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Digital right management and its application to library and information science

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Abstract
Digital right management systems aim to create a secure framework to control access and actions that can be performed by users both human and machine. Digital right management technologies have become very important role in an increasing networked world because of its determined control over the file. It is not only useful in combating privacy but also for protecting sensitive documents. Digital right management systems together with technological protecting measures have become a controversial topic of discussion around copyrighted works, particularly since the Sony BMG case. Thus this paper presents a clear view point of indicating the recommendations and challenges to librarians and educators of developing countries on how to address digital rights management issues in relation to provide user's and learners with unrestricted access to information.

Keywords: Digital Right Management, Libraries Management, Internet, Technologies

Introduction
Today's world has yielded in increasing amount of digital content that demands protection from theft and pricing eyes. Digital Rights Management is not a new concept and has held many names over the past several years. The last few years, people began to use the term "electronic right management" and later on "Digital Right Management". However, Digital rights management: a system for protecting the copyrights of data circulated via the internet or other digital media by enabling secure distribution and or disabling illegal distribution of the data.

In general, Intellectual property protected by the Digital right management system by either converting the data so that making the content with a digital watermark or it can only be accessed by authorized users or it cannot be freely disseminated method. Technologies are aimed at growing the kinds and/or scope of control that rights holders can stress over their intellectual property. Digital right management restrictions are now backed up with the force of law. In essence, copyright owners now have the ability to write their own intellectual property regime in computer code, secure in knowledge that the DMCA will be back the regime with the force of law. It is not surprising that in light of these developments many have expressed alarm that Digital right management technologies may be used by copyright owners to erode capabilities that had previously been permitted to the public by copyright law under the "fair use" doctrine.

Concept of Digital Right Management and its Need
DRM is a term referring to various access control technologies that are used to check the usage of proprietary content, hardware and software. These technologies are control the use, modification, and dissemination of copyrighted works and execute these policies. The term is also sometimes referred to as copy control, and copy protection. It is described as the control of the technology over the access of Digital contents. This is used by the published software developers to curb the unauthorized usage of their digital material. Intellectual property Right as savior the acknowledged digital right management. It guarantees the protected digital supply system. Electronic copy right management systems (ECMS) also called Digital Right management. Regarding the information is this technology manages the right way.

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Those copy right owners to receive adequate income for the material scattered over this system of Digital right management. Suggests that foundation of free software use the word "Right" is misleading and proposes that Digital restriction management should be used as a substitute of digital right Management.

Due to bug information explosion the availability of information in digital format and the increasing possibility of copying the information put into danger the existence of copyright issues. Technological inventions are taking place these days to safeguard the intellectual property. Earlier libraries purchase the copy of the book for the use of its clientele and the same was used till it remained in the library. But the digital information is governed by the license and only those can access the digital information that has the authorization from the publisher by any mean. So it became a great challenge for the content. People are not aware of the critical issue of digital rights and librarians can come forward to make them aware in this regard.

Three main reasons have been considered for the implementation of the digital right management:
1. Publishers are not in direct control when supply is through a 3d party.
2. The fear that inappropriate use might results.
3. They fear of erosion of their subscription base.

Today in the totally developed digital right management system, a proprietary item for which owner and user need to buy a particular technology or device.

Characteristics of Digital Right Management
There are certain characteristics of digital right management Right holder can control access and usage:
- Right-holder can change the access rights after dissemination
- Provides determined security.
- Virtual machine is at risk to attack.
- Right holder allows tracking usage and access.
- It can be Allows for re-use of the digital container.
- DRM allowed to access offline data protected by
- Architecture allows for transfer of rights without third parties.

Digital Library Management Systems
Digital libraries are no longer only digital counter part of Physical libraries (or physical museum, video archives, etc); it can be support complex networked systems able to communication and collaboration among different worldwide, dissemination of user's communities in libraries. The concept of Digital library is proposed to capture an abstract of both physical and virtual components systems are consisting. The digital library system and the digital library management system capture real software systems, there is unique digital library system in operated by all digital library, which might cover any number of interconnected smaller digital library systems, where all digital library systems are based on a handful of digital library systems. A digital library is therefore the abstract entity which comes into being, those of the software systems constituting the digital library systems. Digital library provide conceptual benchmarks against which every system can be measured and compared and for which boundaries can be defined based on the specifics of individual digital libraries.

What are the Legal Ramifications of DRM?
DRM can be used to make unauthorized copying more difficult. In the U.S., the Digital Millennium Copyright Act of 1998 (DMCA) makes circumvention of technological protection measures like DRM, a civil offense, and when done for commercial purposes, a federal crime. Some kinds of copying are legal under copyright law. However it is not certain whether bypassing technological protection measures to move an eBook from one reader platform to another is. While many DRM methods and structures can be easily thwarted by tech savvy users, many of these acts of circumvention are violations of the DMCA. (www.cptec.org).

Digital Right Management and Libraries
In the modern era Libraries have a fundamental role to play in the development of a democratic society by enabling access for all members of the community to a wide range of knowledge, ideas, opinion, as well as cultural, scientific and educational information. In developing countries like India, Libraries are gaining affordable access to the wealth of international academic journals and databases. Libraries and information center provide access to the digital material through a variety of legal constructs; license agreement, expectations under national copyright law, legal deposit, and the public domain. Digital right management possesses a hazard. Now the Material brought and paid for by the library has become inaccessible through technical declaration measures, while the suppliers has since gone out of business or it is not profitable for the vendor to correct the problem and the amount of money are too small for the Library. As an outcome the material is effectively removed from the library collection. Libraries have less right in the digital environment than in the print world. Instead libraries have to negotiate special agreements with individual right holders to obtain digital right management free material or permission to circumvent in restricted circumstances.

There is DRM no hesitation to told that a There is no hesitation to say that wonderful impact on the libraries presently digital right management software are in its early stages and time is required for the development of complicated software. It is through that long run impact of the digital right management cannot be predicted today as the technology is in its prime stage. Some general warning is need to be taken into consideration so that library lending may not be affected. At present the need of the hour is that the state of intellectual works should be changed into lending systems- as it is identical to a short term sale transaction.

Digital Right Management and Digital Libraries
Managing the evolving online information is a broad problem which occurs in a wide range of different applications. Considering the reasons for implementing policies for access, it has observed that digital library managers often need to restrict access to parts of their collections for various reasons, including restrictions imposed by donors, concerns about privacy of obscenity, licensing, agreements and other agreements with copyright owners.

Other copy-right owners and with regards to e-resources publishers wish to manage access. Because, they need payment for use of materials, but the other issues check the spread of unapproved plagiaristic policies, framed by the

managers, administrators of digital library plays a vital concept of any digital right management system.

The creators, content, and consumers are the trinity of any digital library management system. Any policy framed by managers, administrators should not affect once their surveys functions, privacy and freedom of expression. This is based on the available technology which we are adopting in digital right management system.

Talking points from Digital Right Management

Libraries oppose users of digital right management that lock readers to specific e-book formats. Libraries and readers who lawfully acquire content should be able to read that content on any device.

Libraries oppose Digital Right Management that is used to track specific individual readers behavior what they read, when they need and where they choose to read it.

Libraries and readers need new technology that protects and expands access to e-books and other digital content.

Libraries and readers need consistent standards and formats that enable rather than restrict, reading, across devices and technology platforms. (Senior, A. (2012) [11].

Digital Right Management and Search Tools

Many library users find online research tools difficult enough to use under ideal circumstances. Digital right management measures implemented by vendors of research databases often make the situation worse. Libraries often provide users with information discovery tools that cripple or disable standard behaviors of their computers. Some forms of digital right management, particularly for text resources ex- e-resources, use a range of restrictions that make common users like copying, pasting, and saving internationally difficulty to use.

Like e-book vendors may discourage pricing too much text at once by forcing users to access the material in small chucks, or disable standard content menus to prevent use of the clipboard copy failure. Digital right management that purposefully disables the behavior of standard functions confuses and discourages information seekers still further.

Digital right management makes solving many problems both legally and technically impossible ex-libraries have the right to circumvent digital right management for a work in order to evaluate whether cannot do so without the software tools to crack the workers digital right management protection. But the distribution of those tools is legal under DMCA. (Bailey, CW, p-125).

At present the Digital right management a solidly entrenched aspect of a great deal of online digital content. Digital right management changes the fundamental relationship between the creators, publishers and users to the detriment of creators, users and the institutions that serve them. If digital right management is not carefully balanced, it limits the ability of libraries and schools to serve the information needs of their users and their communities in several ways. (American library association or ALA). The digital right management strategy is to modify user's perceptions of culture and technology to encourage them to adopt a passive attitude to-wards using information content. The users should be aware that the library does not impose digital right management restrictions on the content we offer, but that often we must agree to the restrictions in order to be able to provide online content at all.

Impacts of Digital Right Management on Libraries

There is no doubt that digital right management has the potential to have a tremendous impact on libraries and how they do their work. More sophisticated digital right management systems may allow libraries to provide additional services beyond lending, such as integrating digital library materials into course ware at educational institutions. But digital right management is likely to provide significant challenges as well especially in these areas such as.

Local control

It is especially when embedded in trusted computing systems which will be on the edge of computer technology for at least some time. These systems need strong security end-to end from the producer of the product to the end users. Libraries, now a days are in relation to online data bases and digital references resources, but the impact of this model should be expected to increase as the technology grows in difficulty and expense. Implications of this model range from the library's right to archive materials to issue of patron privacy.

Archiving and future use

Mostly the digital materials are available on a term-limited licensing basis. Many titles are being offered for sale to libraries. Sale in this case meaning a permanent acquaints. Sale is what makes sense to libraries, who insist on the ability to purchase electronic materials even if they do not physically acquire the digital files. Digital right management itself does not make digital archiving impossible, but it does not compound the problem. But the librarians can have an impact on the development of digital right management technologies by participating in the discussions taking place in standards organizations and the research arena. It will affect the future of reading and information access. (http:/eff.org).

Contracts and user support

Libraries and Information Center could search themselves settle their user rights on a title by title basis. More reasonably, there will be works of classes with different sets of rights, and classes of users who can different rights for exercise. Some amount of time will be spent by library staff refereeing between the users and the rights packages, epically as users gain experience with the restrictions imposed by it. The user support overhead for libraries must be calculated into the cost of purchasing and managing these materials.

Digital Right Management in Current Scenario

In the current scenario lacking of Digital right management common architecture supports the inter-operative and reuses the specific digital right management software technologies. This architectural lack is a serious down back in light of the rapid evolution of a complex domain like digital right management. It is unlikely that a single digital right management technology or standard will be able to support the variety of devices. In the wide variety of system essential to related in the field of security, flexibility and efficiency of users platforms and Media.

The Future of Digital Rights Management

The European commission is supporting the development of interoperable technical systems to protect copyright such as

digital rights management systems. According to the commission, digital right management consists of technologies those identify and describe digital content protected by intellectual property rights. They can also facilitate legal copying and re-use of content by establishing a secure environment in which right-holders are remunerated for private copying, online content is paid for, and illegal copying is prevented.

However, the commission is high level group on digital right management systems that presented a final report on 8 July 2004 which reflected a consensus on basic principles and recommendations for future actions in 3 areas-

*Digital right management and interoperability open cross platform digital right management systems and standards are imperative and must be fostered.

*Migration to legitimate services the abuse and unauthorized file sharing of copyrighted content must not be tolerated and consumers must be encouraged to use legitimate service

Conclusion
The real motive behind digital right management technology is to increase profits for those who impose them. Their profit is a marginal issue when our freedom to read and learn is at stake. Despite for profit, though not wrong in itself, which cannot justify denying the public control over its technology and its libraries. Defending freedom means thwarting Digital right management. The demand for digital right management will continue to grow as content providers and organizations realize the value and need for protecting their intellectual property or the increase of the security and personal information. However, some of the laws and regulations are required and enforced, and protect digital right management systems are still going on. Digital right management may adversely affect fair use practices, free speech of user's and privacy. As Timothy in 2006 rightly says, 'recognizing and accommodating the rights of parties on both sides of the fair use equation, such as implementation might well be the 1st system of "digital rights management" truly worthy the name'.

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