DIGITAL RIGHTS MANAGEMENT AND ACCESS TO INFORMATION IN ARCHIVES, LIBRARIES AND MUSEUMS

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Abstract

Research has shown that DRMs (Digital Rights Management Systems) tend to protect the right holders at the expense of information consumers. There is widespread concern amongst consumer advocates that while DRMs are poor at preventing commercial copying, they are good at restricting consumer use thereby denying them their right to information. This article will specifically look at why creators of digital works insist on DRMs, the effect of DRMs on the public domain and privacy and finally discuss how information professionals such as librarians, archivists and record managers can help in ensuring that DRMs are well managed by coming up with balanced national laws.

Keywords: Access to information, Digital Rights Management, Public Domain, privacy, digitization, copyright.

Introduction

The very first law of the five laws of library science by Ranganathan who is known as a father of library science in India is “books are for use.” This law insists upon intensifying the use of books by every possible method and it urges the library profession to select such editions of the book which are readable and pleasing to the users. It is important to note that the law is also about access to information by

users. In this light, Nicholson (2009) posits that librarians continue to have the responsibility of protecting access to information, with a special obligation to ensure that there is free flow of information to the widest possible number of present and future consumers.

We now live in an information society in which the creation, distribution, diffusion, use, integration and manipulation of information is a significant economic, political, and cultural activity. It is no longer a secret that information is a major ingredient for the acceleration of development. While it is widely accepted that the success of the Information Society depends on digital content being accessible by the majority of the information consumers, Digital Rights have been created to stop access to information even when this is legal. Librarians who are intermediaries between creators and consumers of information have found themselves in a difficult situation of not being able to provide access to the much needed information to those who hunger for it due to the application of DRMs.

Information management professionals and other professionals in the ESARBICA region need to be aware of ways and means which are now being used on the international scene as well as the local environments to deny access to information even where the national laws provide for exceptions. It must be noted that African countries have different priorities as observed by Nicholson (2006) who contends that for most, if not all of them, illiteracy, unemployment, lack of infrastructure and resources, famine, disease, conflict, crippling debt, and mere day-to-day survival are far more critical issues than intellectual property, especially copyright. The Western understanding of copyright protection is a foreign idea to many African countries, since societies are built on the concept of collective ownership as part of their cultural values. It is therefore imperative that information management professionals become knowledgeable about issues pertaining to DRMs so that the impediments thereof can be countered with the necessary resistance.

Definition and scope of Digital Rights Management (DRM)

Many definitions point to the fact that Digital Rights Management is a generic term that refers to access control technologies that can be used by hardware manufacturers, publishers, copyright holders and

individuals to impose limitations on the usage of digital content and devices. The term is used to describe any technology which makes the unauthorized use of such digital content and devices technically formidable.

The *Tech Terms Computer Dictionary* (n.d.) defines Digital Rights Management as a collection of systems used to protect the copyright of electronic media. These include digital music and movies, as well as other data that is stored and transferred digitally. Digital Rights Management is said to be important to publishers of electronic media since it helps ensure they would receive the appropriate revenue for their products. By controlling the trading, protection, monitoring, and tracking of digital media, DRM is said to be helping publishers in limiting what they term illegal propagation of copyrighted works. This is accomplished by using digital watermarks or proprietary file encryption on the media they distribute. Whatever method publishers choose to employ, DRM helps them make sure that their digital content is only used by those who have paid for it.

Cameron (2007) observes that DRMs, which are sometimes called electronic copyright management systems (ECMS), are technologies designed to automatically manage rights in relation to information. This can include preventing copyright works and other information from being accessed or copied without authorization and establishing and enforcing license terms with individuals. DRM is a form of continual protection that protects works and manages rights at all times, no matter where the works are located or who has possession of them. DRM attempts to promote authorized use of a copyright work, in part by precluding the possibility of copyright infringement. DRM systems comprise a number of technological components, which can include encryption, a surveillance mechanism, databases of works, owners and users, license management functionality and technological protection measures (TPMs).

Why is DRM critical for creators of digital works?

Cameron (2007) ascertains that copyright owners are interested in DRM because new technological advances such as the Internet make it easier to copy and distribute digital works. Potentially, these advances could greatly reduce copyright owners' costs of distributing

copyright works. However, some copyright owners are reluctant to disseminate digital works because they are afraid that their copyright works will be immediately and widely infringed. This is where DRM comes in. DRM promises copyright owners a high degree of control over how works are accessed and used, even after the works are disseminated to users. Thus, copyright owners are interested in DRM because it helps them reduce online copyright infringement. However, there are additional motivations for copyright owners to distribute DRM-protected works. For example, DRM can potentially allow copyright owners to require users to pay for each access and use of a work they wish to make. DRM also possesses the ability to observe and report on usage characteristics, which can provide the distributor of the DRM with unique marketing information not otherwise available. This could give rise to new business models and to a continual revenue stream derived from copyright works. Note, however, that there is no essential connection between DRM and copyright: DRM may be deployed in respect of any content, regardless of the copyright status of the content (i.e. public domain materials are not subject to copyright), and may report to persons other than the copyright owner.

The Canadian Internet Policy and Public Interest Clinic (CIPPIC) shares the thinking of most librarians that DRM can fundamentally alter consumers' ability to access and use goods that they purchase, in ways that conflict with their reasonable expectations (Cameron 2007). When a consumer purchases a book in a bookstore, neither the owner of the bookstore nor the owner of copyright in the book will be able to know or control how or where the consumer uses that book. DRM funda-mentally changes this dynamic by forcing an ongoing relationship between the copyright owner and the user and enabling the copyright owner to place limits on the use of an item even after it is purchased. DRM could limit access and use to a single computer or to certain technologies, and automatically prohibit uses that are not permitted by the copyright owners' license. DRM goes further in limiting access to information even when national copyright laws provide for exceptions.

The international dimension of DRM

Nicholson (2009) states that The World Intellectual Property Organization (WIPO) has two Internet Treaties, namely, the WIPO Copyright Treaty (World Intellectual Property Organization, 1996) and the Performances and Phonograms Treaty (World Intellectual Property Organization, 1996). Nicholson (2009) confirms that both Treaties provide for technological measures of protection and rights manage-ment information, the protection of which is assured by a set of obligations assumed by the Contracting Parties. These obligations are designed to ensure that right holders may effectively use technology to protect their rights, and to license their works online.

Lung (2004) further contends that technological changes have reshaped copyright law, in the global information infrastructure. The author outlines that the first shift is that which relates to the creation of new rights in respect of digital uses of works. The WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT), or the WIPO Internet Treaties, which entered into force in 2002, expressly record the agreed principle that storage of protected works in computer memories is considered a reproduction. They also establish that the interactive communication of a work, a performance or a phonogram must be covered by exclusive rights for the creator. Countries retain flexibility to determine which right and scope will apply in national law, but the protection granted must cover the act of making available to the public works or objects of related rights in such a way that members of the public may access them from a place and at a time individually chosen by them.

Another important change brought by the WIPO Internet Treaties concerns limitations and exceptions, a matter of ever-increasing importance and subject of intense worldwide debate today. Being based on the particular social or economic needs that apply, limita-tions and exceptions to the scope and exercise of copyright and related rights vary from one country to another. Such diversity has been permitted at international level, notably by the standards provided by the Berne Convention for the Protection of Literary and Artistic Works and the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organiza-

tions, and more recently by the Internet Treaties. The latter permit national legislation to maintain or extend the traditional limitations and exceptions, and even to devise new ones for the digital environment, provided that there is compliance with the three-step test, that is to say, that limitations or exceptions to rights can only be introduced in certain special cases, when they do not conflict with a normal exploitation of the work or object of related rights, and when they do not unreasonably prejudice the legitimate interests of right owners.

A third key change introduced by the WIPO Internet Treaties relates to technological measures of protection and rights management information, the protection of which is assured by a set of obligations assumed by the Contracting Parties. These obligations are designed to ensure that right holders may effectively use technology to protect their rights and to license their works online. The first obligation requires countries to provide adequate legal protection and effective remedies against the circumvention of technological measures, such as conditional access systems and encryption used by right holders to protect their rights. The second type of technological safeguards enhance the reliability and integrity of the online marketplace by requiring countries to prohibit the deliberate alteration or deletion of electronic information which accompanies any protected material, and which identifies the work, right owners, and the terms and conditions for its use, among other things.

The European Union and the United States of America have taken the WIPO Internet Treaty even further. The United States of America for example has included its provisions for Digital Rights Management in its Digital Millennium Copyright Act (DMCA). The DMCA criminalizes production and dissemination of technology that can circumvent measures taken to protect copyright, not merely infringement of copyright itself. It also has serious penalties for copyright infringement on the Internet.

EIfl (2006) confirms that the US-based digital civil rights organization, Electronic Frontier Foundation, documents how the anti-circumvention provisions of the DMCA have been used to stifle a wide array of legitimate activities rather than to stop copyright infringements. It illustrates how they are being invoked against consumers, scientists, and legitimate competitors, rather than pirates. The Electronic

Frontier Foundation (2006) notes that there are a number of negative aspects of the law including stifling free expression of scientific research, jeopardizing fair use, impeding competition and innovation and that the law interferes with computer intrusion laws. These aspects will be discussed in detail in this article.

What statutory position obtains in the ESARBICA region?

According to a study by Crews (2007), since the development of the WIPO Copyright Treaty of 1996, many member states have enacted statutes addressing the issue of circumvention of technological protection measures (TPM). While many countries have enacted prohibitions against such circumvention, a smaller number of countries have created exceptions or limitations on that prohibition. Occasionally, those exceptions are specifically applicable to libraries.

The current situation of enacting laws within our region in line with the WIPO treaties relating to DRM is that South Africa and Botswana are some of the countries that have put their pen to the WIPO Internet Treaties. Nicholson (2009) says that the South African Copyright Act No. 98 of 1978 (as amended) does not have provisions for technological protection measures. However, the Electronic Communications and Transactions Act No. 25 of 2002 has restrictive provisions for anti-circumvention technologies in section 86. It is a criminal offence to circumvent technologies which protect data or other information in South Africa. The latter Act does not have any limitations or exceptions for legitimate library or other non-infringing purposes, or for circumvention for legitimate access by blind persons.

Botswana has also signed the treaty and the laws have been put in place. Other countries in the region to have signed include Namibia and Kenya. Zambia is also a signatory to the WIPO Copyright Treaty and is currently revising its copyright law to make provisions of the Treaty. The other countries have not yet taken these steps.

Libraries have often raised concerns about DRMs, arguing that they impose restrictions on access to and uses of many information resources. The exceptions for libraries where they exist make DRMs more acceptable in the library community, but this provision has not received wide acceptance among librarians. Librarians are not

optimistic about relying on an exception that could permit circumvention for library or educational purposes. Even if copyright laws were amended to permit circumvention of DRMs for the purposes of education, research, scholarship and such activities, most libraries and archives do not have the technical expertise in house or the financial resources to hire someone to do the circumvention or to apply DRMs to the copies made. Since the law prohibits trafficking in circumvention technology, no product will be available for libraries and archives to purchase that would enable them to do this work. The concerns about DRMs have grown as more resources are locked behind the technological protections. Objections are also intensifying, because the passage of time means that new technologies are entering the market, and old technologies are becoming obsolete. Libraries are finding that works secured by DRMs are now several years old. Often the software is obsolete, the passwords are missing, and the original publisher may not support the dated programming.

Though many countries in the ESARBICA region have not yet enforced their copyright laws in line with the treaties affecting digital records, pressure is building up and it will not be long before these laws will be enacted hence limiting access to information.

How do DRMs affect access to information negatively?

Libraries in our region and beyond are prevented from availing themselves of their lawful rights under national copyright laws. The copyright laws in Zambia and many other countries in the region for example currently have exceptions that allow libraries to access information on a fair dealing understanding. However these libraries are not able to access digital materials with DRMs because they cannot distinguish between legitimate and infringing uses. The same copy-control mechanism which prevents a person from making infringing copies of a copyright work may also prevent a student or a visually impaired person from making legitimate copies under a fair use/fair dealing or legal copyright exception. Long-term preservation and archiving, essential to preserving cultural identities and maintaining diversity of peoples, languages and cultures, must not be jeopardized by DRMs. The average life of a DRM is said to be between three and five years. Obsolete DRMs will distort the public record of the future, unless the library has a circumvention right. The public domain must

be protected. DRMs do not cease to exist upon expiry of the copyright term, so content will remain locked away even when no rights subsist, thereby shrinking the public domain. Libraries are strong opponents of anti-circumvention provisions that enable rights owners to override exceptions and limitations in copyright law (Eifl 2006). The Electronic Frontier Foundation (2006) confirms that the Digital Millennium Copyright Act of the USA (DMCA) which we can all learn from, impedes free expression of scientific research. This is so because experience in the USA within section 1201 demonstrates that it is being used to stifle free speech and scientific research. There are documented cases, such as the prosecution of Russian programmer Dmitry Sklyarov, which prove the point that the DMCA has impeded the legitimate activities of journalists, publishers, scientists, students, programmers, and members of the public.

By banning all acts of circumvention, and all technologies and tools that can be used for circumvention, the DMCA gives copyright owners the power to unilaterally eliminate the public's fair use rights. With the lessons from America, our region needs to guard against the negative impact that is brought about by the treaties regulating digital information.

How is the public domain affected by DRMs?

DRM poses a serious threat to the ability of the public to access and use copyright works in the public domain. DRM conflicts with copyright in this way because under copyright law, copyright protection has a limited term. After the copyright term expires, the work enters the "public domain" and the public is free to access and use the work. Because of the limited access afforded by DRM, it has the potential to protect a work indefinitely, long after copyright in the work might have expired. This permanent lock-down of the public domain runs contrary to the principle of balancing the interests of creators and of the public in copyright law. Similarly, DRM also threatens access to many works over the long-term because data stored in proprietary DRM formats (whether it be songs, software, electronic books or other data) are at much greater risk of being lost once the playback media is no longer available, locking away the protected data forever. Indeed, this has already happened, according to Dennis Dillon, a librarian at the University of Texas in Austin, who states that

information bought and paid for has since become inaccessible. Allowing libraries to circumvent DRMs, as recommended by some library associations, is probably a poor substitute for information accessibility. The same holds true for individuals' collections of digital copyright works (Cameron 2007).

How affected is the privacy issue with DRMs?

The CIPPIC further argues that DRM systems developed to date could have a dramatic impact on personal privacy (Cameron 2007). DRM's surveillance capabilities allow copyright owners to gather and analyze detailed information about users' reading, viewing and listening habits. Importantly, these activities are often ones that are typically performed in the privacy of users' homes where they would have no expectation that they are being watched. Each discrete access or use that a user makes (or perhaps even attempts to make) in relation to a work can be recorded by a DRM system. For example, among other things, copyright owners might be able to know how you paid for a song online, how many times you have listened to it, whether you replayed any parts of it more frequently, whether you copied (or attempted to copy) all or part of the song, and whether you sent (or tried to send) the song to a friend. This kind of surveillance and data gathering can invade privacy in and of itself. However, DRM may also invade privacy in the sense of reducing the scope of intellectual freedom. In other words, DRM may affect privacy because knowledge that their habits are being monitored may cause many users to avoid accessing or using certain forms of content in the privacy of their homes.

A study by CIPPIC conducted in the fall and spring of 2006/07 substantiated these concerns. The study titled Digital Rights Management and Consumer Privacy: An assessment of DRM applications under Canadian Privacy Law analyzed the behaviour of 16 different digital services and products that utilized DRM, and compared that behaviour with the disclosures of the organizations distributing the DRM. The study observed undisclosed tracking of usage and surfing habits, and unexplained communications with third parties including marketing companies. It was also found that the organizations using

these technologies often failed to comply with basic requirements of Canadian privacy law.

Coult (2005) in Nicholson (2006) argues that National Archives and legal deposit libraries, for example, need to be able to provide continuing access to materials, as part of the national record, within the framework of copyright exceptions, after copyright has expired and after relevant proprietary DRMs have fallen into disuse. They also need to pursue regular and necessary functions, such as conservation, preservation, digital duration and migration of content to accommodate changing technologies in order to ensure access to the current generation and to future generations, without hindrance. Their ability to override such DRM mechanisms for legitimate archival and library functions is therefore crucial. The technical knowledge required to accomplish this is likely to be most readily available at the point of receipt of the works, rather than at the point of eventual need. Stratton (2005) in Nicholson (2006) says legal deposit libraries and archives should be empowered to take such steps as an initial conservation measure, when such materials are received or at any point thereafter. To this end, rights-owners depositing works should be obliged to provide to the deposit libraries, the necessary “keys”, “decryption codes” or “devices” for unlocking, bypassing or disabling any DRMs embedded in them.

What should librarians and archivists do to help?

Librarians in the ESARBICA region should start or continue lobbying various governments to ensure that relevant laws such as legal deposit, copyright, communications acts, etc should be formulated in a balanced manner. Librarians need to be proactive and monitor their governments in the way these relevant laws are implemented. We need to take advantage of the exceptions that the treaties provide and not come up with national laws with prohibitive provisions.

Librarians, archivists, and record managers should become pro-active and get involved in international discussions involving such organizations as the Intellectual Property Organization (WIPO) and the World Trade Organization (WTO). We need to get involved in international projects such as the Access to Knowledge (A2K)

initiatives. Advice on how to go about lobbying can be obtained from the following list which is not exhaustive:

- IFLA Committee on Copyright and Other Legal Matters (CLM)
- eIFL.net - the Electronic Information for Libraries Network
- The Commonwealth of Learning (COL)
- The African Copyright and Access to Knowledge Project (ACA2K)
- African Digital Commons
- Creative Commons
- iCommons

Conclusion

It is critical for librarians, archivists and records managers to take a balanced view on accessing information for us to fulfill the mandate of our profession of providing access to information. We need to reduce the speed at which creators of works are going to ensure that their works cannot accessed by consumers. Many authors believe that the world would not have been where it is today if access to information was as prohibitive as some national laws would want it to be.

As much as possible, the developing countries need to learn from the experiences of those countries which have experienced the effects of the new treaties and leapfrog to stages which will avoid problems of access to digital information. In order to maintain a balance between the interests of rights holders and users, librarians and related professionals should be aware and put into practice the IFLA principles, some of which are as follows: (IFLA, 2000)

- For works in digital format, without incurring a charge or seeking permission all users of a library should be able to:
    - browse publicly available copyright material;
    - read, listen to, or view publicly marketed copyright material privately, on site or remotely; and
    - copy, or have copied for them by library and information staff, a reasonable portion of a digital work in copyright for personal, educational or research use.

- Providing access to a digital format of a protected work to a user for a legitimate purpose such as research or study should be permitted under copyright law.
- The lending of published physical format digital materials (for example CD ROMs) by libraries should not be restricted by legislation.
- Contractual provisions, for example, within licensing arrangements, should not override reasonable lending of electronic resources by library staff.
- Legislation should give libraries and archives permission to convert copyright protected materials into digital format for preservation and conversation related purposes.
- Legislation should also cover the legal deposit of electronic media.
- National copyright legislation should render invalid any terms of a licence that restricts or overrides exceptions or limitations embodied in copyright law where the license is established unilaterally by the right holders without the opportunity for negotiation of the terms of the license by the user.
- National copyright laws should aim for a balance between the rights of copyright owners to protect their interests through technical means and the rights of users to circumvent such measures for legitimate, non-infringing purposes.
- Copyright law should enunciate clear limitations on liability of third parties in circumstances where compliance cannot practically or reasonably be enforced.

Until these principles are adhered to, creators of works will continue with the current monopolies at the expense of consumers.

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