Digital Rights Management and Libraries

An Annotated Bibliography

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Introduction and Scope

The following annotated bibliography focuses on digital rights management (DRM) and its effects on libraries. The articles included in this bibliography range from basic overviews of what DRM is and how it works, to studies of how libraries are currently using DRM, to how a balance is struck between DRM and fair use. Articles included have been published from 2001 to 2010, thus creating a comprehensive overview of the current scholarly literature on the subject. This bibliography focuses primarily on libraries and DRM in the Western world, though one article does mention the difficulties that libraries in developing countries may face.

Description

Digital rights management, or DRM, is defined very simply by Davis and Lafferty (2002) as “…a means of extending control on digital objects in cyberspace” (p. 18). As libraries move towards increasing their online services and online article database/e-book collections, DRM becomes more of a concern. Librarians and libraries must work to create a balance between protecting the wishes of the rights holders of digital information and ensuring that their patrons are receiving the digital content that they need to learn and grow. DRM can include “soft” restrictions, such as providing only a thumbnail image instead of a large, high resolution one to deter patrons from downloading it, or “hard” restrictions, such as preventing a patron from printing more than 3 pages from an e-book (Eschenfelder, 2008). Libraries are constantly walking a fine line between respecting fair use of information and allowing copyright holders to protect their intellectual property. This bibliography outlines various forms of DRM and how libraries are either working with, or working against them. It is my hope that the included articles will provide some clarity for this frequently murky subject.

Summary of Findings

DRM is a confusing subject for librarians who are not particularly tech savvy. Most people remember the music sharing website Napster being shut down, and perhaps have read news stories about young people being sued for thousands of dollars for illegally downloading media. Though DRM certainly played a role in such stories, it is also of particular concern to librarians. As the gatekeepers of knowledge in both academia and public libraries, librarians are responsible for providing access to lots of digital information. Understanding DRM, how it works and what the legal and ethical implications of it are, should be required reading for any 21st century librarian.
The first step to creating a fair and balanced DRM policy is to understand what exactly DRM is. Michael Godwin’s paper for the American Library Association entitled “Digital Rights Management: A Guide for Librarians” (2006) provides the most comprehensive overview of DRM as it relates to libraries. Godwin covers the types of DRM librarians are likely to face, as well as a brief review of current copyright law. Davis and Lafferty (2002) and Foroughi, Albin and Gillard (2002) also provide excellent overviews of DRM, though theirs are less comprehensive than Godwin’s. These articles create the bedrock of understanding for librarians working with DRM and are essential to the study and analysis of the usefulness of this technology.

The Electronic Frontier Foundation, or the EFF, is an advocacy group whose main objective is to educate people about what it feels are the dangers and inequities of DRM. Postigo’s (2008) interviews with key members of the EFF provides a look at how this group has brought DRM and fair use to the front of the Western world’s mind. He writes that “Up until a few years ago fair use was a term that remained primarily hidden deep in the lexicon of copyright, in policy hearings and in halls of power” (p. 1012). Today, many younger people have heard of the EFF and their push for a lessened use of DRM, and have therefore become familiar with the idea of fair use. Patron groups are seeking more and more freedom when it comes to digital media, and DRM is painted by the EFF as standing for the opposite of that. Patron advocacy is another reason why librarians must be well informed when it comes to their library’s DRM policies.

Many of the articles listed in this bibliography portray DRM in a negative light, placing libraries and patrons on one side of a battle over digital information and greedy copyright holders on the other. Böhner (2008), conversely, does not hold that opinion. His article, “Digital Rights Description as Part of Digital Rights Management: A Challenge for Libraries,” states that copyright holders and librarians should work together in order to create a clear set of guidelines for patron access and use. He writes “In the future, librarians will no longer manage media, they will manage rights” (p. 603). Böhner also introduces a form of DRM called “rights expression language (REL),” which he posits should be standardized among all forms of media. This standardization would allow for a universal DRM policy that would be easily adhered to by libraries and copyright holders alike. Unfortunately, such standardization does not exist and will not until there is some change to the current copyright law that reflects the use of digital content.

Though DRM is most usually thought of in terms of e-books (Jantz, 2001) and online article databases, information on the open web is also subject to restriction. Tavani (2007) and Bailey (2006)
both address this issue. Tavani’s view of DRM on the open Internet is that it effectively privatizes what should be a public discourse on copyright (p. 43). He notes that prior to the use of DRM, the concepts of fair use and first sale were discussed publicly, whereas now companies place code for DRM into a product without any regulation, thus effectively closing the opportunity for discussion about such a topic. Bailey (2006) is concerned with the lack of net neutrality. He posits that with increased copyright laws that lean in favor of rights holders, as well as the increased use of DRM, that net neutrality will become non-existent. Net neutrality, the idea that users should be free to access whatever websites and information that is posted on the Web without restriction, certainly appears to stand in conflict with DRM. As librarians assess the use of DRM in their own libraries, it is important to consider such uses on the open Internet as well.

The executable function of DRM systems (DRMS) is called technological protection measure, or TPM. While a DRMS manages the accessibility of information for a rights holder, TPM executes the actual preventative functions. Kristen Eschenfelder (2008, 2010) has produced two very thorough studies of libraries, archives and museums uses of TPM. She notes that there is a distinction between “soft” restrictions and “hard” restrictions. Soft restrictions are often those with workarounds. Though the user is inconvenienced by spending the extra time, they are able to ultimately retrieve the information they are seeking. Hard restrictions, conversely, have no workarounds and prevent users completely from performing such actions as printing, saving or e-mailing a document (2008, p. 208). In both of Eschenfelder’s studies, she noted that the libraries she has studied tend towards the use of soft restrictions, rather than taking advantage of newer hard restrictions. She posits that libraries choose to use soft restrictions as a way of “...restricting use without creating the negative controversy...” (2008, p.220) of hard restrictions. Again, patron advocacy seems to play a large role in the use of DRM in libraries.

Much of the literature about DRM that is available through library and information science publications does not deal with the hard technology behind it. Though much of the controversy of DRM is tied up in the conceptual world (copyright, fair use, etc.), there is certainly value in assessing what DRM actually is. Erickson (2003) and Wang (2007) provide technological models of DRM with limited discussion of the ethical implications of such models. These models may seem complicated to librarians who are new to the idea of DRM and who are not wholly comfortable with working in the digital realm, but their value is great for library managers and directors who are seeking a DRM model that considers the end user experience as well as the rights of the copyright holder. Dixon (2008), though certainly
biased against the use of DRM in her article, provides the most accessible look at one form of TPM: authentication. Most libraries use some sort of digital authentication system to track who is using their digital content in order to make sure that only people who are “supposed” to have access do. Dixon is concerned with the misuse of such authentication data, such as full patron names, addresses, etc. She writes “Because the potential harms to patrons are not always immediately visible to library staff or to the patrons themselves, some of the more challenging privacy issues may lay hidden until there is a data crisis of some sort “ (2008, p. 149). This statement is further proof that library directors and managers must be informed of the technological aspects of DRM in their libraries if they are to ensure safe, equal access to digital content.

Though all libraries and all library patrons will be affected in some way by the use of DRM, there are two groups who are greatly affected: persons with disabilities and distance learners. Kramer (2007) does an excellent job outlining some of the problems that persons with disabilities may face when DRM is used, including the inability of e-book material to be scanned into a voice synthesizer. For a person who is visually impaired the use of such software is critical and yet if the DRM placed on the e-book by the publisher prevents such a conversion, the person will not be able to “read” the material they have every right to read. Librarians must be aware of such restrictions if they are to provide access to ALL of their patrons to digital content. Nicholson (2009) addresses the issues faced by distance learners in her study of DRM in developing nations, mainly South Africa. She writes “DRMs undermine distance education which is a key means of providing access to education in developing countries. They raise the cost of providing instructional materials and place barriers to storing, transmitting and using distance education materials” (2009, p. 7). As a current distance education student, it is very important for me to have access to lots of information provided through the Drexel library, even though I currently reside in Boston. The Hagerty Library does a fine job of providing access to scholarly material, but other libraries that are not as informed about DRM/TPM issues may not.

Many, many articles have been written about digital rights management and libraries, and there are surely more to be written. There is no cut and dry answer to issues that deal with copyright, fair use and patron access to digital content. Until current copyright law is amended to include clear guidelines for access to digital content, it is doubtful that any two libraries will have the same DRM policies. As libraries and patrons move closer to providing exclusively digital materials, librarians will be responsible for being both advocates for patron rights as well as protectors of the rights of copyright holders. This delicate balance is not achieved simply, and further discussion of such issues is the key to progress.
Bibliography

Entry 1:


**Abstract:** “Three critical issues—a dramatic expansion of the scope, duration, and punitive nature of copyright laws; the ability of Digital Rights Management (DRM) systems to lock-down digital content in an unprecedented fashion; and the erosion of Net neutrality, which ensures that all Internet traffic is treated equally—are examined in detail and their potential impact on libraries is assessed. How legislatures, the courts, and the commercial marketplace treat these issues will strongly influence the future of digital information for good or ill.”

**Annotation:** Bailey provides a brief overview of the history of copyright law, and then focuses the majority of his article on the current tension between rights-holders and users in regards to access to and use of information. The final two pages of his article are the most salient to this bibliography, as Bailey reaffirms the difficulties libraries face with DRM and providing their patrons with the information they need. Bailey admits his bias against DRM and Net restrictions in the conclusion of his work, but the thoroughness of his research of historical and current copyright law make this an integral article when discussing the impact of DRM on libraries.

**Search Strategy:** I began my search using the OneSearch group INFOSCI in Dialog, because I was interested solely in articles that related to DRM and information science. This was one of my first searches, so I employed the controlled vocabulary search method in order to get the most specific articles I could find.

**Database:** INSPEC (Dialog)

**Method of Searching:** Controlled vocabulary search

**Search String:**

\[ s \text{ drm or digital(w)rights(w)management /de} \]

\[ s \text{ s1 and librar? /de} \]
Entry 2:


**Abstract:** “The purpose of this paper is to answer the question of whether digital rights management (DRM) can be useful to libraries. The paper provides a legal and technical description of DRM and its current and future opportunities. The paper finds that digital rights management has possibilities that can be useful for libraries. But it is important that librarians become more active in the standardization and development of new ideas. Some examples are given. The paper offers a realistic approach to DRM for libraries.”

**Annotation:** Böhner takes a pro-DRM stance, almost unheard-of in library literature, and describes different digital rights management systems libraries can employ in order to limit access to digital content but also provide patrons with information about their permission levels. Böhner views librarians as both advocates for patrons and their rights to use digital information within the boundaries of copyright law but also as responsible for managing access as defined by the content-provider. By remaining open-minded about the positive possibilities of DRM, Böhner’s article is an oft-cited guide for libraries and librarians exploring the limitations of digital content.

**Search Strategy:** After finding success in searching INSPEC through Dialog as part of the OneSearch file “INFOSCI” in my earlier searches, I chose to search it directly using a keyword searching method. This also provided good results.

**Database:** INSPEC (Dialog)

**Method of Searching:** Keyword search

**Search String:** s drm or digital(w)rights(w)management

s s1 and librar?

Entry 3:

Abstract: “Since digital content can be perfectly replicated and distributed infinitely, publishers and other content originators are employing digital rights management (DRM) and persistent protection to prevent the abuse of their intellectual property. However, locking the content and controlling operations on the content have presented interesting challenges in supporting fair use in the digital world. Not only are libraries purchasing intellectual property, but they are also producing and maintaining it. Libraries are publishers. The core components of DRM and the value the technology presents for libraries, and also scenarios to demonstrate where DRM may have improved content delivery to libraries, where library operations may be improved by the use of DRM are presented, and critical information against which to ask publishers and content aggregators about their use of DRM with the content they sell to libraries is offered.”

Annotation: This article, along with providing a definition of DRM and an extensive list of resources for librarians looking to learn more, also provides parallels between DRM and traditionally non-digital services, such as course reserves and materials circulation. These parallels are very helpful for librarians unfamiliar with technical terms and digital content licenses, but may seem dated to librarians whose employers already provide such services as electronic reserves. The most useful aspect of this text is the list of websites it provides for library managers looking to learn more about managing electronic content and licenses. Though this article covers only the most basic aspects of DRM, it is a useful primer for those new to the subject.

Search Strategy: I had found solid information in Dialog, but wanted to focus my search more. I chose to do a keyword search in LISA and included “fair use,” as DRM is very much a copyright issue.

Database: LISA: Library and Information Science Abstracts

Method of Searching: Keyword search

Search String: (digital rights management OR DRM) and “fair use”

Entry 4:

Abstract: “As authentication and access management systems and procedures in libraries have transitioned from paper to digital and have become more ubiquitous, new considerations regarding the ethical implications of these systems have arisen. Digital authentication and access management raises concerns about privacy, identifiability, and disclosure of patron-related data. Library patron confidentiality is protected by law in a number of states. But privacy considerations have often been missing from technical and other authentication discussions, possibly due to a general lack of best practice guidelines addressing these challenging issues. This article analyzes the privacy and ethics issues that authentication and access management in libraries raise, reviews applicability of the canon of Fair Information Practices for ethical guidance in library policies, and discusses best practices for libraries.”

Annotation: A large part of digital rights management is making sure that information is only being accessed by those who have a right to access it, and many libraries use authentication systems such as EZ-Proxy to ensure that only their patrons have access to licensed materials. This article provides a critical overview of how authentication policies and systems have the potential to violate patron privacy rights, and highlights the importance of creating a transparent authentication policy. Dixon states that patrons should be clearly informed of how their authentication information is being used and that libraries are responsible for ensuring that data is not released or misused. Dixon is a strong proponent of patron’s rights and though she does not actively decry the use of DRM, she advises caution and transparency in its usage.

Search Strategy: After having success in LISA, I decided to try a keyword search in LISTA.

Database: LISTA: Library, Information Science and Technology Abstracts

Method of Searching: Keyword searching

Search String: (digital rights management OR DRM) and librar*, limit to peer-review

Entry 5:


Abstract: “This article focuses on the issues of fair use of technology, role of digital rights management (DRM) and trusted computing. DRM includes a range of technologies that give parties varying degrees of control over how digital content and services may be used, including by whom and under what
conditions. DRM systems may implement a combination of embedded and external policy models; for example, when certain default or generic policies are attached to the deployed resource, a recipient may supplement them through a separate transaction. A generalized DRM system can grant usage rights based on originator-controlled policies. Since this model describes most commercially viable DRM solutions (the DRM reference model), it assumes the availability of standardized or proprietary infrastructure for identification, metadata, authentication, and cryptography. The model's process flow covers nine steps. Most early DRM systems were characterized by a simple passing of content to the rendering application following its decryption by the DRM client, with no authentication of the receiving application or benefit of protected execution.”

Annotation: This article provides a highly technical discussion of DRM architecture and how such systems can navigate the balance between copyright owners and information users. Though certainly not appropriate for those with only a rudimentary knowledge of DRM and how it works, this article highlights the inherent challenges in creating DRM solutions in light of fair use. End-user privacy and usage rights are frequently compromised because of certain DRM architectures and this article furnishes alternatives to those structures.

Search Strategy: After our work on Deep Web searching, I decided to try Google Scholar. I entered my search terms and got many articles that were not useful, but finally found this one. To access the full text, I had to search the Hagerty Library e-journals list in order to find the Business Source Premier database, which gave me the full text.

Database: Google Scholar and Business Source Premier

Method of Searching: Browsing

Search String: (digital rights management OR DRM) and librar*

Entry 6:

Abstract: “This study explored use restrictions found in licensed scholarly resources from the fields of history/art history, engineering, and health sciences. The analysis developed a framework of use restrictions that distinguishes between soft restrictions — which discourage use — and hard restrictions — which strictly prevent use. Soft restrictions include: extent of use, obfuscation, omission, amalgamation, frustration, and warning. The study concludes that these soft restrictions are relatively common in licensed scholarly resources. Further, while hard restrictions are less common, they are not unknown. The study questions whether librarians should be doing more to challenge use restrictions. Reprinted by permission of the publisher.”

Annotation: This article focuses on the use of TPM (technological protection measures) which are the actual features that DRMS employ to restrict user’s use of digital content. Eschenfelder distinguishes “soft” restrictions (software constrictions that have workarounds which may inconvenience a user, but not prohibit them) from “hard” restrictions (systems that strictly prevent operations such as printing or saving) and compares the execution of both at a Carnegie I research institution. Though Eschenfelder’s sample was small, her results are reported very thoroughly and include screen grabs of the various TPMs in use. Many other articles focus solely on the hard restrictions that DRMS employ and Eschenfelder’s critical eye on soft restrictions is a welcome change of pace.

Search Strategy: I had fully explored Dialog’s searching options and wanted to broaden my results, so I searched in Web of Science, using a controlled vocabulary search. Adding the limiter of “information science” topics after completing the initial search narrowed my results considerably.

Database: Web of Science

Method of Searching: Controlled vocabulary searching

Search String: (DRM or digital rights management) and librar*, limit to topic field, limited results to “information science”

Entry 7:

Abstract: “This article describes the results of a survey investigating the use of technological protection measure (TPM) tools to control patron access to or use of digital cultural materials made accessible by U.S. archives, libraries and museums. Libraries reported using a broader range of systems than archives or museums including repository software, streaming media servers, digital library software and courseware. In terms of controlling access to collections, most respondents reported using IP range restrictions and network-ID based authorization systems. Some reported restricting access to approved terminals or individual user registration systems. In terms of controlling use of collection items, respondents reported reliance on resolution limits, clips and thumbnails, and visible watermarking. A lower percentage reported use of click-through license agreements. Few institutions reported using new technologies to control access or use such as pop-ups, disabling right click copy and save functionalities, invisible watermarks, viewers or cross-institutional authentication systems.”

Annotation: Eschenfelder continues her investigation of libraries’ usage of TPMs in this study of 234 archives, libraries and museums. A markedly larger sample size than her previous study gives Eschenfelder’s more recent work much greater authority than her previous work. Comparing the practices of archives and museums as well as libraries provided Eschenfelder with a wider range of information, and it is presented clearly in a few included tables. The article concludes that many institutions are not experimenting with the newer TPM technologies that are available, but seem content with tools that have been available for some time, including thumbnails of images and lower-resolution images to prevent reproduction.

Search Strategy: After finding success in searching INSPEC through Dialog as part of the OneSearch file “INFOSCI” in my earlier searches, I chose to search it directly using a controlled vocabulary searching method. This provided more refined results.

Database: INSPEC via Dialog

Method of Searching: Controlled vocabulary searching

Search String: s DRM or digital(w)rights(w)management /de

S s1 and librar? /de

Entry 8:

**Abstract:** “In the wake of the Digital Millennium Copyright Act of 1998, Digital Rights Management (DRM) systems are beginning to provide copyright protection for digital content placed online by magazine and book publishers, music companies, software and game producers and business-to-business companies. Creators and providers of digital content are increasingly able to control end users’ use of, and accessibility to, their products, and stand to gain huge profits from this capability. However, as DRM technologies evolve and develop, so does end user concern about restrictions to their access to, and use of, information. The DRM industry must provide a balance between fair compensation for the creators of digital content and the rights of end users to access and use information.”

**Annotation:** This article provides the most concise and clear definition of DRM and has been cited in many of the other articles in this bibliography. Organized by various headings, specific information is easy to find and the article’s language is very accessible. Written not long after the passing of the Digital Millennium Copyright Act, the authors provide examples of current DRM models as well as express concern for the future of user rights and privacy. The delicate balance between user rights and copyright holders’ rights is discussed throughout.

**Search Strategy:** I had fully explored Dialog’s searching options and wanted to broaden my results, so I searched in Web of Science, using a controlled vocabulary search. Adding the limiter of “information science” topics after completing the initial search narrowed my results considerably.

**Database:** Web of Science

**Method of Searching:** Controlled vocabulary searching

**Search String:** (DRM or digital rights management) and librar*, limit to topic field, limited results to “information science”

**Entry 9:**

Abstract: “Not long ago, digital technologies were regarded as being entirely beneficial to the work of librarians, because such technologies were already enabling greater access to collected materials, greater ease and searching or organizing such materials, and greater ability to reproduce and archive creative works, historical documents, scholarly research, and other important resources. At its heart, this early perception of the usefulness of digital tools remains essentially correct. Nevertheless, the digital revolution has also inspired the development of a range of technological tools and strategies aimed at restricting the ease with which the resources collected and maintained by libraries can be used, circulated, excerpted, and reproduced. These technological tools and strategies are generally referred to as “digital rights management”-- a term commonly reduced to the acronym “DRM.” To put the matter another way: “digital rights management” is a collective name for technologies that prevent you from using a copyrighted digital work beyond the degree to which the copyright owner (or a publisher who may not actually hold a copyright) wishes to allow you to use it. The primary purpose of this paper is to familiarize librarians, archivists, and others with DRM and how it works. Secondarily, this paper will outline certain legal and policy issues that are raised by DRM -- issues that will continue to have an increasing impact on the ways in which librarians and libraries perform their functions. To put the matter bluntly -- understanding the basics of DRM is becoming a necessary part of the work of librarians.”

Annotation: Produced by the American Libraries Association, Godwin’s paper is one of the best resources for librarians about DRM that is available freely on the Web. It is incredibly comprehensive, covering the definition of DRM, an overview of copyright law and the various forms that DRM can take in detail. Godwin takes a neutral stance on DRM, encouraging libraries to strive for a good balance between user rights and providing fair compensation to copyright holders. I consider Godwin’s paper to be required reading for any librarian working with digital content.

Search Strategy: Bailey’s article came up in many different databases I was searching, so I read the references section carefully. I found Godwin’s paper cited there and because it was from the ALA, I thought it was very pertinent to my bibliography.

Database: N/A

Method of Searching: Footnote chasing

Search String: Referenced in:

Entry 10:


**Abstract:** “The implications of e-book technology on academic libraries are analyzed. Although the evolution of the e-book is still at an early stage, business models, standards, and supporting technology are under development that will dramatically affect libraries and librarians. Librarians and administrators therefore must understand thoroughly these trends in order to apply effectively the resulting innovations within their institutions. As Martrell states, librarians must begin to design an imaginative, easily identifiable space in cyberspace as the centrality of the library as a physical phenomenon slowly fades. Improving library service by extrapolation from existing services, doing the same things faster and better, will provide incremental improvements but will not move us quickly to that identifiable space of which Martrell writes.”

**Annotation:** Though slightly dated in its coverage, this article highlights the challenges of adding e-book technology to traditionally print-centric library collections. In particular relevance to this bibliography, Jantz underscores the importance of DRM in a world where increasingly more information is available digitally. One of the first articles on this topic, Jantz attempts to prepare libraries for the transition into the arena of e-books and their inevitable DRM requirements.

**Search Strategy:** I explored more of my results list in Dialog with this search, displaying many more pages of citations than I had earlier in my search in order to find new articles.

**Database:** ERIC through OneSearch “INFOSCI” via Dialog

**Method of Searching:** Keyword searching

**Search String:** s digital(w)rights(w)management OR drm and librar?

s s2 / de
Entry 11:


**Abstract:** “This paper argues that electronic barriers intended to protect intellectual property can prevent equal access to digital materials by readers with visual or hearing disabilities, and thus deny those readers their fair-use rights. It provides a basic overview of copyright law, summarizes publishers’ concerns about intellectual property, and discusses information access by users with special needs to explain why digital rights management (DRM) is used, how it can interfere with access and fair use, and some ways those problems are being addressed.”

**Annotation:** Kramer’s article highlights an issue that I saw referenced in very few places: the impact of DRM and TPMs on patrons with disabilities. Though not intended specifically for a library science audience, Kramer provides an in-depth discussion of how various DRM tools inhibit disabled people from accessing materials that they have every right to access. Kramer is clearly biased against the use of DRM, but her article provides strong evidence to support such a position. A feature of note in Kramer’s article is a section providing links and further information about publishers and companies who are working to help patrons with disabilities get access through adjustments in DRM configurations, etc.

**Search Strategy:** I had found solid information in Dialog, but wanted to focus my search more. I chose to do a keyword search in LISA and included “fair use,” as DRM is very much a copyright issue.

**Database:** LISA: Library and Information Science Abstracts

**Method of Searching:** Keyword searching

**Search String:** (digital rights management OR DRM) and “fair use”

Entry 12:

Abstract: “Digital rights management systems (DRMs) together with technological protection measures (TPMs) have become a controversial topic of discussion around copyrighted works, particularly since the controversial Sony BMG case. This paper addresses some of the concerns around TPM-enabled digital rights management systems as they apply to and impact on developing countries. It highlights issues such as digital censorship, international support for digital rights management and the current legislation in South Africa relating to digital rights management. It also discusses types of digital rights management systems and how they affect access to information and knowledge, as well as their impact on the public domain and privacy. The paper provides some recommendations and challenges to librarians and educators in South Africa and for librarians in other developing countries, on how to address digital rights management issues in relation to their obligations and mandates to provide users and learners with unrestricted access to information.”

Annotation: Nicholson, though clearly biased against DRM, provides one of the most comprehensive overviews of DRM and its applications that I have found thus far. Her reporting of DRM laws and legislation abroad and in the United States is a particular highlight of the article. In spite of her bias, Nicholson does an excellent job outlining exactly how DRM is used to inhibit even legal use of digital content, thus placing the end user in an unfair position. Her argument that DRM harms distance education users (a group of interest in South Africa, the country Nicholson highlights specifically) is of note because of its relevance to this course.

Search Strategy: I chose a keyword search in LISTA in order to cast a wide net for articles about my topic. I wanted to get a broad results list in order to see what literature was available about my topic.

Database: LISTA: Library, Information Science and Technology Abstracts

Method of Searching: Keyword searching

Search String: (digital rights management OR DRM) and librar*, limit to peer-reviewed

Entry 13:

**Abstract:** “This article undertakes an analysis of strategic framing strategies in the Digital Rights Movement by the movement's central Social Movement Organization (SMO), the Electronic Frontier Foundation (EFF). Through analysis of a series of interviews with key members of the EFF and analysis of the EFF's 'Endangered Gizmos' campaign in response to the MGM vs Grokster case, this article shows how the organization strategically frames consumers as users' and fair use in user-centered fashion. In so doing the EFF develops a legitimizing rationale for expanding consumer privileges in copyrighted works. The analysis shows that the user-centered notion of fair use articulates with broader historical and emerging trends in media consumption/use and thus finds accepting audiences both within the movement and outside of it.”

**Annotation:** The inclusion of a document directly from the Electronic Frontier Foundation (EFF) would not be appropriate for this bibliography, as it is not considered scholarly. However EFF is a major player in the current debate over the ethics and legality of the use of DRM, and this article highlights some of the EFF’s work thus far. Postigo notes that the EFF works to create a user-centered interpretation of fair use, where media consumption and unfettered access to digital content is framed as a “right,” which is a very interesting tactic. EFF continues to work towards eradicating the use of DRM, and its new definition of fair use is one that will certainly have an impact on libraries and librarians going forward.

**Search Strategy:** I had found solid information in Dialog, but wanted to focus my search more. I chose to do a keyword search in LISA and included “fair use,” as DRM is very much a copyright issue.

**Database:** LISA: Library and Information Science Abstracts

**Method of Searching:** Keyword searching

**Search String:** (digital rights management OR DRM) and “fair use”

**Entry 14:**

**Abstract:** “This essay provides an overview of some issues and controversies surrounding arguments for regulating cyberspace. We begin with a brief investigation of some background questions such as "What is cyberspace?" and "What is meant by 'regulation'?" We then consider some distinctions between descriptive and normative aspects of questions involving Internet regulation. Next, we examine Lawrence Lessig's model, which describes four modes of regulation that can be applied to cyberspace. We then consider some recent controversies that have emerged because of "regulation by code" and the "privatization of information policy."

**Annotation:** Tavani addresses an arena barely mentioned by other articles in this bibliography: the open Internet. He questions the legalities and practicalities of regulating cyberspace (and questions whether it is considered a medium or a place). A particular argument of note is this: If technology is employed to prevent a person from committing an illegal act (ex: music piracy), is that person being robbed of their autonomy to make a choice to break the law? Tavani also questions if the use of DRM is privatizing public policy, by shutting down the open discourse about copyright and fair use. Tavani maintains an unbiased view of this topic and his article raises more questions than answers them.

**Search Strategy:** I had not tried Summon in my searching, spending most of my time in Dialog and directly searching the LIS-focused databases. My search brought up a lot of articles I had already seen in previous searches elsewhere, and this was the only real usable item I retrieved.

**Database:** Summon

**Method of Searching:** Keyword searching

**Search String:** DRM and librar*, limited to information science and peer-reviewed

**Entry 15:**


**Abstract:** “Conventional digital libraries utilize access control and digital watermarking techniques to protect their digital content. These methods have some limitations. First, after passing the identity
authentication process, authorized users can easily redistribute the digital assets. Second, it is impractical to expect a digital watermarking scheme to prevent all kinds of attacks. Thus, how to enforce property rights after digital content has been released to authorized users is a crucial and challenging issue. Digital rights management (DRM) systems have been proposed to address this issue by enforcing the rights access policies in a trusted computing environment. However, DRM systems can only be useful if the computing environment can be protected and compliant to the common rights policy throughout the lifecycle of digital objects. In this paper, we propose an integrated framework of content protection and tracking that aims to detect unlawful copyright infringements on the Internet, and combines the strengths of static rights enforcement and dynamic illegal content tracking.”

**Annotation:** Wang’s article is another very technical discussion of the use of DRM, but including these nuts and bolts descriptions of DRM provides a good framework for discussion of the more abstract concepts DRM brings to light. Wang approaches DRM from a technical viewpoint, presenting an integrated model of DRM which includes specific security measures for the protection of digital images as well as a content tracking mechanism. The technical requirements that Wang highlights are of interest to any library with digital content and complex licensing agreements, though there is no discussion of the ethics behind this software in this article.

**Search Strategy:** I used LISA’s advanced search option to search the descriptor fields for my search terms, similar to the controlled vocabulary searching I had performed in Dialog.

**Database:** LISA: Library and Information Science Abstracts

**Method of Searching:** Controlled vocabulary searching

**Search String:** (digital rights management OR DRM) and librar* in descriptor field, limit to peer-reviewed
Conclusion and Personal Statement

I found researching digital rights management and libraries to be both frustrating and rewarding. I am currently the library assistant for Reserves at Lesley University, and I walk the line between providing access to patrons and respecting copyright holders’ rights every day. I have taken a couple of online courses related to eReserves and copyright law, and can honestly say I am passionate about copyright. I chose to research DRM because it is a topic that I knew something about already, but was not something I had studied in depth. I enjoyed reading the articles that I found, and now feel very informed about all things DRM.

The frustrating part about compiling this annotated bibliography was getting so many repeat hits on different search engines. The LIS world is not as broad as I thought it to be, and I kept finding the same articles over and over again. DRM is also a very polarizing issue, so a lot of my initial results I was not able to use because they were strictly opinion pieces. I help teach introductory library classes to English Comp students each Fall, and my knowledge on the important of looking for bias came in very handy. Though it was impossible to avoid bias completely, it was very important that each article have scholarly information included as well. I spent a lot of time paging through results on Dialog and other databases in search of an article that focused on a facet of DRM that I had not yet addressed. Because this is still an evolving issue, I felt frustrated in not being able to find a definitive conclusion to my bibliography. Though I enjoyed working with material that was so current, it would have been nice to have a clear endpoint.

The most important thing I learned about searching was to use limiters as much as possible! A general keyword search did not provide the most accurate results a lot of the time, and the sheer volume of articles could be overwhelming. Using the controlled vocabulary searches was what provided me with the best information, and I can say for certain that controlled vocabulary thesauruses are my friend! Searching thesauruses was something I had not heard of prior to this course, and I will certainly stress their usefulness to patrons I assist in the future.

Overall, I am very satisfied with the annotated bibliography I have produced and feel that this assignment has certainly made me a more focused and accurate searcher. I now feel comfortable
searching in any database because of the skills I have learned in this class and implemented in this project. These skills will certainly help me in my future career as a reference librarian.

I certify that:

- This assignment is entirely my own work.
- I have not quoted the words of any other person from a printed source or website without indicating what has been quoted and providing an appropriate citation.
- I have not submitted this assignment to satisfy the requirements of any other course.

Signature  _____Dianne Brown____________________
Date  _________12/01/10________________