



DIGITAL PRESERVATION AND INTELLECTUAL PROPERTY RIGHTS

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Introduction to Digital Preservation

Digital preservation helps to deliver lasting impact from highly prized and valuable digital resources. This is often understood as a technical challenge but experience shows that a poor fit between technology, processes and regulations constrains preservation actions and significantly inhibit the benefits which long-term access ought to deliver. Operating within a complicated and evolving legal and regulatory landscape, the digital preservation community needs a clear understanding of what it is permitted to do and what risks might inhere within technical processes like format shifting, migration, bit replication and emulation. Foremost among these challenges is the management, protection and evolution of intellectual property rights. It has long been recognized that digital rights management and encryption present a barrier to preserving content. But intellectual property rights do not just impact on the contents of archives but applies also to the containers, wrappers and formats which make the contents accessible.

Digital Preservation & IPR

In terms of intellectual property rights (IPRs), the traditional concepts that governed the use of tangible works, such as books, are often difficult, or even impossible, to apply meaningfully to digital materials. In particular, the concept of

“physical ownership” is declining in relevance as licensed access to electronic resources, as opposed to the purchase of tangible items, becomes more prevalent.

For example, a library may now license access to an online database of periodicals for its users, instead of purchasing one or more paper periodicals for stack access. The library never takes physical delivery of the periodicals, thus saving storage space, and the ability to reduce some collection management costs, such as check-in, binding preparation, and shelving. But in licensing access, the library may be unable to guarantee users permanent access to the periodicals, be prevented contractually from fulfilling interlibrary loan requests, and run the risk of the licence charges becoming prohibitively expensive over time.¹

Obtaining digital resources under licence may mean that publishers in effect use the contract between themselves and the library to alter the traditional balance between rights owners and the public that has been afforded by intellectual property law. This has major implications for the management of those resources. In addition, with regard to archiving and preservation, it may not always be clear who the IPR holder is for the digital resource.

If there has been an inadequate rights management process, in that there has been incomplete or inaccurate collection of documentation allowing the identification of IPR owners in a particular work or collection of works, this will inevitably complicate, and perhaps even prevent, the

¹ Prof. Ramesh Chandra, *Issues of Intellectual Property Rights* (Isha Books, ISBN: 81-8205-095-2).



identification of those persons who will need to grant permission for digital preservation process, as institutions are unlikely to wish to risk copyright infringement proceedings for copyright digital resources, without the explicit consent of the IPR holder.

Preservation is also very different in a digital environment. Thus, preservation actions for non-digital collections, if needed at all, may occur decades after acquisition. For example, a library might buy a journal that is delivered in three parts over the course of a year. When all the parts are received, the library may store them as separate parts, or rebind the parts as one volume. Over time, and with use, the bindings and covers of a volume may deteriorate, pages may be ripped out or defaced, poor paper stock may suffer acid damage.²

Preservation must therefore be considered and planned for as early as possible, preferably from creation but if not as soon as possible after acquisition. In addition, their successful preservation will inevitably require copying, whether as a back-up in case of loss or damage, or as part of a regular maintenance programme of refreshment and migration. By way of example, in contrast with a paper journal, a library may buy access to an electronic journal, with each article stored as a file on a CD-ROM, or as a file on a remote server.

The necessity to have the right to undertake whatever actions are required to preserve digital resources can cause tensions between commercial publishers and librarians. With regard to non-digital publications, the

preservation process undertaken by librarians is unlikely to unduly compromise the position of publishers. Rebinding, replacement of damaged material by photocopying and similar preservation measures do not normally involve the type of copying activities that would affect the publisher's ability to sell further copies of work.

Digital copying, however, is more contentious. Whereas copying of non-digital publications is subject to significant cost overheads and decreasing quality of copy, digital copying is inexpensive and produces perfect copies that are highly portable. Publishers are thus understandably concerned that their commercial return may be compromised by the actions of librarians in digitizing previously non-digital publications, and in making copies of existing digital publications.

If a digital copy 'escapes' from a controlled environment, such as restricted access server, or library based CD-ROM, into the wider community, it can be almost impossible to exert control over its future propagation and use. Librarians are naturally concerned that the resources they are investing in, whether through licence or purchase, should continue to be available to their clientele for as long as they are required.

Intellectual property rights (IPRs) permit individuals to claim rights in their creative and innovative works in a similar way to which they can claim rights in physical property. Thus, the author of a manuscript can own a set of rights in his words that he can sell, lease, give away, or leave to his heirs just as he could sell, lease, give away,

² *Ibid.*



or leave to his heirs, a valuable piece of furniture.

However, it is perhaps unwise to draw this analogy too far, as IPRs have several characteristics that are not easily equated to physical property, not least ease with which they can be divided into smaller component rights, and the fact that a particular work may have more than one type of IPR attached to it. There are wide range of public, such as copyrights, patents and trademarks, and others that are less widely known, such as trade secrets, plant varieties, geographical indications and performers rights.

IPRs often have to be applied for, the protection granted by them may be limited in scope to a particular country or trading area, and may vary in the degree of formality required according to national or international rules. While there is an increasing trend towards international harmonization of IPRs, at present there are often wide disparities between national and regional regimes. Thus, knowledge of the Indian IPR regimes is unlikely to be adequate to ensure complete compliance with regimes elsewhere in the world.

With regard to Indian IPR regime, probably the four best-known IPRs are:

- Copyright for various types of works including literary and artistic material, music, films, sound recordings, and broadcasts;
- Patents for inventions, meaning new and improved products and processes capable of industrial application;
- Trademarks used to provide brand identity of goods and services allowing distinctions to be made between different traders.

- Design rights relating to product appearance- the whole or a part of a product resulting from the features such as the lines, contours, colours, shape, texture and/or materials of the product itself and/or its ornamentation.

While more than one of these IPRs may relate to a particular digital resource. Under Indian law, a copyright notice is not necessary, although many rights owners use such notices to indicate their intention to defend their copyright in the case of infringements. The basic framework of these rights is statutory, although explanatory case law is of great importance. There is copyright protection for specific classes of works, but not for ideas. Each type of work has a different status in law.

Copyright law is a particularly complex subject, not least because copyright began life in the 1600s as a monopoly right for printers, and is now expected to cover material as diverse as artistic works and computer programs. The wide range of media that copyright law covers has led to a diversity of types and lengths of protection with which librarians and archivists would be advised to acquaint themselves, as each may require different strategies and considerations to obtain clearance for use.

Copyright exists for a limited period only. This is called the “term of copyright”. All works will eventually emerge from copyright protection. However, different types of works still have different lengths (or lengths) of copyright protection. Under Indian Law, the copyright in works created in the course of employment will be owned by the employer. Ownership of copyright in



a work can change hands after its initial creation, and like any property, can be sold or assigned and may be passed on in a will.

Digital Preservation Issues

Digital collections face severe implications if action is not taken at an early stage to guarantee their survival. The media they are stored on are vulnerable to rapid and sudden deterioration and the digital content needs to be copied to newer media at regular intervals. Even more significant is the fact that they are dependent on hardware and software to make them accessible. The certainty that rapid changes in technology will render them inaccessible unless these inevitable changes are actively planned for and managed means that steps must be taken to safeguard them at regular intervals and this must occur within a very much shorter timeframe than for paper-based collection.

In terms of digital preservation, there are two primary IPR issues:

- 1) *The need to copy the digital resource:* In digital preservation, the first step is the ability to take a duplicate of the digital resource to place into a secure archival store. As can be seen in the above discussion of copyright, the necessary rights to copy for the purpose of preservation are not necessarily covered by legislation and such copying in the absence of legislation or the explicit permission of the rights-holder may result in the infringement of intellectual property rights. Permission may need to be provided before preservation of the digital resource is possible. The need to obtain permission is often further complicated by the fact that there may well be several intellectual property rights owners in a single resource, not all of whom may be

easily identifiable. It may therefore, not be within the power of the commercial publisher to grant rights to copy for the purpose of preservation, even if they were so inclined.

- 2) *The need to modify the digital resource:* The technical strategy used to maintain the digital resource might result in it looking different from the “original”. The following modifications may be required while maintaining the digital resource:
 - Migration into suitable file formats;
 - Excluding elements of the digital resource in order to meet negotiated IPR restrictions;
 - Removing dependencies upon obsolete software protection mechanisms. If the IPR owner of the resource does not permit such modifications, cost-effective preservation may not be possible.
 - The trend towards licensing access as opposed to owning content.

Libraries increasingly license digital materials on behalf of their users. However, it is a source of some concern that licensing agreements have not necessarily addressed how perpetual access is to be guaranteed once the licensing agreement ceases. Institutions licensing content need to be very clear on their requirements and on whether these requirements are adequately catered for before signing licenses. If access is required beyond the short-term, any license between the institution and the publisher will need to specify this. Work has progressed in terms of streamlining licenses primarily to avoid the need for costly one-off licensing negotiations for each resource.³

³ *Ibid.*



Cedars has undertaken a range of activities associated with IPR. These have included:

- Preparation of presentations and discussion papers exploring the digital preservation implications of IPR. These presentations have been primarily concerned with raising awareness of the need to consider rights issues and the potential barrier they could present to successful digital preservation.
- Preparation of a bibliography on IPR. The Cedars Bibliography is searchable on certain topics, including IPR. The purpose of this bibliography was to provide a convenient source of information relating to a wider range of issues.
- Inclusion of rights metadata in the Cedars Outline Specification. While the Cedars Metadata specification was based on the OASIS model, the inclusion of rights metadata within the administrative role was a significant expansion of the OASIS model. The Cedars specification explicitly recognized the requirements for institutions to include and maintain information relating to rights.
 - Hosting a seminar with publishers.

Conclusion

A European Union Copyright Directive designed to harmonize various aspects of copyright law amongst the Member States has recently been passed. The changes proposed by the Directive have been highly controversial and significant lobbying has taken place both by rights owners and by library groups and users to protect their respective interests.

As with the US Digital Millennium Copyright Act 1998, the Directive is designed to implement the WIPO Copyright Treaty of 1996 and Performances and

Phonograms Treaty of 1996. The Directive allows Member States some discretion with regard to what libraries within their jurisdiction are permitted to do in order to preserve items within copyright.

In UK, discretion of the current government plays a pivotal role in such scenarios. The Directive seeks to offer protection to copyright works where these are distributed electronically. The aim is to facilitate cross border trade in copyright works. Member States may apply various specified exceptions to restrictions on copying, usually with provision for the copyright owner to receive fair compensation. There is an exhaustive list of permissible exceptions, and a single mandatory exception for various temporary copies. One of the permissible exceptions concerns libraries and archives. Member States may provide for exceptions or limitations to the reproduction right in respect of specific acts of reproduction made by publicly accessible libraries, educational establishments or museums, or by archives, which are not for direct or indirect economic or commercial advantage. The wording of any exception will be a contentious matter, and further considerable lobbying from all affected parties is to be expected.

In India digital preservation will need to be a distributed responsibility. This is partly because of enormous amount of digital material being produced by a large number of organizations and partly because of the problems related to digital preservation mentioned. However, decisions regarding preservation of digital information need to be taken at an early stage so that those creating digital data are logically the ones



best able to undertake that initial activity. In view of the above, it is proposed that in India we must set up a National Centre for Digital Preservation. The NCDP will not be a repository for digital data but will work towards a more effective and efficient infrastructure for digital preservation within the country. It will set tone for initiating digital preservation activities in a coordinated manner.

