would **recommend** that future research should deepen our understanding of projects funded under individual funding streams, rather than to cross compare. Does a different strategy as regards IP ownership as between the academic, the institution and the industry creative result in more or fewer copyright hurdles for researchers? And what of the benefit in terms of the copyright protected outputs? Do varying patterns of ownership of IP have any impact on the number, variety or scope of copyright protected outputs? Exploring such questions would be advantageous, in that the research would have a specific focus, testing the conclusions that have emerged to date. Given that the methodology has been successful in delivering key insights into the projects investigated, we would also **recommend** that more work be done to compare research processes and outcomes in other AHRC funded KE hubs.

As noted in Chapter 2, there are several methodological limitations in this project. Firstly, our case studies of the six projects relied on the accounts of only a small number of people, making it difficult to ascertain the extent to which the views of the interviewees corresponded to the views of other researchers involved in each of the cases. For example, because the majority of the people interviewed were principal investigators (PIs), at an advanced stage of their career, this pilot project is unable to reflect on any of the copyright experiences and challenges faced by early- and mid-career researchers.

Secondly, there were challenges in gaining access to the creative partners involved in the REACT projects. Understandably, this was because people involved in the creative industries were extremely busy, and were working on both a faster timescale and more limited budget compared to academics working in higher education institutes. Because creative industry partners lacked incentives to speak about REACT-funded projects, it was difficult to arrange interviews and follow-up work.

Thirdly, we were not able to carry out focus groups, as we had originally set out in the pilot project proposal. Although we aimed to use the pilot projects to ask additional questions and determine the views of all interviewees, we found that it was difficult to collect additional data after the interviews during the 9 month empirical portion of the project.

⁶⁸ Although see the comment above n.13 noting that the legal documentation may not be as clear about ownership of the IP as the parties think that it is.

Recommendation #7

To address these methodological limitations, we **recommend** that the views of early and mid-career researchers be brought into future research projects, where appropriate. We also **recommend** that where creative industry partners are involved in collaborative research projects, it would be best practice to encourage them to engage in follow-up research if asked. In addition, we **recommend** that similar short-term pilot projects attempting to conduct follow-up research with interviewees use theme-led conferences and meetings as potential venues to reconnect with interviewees.

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