

*Canadian Association of Research Libraries
ad hoc Digital Locks Working Group*

Digital locks and Canadian research library collections

**Implications for scholarship, accessibility, and
preservation**

Project Team

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October 7th, 2012



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1. Introduction

The Canadian Association of Research Libraries (CARL), the Canadian Library Association (CLA) and a number of groups expressed concerns when Bill C-11, the *Copyright Modernization Act* was introduced to parliament in September 2011. These concerns focused on the impact that the bill's restrictive language about the circumvention of digital locks would have on library operations.

CARL, like many other groups, recommended that restrictions on digital lock circumvention be limited to infringing uses only, so as to avoid preventing otherwise legal uses, such as fair dealing. CLA raised similar concerns, stating that:

Legislation which does not include the right to bypass digital locks for non-infringing purposes is fundamentally flawed. If digital locks trump access for legitimate purposes, Canada's libraries will have difficulty in fulfilling their mandates and Canadians will lose access to some information that is currently available.¹

In the fall of 2012, University of Ottawa law professor and information policy commentator Michael Geist ran a series of blog posts entitled the *Daily Digital Locks Dissenter*.² For 51 days, Dr. Geist posted statements from a wide variety of organizations and groups across Canada against the digital locks provisions contained in Bill C-11.

Digital locks clearly concerned many groups across the country, but questions remained about the real impact these locks will have on the day-to-day work of libraries. This question needed an answer as C-11 moved closer to becoming law, with its restrictive digital locks rules intact.

CARL assembled an ad hoc working group in February 2012 to help answer these questions. This group set out to explore the impact of digital locks in the everyday work of Canadian research library staff. This report of the group's findings and recommendations can serve as a starting point for libraries as they begin to think about digital locks in a changing copyright environment.

2. What are digital locks?

Digital locks are Technological Protection Measures (TPMs) that prevent people from gaining access to digital content or from using it in particular ways, such as copying it. In order to understand digital locks, it is important to know why they are used.

Copying print works, while not technologically difficult, does require a certain amount of logistical sophistication, time and resources in order to share copies on a scale large enough to impact the market for a work. Digital works, on the other hand, are incredibly easy to copy. In fact, they can be copied and shared with thousands of people around the world

¹ Canadian Library Association Releases Proposed Technical Amendments to Bill C-11. February 16, 2012.

<http://www.cla.ca/AM/Template.cfm?Section=Home&CONTENTID=12607&TEMPLATE=/CM/ContentDisplay.cfm>

² The Daily Digital Lock Dissenter: The Series To Date. Monday January 30, 2012.

<http://www.michaelgeist.ca/content/view/6271/125/>

with just a few clicks of a mouse, which is a problem for those trying to protect their intellectual property.

One set of tools that content creators and publishers use to combat this ease of copying of digital content is “digital encryption and other ‘technical protection measures’ designed to control access and use of digital content.”³ These types of measures, which include the Content Scrambling System (CSS) on DVDs and the encryption built into formats such as e-books and online videos, are often referred to as **digital locks**.

Various acronyms are often used (and confused with each other) when the topic of digital locks comes up. The most prominent of these are:

TPM, or technical protection measure, is the formal term used in Canadian copyright legislation for what we have been calling a digital lock. A TPM is a software device aimed at ensuring only authorized uses of a digital work, either by controlling access to the work or by controlling uses of the work, such as copying, distribution or performance. In order to avoid confusion, this paper will primarily use the term “digital lock;” however, it should be noted that “digital lock” and “TPM” are interchangeable.

DRM, or digital rights management, is a broader term that refers to all measures (both technological and non-technological) used to protect digital rights. The U.S. National Institute of Standards and Technology defines DRM as “a system of information technology components and services, along with corresponding law, policies and business models, which strive to distribute and control intellectual property and its rights.” While digital locks are generally designed to prevent unauthorized access or copying, DRM aims more broadly to control copying by employing various automation and surveillance technologies for identifying the copyright holder and enforcing license terms.

3. Why are digital locks a concern for libraries?

Libraries have been concerned about the potential prohibition on the circumvention of digital locks in Canadian law since the 1990’s, when this topic was discussed at the World Intellectual Property Organization (WIPO) in the context of an international treaty requiring legislation in signatory countries that would protect digital locks. In essence, digital locks potentially remove some of the freedom to use digital materials that libraries have always enjoyed when dealing in the analogue realm.

While libraries have always needed to respect copyright laws with print materials, they could do what they wanted with them. They could keep them forever, lend them out to anyone, facilitate the copying of limited portions or sell the copies when they outlived their usefulness to the library. In the digital realm, however, digital locks and DRM allow publishers to gain greater control over the use of the content “purchased” by libraries. Digital locks allow copyright holders to technologically control actions that may not even be

³ Netanel, Neil. 2008. *Copyright's paradox: property in expression/freedom of expression*. Oxford: Oxford University Press, p.66.

illegal under copyright law, including simply gaining access to purchased content. This makes digital locks a potentially critical issue for academic libraries and their mission to provide access for library users to information products in support of research, learning and teaching.

Digital locks can pose a variety of practical problems for libraries. For example, digital locks can impede criticism and review by precluding the copying and pasting of excerpts or the sharing of images with students for the purposes of education. They can also frustrate or prevent preservation efforts. Moreover, digital locks and DRM can be implemented in a way that would make library lending difficult or even eliminate libraries from the publisher's business model altogether.

4. Digital locks under the Copyright Modernization Act

The *Copyright Modernization Act*, also known as Bill C-11, received Royal Assent on June 29, 2012, and will come into force on a date to be set by order of the Governor in Council (i.e., cabinet). The Act amends the *Copyright Act* to create new legal protections for digital locks, which it defines as any effective technology, device or component that:

- a. controls access to a work (“an access control”); or
- b. restricts a user from exercising the exclusive rights of a copyright owner or the new remuneration right (i.e., technologies that essentially control copying of a work - “a copy control”).⁴

When Bill C-11 comes into force, the *Copyright Act* will prohibit circumvention of an access control, but will not prohibit the circumvention of a copy control.⁵ Circumvention is defined to encompass the decrypting, descrambling, avoiding, bypassing, removing, deactivating or impairing of a digital lock.⁶ The pertinent sections of the *Act* can be viewed online under “Technological Protections Measures and Rights Management Information.”⁷

The *Copyright Act* also prohibits the manufacture, distribution, sale or rental of technology or devices that can be used to circumvent a digital lock (whether an access control lock or a copy control lock),⁸ as well as the offering of services for the same purpose.⁹ This means that even though it is not illegal for a user to circumvent a copy control, the services or devices that would allow the user to do this are prohibited on the market.

There are a number of exceptions in the Act specific to the prohibition on the circumvention of digital locks,¹⁰ including for:

- an investigation;

⁴ *Copyright Act* (R.S.C., 1985, c. C-42) (“*Copyright Act*”), s 41.

⁵ *Copyright Act*, s 41.1(1)(a).

⁶ *Copyright Act*, s. 41.

⁷ <http://www.parl.gc.ca/HousePublications/Publication.aspx?Docid=5144516&File=72#16>

⁸ *Copyright Act*, s 41.1(c).

⁹ *Copyright Act*, s 41.1(b).

¹⁰ See *Copyright Act*, ss 41.11 – s. 41.18.

- software owners to make it interoperable with other programs;
- encryption research;
- verification as to whether a digital lock permits the collection or communication of personal information;
- security testing of computer systems; and
- access for persons with perceptual disabilities.

The Act provides some limitation on the liability of libraries, archives, museums and educational institutions in the case of illegal circumvention in those contexts. If the staff of such an institution is found to have violated the prohibition on the circumvention of a digital lock, but satisfies the court that it was not aware and had no reasonable ground to believe that its actions violated that prohibition, the only remedy that can be awarded is an injunction (i.e., removal of infringing material, but no damages).¹¹

Finally, the *Act* also provides for the possibility of cabinet adding to the list of exceptions to the general ban on the circumvention of digital locks:

The Governor in Council may make regulations... prescribing additional circumstances in which paragraph 41.1(1)(a) does not apply, having regard to... whether not being permitted to circumvent a technological protection measure that is subject to that paragraph could adversely affect criticism, review, news reporting, commentary, parody, satire, teaching, scholarship or research that could be made or done in respect of the work, the performer's performance fixed in a sound recording or the sound recording.¹²

5. Earlier reports on digital locks and library materials

Much has been published about the potential dangers of digital locks and anti-circumvention prohibitions for the academic research community.¹³ However, there is relatively little information on the prevalence of digital locks within the context of research library resources or the extent to which digital locks may be impeding access, use, or preservation of those resources. A 2006 study in the United States found that digital locks might not be as common as many believed at that time. The study reviewed 75 licensed scholarly resources from the fields of history/art history, health sciences and engineering found no examples of what the authors called “hard TPMs” (i.e., software or hardware configurations that prevent or strictly limit uses such as printing, saving, copying/pasting or emailing).¹⁴ However, the study did find that “soft restrictions” (i.e., restrictions that

¹¹ *Copyright Act*, s 41.2.

¹² Bill C-11, clause 41.21(2)(a)(iii).

¹³ See for example: DesRoches, Davina (2007). *Rights or Restrictions? An examination of several key issues and Debates surrounding the use and potential legislative protection of DRM systems*. Canadian Association of Research Libraries. <http://www.carl-abrc.ca/projects/copyright/pdf/drm.pdf>; Craig, Carys (2010). “Locking Out Lawful Users: Fair Dealing and Anti-Circumvention in Bill C-32”, pp177-203, *From “Radical Extremism” to “Balanced Copyright”: Canadian Copyright and the Digital Agenda*, M. Geist (ed.), Irwin Law, Toronto.

¹⁴ Eschenfelder, Kristin R. (2008). Every Library's Nightmare? Digital Rights Management, Use Restrictions, and Licensed Scholarly Digital Resources. *College & Research Libraries*, May 2008, Vol. 69, Issue 3, p205-225.

discourage particular uses, such as poorly designed interfaces) were relatively common. The study also found that some vendors had removed digital lock protection from their digital resources in response to customer dissatisfaction. On the other hand, a 2008 study by CARL focussing on e-books reported that limitations on the printing or copying of e-books were common and that e-book licences universally contain either general or specific clauses forbidding tampering with digital rights management measures.¹⁵

6. The experience of library staff with digital locks

Bill C-11's changes to the *Copyright Act* will make it illegal to remove some types of digital locks from content even for purposes that are consistent with fair dealing or for purposes normally afforded to educational and memory institutions. The changes to the Act could have a significant impact on libraries if there is a pervasiveness of digital locks attached to the digital information resources that they license and manage. Yet, there is currently insufficient information about the prevalence of digital locks in the context of library resources, and therefore little understanding of the impact of the Act on academic libraries. In the spring of 2012, CARL formed a working group to consider the practical implications of the new digital lock restrictions included in Bill C-11. Working group members engaged in informal conversations with a number of library staff at several university campuses in Canada in order to gain a better understanding of the actual interactions that library staff have with digital locks.

Given that a relatively small number of staff members at just a few institutions were approached, one should be careful in drawing definitive conclusions from their comments. However, this anecdotal information does provide us with a better general understanding of digital locks in the context of the academic library and a number of interesting insights were gained.

There is uncertainty in the library community about what constitutes a digital lock

While some librarians and other library staff that were consulted had heard the term "digital locks," a number were uncertain as to what constituted a digital lock¹⁶ or how digital locks differed from DRM. Very few could suggest a clear distinction between access controls and copy controls. In addition, many were unsure about whether or not they had encountered digital locks in their work.

Digital locks are not greatly hindering the work of librarians in terms of providing access to and preservation of content

Once digital locks were defined and examples given, most staff reported minimal experience with digital locks. They indicated that digital locks were most commonly encountered on e-

¹⁵ Owen, Victoria et. al. (2008). *E-books in Research Libraries: Issues of Access and Use*. Canadian Association of Research Libraries. http://carl-abrc.ca/uploads/pdfs/copyright/carl_e-book_report-e.pdf

¹⁶ For example, a staff member at one library had concerns about the migration of obsolete VHS or Betamax collections to a new format and was unclear as to whether digital locks would be implicated.

books and DVDs. Locked PDF journal articles were also encountered occasionally. In the cases where digital locks were encountered, the following limits were imposed:

- No copying of text
- No saving of the document
- Limits on the number of pages that can be printed
- No migrating of content to different formats, platforms or devices
- Inability to play a DVD with foreign regional coding
- Password access protection

Many librarians would prefer to look for other options rather than break a digital lock

In cases where staff wanted to use content in a way that would require the circumvention of a digital lock, many indicated that they would prefer to look for an alternative source for the content or an equivalent resource, rather than break the lock. For example, staff in an accessibility services unit indicated they would request an alternate format copy from the copyright owner and reportedly were almost always able to obtain a copy. In addition, some staff reported that faculty who were denied access to password-protected resources would attempt to acquire the resource from colleagues at other institutions or from the author. In other cases, it was suggested that if a resource was not available or was locked down in some way, users would simply “move on” to an equivalent or alternative resource available to them. One person suggested that breaking locks would more likely occur “further upstream” by the faculty member or student who needed to access or copy from the work.

Some library staff did mention that they had occasionally received requests to break a digital lock. Specific examples were as follows:

- An accessibility services staff member was asked to break locks for textbooks, PDFs and DVDs in order to print or share digital copies with students with disabilities.
- Library staff have been occasionally approached to circumvent encryption on DVDs in order to make back-up copies or to enable an instructor to play clips from a regionally-coded DVD in class (regional coding restricts the area of the world in which a DVD can be played).
- One librarian described being asked to override the copy protection on YouTube videos to enable the user to download and embed videos in presentation slides.

Digital lock restrictions can be a factor in licensing decisions of libraries

One institution’s collection librarian noted that digital locks influenced licensing decisions and that, in the case of e-books, the library was more likely to purchase a book on a platform with fewer limitations, even if it was more expensive. It was also noted that some vendors that had previously used digital locks in their products had removed them due to customer dissatisfaction. This reflects a growing body of anecdotal evidence demonstrating that an increasing number of libraries are rejecting resources protected by digital locks. For instance, librarians at the University of California, Merced, have halted purchases of e-

books that limit access to a single user.¹⁷ In response, some e-book publishers are now releasing their books via unprotected PDFs. Springer, for example, now allows users to save e-books on their hard drives.¹⁸ On the other hand, some publishers are simply refusing to license their resources to libraries with these policies.

7. Recommendations for the research library community

This brief review undertaken by the CARL working group seems to indicate that digital locks are currently more of an inconvenience than a major obstacle for academic library staff. Given that the digital content industry is rapidly evolving, it is possible that digital locks may become more prevalent in the future. In addition, there are some types of content (such as e-books) to which digital locks are more commonly attached. Therefore, the working group offers the following recommendations for Canadian academic libraries in regard to digital locks:

I. Improve the understanding of digital locks in the research library community

Discussions with library staff indicated that digital locks are not a well-understood concept among many in the academic library community. The implications of the *Copyright Modernization Act* are that librarians and other users will not be able to remove digital locks that serve as access controls, even for non-infringing purposes. Although it is not illegal for a person to circumvent a copy control, the services or devices that could allow them to do this will be prohibited on the market and may not be available. In any event, as discussed in section A on page 5, few will be able to distinguish between access controls that cannot be circumvented and copy controls that can be circumvented.

The staff of research libraries would benefit greatly from further education about digital locks, the *Copyright Modernization Act*, and user rights more generally under the new legislation. CARL has a clear role in developing informational resources (on its website or in webinars, for example) for Canadian research libraries about digital locks. In addition, research libraries themselves could offer a valuable service on their campuses in terms of providing information to the broader academic community about their rights and legal responsibilities; they might consider undertaking local initiatives to better educate both their staff and their clients about digital locks and the relevant implications of the *Copyright Modernization Act*.

As mentioned previously, the Act provides for limited liability for libraries (and some other types of institutions) that have violated the prohibition on circumventing a digital lock, but that can satisfy the court that they were not aware that they were infringing the Act's digital lock restrictions. Despite this exception, the working group believes that there is greater benefit for libraries in possessing a good understanding

¹⁷ Dooley, J. (2007). "From Print To Electronic: The UC Merced Experience. *Against the Grain* 19(3): 22-25.

¹⁸ Slater, Robert (2010). Why Aren't E-Books Gaining More Ground in Academic Libraries? E-Book Use and Perceptions: A Review of Published Literature and Research. *Journal Of Web Librarianship*, 4(4), 305-331.

of copyright law in terms of digital locks than in relying on the protection from liability afforded by the Act if libraries remain ignorant of their rights.

II. Avoid licensing or purchasing content containing digital locks that restrict usage whenever possible,

Although there may be a trend toward decreased use of digital locks by publishers, there are still a number of publishers and vendors that license content with digital locks attached, especially e-books vendors. Ideally, libraries should license content that have no digital lock restrictions. The CARL E-Books Taskforce, in its 2008 report, recommended adopting a principled approach to negotiating e-book licenses for academic libraries that included such considerations as the following:

- guaranteed users rights as permitted under Canadian copyright law;
- no digital rights management or limited DRM with circumvention permitted;
- the law governing the contract must be Canadian;
- the ability to audit for price comparison (limited confidentiality/nondisclosure clause);
- detailed user information and analysis to gauge impact on scholarship;
- a removal of content clause; and
- permanent copy provisions.¹⁹

Given, however, that some licenced content does come with restrictions on its use in the form of digital locks, libraries and licensing consortia should aim to negotiate terms that explicitly allow the unlocking of works for non-infringing purposes. A number of model licenses already exist that contain language that can be used in these types of negotiations with vendors. For example, The Ontario Council of University Libraries (OCUL) has developed a model e-book license agreement that has been used successfully to negotiate agreements with vendors.²⁰ The model license language states that:

In the event that Licensor utilizes any type of digital rights management technology to control the access or the usage of Licensed Materials, Licensor agrees to notify Licensee of the name, contact information and any technical specifications for the digital rights management technology utilized. In no event may such digital rights management technology be used in such a way as to limit the usage rights of a Licensee or any Authorized User as specified in this License or under applicable copyright law.²¹

¹⁹ Owen, Victoria et. al. (2008). *E-books in Research Libraries: Issues of Access and Use*. Canadian Association of Research Libraries. http://carl-abrc.ca/uploads/pdfs/copyright/carl_e-book_report-e.pdf

²⁰ Horava, Tony (2009). Ebooks licensing and Canadian copyright legislation: a few considerations. *Partnership: the Canadian Journal of Library and Information Practice and Research*, Vol. 4, No 1

²¹ *Ontario Council of University Libraries (OCUL) Ebooks License Agreement*. <http://www.ocul.on.ca/node/114>

It is important for librarians to engage proactively with content providers in order to successfully negotiate licenses that do not restrict either libraries' or end users' fair dealing rights before agreements that restrict fair dealing rights become a *de facto* standard. If these types of rights are not secured during licensing negotiations, the library will not legally be able to circumvent the digital locks (insofar as they are access controls, at least) in order to use the licensed content for non-infringing purposes. As much as possible, libraries should continue to address the relationship between licenses they sign and the *Copyright Act* by negotiating to have clauses such as the OCUL language above included in the contracts into which they enter with publishers.²²

III. Identify and share methods for working around digital locks

It became apparent through the working group members' conversations with library staff that they are already working around digital locks using a variety of methods, such as contacting authors for a pre-print copy of an article, asking publishers for an alternative copy without a digital lock and negotiating with publishers to remove digital locks from licensed content. With the *Copyright Modernization Act* coming into force soon, libraries will likely have to rely more on alternative methods for legally accessing or copying content protected by digital locks. However, it is by no means clear what may constitute infringing circumvention of a digital lock

One question that might be posed is whether capturing by *analogue* means (for non-infringing uses) text, images or sounds that are *digitally* protected constitute illegally circumventing a digital lock. Examples of this might include such workarounds as capturing a brief scene from a DVD using a video camera for an online film review, recording part of a song protected by a digital lock with a sound recorder to create a parody, or changing the original settings in a DVD player to play a legally acquired DVD from a different region.

On the one hand, it is arguable that one already has "access" to the content (so one could only be breaking a use control—which is not illegal); on the other hand, it might be argued that one would be breaking an access control through analogue recording because it is "avoiding" a digital lock. Further investigation of the distinctions in practice between circumventing access and circumventing use controls is also warranted. Given that all libraries will be addressing these same issues, a forum by which library staff can discuss and share strategies for legally working around digital locks would be helpful; again, CARL would be well-placed to provide such a forum.

²² Owen, Victoria et. al. (2008). *E-books in Research Libraries: Issues of Access and Use*. Canadian Association of Research Libraries. http://carl-abrc.ca/uploads/pdfs/copyright/carl_e-book_report-e.pdf

IV. Document digital lock concerns and complaints

Finally, we recommend that libraries document any problems that they may encounter with digital locks in order to build a body of evidence about any negative impact of the digital lock provisions in the *Copyright Modernization Act*. Without extensive evidence that digital locks truly interfere with the legitimate uses of digital content by Canadians and their libraries, it will likely be very difficult to persuade the Governor in Council to create in the regulations additional digital lock circumvention exceptions to those already enumerated in the Act. The experiences documented by library staff can then be used by CARL (and other library associations) to advocate for further exceptions in the regulations to the current version of the Act (as amended by Bill C-11) or in future copyright legislation when the Act is being reviewed by Parliament in five years.