Intellectual Property Rights for Digital Preservation

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Foreword

The Digital Preservation Coalition (DPC) is an advocate and catalyst for digital preservation, ensuring our members can deliver resilient long-term access to digital content and services. It is a not-for-profit membership organization whose primary objective is to raise awareness of the importance of the preservation of digital material and the attendant strategic, cultural and technological issues. It supports its members through knowledge exchange, capacity building, assurance, advocacy and partnership. The DPC's vision is to make our digital memory accessible tomorrow.

The *DPC Technology Watch Reports* identify, delineate, monitor and address topics that have a major bearing on ensuring our collected digital memory will be available tomorrow. They provide an advanced introduction in order to support those charged with ensuring a robust digital memory, and they are of general interest to a wide and international audience with interests in computing, information management, collections management and technology. The reports are commissioned after consultation among DPC members about shared priorities and challenges; they are commissioned from experts; and they are thoroughly scrutinized by peers before being released. The authors are asked to provide reports that are informed, current, concise and balanced; that lower the barriers to participation in digital preservation; and that they are of wide utility. The reports are a distinctive and lasting contribution to the dissemination of good practice in digital preservation.

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1. Abstract

While a number of legal issues colour contemporary approaches to, and practices of, digital preservation, it is arguable that intellectual property law, represented principally by copyright and its related rights, has been by far the most dominant, and often intractable, influence. It is thus essential for those engaging in digital preservation to understand the letter of the law as it applies to digital preservation, but equally important to be able to identify and implement practical and pragmatic strategies for handling legal risks relating to intellectual property rights in the pursuit of preservation objectives.

Intellectual property rights have a long and storied history, but that history, and contemporary UK law, reflect a set of interests which are rarely entirely consonant with, and often inimicable to, effective preservation of works for future research and reuse. Thus the final key requirement for those engaging in digital preservation is the ability to advance a coherent and cogent message to rights holders, policymakers and the public with regard to the relationship between intellectual property law and digital preservation. That is, that it is in the long-term interests of all stakeholders that modern intellectual property law permits both the implementation of effective and efficient mechanisms of digital preservation, and the widest possible re-use of the digital works preserved.

This report is aimed primarily at depositors, archivists and researchers/re-users of digital works, but will provide a concise introduction to the subject matter for policymakers and the general public.

2. Executive Summary

At present, UK copyright legislation poses significant obstacles for libraries and archives seeking to preserve digital works, and make those works readily accessible to the public. Some of these obstacles are simply artefacts of a copyright regime which has not kept pace with digital technologies. Others have been created by copyright holders lobbying to ensure that their economic rights, and the business models built on the back of the exploitation of those rights in a non-digital environment, are granted maximum protection, a position often at odds with the public interest goals of copyright, and sensible preservation actions in particular.

An evaluation of UK copyright law suggests that there are several areas where reform could make a significant difference to the scale of preservation possible, as well as providing for effective and efficient access to, and reuse of, legacy digital works. These include:

- the establishment of a coherent and comprehensive legal deposit regime for digital works – an area where the government has dragged its feet since the Legal Deposit Act 2003;
- action to address the preservation and reuse of orphan works – an issue of increasing importance with the exponential increase in digital works without effective provenance metadata;
- clarification of legal rules regarding the preservation of computer programs, databases and multimedia works, currently in preservation limbo; and
- simplification of the process for permitting the removal of technical protection measures (TPMs) for legitimate preservation and access purposes.

However, recent research suggests that for effective national legal change to occur, action will also be required at the EU level. The KEEP Project's work (see p.30) highlights the fact that even where Member States are willing to adopt measures that promote digital preservation, actually putting those measures in place may potentially lead to them being found in breach of EU law. There is, now more than ever, a need for libraries and archives to have a strong voice at Westminster and in Brussels and to continue developing and strengthening the case for the social and economic value of preservation of and access to digital works.

In the interim, those engaged in digital preservation must work within the law as it stands. This requires both a good general knowledge of what the law is, and a degree of pragmatism in its application to preservation work. Such knowledge enables the archivist to avoid the pitfalls of over-cautiousness and undue risk aversion, and to more accurately assess the risks and benefits of taking on the preservation of new iterations of digital work. It allows them to interact and engage effectively with copyright holders and their professional representatives in negotiations and disputes over preservation and access rights. The digital preservation community has a vital role to play in making an effective knowledge of the workings of copyright law a cornerstone of library and archival training and practice.

3. Introduction

In 1086, the first draft of the Domesday Book was completed at the behest of William the Conqueror. Over 900 years later, digitized copies of that book are available on the Internet, complete with translations and background information. In 1986, the BBC published a pair of interactive videodiscs to celebrate the nine hundredth anniversary of the original Domesday Book. One disc – the Community Disc – comprised largely of material collected from the public, via schools and community groups; the other disc – the National Disc – contained '… sets of photographs, some professional and some from the national photographic competition, and … a range of text from various published sources such as newspapers and magazines' (Finney 2011). Twenty-five years later, videodisc technology having long passed into digital history, the BBC Domesday Book has been resurrected online as Domesday Reloaded (http://www.bbc.co.uk/history/domesday). Or more accurately, part of the collection has returned to the public gaze – for Domesday Reloaded comprises only the Community Disc, as to date the National Disc suffers from uncertainties over unrecorded intellectual property rights.

In the words of an author whose works have been (largely) successfully preserved down the centuries, 'ay, there's the rub'. Even as ever more works are 'born digital', their use and reuse remains straitjacketed by intellectual property laws – laws which were initially envisaged as providing a limited degree of economic protection to a relatively small group of creators and content-producing industries, for a short and clearly delimited period of time. For example, copyright was an arrangement that was intended to encourage the creation and public availability of new works by affording their creators the opportunity, if they desired, to impose conditions (in the UK, primarily economic conditions) under which other parties could make and use copies of the work. The *quid pro quo* for that economic protection was that the State would balance those entirely artificial economic rights against requirements that certain public rights must be permitted by the author or copyright holder (fair dealing, library rights etc.), and that within a relatively short period a work would enter the public domain, where anyone could use and reuse it at will (initially, under the Copyright Act 1842, the term of copyright was 42 years, or the lifetime of the author plus 7 years, whichever was the longer).

This 'social contract' balance was under strain long before the arrival of digital works, with pressure for term extensions, and for greater rights and powers for copyright holders, usually unmatched by similar concerns for public interests including preservation. But the arrival of digital works, which are easily and quickly copied and distributed, in combination with the lobbying power of the content industries, and legislators unresponsive to the needs of preservation, has led to a 'perfect storm' for the public interest in copyright. Copyright holders have in recent years succeeded in extending the term of copyright to the point where, for many digital works, it will effectively be perpetual. Even as this report was being written, a new EU Term Extension Directive for copyright in sound recordings and for performers' rights is raising the bar yet again – despite the EU Commission's own study recommending against it (Helberger, Dufft, van Gompel & Hugenholtz 2008). At the same time fair dealing under UK law is being curtailed either by legislation: for example, when 'Fair dealing ... for the purposes of research or private study' became 'Fair dealing ... for the purposes of research for a non-commercial purpose' (SI 2003/2498: s.29 (1)) and '…for the purposes of private study' (s.29(1)C); or by contract: 'Even where there are copyright exceptions established by law, [university] administrators are often forced to prevent staff and students exercising them, because of restrictive contracts' (Hargreaves 2011, 41). It is worth noting that in comparison with the US doctrine of 'fair use', the UK legislative implementation of 'fair dealing' has always been quite restricted – the private study and non-commercial research defences are restricted

to literary, dramatic, musical and artistic works, and the Copyright Designs and Patents Act (CDPA) defences in general are strictly limited in scope.

Possibly the poorest relation in this increasingly unbalanced digital copyright relationship has been the one area of activity which has quietly been supporting research, education, enterprise and public interaction with creative works for much of recorded human endeavour: archiving and preservation. It has been a generally benign neglect by successive UK governments and EU civil servants, but it is no less harmful to the preservation of the digital record for all that. While copyright holders have argued for and received increased expanded economic rights and privileges over the last decade and a half, archives have been asked to make do with legal permissions that were barely adequate for the preservation of print media, and which have already failed to provide the necessary legal support for the preservation of analogue audio-visual materials such as films and video (Gowers 2006, 64-65). What lies behind this apparent legislative neglect? Is it that suggestions of a digital 'black hole' are simply unsupported by empirical evidence (Harvey 2008)? Or that archivists are simply too risk-averse to make effective use of existing statutory copyright permissions? Or unwilling to explore new and more efficient ways of obtaining creator and copyright holder consent to archive digital works?

There is undoubtedly some truth in the suggestion that archivists have been too risk-averse, too ready to apply identical risk criteria to different categories of work, for example Internet-based user-generated content versus professionally published works. But equally, it is clear that the digital environment does bring new uncertainties and new risks, and that for all the risk mitigation strategies that can be brought to bear, such as legal metadata, deposit agreements, notice and takedown, life would be much simpler for archivists if the law relating to the preservation of copyright works in general, and digital works in particular, was both clarified and, where necessary, extended to permit more robust strategies for collection, preservation and reuse of copyright works. So why has this not occurred?

4. Issues

There are a number of intertwined reasons. A key component is inertia: put bluntly, digital preservation is not a legislative priority – taking time to draft and debate such legislation is an opportunity cost – it uses up time that legislators can use to promote issues closer to their immediate interests. Thus, even when legislation such as the Legal Deposit Libraries Act 2003 is passed, it may be some time before significant results are seen from it, if secondary legislation is required. Preservation is also often regarded as a long-term process, and to many politicians long-term issues are effectively someone else's problem. There is no doubt that well-financed lobbying is also a major factor in the success or failure of copyright-related legislation, as is a good 'story' – for example, the recent Term Extension Directive for sound recordings was presented as protecting the interests of session musicians, rather than providing a windfall for corporate copyright holders, the outcome that most independent research predicted.

Another important element has been the continuing 'hollowing out' of the international negotiating regime for intellectual property rights (Charlesworth 2005). Where Intellectual Property Rights (IPR) laws such as copyright were once primarily formulated, debated and agreed at a national level, their content is now increasingly driven by international/ supranational agreements at the World Intellectual Property Organization (WIPO) and international trade forums. The effect of this internationalization is that lobbyists monopolize the discussion of copyright policy rationales and, due to the increased costs of representation

at international level, the voice of public interest groups is significantly attenuated, and the voice of the general public effectively stilled. At the same time, the role of government in determining and protecting the public interest has been considerably diminished by a willingness to allow special interest groups to set and dominate the agendas. The result has been the effective 'capture' of the international intellectual property regime by special interests, and the concomitant diminution of the role of national legislators and courts, as national legislative implementations of international agreements in effect rubber stamp policy decisions made by unelected members of supranational bodies containing few, if any, democratic elements (Charlesworth 2005). Failure of governments, national bodies (such as the UK Intellectual Property Office), and the lack of opportunities for major preservation bodies (such as National Libraries and Archives), and representative groups (such as the DPC) to resist this ongoing process of 'hollowing out' will make it hard, if not impossible, for the preservation community's modest needs for reform to be addressed.

A prime example of this is the extension and use of the Berne 'three step test' which is found in most recent international copyright agreements, including the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), the WIPO Copyright Treaty (Article 10), the WIPO Performances and Phonograms Treaty, the Directive on the legal protection of computer programs (Article 6(3)), the EU Database Directive (Article 6(3)), and the EU Information Society Directive (Article 5(5)). The 'three step test' requires that any limitations on exclusive copyrights are confined to 'certain special cases' which do not conflict with a 'normal exploitation of the work' and do not 'unreasonably prejudice the legitimate interests of the author'. Where a state attempts to provide new or expanded exemptions to copyright law, including for archiving and preservation, those exemptions will usually be immediately attacked by copyright holders as being contrary to the 'three step test', regardless of the public interest in such exemptions. Examples of this are noted in the KEEP project report discussed below (section 7.1.3). One effect of the 'three step test' has thus been to create an immediate barrier to effective discussion of the nature and scope of national exemptions that might reasonably be applied to digital works.

Indeed, as far as digital works are concerned, copyright holders have been keen to seek to restrict even those exemptions which are granted under the CDPA 1988, and the UK government appears to have been largely willing to accommodate those wishes. For example, under the Legal Deposit Libraries Act 2003, and the proposed Legal Deposit Libraries (Non-print Publications) Regulations put forward by the government for discussion in mid-2011 and again in early 2012, the regime applied to non-print works would be considerably more restrictive than that applied to print works, to the point where effective archiving, preservation and public reuse of non-print works would be severely limited.

This exemplifies the paradoxical problem facing those seeking to engage in digital preservation. There is little doubt that without a coherent national legal strategy for permitting the collection, preservation and reuse of digital works, a significant portion of digital works produced in the UK will simply not be preserved, regardless of their intrinsic value in terms of reuse and research. There is fairly consistent agreement across the board that this outcome is undesirable – there are no major players in the digital environment who are arguing that we should not be preserving digital works. There is also considerable support for copyright reform, exemplified by the consistent message delivered by both recent Government-commissioned reports on Intellectual Property Rights (IPRs), the Gowers Review of Intellectual Property in 2006, and the Hargreaves Review of Intellectual Property and Growth in 2011 (hereafter

referred to as the ‘Gowers report’ and ‘Hargreaves report’ respectively). However, copyright law has become so ossified, and so subject to special interest ‘cut-outs’ and demands, that reforming it to take account of the differences between analogue and digital works is not a simple task. This is particularly the case if copyright holders and legislators insist on clinging to copyright practices that reflect outdated business models rather than attempting to establish new practices to address the prevailing mixed analogue/digital environment.

The crux of the matter is that there can be no effective way forward for digital preservation unless some of the existing copyright dogmas are discarded, and a more robust concept of the ‘public interest’ is developed to underpin exemptions from copyright. Sensible boundaries need to be set for assessing the application of rules like the ’three step test’, with concepts such as 'normal exploitation of the work' and 'unreasonably prejudice the legitimate interests of the author' being interpreted with public interest as a key determinant, rather than treated as an afterthought. The furore over the proposed treatment of ‘orphan works’ in the Digital Economy Bill in 2010 demonstrates the difficulties of carving a path between copyright holder expectations and the efficient use of copyright works in the public interest. However, in reaching a resolution to that issue (and it seems that such a resolution is inevitable), it should not be forgotten that the rationale for copyright in the UK has always been economic efficiency – however keen copyright holders are, when it suits them, on supporting the rights of creators, authors or session musicians, state-granted copyrights are inextricably linked to the economic interests of the society in which the protected works are created. If it is in the public interest in economic terms to exempt preservation of, and future access to and reuse of, orphan works from copyright holders’ exclusive rights, then subject to appropriate safeguards for copyright holders, there is a clear argument for providing such an exemption, even though its provision may cause some costs to, or require some action on the part of, copyright holders. Protection for copyright holders should be provided by proportionate limitations on the scope of the exemptions, not by precluding the acts of preservation and reuse.

If one were to believe copyright holders’ special interest groups and lobbyists, it would seem that to alter the balance of copyright in this way would inevitably harm copyright holders and stifle future innovation. A counter-argument is that effective preservation actions are inherently designed to facilitate the effective future management of objects in which copyright subsists. Indeed, it can be argued that in the digital environment now developing those preservation actions will be essential for a meaningful copyright regime to survive - that there will be ‘no value in copyright without effective preservation’. Thus the lobbyist arguments overlook the fact that to refashion copyright to allow for the effective re-use of orphan works, or to allow greater scope for digital preservation and access and reuse of digital materials, would itself be an engine for innovation, whether in terms of outputs from reuse of copyright works, or in terms of copyright holders developing new business models, new approaches to marketing their works, and new ways to ensure that their rights are respected. The copyright regime should be a driver for such innovation, whereas independent reports like Hargreaves and Gowers imply that copyright has been used as a prop for stagnating business models and an encouragement for the inefficient hoarding of protected works made valuable not by their economic use, but in their artificially maintained scarcity. Despite the resistance from a significant economic and cultural bloc of copyright holders, it seems that this message is beginning to filter into both business and legislative consciousness.

In the interim, archivists must learn to work as effectively as possible within a flawed copyright regime, to fully utilize those exemptions that are currently granted, and to take a considered,

but pragmatic, approach to the legal risks that stem from operating on the borders of those exemptions. Equally, archivists need to be more proactive about their relations with the general public and with private interests, cultivating the former to appreciate the value of maximizing both the material that can be preserved, and allowing its reuse with minimal restrictions, and encouraging the latter to see digital preservation not as a threat, but as a commercial opportunity or advantage.

Returning to the BBC Domesday Book, the preservation and ultimate resurrection of that project has occurred because there is both public interest and commercial opportunity in achieving that goal. That it has struggled for so long to reach the point of public accessibility is partly due to the strictures of the copyright regime (and the lack of a coherent framework for dealing with orphan works), but at least as much to omissions by the BBC in the collection and curation of the legal metadata necessary for its continued reuse – uses that could scarcely have been imagined at the time. At the end of the day, whatever system of copyright archivists work under, it is likely to be the timely collection and preservation of accurate legal information about digital works that will ultimately determine the future value, accessibility and reusability of material preserved in digital archives.

5. The Law: Copyright

In the following discussion, the primary focus is on the legal framework of the UK, as influenced and amended by European Union law and international treaties.

5.1. Legal Fundamentals

Copyright is a property right usually initially vested in the creator of a protected work, and is essentially a bundle of economic and moral rights. In the UK the basic legal framework is contained in the Copyright, Designs and Patents Act 1988 (CDPA 1988), as amended by later primary and secondary legislation (see further, Padfield 2010; Pedley 2007; Cornish *et al.* 2010).

Copyright comes into being when a work is created, and in the UK no formal registration process is required, or available. For a work to attract copyright protection the Act requires that it must be 'original' (s.1(a)). It need not be especially imaginative, but its creation must involve some effort and it cannot be just a copy of another work.

Copyright covers many types of creative effort. It protects specific classes of works, but not ideas. For example:

- **literary works (s.3):** includes fiction and non-fiction books, journals and **newspapers/magazines**, but the category is much wider. The basic criteria are that the literary work is original and 'fixed' in some medium. This means that letters, e-mail messages, and webpages can all be the subject of copyright. A work's 'literary merit' is unimportant. The CDPA 1988 brought the spoken word within the scope of 'literary works' for the purpose of contemporary legislation, but requires spoken or sung words be 'recorded, in writing or otherwise...' before a copyright can exist (Phillips 1989).
- **artistic works (s.4):** includes graphic works, photographs, sculptures, collages, maps, charts and plans. These are protected regardless of artistic merit.

- **sound recordings (s.5A):** includes every type of sound recording on any type of medium from which sounds can be reproduced.
- **films (s.5B):** includes any medium from which a moving image may be reproduced.
- **broadcasts (s.6):** includes any transmission capable of lawfully being received by members of the public.

Copyright only exists for a limited period - the term of copyright - and, in principle, all works eventually emerge from copyright protection. Under UK law, different types of work may have different terms of copyright protection (s.12-15). In part this is due to the fact that copyright legislation in the UK has tended to build upon rather than repeal outright prior legislation. Thus, elements of prior legislation may still have effect, for example in regard to determining ownership of a work, or the duration of the copyright term applying to a work. Thus, the UK law that applies to a given work may be that which was in force when the work was created, and not necessarily that which would apply to current works of the same type. Also, despite the harmonizing role played by international agreements, different countries apply different terms of copyright protection to works. For example, the basic term of copyright in the EU is the author's life plus 70 years, but in the UK the term of copyright for sound recordings is presently 50 years from the end of the year in which they are made, or published, or played or communicated to the public (although this will change to 70 years within the next two years under Directive 2011/77/EU). In the US a complex web of legislative rules means that the term for sound recordings varies from 177 years to author's life plus 70 years depending upon where and when the sound recording was made, and/or released (Hirtle 1999-2012, cited in Bamberger & Brylawsk 2010).

Of particular importance is the fact that the term of copyright for published and unpublished works may differ significantly depending upon when they were created. Organisations such as archives often have significant holdings of material which is unpublished, in that it has not been 'issued to the public' (s.175 CDPA). For literary, dramatic, musical and artistic works created on or after 1 January 1996, the term of protection does not depend on whether or not the work is published. However, any literary, dramatic or musical work unpublished on 1 August 1989, or which was created from 1 August 1989 to 31 December 2005, will remain in copyright until 31 December 2039, no matter how long ago it was created or when its author died. Artistic works are more complicated still - for photographs, for example, the key factor in determining will be the date of creation (see the discussion in section 13.3).

Several copyrights may exist simultaneously in a single item. For example, a web page might contain original written material written or commissioned by the web page owner (literary work), photographs (artistic works), background designs (artistic works), music (sound recording) and video clips (film). To make matters more complex, the copyright in each of these works may be owned also by different people.

Ownership of copyright in a work can change hands after its initial creation, and like any property, can be bought, sold or inherited. It is important to remember that copyright in a work is separate from physical ownership of the work. Ownership of copyright in a work belongs, initially, to the person who created it (s.11(1)). This is subject to exceptions, which differ between countries: under UK law, copyright in certain works (literary, dramatic musical, artistic and films, but not sound recordings or broadcasts – see also s.9) created in the course of

employment does not vest in the employee, but in their employer, and thus the employer is the first owner (s.11(2)). This exception does not apply to contractors and other non-employees, with whom separate assignment or licensing agreements will have to be made.

Determining copyright ownership in the spoken word is slightly more complicated. For example, if a person is talking about a subject and the discussion is not recorded in any way, then there is no copyright in the spoken word – the talk has not been 'fixed'. However, if another person records that speech on a tape recorder, at that moment the work is 'fixed' and a copyright crystallizes. In such circumstances, it appears that the speaker will have a copyright in their words, and the other person (technically, the 'producer' of the sound recording under the Act) a copyright in the recording of those words. Thus, in order to use the recording, it will be necessary to secure permissions from both the speaker and the individual who 'produced' the recording. The same will be true of an audio-visual recording (technically, under the Act, a 'film') of the talk, where both the speaker and some other person or persons (technically, under the Act, the producer and the principal director) will own copyrights in the resulting recording. The CDPA 1988 does not appear to have fully caught up with the concept of 'user-generated content' (UGC) or that individuals other than media professionals who can be clearly separated into discrete categories such as 'producer' and 'director' have the capacity to create and own copyright in sound recordings or 'films' ('film' means a recording on any medium from which a moving image may by any means be produced). If the speaker is reading from a written script or paper, there will be a copyright in the text, which is already 'fixed', and a joint copyright owned by the speaker and the individual who 'produced' the recording, in the recording.

A copyright owner is provided with particular exclusive rights (s. 2(1), s.16). These allow the copyright holder to prevent other people from, without permission:

- copying the work;
- issuing copies of the work to the public (including both sale and rental of copies);
- performing (literary, dramatic or musical works, including presentation by means of sound recording, film or broadcast), showing or playing (sound recording, film or broadcast) the work in public;
- communicating the work to the public (including broadcasting and placing on the Internet); and
- adapting, or amending the work.

Copying is defined as reproducing the work in a material form, including storing the work in any medium (s.17). If someone carries out these 'restricted acts' on a work without the owner's permission, or authorizes someone else to do so, they are infringing the copyright in the work.

Where an individual collects material in which another person holds a copyright (for example, a recording of a presentation in which the interviewee holds a copyright in their spoken words), and wants to use that material in another work, such as an article, a book, or event proceedings etc., they have a number of options. They could:

- obtain an outright transfer of the copyright from the copyright holder (assignment – which must be in writing) (s.90(1)-(3));

- obtain the copyright holder's permission to do some of the things reserved to the copyright holder (licence – which need not be in writing) (s.90 (4), s.92); or
- investigate whether any copyright exemptions or defences would cover their proposed use (s.28–76)

Unless otherwise permitted by statute (see below), copying of works for the purpose of preservation will require assignment of copyright, or permission under licence from the copyright owner.

Overview: Most creative works are covered by copyright, and most copyright works are protected for a minimum of 70 years from their creation. Copyright can be transferred from the initial creator/owner to third parties. Copyright holders have exclusive rights in their works regarding copying, adaptation and amendment, and can control performance, broadcast and reuse, including for preservation and archiving purposes, except where permitted by law.

5.2. Specific Rules Applying to Preservation and Archiving

In 'Chapter III: Acts permitted in relation to copyright works', the CDPA 1988 provides for a series of permissible activities that would otherwise be barred for breach of a rights holder's exclusive rights. These include the 'fair dealing provisions' which, for example, state that making transient copies is an integral and essential part of certain technological processes (s.28), and using all or part of a copyright work for non-commercial research or private study (s.29), criticism or review, or reporting current events (s.30), do not constitute infringements.

Under the Act, libraries and archives are granted limited permissions to make and supply copies of copyright works (s37–44A). However these rights are strictly limited, and as far as the preservation of digital works is concerned, those limitations effectively undercut the majority of the value that the permissions provide. At present, the law permits libraries and archives to make a copy of any literary, dramatic or musical work in their permanent collection to preserve or replace that work, without infringing copyright, and in any illustrations accompanying the work or, in the case of a published edition, in its typographical arrangement (s.42). A library or archive may also make and supply a copy of the whole or part of a literary, dramatic or musical work from a document in the library or archive without infringing any copyright in the work or any illustrations accompanying it, if:

- the work was unpublished before the document was deposited in the library or archive;
- AND the copyright owner has not prohibited copying of the work;
- AND the librarian or archivist has a reasonable belief that those conditions apply to the work;
- AND the purpose of supply is for an individual to undertake non-commercial research or private study.

There are several problems with the current rules. First, with regard to s.43, the requirement of the copyright holder's consent means that while a depositor may intend a work to be freely available to the public, a future copyright holder in that work (by inheritance after the

expositor's death) may seek to limit public access by refusing permission to copy (Burrell & Coleman 2005). More widely, the formulation of s.42–43 excludes the vast majority of artistic works (except those incorporated in a literary work) and all audio-visual material, and provides no explicit permission for format shifting. These limitations were explicitly identified in the Gowers report in 2006 (at para. 4.78–4.84), and the Hargreaves report in 2011 (at para. 5.34), as a potential obstacle to the realization of considerable economic, social and cultural value.

The inadequacy of the current law in the digital environment is undoubtedly problematic for those seeking to implement adequate long-term digital preservation strategies, as these often rely on production of multiple copies of digital objects for increased security and safeguarding. It also has important implications for the collection and preservation of web page content and for digital collections with video and audio material.

Overview: The need to preserve and archive copyright works receives limited recognition in the CDPA 1998 under s.42–43. The permissions available for preservation and archiving are limited and geared towards literary, dramatic and musical works: digital preservation is not currently explicitly addressed.

5.3. Moral Rights and Performers' Rights

The CDPA 1988 also introduced the concept of 'moral rights' into UK legislation (s.2(2)). These are distinct and separate from property rights, and include:

- the right of the author of a work to be acknowledged as author or creator (s.77–79);
- the right of the creator not to have their work subjected to 'derogatory' treatment (s.80–83); and
- the right of an individual to refuse to be associated with something they did not create (s.84).

Moral rights cannot be transferred (s.94), but can be waived (s.87). Some do not apply to computer programs; works reporting current events; works that have appeared in newspapers, magazines, learned journals, or other collective works; actions required by law or by a Court, and to most employee-created materials (s.79, s.81).

Performers' rights consist of non-property rights and property rights. The non-property rights are essentially rights to control recording of performances, really the ability to prevent bootlegging. These rights cannot be assigned but can be transferred by inheritance. The property rights are concerned with the control of copies of performances. A performer's rights are infringed if a person, without consent:

- either directly or indirectly makes a copy of a recording of the whole or any substantial part of a qualifying performance (Reproduction right – s.182A);
- issues to the public copies of a recording of the whole or a substantial part of a qualifying performance. The rights are exhausted once copies are placed into circulation within the European Economic Area (EEA) by or with the consent of the

performer, but consent is still required for rental or lending (Distribution right – s.182B);
- rents or lends to the public copies of a recording of the whole or a substantial part of a qualifying performance, where lending means making a copy of a recording available for use on terms that it will or may be returned otherwise than for direct or indirect economic or commercial advantage through an establishment which is accessible to the public (Rental & lending right – s.182C);
- makes available to the public a recording of the whole or any substantial part of a qualifying performance by electronic transmission in such a way that members of the public may access the recording from a place and at a time individually chosen by them (Making available right – s.182CA).

There is no registration requirement in the UK for protection of performance rights and those rights are independent of copyright under the CDPA 1998. Each participant in a performance is entitled to the performance right. The first owner of a performance right is the performer. Performers' property rights are capable of transfer and assignation, and infringement of those rights is actionable in the same way as other property rights including copyright. There are various permitted acts in relation to performers' property and non-property rights (Schedule 2 – CDPA 1988). The permitted acts are similar to those which can be raised as defences to an action of infringement of copyright. There are, however, differences. For example, while:

- lending of copies of a recording of a performance by a prescribed library or archive (other than a public library) which is not conducted for profit; and
- in limited circumstances, recording of a broadcast, or making of a copy of such a recording, for the purpose of placing it in an archive maintained by a designated body;

are permissible, these do not have the breadth of the permissions available under the CDPA 1988 for copyright.

Overview: When seeking to preserve/archive copyright works, it is necessary to consider whether moral rights or performance rights (property rights) may apply to the work in question, whether the limited permissions for archiving and lending will permit the preservation or archiving, and how complying with those rights will affect preservation strategies or the mechanisms applied.

5.4. Crown Copyright

Crown copyright covers works created by officers or servants of the Crown in the course of their duties (s.163). It includes material created by civil servants, ministers and government departments and agencies. A Crown copyright work that is a literary, dramatic, musical or artistic work has a term of copyright of 125 years from the end of the year it was made unless it is published commercially within 75 years of its creation, in which case the protection lasts 50 years from the end of the year of publication. Work commissioned by Government departments and agencies from non-Crown individuals and organizations does not automatically become Crown copyright, but may be assigned or transferred by the author to the Crown under contract. The primary difference between works created by officers or servants of the Crown in the course of their duties and third party works created under contract

and assigned to the Crown is that the latter do not fall within the Crown copyright regime, but remain subject to normal copyright. The Crown may on occasion assign Crown copyright works to third parties, when Crown bodies are privatized, such as the creation of QinetiQ Ltd from the former UK government agency, Defence Evaluation and Research Agency (DERA).

Use of Crown copyright works requires a licence from the Controller of Her Majesty's Stationery Office (HMSO) at The National Archives who licenses the re-use of Crown copyright information through the Open Government Licence. Some government departments have delegated authority from the Controller to license the re-use of the Crown copyright material which they originate, including the UK Hydrographic Office, the Ordnance Survey and the Met Office.

5.5. Parliamentary Copyright

Parliamentary copyright covers works made by, or under the direction or control of, the House of Commons or the House of Lords. Parliamentary copyright subsists only in works produced after 1st August 1989: works produced before that date are Crown copyright. Whichever House makes, or under whose direction or control a work is made, is first owner of the copyright except where the work is made by or under the direction or control of both Houses, when they are joint first owners of copyright. Parliamentary copyright in a literary, dramatic, musical or artistic work has a term of 50 years from the end of the calendar year in which the work was made. Works made by or under the direction or control of the House of Commons or the House of Lords include any work made by an officer or employee of that House in the course of his duties, such as Hansard (Lords and Commons), Bills, White and Green Papers, and reports of Select Committees. They also include any sound recording, film or live broadcast of Parliamentary proceedings. A work is still referred to as being 'Parliamentary copyright' even if it is assigned to another person. It is worth noting that Bills are Parliamentary copyright, but statutes are Crown copyright.

A work is not 'made by or under the direction or control of' either House simply because it is commissioned by or on behalf of that House, thus where it requires copyright in a commissioned work, Parliament must obtain it by contract. Works where Parliament obtains copyright by contract do not fall within the Parliamentary copyright regime, but remain subject to normal copyright.

Use of Parliamentary material is governed by the terms of the Open Parliament Licence. The Open Parliament Licence applies to material in which either House owns the copyright or database right, and to material published before 1 August 1989 in which Crown copyright subsists. It does not cover works such as parliamentary photographic images and live and archive video or audio broadcasts.

5.6. Public Records

Under s.49 CDPA 1988, material which comprises part of public records as defined by separate legislation for England, Scotland, Wales and Northern Ireland and which are open to public inspection under that legislation, may be copied, and a copy may be supplied to any person, by or with the authority of any officer appointed under that Act, without infringement of copyright. This exception covers public records, as defined, whether held in national record offices or places of deposit. The relationship between the CDPA 1988 and the Public Records

(Scotland) Act 2011 is, however, currently unclear, as the former has not been amended to reference the latter as an enactment subject to the current copyright regime. It appears therefore that the purpose of the Public Records (Scotland) Act 2011 is to provide an effective records management scheme in Scottish bodies, rather than to replace the existing Public Records (Scotland) Act 1937.

Overview: Crown and Parliamentary copyright works are governed by different rules from ordinary copyright works, notably with regard to the length of copyright term. Many Crown and Parliamentary copyright works can be licensed for re-use via the Open Government Licence and the Open Parliament Licence respectively. Some Crown copyright works must be licensed via the government departments which generate them.

5.7. Digital Rights Management and Technical Protection Measures

Under the CDPA 1988, protection is given to technical devices applied to computer programs designed to prevent the creation of infringing copies (s.296); to effective technical measures (often referred to as Digital Rights Management), defined as any technology, device or component which is designed, in the normal course of its operation, to protect a copyright work other than a computer program (s.296ZA–D); and to electronic rights management information (s.296ZG). Circumvention of either technical devices or technical measures is an infringing act, and manufacture, import, and commercial distribution, or non-commercial distribution which adversely affects the copyright holder, is an offence (s.296ZB).

The law recognizes that the use of technical measures may prevent third parties from using copyright works in ways that are permitted by statute (listed in Schedule 5 CDPA 1988). As such, the Act provides that where the application of any effective technological measure to a copyright work other than a computer program prevents a person from carrying out a permitted act with that work they can issue a notice of complaint to the Secretary of State. The Secretary of State may require the copyright owner or an exclusive licensee to provide information as to whether there is a voluntary measure or agreement relevant to the copyright work in question, and if there is not, the Secretary of State requires the copyright owner or an exclusive licensee to make available to the complainant the means of carrying out the permitted act to the extent permitted (s.296ZE). In theory this should prevent technical measures being used to hamper or prevent permitted uses. In practice, the Secretary of State's engagement with the process is discretionary, and no time limits are provided for action by either the Secretary of State or the copyright holder/exclusive licensee.

Overview: Preservation of digital works, including computer programs, may require the circumvention of technical devices or technical measures. Where archivists are permitted under s.42–43 to make copies, but are prevented by technical measures, they can request that the copyright holder provide unrestricted access to the material, and failing that issue a notice of complaint to the Secretary of State. There is no equivalent provision for technical devices protecting software.

5.8. Orphan Works

Put simply, orphan works are copyright works that are believed, or known, to be in copyright but whose copyright owner is unknown or untraceable. Key reasons for this include:

- the work having no, or insufficient, information identifying the copyright owner and/or creator associated with it, which may be due to a number of reasons, such as format shifting;
- the original owner of copyright no longer being located at the original address and there being no records of any new address;
- the copyright owner not realizing that they benefit from copyright ownership;
- the copyright being assigned to a new owner, and insufficient information being available about the new owner's name and/or location;
- the copyright owner dying and information about what happened to rights on his death being impossible to find, and
- where the copyright owner is a business, the business ceasing to exist and it being impossible to find out what happened to the copyright which was one of the business assets (British Screen Advisory Council 2011, Korn & Beer 2011).

A third party wishing to use an orphan work in a manner which would infringe the exclusive rights of a putative copyright holder will run the risk of the copyright holder re-appearing and suing for infringement of their rights in the work. The result of this uncertainty is often to make the orphan work effectively unusable: for example, libraries and archives may choose not to digitize orphan works, or not to make either digitized or born-digital orphan works available to the public. It appears that the number of orphan works is rapidly increasing, partly as a result of the continuing extension of copyright terms for various works, but also because of the lack of any formal requirement for registration, the low apparent commercial value of many works, and the massive increase in user-generated content (UGC). Estimates of the number of orphan works across the UK public sector run into the millions (Korn 2009). Both the Gowers and Hargreaves reports suggested that action should be taken to encourage the reuse of orphan works.

While the first attempt to address the issue, which was to have formed part of the Digital Economy Act 2010, was withdrawn by the UK government, it is clear that despite opposition from copyright holder groups, changes with regard to making orphan works more readily accessible for reuse are likely in the near future, either via UK or EU legislation. The UK government's response to the Hargreaves report was to promise:

> … proposals for an orphan works scheme that allows for both commercial and cultural uses of orphan works, subject to satisfactory safeguards for the interests of both owners of 'orphan rights' and rights holders who could suffer from unfair competition from an orphan works scheme (HM Government 2011, p.6).

A public consultation on proposals to change the UK's copyright system was launched by the Intellectual Property Office in December 2011 and closed in March 2012. This included seeking views on the creation of an 'orphan works' scheme (Intellectual Property Office 2012a). Additionally, an independent feasibility study into developing a Digital Copyright Exchange (DCE), headed by former Ofcom chairman Richard Hooper, was commissioned and its first

report, *Rights and Wrongs: is copyright licensing fit for purpose for the digital age?*, was published in March 2012 (Intellectual Property Office 2012b). It concluded, in respect of archives, libraries and museums, that "copyright licensing was not fit for purpose in this sector because of the orphan works problem and a lack of legal mechanisms to enable mass digitization", and that this "deprived consumers of access to a significant amount of commercially and culturally valuable content" (p.25). The final report from the IPO consultation and the second phase of the independent feasibility study focusing on identifying solutions to the problems highlighted in its initial report are due in mid-late 2012.

The EU recently produced a draft Directive on certain permitted uses of orphan works envisages Member States permitting:

> … certain uses of orphan works undertaken by publicly accessible libraries, educational establishments or museums as well as by archives, film heritage institutions and public service broadcasting organizations (EU draft Directive 2011, p.9)

although the scope of the works proposed to be covered would extend only to:

- works published in the form of books, journals, newspapers, magazines or other writings, contained in the collections of publicly accessible libraries, educational establishments, museums or archives; and
- cinematographic or audio-visual works contained in the collections of film heritage institutions, and cinematographic, audio or audio-visual works produced by public service broadcasting organizations before 31 December 2002 and contained in their archives.

This would appear to leave a wide range of digital works outside the scope of the EU legislation. The European Commission, European Parliament and Council of Ministers have reached agreement on draft Directive, and it is expected to be approved in late 2012. Member States will then be granted a transposition period during which to put in place any laws, regulations and administrative provisions necessary to comply with the Directive. This is likely to be in the order of 2-3 years.

The ARROW (Accessible Registries of Rights Information and Orphan Works towards Europeana) project, co-funded by the European Commission and managed by a consortium of European national and university libraries, organizations representing authors, publishers and Reproduction Rights Organizations (RROs), may help to address some of the issues arising from orphan works. ARROW's goal is to 'establish a system to identify rights, rights holders, rights status of a work, including whether it is orphan or out of print' to allow potential users of the material to obtain information about rights holders, relevant rights, administration of those rights, and how to seek permission to digitize and/or make available the work to user groups. Amongst the solutions proposed by the project is the creation of registries of orphan works, presumably at the national level (ARROW 2011).

Overview: At present, copying of an orphan work for the purposes of preservation or re-use will infringe copyright in that work unless this is permitted under s.42–43. There is currently no means of obtaining the right to preserve or re-use orphan works, other than to seek the copyright holder's permission. If that fails, the archivist must decide whether the value of preserving the work is proportionate to the risk of action for copyright infringement if the copyright holder should become known.

5.9. Format Shifting

A much misunderstood area of UK copyright law is that surrounding 'format shifting', i.e. copying copyright works between different digital formats, such as taking a song from a legitimately purchased CD and turning it into MP3 format to listen to on another device. Such use of copyright works has received legislative support in some jurisdictions, for example, in the US, following the Audio Home Recording Act of 1992 (AHRA). However, UK copyright law contains no explicit permission for 'format shifting', and users who 'format shift' copyright works from CDs and DVDs are doing so in breach of copyright. In practice, this has been tolerated by rights holders, not least because taking enforcement action against end users would be both difficult in practice, and a PR nightmare. Taking legal action against companies providing the technology which permits 'format shifting' has been mooted, but the House of Lords judgment in *CBS Songs Ltd* v. *Amstrad* [1988] AC 1013 (concerning tape to tape analog recording) suggests that a copyright owner would have to show that such companies had authorized the carrying out of the restricted act (format shifting) with the copyright work.

Both the Gowers and Hargreaves Reports suggested that action should be taken to permit individuals to make copies for their own and immediate family's use on different media. This might take the form of an amendment to the CDPA 1988, similar to that which permits 'time-shifting', but forbids further dealing with the 'time-shifted' work (s.70 CDPA). As the Hargreaves Report noted:

> EU law permits Member States to introduce an exception for private copying, provided that fair compensation is paid. In other EU countries private copying exceptions are supported by levies on copying equipment... (p.48)
>
> […]
>
> A limited private copying exception which corresponds to the expectations of buyers and sellers of copyright content, and is therefore already priced into the purchase, will by definition not entail a loss for right holders. (p.49)

While it seems sensible to make such an adjustment, there may be further problems in the offing with regard to the development of 'cloud music services' for consumers, such as Amazon's Cloud Drive and Cloud Player.

For the digital archivist, the situation is similar. As noted above, s.42–43 CDPA permit the making of archival copies, but are silent on the issue of format shifting. In principle, therefore, format shifting, even for legitimate archival purposes, will breach copyright, because it is not expressly permitted. In practice, such format shifting does occur, for example, the work carried out on the BBC Domesday material by the CAMiLEON project, a core element of which concerned the technical issues surrounding the 'migration' of digital objects from format to format over time. However, any future changes to the CDPA 1988 concerning archival copying will need to explicitly permit format shifting of digital works to avoid confusion.

Overview: It should be noted that 'format shifting' a copyright work, e.g. turning an audio CD (CDA) music track into an MP3 file does not affect the existing copyright in the musical work itself, which remains the intellectual property of the original rights holder. At present, 'format shifting' of a work for the purposes of preservation or re-use without the permission of the rights holder will infringe copyright in that work, as it is not expressly permitted by s.42-43 CDPA 1988. While 'format shifting' for the purposes of preservation is likely to be tolerated by a right holder, 'format shifting' for the purposes of re-use may be more controversial if the rights holder perceives that this may negatively impact upon possible future commercial exploitation.

5.10. Emulation

Emulation, or the 're-creation on current hardware of the technical environment required to view and use digital objects from earlier times' (Holdsworth & Wheatley 2001), is also not explicitly catered for in the CDPA 1988. Emulation for archiving purposes may involve software emulation of hardware, and/or software emulation of software. While significant work has been carried out in the area of emulation for archiving and preservation purposes (see, for example, Von Suchodoletz & Van der Hoeven 2009), the law pertaining to the area remains unclear. Much of the legal activity and interest in this area internationally has stemmed not from the traditional archiving and preservation community, but rather from the videogaming community and industry (Farrand 2012). The EU-funded KEEP (Keeping Emulation Environments Portable) project, discussed below, has considered the wider implications of copyright law for the reproduction of computer programs and databases (Anderson 2011).

In assessing the legality of emulation, it is necessary to refer to the EU Software Directive (2009/24/EC), in particular Articles 5(3) and 6. Article 5(3) states that:

> The person having a right to use a copy of a computer program shall be entitled, without the authorisation of the rightholder, to observe, study or test the functioning of the program in order to determine the ideas and principles which underlie any element of the program if he does so while performing any of the acts of loading, displaying, running, transmitting or storing the program which he is entitled to do.

Article 6 permits the decompilation of a computer program by a licensee or authorized user in order to obtain the information necessary to achieve the interoperability of an independently created computer program with other programs, if the information necessary to achieve

interoperability is not readily available to them, and decompilation is confined to the parts of the original program which are necessary in order to achieve interoperability. However, it is NOT permitted to decompile software to:

- be used for goals other than to achieve the interoperability of the independently created computer program;
- be given to others, except when necessary for the interoperability of the independently created computer program; or
- be used for the development, production or marketing of a computer program substantially similar in its expression, or for any other act which infringes copyright.

If the necessary information to create an emulator program can be constructed simply through observation of the licensed uses of the source program (black box testing), then it appears that this is permissible under Article 5(3). However, decompilation of the program code is heavily restricted.

> Considered together, Articles 5(3) and 6(1) embody a simple rule: Reverse engineering to study functionality is fine, but reverse engineering to study program code, internal structure, and other expressive aspects of the literary character of programs is forbidden, except when indispensable to interoperability (Samuelson, Vinje & Cornish 2012).

Until recently, the issue of software emulation was largely unexplored by the UK courts, although in *Navitaire Inc* v. *easyJet Airline Co Ltd* [2004] EWHC 1725 it was held that writing original source code to produce a computer program with identical functionality as an existing program did not infringe the copyright in the earlier program, and this was followed in *Nova Productions Ltd* v. *Mazooma Games Ltd* [2007] EWCA Civ 219, where the Court of Appeal held:

> … merely making a program which will emulate another but which in no way involves copying the program code or any of the program's graphics is legitimate.

The issue was further examined, both by the High Court ([2010] EWHC 1829), and the European Court of Justice (Case C-406/10, 2 May 2012), in *SAS Institute Inc* v. *World Programming Ltd*. The ECJ held (para. 46) that:

> [The Software Directive] must be interpreted as meaning that neither the functionality of a computer program nor the programming language and the format of data files used in a computer program in order to exploit certain of its functions constitute a form of expression of that program and, as such, are not protected by copyright in computer programs for the purposes of that directive.

Thus only source code, object code or preparatory design material capable of leading to the reproduction or the subsequent creation of a computer program are protected under copyright. The implication of this is that reverse engineering for the purpose of emulation may

be permitted on the basis of an argument that an emulator is simply an interface which permits:

- hardware and software to interoperate, i.e. emulator acts as an interface between a target platform and software written for a different platform (Bercic 2005); or
- software and software to operate together, i.e. emulator interfaces with application programme or videogame (Farrand 2012).

Overview: At present, the emulation of software for the purposes of preservation and/or reuse is not explicitly permitted under UK/EU law. However, the UK courts have found that a program which emulates another, but does not copy source code or graphics, will not infringe. Obtaining the necessary information to create an emulator program via 'black box observation' is permitted by Article 5(3) SD. Decompiling software to create an emulator program may be permissible under Article 6 SD, if it can be plausibly demonstrated that the emulator is acting as an interface.

5.11. Reverse Engineering Proprietary File Formats

The situation with regard to the legality of the reverse engineering of proprietary file formats remains unclear. In *SAS Institute Inc* v. *World Programming Ltd*, the ECJ held that the format of data files used in a computer program in order to exploit certain of its functions does not constitute a form of expression of that program, and thus is not protected by copyright in computer programs under the Software Directive (2009/24/EC). However, the ECJ suggested proprietary file formats might still be protected as copyright works in their own right under the Information Society Directive (2001/29/EC), if they are found to be the author's own intellectual creation.

For more detailed information on copyright law, see the Bibliography and the Tables contained in the Appendices.

6. Practical Implementations

6.1. Understanding Copyright Risks in Digital Preservation

Copyright risks may be assessed according to the likelihood of their occurrence, the likely consequences, and the acceptability of their occurrence. Where risks are likely to occur, or their occurrence would have significant impact on an organization engaging in digital preservation, then remedial measures will be required, including the development of clearly stated policy provisions. Much of the risk for an archiving organization can be handled by developing a policy framework which provides for appropriate licensing mechanisms for deposited material and any other contributions, given the nature and scope of a particular repository, as well as processes to ameliorate the effect of any copyright infringements. However, the processes of licensing and risk management have to be balanced against the need to encourage potential depositors to engage with an archive. The key aim for archiving organizations should thus be to

develop both licensing and risk amelioration processes which are as simple and transparent as possible to those wishing to deposit or access repository materials.

6.2. Handling Copyright Risks from an Archiving/Preservation Perspective

Archivists will need to have a clear understanding of the copyright risks that their particular archive faces; this will require a risk assessment as early as possible in the developmental process. It is also essential that archivists ensure that processes are in place to ensure that risk management is an ongoing activity, and that responsibility for undertaking such assessment, as well as developing and administrating methods of handling any risks identified, is clearly located within the staffing structure of the archive.

6.3. Metadata for Rights and Permissions

An important element in ensuring compliance with current intellectual property law, when engaging in data archiving and preservation activities, will be to develop and use effective systems for linking rights and permissions information with digital objects (Baca 2008, Ch.6). While, under current UK law, rights and permissions metadata by itself is unlikely to be a definitive solution to legal risks arising from copyright – not least because there is no system of initial copyright registration, nor any means of identifying when copyrights have been assigned or licensed – it is clearly a good way of ameliorating such risk, and demonstrating good practice/good faith behaviour on the part of the archivist. The problem with metadata standards, of course, is that there are potentially many to choose from. However, as far as digital preservation in the UK is concerned, there are three influential metadata projects: the Reference Model for an Open Archival Information System (OAIS); the Preservation Metadata: Implementation Strategies (PREMIS) Data Dictionary; and the Metadata Encoding and Transmission Standard (METS). These are discussed below.

6.4. Current Archive Licensing Trends

In terms of trends in existing practice in addressing copyright issues, there is a degree of support among stakeholders in all types of digital archives for the adoption of clear and concise copyright licensing options like those provided by the Creative Commons (CC) project. What is also clear, however, is that:

- using CC licences still requires at least a basic understanding, on behalf of both licensor depositors and licensee users, of how copyright licensing works, and what is being granted (or not) by the licensor, and such knowledge is by no means universal;
- it is often the case that Intellectual Property (IP) rights in digital works may be vested in third parties other than the depositor; for the archive to make use of those resources may require the depositor to seek additional permissions;
- the licence options available under the CC do not necessarily provide a complete solution to an archivist's needs, where some depositors want more specific/restrictive terms; and
- even if CC licences (or variants thereof) are used, there remains the issue of how to deal with the results of the unintended or unsuspected incorporation of unlicensed third party material within works.

As such, CC licences are not a panacea for all deposit and access-related copyright issues arising in archives (Korn & Oppenheim 2006). Depending on local or sectoral factors, archives seeking to accession digital works may be better served by variants based on CC licences or, indeed, entirely different licensing models. Early assessment of those factors will play a key role in aiding archivists in choosing an appropriate licensing mechanism.

Obtaining a viable set of quality digital objects through deposit is a vital objective for any archive. It is important, therefore, that processes designed to facilitate copyright compliance, and to ameliorate risk, do not have the undesired consequence of deterring potential depositors. The nature of the digital objects to be deposited will influence the willingness of would-be depositors to engage with repository processes. It will be important for archivists to assess the likely factors that will affect willingness to deposit, and to tailor their processes accordingly. For example:

- a requirement for depositors to create rights metadata for deposited materials would until recently have been seen as a negative factor in encouraging deposit; however, increasing use of Web 2.0 technologies, such as 'tag clouds', may mean that creators/depositors of digital works are more willing to accept the benefits of metadata usage, and thus some additional overhead to deposit processes;
- providing a small set of licence choices from which depositors can choose will reduce confusion, but may also restrict the number of depositors who are able or willing to contribute under the sets of licence terms available to them.

Part of this process will involve identifying areas in which a repository can enhance understanding through provision of a tailored range of information on licensing, and outreach mechanisms such as guidance and guidelines on IPR for depositors.

6.5. Simple Copyright Licensing Processes for Access

'If we build it, they will come' often appears to be an underlying conviction for those planning archiving and preservation strategies for digital works. However, simply providing access to digital works is unlikely to result in significant uptake and use where potential users are uncertain about the consequences of using such material. Just as with depositors, it is important that processes designed to facilitate copyright compliance, and ameliorate risk, do not have the undesired consequence of deterring access and reuse.

Archivists will need an understanding of the factors that are likely to attract or deter would-be users of differing types of digital work, and to have a strategy for addressing those factors. For example, most of those seeking to use digital works are unlikely to want to have to spend significant amounts of time working out what they can and can't do under the licence applicable to those works. Use of quick mechanisms for identifying acceptable licences, such as icons representing key licence conditions, will help to reduce both confusion and time overheads.

Here, too, archives can increase their accessibility and value to would-be users by providing a tailored range of information on licensing conditions ranging from short explanations to full licence agreements.

6.6. Future-proofing

The role of most digital archives is unlikely to be a static one. Even as new archives are being created, their owners (or their users) are seeking further ways to add value to their content and/or services. As the functions of archives become more diverse (by seeking to incorporate both non-commercial and commercial digital content, or by incorporating third party input about digital works, such as commentary or reviews), strategies for handling the resulting copyright issues will inevitably become more complex. As a result, it is likely to be necessary for those developing new digital archives to be planning and implementing a medium- to long-term copyright strategy even before the archive is established. The range of approaches to copyright and licensing adopted by existing digital resource archives in other areas (such as digital learning archives) in support of particular business models, highlights the importance of addressing the copyright issues of a desired or potential business model at an early stage.

6.7. Information Gathering and Risk Assessments (Deposit and Access)

Archives that handle the copyright/IPR issues arising from the capture, preservation and reuse of digital works most effectively are those which consider and address the issues pertaining to new digital works well in advance of accepting works. This allows them sufficient time to gather information on the environment in which their work will take place (backgrounding), in particular to:

- access and learn from relevant experience derived from existing archives and other related projects;
- identify particular issues relevant to:
    - the nature of their archive;
    - the specific type of materials they intend to accept;
    - the particular type(s) of depositor and accessor they intend to serve;
    - the intellectual property regime of their jurisdiction;
    - the prevailing political and social circumstances; and
- assess key issues of concern to depositors and accessors and to develop strategies to reduce the impact of those concerns on the use of the archive.

Archives that have undertaken a considered review of their operating environment are better placed to apply an appropriate and efficient level of risk management. Whilst a risk management process cannot guarantee a successful copyright/IPR strategy immediately (even those archives that have spent considerable time on backgrounding and risk assessment may find that their initial solutions are incomplete or over-cautious), it does provide a basis from which later copyright/IPR policy changes for both deposit and access can be adopted in a structured and coherent fashion.

6.8. Choice of Licence Regime (Deposit and Access)

The choice of licence regime is highly likely to be influenced by the outcomes of the backgrounding and risk management processes. There are essentially four decisions to make with regard to the licensing regime:

- for deposits:
    - is the archive going to target specific types or sources of digital work, accept a range of digital works from an open category of depositor, or harvest digital works under a third party licence?
- for access:
    - what kind of access conditions, if any, is the archive prepared to/able to accept with regard to any offered digital works?
- for both:
    - is the archive going to act as a licensor (by taking an assignment of copyright from the depositor and licensing to users), licensee (by taking a licence of copyright from the depositor, and sub-licensing to users) or unlicensed intermediary (by providing the mechanism through which users can obtain a licence of copyright from the depositor)?
    - are the licences to be used going to be unmodified Creative Commons licences, bespoke licences (that is, licences based on terms specific to the repository), or a combination of the two (a Creative Commons-style licence with additional clauses)?

It is clear that the choices made will affect the complexity of the licensing process, the likelihood of depositors making materials available and the willingness of users to access and use the materials. There is a balance to be struck between a regime that meets the interests of depositors, facilitates the goals of the archive and encourages access to any reuse of digital works. It is probable that there is not going to be one optimal approach to reaching this balance, not least because those three factors are likely to differ between archives.

6.9. Confusion over Copyright Ownership (Deposit)

There remains a great deal of confusion over who owns copyright in particular types of work, for example, letters, e-mails and other forms of personal correspondence. This confusion largely derives from a widespread lack of:

- coherent and concise guidance on, and explanation of, the basic rules of copyright for example that, in the UK an individual who creates an original work will own the copyright in that work UNLESS:
    - the work is created in the course of their employment (noting that where, when, and on whose equipment, the work is made is usually irrelevant to the determination of what is entailed by 'in the course of their employment'), when it will belong to their employer, unless otherwise agreed;
    - there is a contractual agreement that the rights in the work will belong to a third party; or
    - there is legislative or other legal provision that the rights in the work will belong to a third party.
- clear legal and ethical guidelines on the acceptable ways of using/reusing materials that have been created by third parties, such that creators of original digital works receive appropriate recognition.

Where there is poor understanding of the law, and particularly where there are no accepted cultural/administrative methods of reinforcing moral and ethical standards, levels of trust

decline, and individuals are more likely to resort to asserting legal claims (their 'rights') or simply withholding materials, both of which reduce the likelihood of deposit with archives and make the successful preservation and reuse of materials less likely (Charlesworth *et al.* 2008).

6.10. Confusion over Licence Terms (Deposit and Access)

While an archive may choose a particular licensing regime, including the use of a particular licence or set of licences, the issue remains that many depositors and users remain unaware of, or confused about, the implications of the terms of those licences. This may lead to depositors:

- choosing a licence which places more restrictions on the use of their material than they intended;
- accidentally permitting uses of their material (such as commercial use) that they did not intend;
- not depositing material because they do not want to take the time to work out what the licence or licences permit; or
- depositing unsuitable material (material in which a third party holds rights, and which has not been appropriately licensed for deposit).

Equally, users may:

- use material for purposes for which they are not licensed;
- not use material because they think the licence is more restrictive than in fact it is, or
- not use material because they can't decide what is, and is not, being licensed.

Making the licence choice, for both depositors and users, as simple as possible taking into account relevant local factors is thus an important aim for archives. Techniques for achieving this include:

- adopting a single licence for all deposits (this has the benefit of simplicity, but the downside of all 'one-size-fits-all' approaches – one size usually doesn't fit all);
- adopting multiple licences, but providing a range of materials explaining in varying levels of detail what the licences mean (this provides more options for depositors, but places more overhead on the deposit process, and may confuse or deter users);
- using icons to identify the key licence terms applicable to particular materials. This has the advantage of brevity and simplicity, but requires a licensing system whose terms can be broken down into icon form, and, ideally, different archives should use the same or a similar range of icons to indicate the same terms – this is not uniformly reflected in current practice in digital archives; and
- ensuring that depositors are encouraged (or mandated) to complete ownership and licensing metadata within the archive's metadata records when depositing material (views are mixed as to whether this will be a significant deterrent to potential depositors – there is a growing belief that it will not, as use of metadata elsewhere becomes more common).

6.11. Risk Amelioration

For both resourcing reasons, and as a matter of pragmatism (adopting an 'editorial' role may in fact increase rather than decrease potential legal liability), most archives will not be able to, or wish to, warrant that the materials they will be making accessible do not contain unauthorized third party material. Risks arising from such material may be addressed via a variety of approaches:

- asking depositors to warrant they own the necessary rights or have the permissions to make the materials available;
- reserving the right to withdraw any material in dispute from the archive and, in the event that a depositor is found to have recklessly or willfully submitted materials containing unauthorized third party material, to refuse to accept any further materials from that individual or institution;
- providing processes through which any material alleged to be infringing in any way can be removed when the archive is put on notice that this is the case ('notice and takedown');
- providing processes through which individuals or institutions who are claiming that their rights have been breached can seek a negotiated settlement ('grievance procedure'); and
- where possible, requesting that any licences chosen by the supplier of materials should reflect any third party restrictions imposed on the use of the materials or works embedded in them.

It is likely that a repository hosting material that breached a third party's IPR would be able to deflect some, if not all, of the potential liability by rapid removal of the material in question. The concept of 'notice and takedown' in the UK is derived from Regulation 19 of the Electronic Commerce (EC Directive) Regulations 2002, which is designed to limit the liability of Information Society Service Providers (ISSPs) from any liability incurred from the activities of hosting in the circumstances set out in those Regulations. While it is not entirely clear that this would cover a repository, as opposed to an ISP hosting a webpage containing material that breached a third party's IPR, it seems to be accepted wisdom amongst repositories, both in the UK and elsewhere, that it is reasonable to operate on that basis. Certainly the risk involved would, in the absence of a sustained and/or knowing tolerance by a repository of the deposit of material that breached third party IPR, appear to be very low.

Establishing a grievance procedure is also an effective way of bringing disputes to settlement via mediation. Many injured third parties will be effectively assuaged by the fact that their complaint is being treated through a formal procedure.

6.12. Risk Management Processes

A key issue in establishing an effective copyright/IPR policy framework is that of ensuring appropriate organizational management of copyright risk. Dealing consistently and effectively with the copyright/IPR issues raised by an archive, both at start-up and during operation, will require the clear allocation of responsibility for those determining and addressing those issues within the archive's management team. That responsibility will span both the deposit and access functions of the archive, as changes to the copyright/IPR policy on one side will almost

inevitably have repercussions on the other. Effective copyright/IPR risk management is vital to establishing and maintaining both depositor and user trust in the reliability of an archive.

6.13. Policy Framework/Holistic Approach

It is important when developing policy in this area to take a holistic view of the copyright/IPR issues. Building a flexible copyright/IPR policy framework, based on the initial background and risk assessment, which contains clear and documented processes for deposit and access management, policy and process audit and risk amelioration, and which incorporates the ability to effect coherent change management in the light of shifts in environmental factors, will be essential to long-term sustainability.

7. Current Activities and Case Studies

7.1. Legal projects

Several recent projects have considered the legal issues surrounding digital archiving and preservation from differing perspectives.

7.1.1. Paradigm (Personal Archives Accessible in Digital Media) Project 2005–2007

The aim of the Paradigm project was to explore the issues involved in preserving digital private papers via practical experience in accessioning and ingesting digital private papers into digital repositories, and processing these in line with archival and digital preservation requirements. A key outcome was a workbook containing best-practice guidelines on issues relating to the archiving of personal papers in digital form (Paradigm 2007). The workbook contains specific chapters on administrative and preservation metadata, including rights metadata (Chapter 5) and legal issues, including intellectual property rights (Chapter 9).

The workbook notes that during the course of its life cycle, a single digital archival object requires an extensive amount of associated metadata, so that it can be managed and preserved effectively by the repository, and understood and accessed by the researcher. It then identified three broad categories of metadata:

- descriptive metadata: information about the intellectual content of a digital object, which is used to aid identification and discovery of the object by the researcher;
- structural metadata: information about the relationships between digital objects, which can be very complex in a large hybrid personal archive. Structural metadata also supports the display and navigation of digital objects by users;
- administrative metadata: information needed by the repository for the long-term management of a digital object, including information about an object's creation, technical information such as file formats, provenance information and information about intellectual property rights.

It discusses the issues surrounding metadata standards for digital preservation and archiving, noting that there is no catch-all standard which accommodates the needs of every digital object type, and a lack of consensus on which standards to use. This causes interoperability problems,

especially when metadata or objects need to be transferred between repositories. To tackle this problem, it proposes use of the Metadata Encoding and Transmission Standard (METS), which is an XML Schema designed as an overall framework within which all the metadata associated with a single digital object can be stored or referred to (see below). It suggests that use of METS will enable effective management of digital objects within the repository, act as a standard for transferring metadata within repositories, facilitate access and navigation by the researcher, and link the digital object and its metadata inextricably.

The workbook considers the role of the Reference Model for an Open Archival Information System (OAIS). This specifies that all Content Data Objects which a repository intends to preserve should have relevant:

- representation information – structural and semantic information that permits the interpretation of archival material so that they may be rendered accessible;
- preservation description information – information about the individual content data to be preserved;
- packaging information – binds content information and its metadata together in an Information Package so that the relationship between the two can be sustained over time, for example, using METS;
- Descriptive Information – describes the package, enhancing access to the content information via finding aids and search and discovery tools (CCSDS 2002).

OAIS is a reference model, not an implementation guide: implementation of preservation metadata requires a detailed expression of requirements. The workbook thus discusses, and implicitly recommends the use of, the key international initiative to provide such a detailed expression of requirements – the PREMIS Data Dictionary, first published in February 2005 (see below). The PREMIS data model is composed of five 'entities' relevant to digital preservation: intellectual entities, objects, events, agents, and rights. For the purposes of this report the key entity is 'rights entity', which aggregates information about rights and permissions that are directly relevant to preserving objects in an archive/repository, with the aim of providing actionable information to preservation repository systems.

As regards IPRs, the workbook discusses the role and possible reform of copyright law as regards digital preservation, and concludes that an effective rights management policy based on rights metadata is essential to address IPR issues in archival materials. This requires archivists to ensure they have established the nature, owners and duration of at least the primary IPRs in an archive, during the acquisition and cataloguing processes. This data will aid archivists in their creation of a rights profile of the collection using metadata, which can then be utilized to manage usage of the collection in a way that respects the rights of rights holders and those of researchers. The workbook notes that realistic rights to undertake preservation and some access activities should be sought from depositors, and that repositories should consider adopting a 'take down' policy and procedure for removing from public access any contentious material which is subject to dispute.

Although some of the material is now dated, the *Paradigm Project Workbook* remains a useful introductory guide for the layperson to both the primary metadata issues relating to digital preservation, and relevant legal issues, notably copyright.

7.1.2. Digital Lives Project 2007–2009

The aims of the Digital Lives project included: establishing how personal digital collections are being created, managed, and made accessible; exploring the needs and views of scholarly users of personal digital collections; identifying the implications and methods of transfer of personal digital collections from individuals to long-term repositories; and establishing the impacts of legislation, confidentiality and professional ethics on personal digital collections, and the implications for acquisition and dissemination by repositories.

A key output of the project was a report on the legal and ethical issues that might arise from the collection and preservation of (and provision of access to) personal digital archives, by repositories, including the legal deposit libraries, and other non-deposit organizations (Charlesworth 2009). The report suggested that most of the legal and ethical issues will be identical for analogue personal collections and personal digital archives, and that where differences emerged, they would do so because of:

- the range of types of personal digital archive that now exists because of the storage capacity of digital media, and the ready availability of tools with which to create and capture content and information for posterity;
- the involvement of commercial entities in providing the technology and support for the creation and maintenance of personal digital archives;
- the ease with which digital data can be accessed, stored and copied; and
- the expectations of the public about how, where and when personal digital archives should be accessible, and for what purposes.

The recommendations of the Digital Lives project with regard to archiving and preservation of personal digital archives are reflected in the recommendations of this *Report* with regard to digital works generally, including:

- increased use of metadata, with greater recourse to metadata generation via depositor- or user-generated inputs, and automated processes;
- greater involvement with a wider range of stakeholders, including collaboration with commercial entities, such as social networking sites, to promote and develop tools for facilitating deposit and generating legal metadata; and
- using improved risk assessment techniques to determine the level at which it may be more cost/time effective to simply provide guidance to those creating digital objects on how to structure, or tag, or add metadata to such objects so that archives and repositories can reduce the time spent on legal oversight during accession.

7.1.3. KEEP (Keeping Emulation Environments Portable) Project 2009–2012

According to its website, the aim of the KEEP project was to develop ‘emulation services to enable accurate rendering of both static and dynamic digital objects including text, sound, and image files; multimedia documents, websites, databases and videogames’. The goal of the project was to ‘facilitate universal access to European cultural heritage by developing flexible tools for accessing and storing a wide range of digital objects’. A key aspect of the project was a survey of the legal issues affecting the implementation of emulation-based systems so that the

project (or others) might put forward emulation solutions that comply with European and national copyright laws.

The legal study component of KEEP was completed in September 2011. The resulting report assessed the European Union legislative framework relevant to copyright, and the copyright laws of three different national EU Member State jurisdictions (Netherlands, France and Germany). The resulting report makes disquieting reading for those proposing to engage in digital preservation in general and the emulation of computer software in particular (Anderson 2011).

At the European Union legislative level, the report suggested that the general legal framework for copyright (Directive 2001/29/ EC) was largely inimical to the aims of the project, because whilst that framework permits Member States to grant archives and libraries ('memory institutions' in the parlance of the report) the legal right to copy for preservation purposes, both that right, and the right to make copies available to the public, are strictly limited by the application of the Berne 'three step test', that is, they have to be confined to 'certain special cases' which do not conflict with a 'normal exploitation of the work' and do not 'unreasonably prejudice the legitimate interests of the author'. With regard to the use of Technical Protection Measures (TPM) it was noted that EU law requires Member States to provide adequate legal protection against the circumvention of any effective technological measures, and only limited options for 'providing for certain exceptions or limitations for cases such as educational and scientific purposes, for the benefit of public institutions such as libraries and archives'.

Analysis of specific legislation relating to computer software (Directive 2009/24/EC) and databases (Directive 96/9/EC) suggested that these Directives were similarly unhelpful – the former lacking any provision for legal deposit requirements for software, or the right to copy software for scientific, study or education purposes; and the latter providing no copyright-related exceptions or *sui generis* rights suitable for the purposes of the KEEP project.

The situation with regard to the three national jurisdictions surveyed was no better. Despite the intention of the European Union to encourage harmonization of Member State copyright laws, there was considerable variation between their implementation of the Directives. However, it appears that the national laws in those jurisdictions:

- made little accommodation for the requirements of libraries and archives to do more than make basic preservation copies of digital works;
- placed significant restrictions on the ability of libraries and archives to permit end-user access to copies of digital works;
- were obstructive to the aim of preserving multimedia works, often requiring detailed analysis of the status of 'constituent elements' rather than viewing the work as a whole; and
- failed to provide adequate rights to circumvent TPM for the purpose of preservation across the range of digital works.

Even where national laws did permit copying of computer programs and databases for preservation purposes, it appears that those laws might themselves breach EU law.

The report concluded:

> 'The overall findings of the KEEP legal study with respect to Community Law are that:
>
> - None of the exceptions set out at the Community level serves adequately the purposes of memory organisations in going about their digital preservation activity.
> - Community Law does not provide for legal deposit requirements.
> - Community Law does not provide for scientific, study or education purposes across the full range required for memory organisations.
> - Reproduction of computer programs and databases even when carried out by memory organisations and authorized under national laws, is in conflict with Community Law' (Anderson 2011: 22).

Although the KEEP report did not examine the legal situation in the UK, the analysis of the EU legislative framework for copyright, and its effect upon a Member State's ability to make provision for the preservation and re-use of digital works, poses salutary lessons. Even where there is the political will within a Member State to develop a copyright regime which permits the preservation of, and broad public access to, legacy digital works, such an initiative appears to be open to successful legal attack on the grounds that it breaches EU law. However, in terms of the emulation of both hardware and software, to enable access to legacy works, such as the BBC Domesday project, or classic videogames, both UK case law and the recent ECJ judgment in *SAS Institute Inc* v. *World Programming Ltd* suggest that there may still be options open for both preservation and public access.

7.2. Metadata Projects with a Legal Element

There are several metadata projects which have addressed the issue of how to incorporate legal information relating to IPR into archival metadata.

7.2.1. OAIS (2003)

The OAIS standard (ISO 14721:2003) establishes a common framework of terms and concepts which comprise an Open Archival Information System (OAIS). From a legal perspective, it is important to note that the OAIS standard recommends (3.1/3.2) that when acquiring content from a producer, the OAIS archive must ensure that it negotiates with information producers and accepts appropriate information from them, and obtains sufficient control of the information to the level needed to ensure long term preservation. This is because 'It is important for the OAIS to recognize the separation that can exist between physical ownership or possession of Content Information and ownership of intellectual property rights in this information' (3.2.2). As such the OAIS should ensure that:

- there is a legally valid transfer agreement that either transfers intellectual property rights (IPRs) to the archive; OR
- a legally valid transfer agreement that clearly specifies the rights granted to the OAIS and any limitations imposed by the rights holder(s); AND
- the OAIS's subsequent actions to preserve the information and make it available conform with these rights and limitations whilst allowing sufficient control over the objects and their metadata so that the OAIS is able to preserve them for the long term.

and that, as recommended (3.2.6):

- The OAIS should have published policies on access and restrictions so that the rights of all parties are protected.

Thus, it can be seen that the OAIS standard recognizes the importance of either acquiring direct control of, or at least collecting clear information about, the IPRs relevant to particular digital objects, as well as the provision of information to third parties seeking to use the digital objects.

7.2.2. PREMIS (2005)

The PREMIS *Data Dictionary* is a comprehensive resource for the implementation of preservation metadata in digital library systems. It defines preservation metadata that:

- supports the viability, renderability, understandability, authenticity, and identity of digital objects in a preservation context;
- represents the information most preservation repositories need to know to preserve digital materials over the long-term;
- emphasizes implementable metadata: rigorously defined, supported by guidelines for creation, management, and use, and oriented toward automated workflows; and
- embodies technical neutrality: no assumptions are made about preservation technologies, strategies, metadata storage and management.

The PREMIS data model has five primary types of entity: intellectual entities, objects, events, agents, and rights (PREMIS, 2011). The rights entity is designed to document rights relating to preservation actions rather than to access and use by researchers. Under the model, the minimum core rights information that a preservation repository must know is what rights or permissions it has to carry out actions related to objects within the repository. Rights are entitlements allowed to agents by copyright or other intellectual property law. Permissions are powers or privileges granted by agreement between a rights holder and another party or parties (Coyle 2006).

Each PREMIS rights statement sets out two things: acts that the repository has a right to perform, and the basis for claiming that right. The information that can be recorded in a rights statement includes:

- a unique identifier for the rights statement (type and value);
- whether the basis for claiming the right is copyright, licence or statute;
- more detailed information about the copyright status, licence terms, or statute, as applicable;
- the action(s) that the rights statement allows;
- any restrictions on the action(s);
- the term of grant, or time period in which the statement applies;
- the object(s) to which the statement applies;
- agents involved in the rights statement and their roles (Caplan 2009).

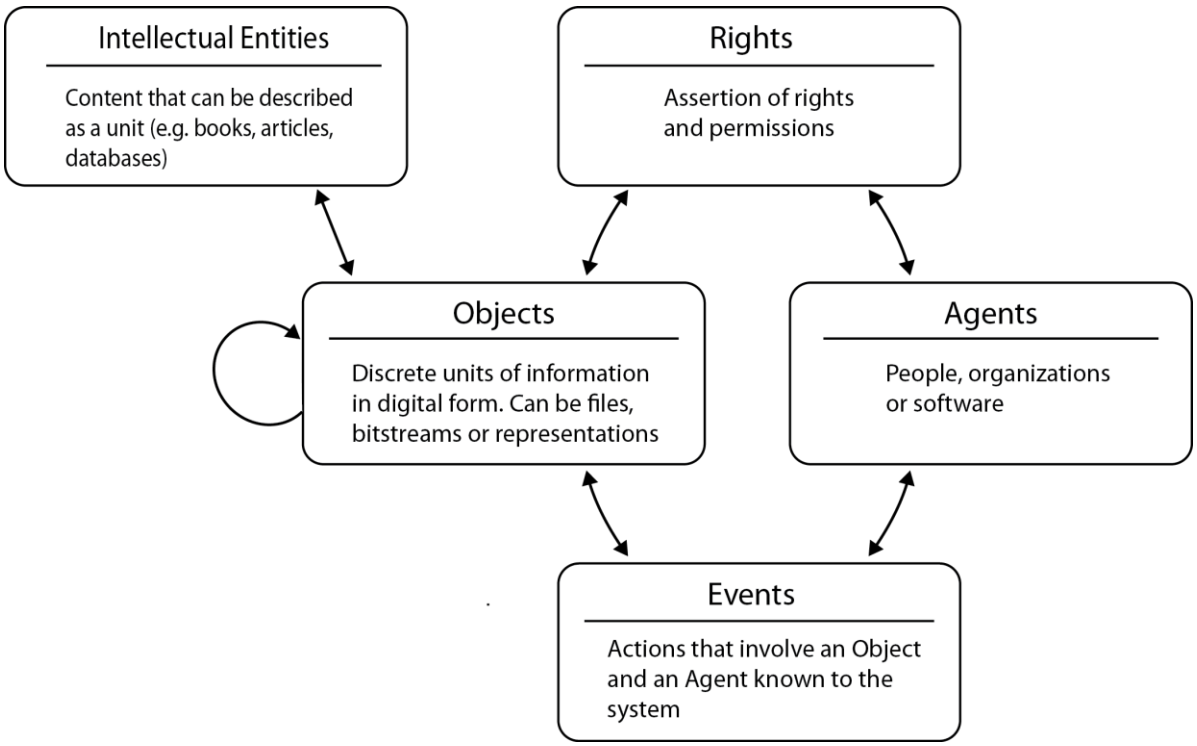

Figure 1: PREMIS data model

The purpose of the metadata is to allow a preservation repository to determine whether it has the right to perform a certain action in an automated fashion, with some documentation of the basis for the assertion, rather than to document factual information to allow a human being to make an informed copyright assessment of a given work (see further PREMIS 2011, pp.165-203). In the digital environment, the ability to automatically process the legal rights which are linked to a digital object will be critical to the efficient preservation and (ultimately) reuse of such objects.

7.2.3. METS (2001–2005)

The Metadata Encoding and Transmission Standard (METS) is a XML-based standard designed to encode all varieties of metadata to describe, navigate and maintain a digital object (descriptive, administrative and structural metadata). It provides a standard format to hold metadata associated with a digital object, in a form which can easily be shared, cross-searched, exchanged and rendered for browsing and display purposes – thus it is not a metadata standard, but a framework within which to organize existing metadata. A METS file consists of different sections, which are illustrated below.

Within a METS file, intellectual property rights metadata is part of the administrative metadata which contains information about any copyright and licensing attached to the digital object. The METS rights external schema has been specifically developed for recording this kind of