

Before the
Federal Trade Commission

In the matter of
DRM Town Hall
Comment
Project No. P094502

Comments of Public Knowledge

Introduction

Digital Rights Management (DRM) is a form of restriction on consumer uses of goods. While references to DRM most often cite its goal of protecting copyrighted works from unauthorized reproduction, the term can also be applied to other forms of "digital locks" that are being used for a variety of purposes.

Regardless of the purpose for which it is employed, DRM can create problems for consumers in a variety of ways. First, even when it is operating as the manufacturer intended, DRM alters the traditional relationship between consumers and works; consumers are denied the ability to use works in ways that are accustomed or part of the understood bargain implied in a sale or transfer of goods. Secondly, DRM may prevent legitimate, legal uses of copyrighted works, since federal laws prohibit the circumvention of certain types of DRM, even when that circumvention is undertaken for a legal use. Thirdly, DRM can be used in anticompetitive ways, by encouraging consumer lock-in to a particular manufacturer's or consortium's products, or by preventing the interoperability of platforms or devices with third-party products.

Many of these problems are compounded by the fusion, either legally or in the popular imagination, of digital restrictions and the anticircumvention provisions of the Digital Millennium Copyright Act (DMCA).¹ Because the DMCA prohibits circumventing technological protection measures (like DRM) that protect access to copyrighted works and the rights of copyright holders, many forms of digital locks restrict usage not just through their own technological strength, but with the added force of law. Whether or not a particular DRM implementation actually qualifies for legal protection under the DMCA, however, the threat of legal penalties may easily chill innovation and consumer activity.

It is unlikely that a single program or policy change can address all of these (and other) problems with DRM comprehensively. Instead, a variety of solutions should be investigated and implemented. A comprehensive labeling scheme can prevent consumers from being blindsided by limitations on their use of goods. Alterations to existing law and policy regarding DRM would allow consumers of copyrighted works their full range of rights under copyright law, and could also aid in preventing anticompetitive uses of DRM.

¹ 17 U.S.C. §1201 *et seq.*

I. Frustrating Consumer Expectations

When DRM alters or obscures what the consumer receives for his money, he cannot make rational, efficient decisions—the market is warped. Past Commission attempts to cure this warping were on target, but require further efforts. DRM is ripe for a more comprehensive disclosure regime.

A. *The Need for Disclosure*

In September 2008, Melissa Thomas purchased the highly-anticipated video game *Spore*.² Although the game was advertised as empowering users to control their own world,³ it in fact prevented many users from controlling their own computers. Along with the game, another software program was installed unannounced and undetected. This additional, unsolicited piece of software, named SecuROM, does more than passively limit usage of the game; it hijacks the user's computer to execute these unstated limits. There was inadequate notice of the material limits on her use of the product, and of the mechanism that imposed these limits.⁴

Thomas's case is not isolated. In addition to the problems that thousands of users have reported with *Spore*,⁵ complaints about unanticipated DRM have accumulated over the years. Nor is this limited to video games. The same story—of DRM surprising consumers—has played out in other media, from music to movies to electronic books.

And the effects of that surprise can be severe. DRM may remove content access—the tiny print on the *Spore* packaging reads “EA may retire online features after 30 days notice posted on www.ea.com.” DRM may also subvert control of the consumer's own devices—as when Sony BMG used “hiding or cloaking files” that created security risks and prevented consumers from uninstalling DRM.⁶ More broadly, DRM can undermine culture by eliminating unplanned uses.⁷

A precondition for a functioning market is well-informed consumers. DRM frustrates this by concealing limitations. For the market to appropriately value products

² *Thomas v. Electronic Arts, Inc.* No. 5:08-CV-04421-PVT (N.D. Cal. filed Sept. 2008) [hereinafter *Spore Class Action*].

³ *Id.* at ¶ 8 (“What you do with your universe is totally up to you.”).

⁴ See *Spore Class Action supra* note 2.

⁵ See *Spore Class Action supra* note 2 at ¶ 36 (estimating “the Class consists of tens of thousands of members”); *id.* at ¶ 18-19 (documenting the thousands of negative *Spore* reviews complaining of DRM on Amazon.com).

⁶ *In re Sony BMG Music Entm't*, File No.062-3019, Dkt. No. C-4195, 5 (Decision and Order of the F.T.C.) (June 29, 2007) available at <http://www.ftc.gov/os/caselist/0623019/0623019do070629.pdf> [hereinafter *Sony Rootkit Order*] (prohibiting Sony BMG from installing “software that prevents the consumer from readily locating or removing the software, including but not limited to: (1) hiding or cloaking files, folders, or directories; (2) using random or misleading names for files, folders, or directories; or (3) misrepresenting the purpose or effect of files, directory folders, formats, or registry entries.”).

⁷ Stifling cultural remixes is a particularly difficult harm for any disclosure regime to address. Those most affected (the would-be audience of remixed culture) are not a party to the transaction so they cannot impact the decision, regardless of the quality of disclosure.

with DRM, consumers must become aware of its disutility.⁸ The example of Apple's iTunes Plus—Apple offers to remove DRM from purchased music for an additional payment⁹—suggests that the restrictions of DRM are viewed by consumers as a substantial cost. In that case, the reduction in value to the consumer from the DRM was 30%.¹⁰

B. Standardized Disclosure

Since as far back as 1984, the Commission has required adequate notice of material limitations and terms.¹¹ In 2007, it required Sony BMG to “clearly and prominently disclose” the existence and extent of DRM-imposed limits that had gone unstated on over 17 million sold CDs.¹² The Order identified certain facts to be disclosed: that the DRM would “install,” “limit,” and “allow” only certain specified devices to play the CDs.¹³ This ad hoc, unstructured disclosure requirement was an excellent early effort to inform and defend buyers of DRM products. But an ad hoc approach does not adequately address the reality of the context for a consumer’s decision.

Despite the significant harms and disutilities DRM can cause, these future effects are often far removed from the immediate decision to purchase. Any disclosure requirement for DRM should seek to bridge this gap. As with food labeling,¹⁴ licensing of creative works,¹⁵ and movie ratings;¹⁶ so too with DRM—the notices should be obvious, explicit, and easy to understand. The Commission should develop rules or otherwise¹⁷ encourage the use of standardized DRM labels.

II. Constraining Consumers' Rights Under Copyright Law

⁸ See, e.g., RICHARD POSNER, *ECONOMIC ANALYSIS OF LAW* § 4.6 at 112 (6th Ed. 2003)

⁹ See Apple Inc., *Apple Launches iTunes Plus* (May 30, 2007) available at <http://www.apple.com/pr/library/2007/05/30itunesplus.html> (requiring an additional 30 cents to rid purchased music of DRM that originally cost 99 cents).

¹⁰ *Id.*

¹¹ See *FTC Policy Statement on Deception, appended to Cliffdale Associates, Inc.*, 103 F.T.C. 110, 174 (1984), available at <http://www.ftc.gov/bcp/policystmt/ad-decept.htm> (detailing the prohibition of practices that are likely to mislead a reasonable consumer’s decision).

¹² *In re Sony BMG Music Entm’t*, File No. 062-3019, Dkt. No. C-4195 (Complaint) (Jan. 30, 2007) available at <http://www.ftc.gov/os/caselist/0623019/070130cmp0623019.pdf> [hereinafter *Sony Rootkit Complaint*]; *In re Sony BMG Music Entm’t*, File No. 062-3019, Dkt. No. C-4195 (Decision and Order of the F.T.C.) (Jun. 29, 2007) available at <http://www.ftc.gov/os/caselist/0623019/0623019do070629.pdf> [hereinafter *Sony Rootkit Order*].

¹³ *Sony Rootkit Order supra* note 12 at 3.

¹⁴ See *FDA Backgrounder*, May 1999, *The Food Label*, available at <http://www.cfsan.fda.gov/~dms/fdnewlab.html> (“Grocery store aisles are avenues to greater nutritional knowledge.”).

¹⁵ See Creative Commons, *What is CC?*, <http://creativecommons.org/about/what-is-cc> (“tools [that] give everyone . . . a simple, standardized way to grant copyright permissions to their creative work”)

¹⁶ See Motion Picture Association of America, *Who Rates the Movies and How Does It Work?*, available at http://www.mpa.org/Ratings_HowRated.asp.

¹⁷ There is a spectrum of ways to realize DRM notification. See Pamela Samuelson & Jason Schultz, *Should Copyright Owners Have to Give Notice of Their Use of Technical Protection Measures?* 6 J. ON TELECOMM. & HIGH TECH. L. 41, 65-73 (2007).

A discussion of DRM would be incomplete without addressing the impact of the DMCA's anticircumvention provisions. While these provisions address a subset of DRM—only those technological protection measures that protect access to copyrighted works or protect the rights of a copyright holder—that subset's significance has dominated discussions of DRM to date.

A. Statutory Background

Title I of the DMCA, codified in chapter 12 of title 17, prohibits the circumvention of digital locks, called “technological protection measures” (TPMs) employed by copyright owners. The DMCA’s prohibitions are two-pronged. The first prong deals with circumvention of “technological measures that effectively control access” to copyrighted works. The statute imposes a blanket ban on circumventing such measures.¹⁸ In addition, it prohibits the marketing of devices that are designed to facilitate such circumvention.¹⁹ To alleviate the adverse impact of such a blanket ban on fair use and other non-infringing uses, the statute directs the Librarian of Congress to institute a rulemaking proceeding once every three years to examine these adverse effects and exempt users of specific classes of works from the ban on circumvention.²⁰ However, the scope of this exemption is limited to the ban on circumvention and does not extend to the ban on trafficking in circumvention devices.

The second prong of the statute deals with devices that are designed to circumvent TPMs that control how a work is used. Unlike the access control provision, this provision does not prohibit the act of circumvention. Rather, it prohibits the marketing of devices that are designed for use in circumvention.²¹

The statute provides civil and criminal sanctions for violations of these provisions. Civil remedies include injunctions,²² and actual damages²³ or statutory damages²⁴ ranging from \$200 to \$2500 per act of circumvention.²⁵

B. Adverse Effects on Consumers' Rights

Consumers' rights in the use of copyrighted works are protected by a wide range of limitations and exceptions built in to copyright law. These limitations to the rights of a copyright holder allow for free expression in commentary, criticism, and news reporting; they allow for education, through classroom, library, and research use; and they allow for freedom of commerce, letting consumers lend, borrow, sell, or otherwise dispose of copies they have acquired.

¹⁸ 17 U.S.C. § 1201(a)(1)(A) (2007).

¹⁹ § 1201(a)(2).

²⁰ § 1201(a)(1)(C).

²¹ § 1201(b).

²² 17 U.S.C. § 1203(b)(1).

²³ § 1203(c)(1)(A).

²⁴ § 1203(c)(1)(B).

²⁵ 17 U.S.C. § 1201(c)(3).

However, DRM need not respect these boundaries upon the rights of copyright holders. This may happen as an unintended consequence of a system designed to prevent deliberate infringement, or as part of a technology designed to differentiate different types of digital media for the purposes of market segmentation and price discrimination. Regardless of the specific purposes behind the DRM, however, the legal reinforcement provided by the DMCA bars consumers from many legal uses of their lawfully acquired goods.

This is because courts have held that the DMCA acts as a prohibition on circumvention of digital walls without regard to the reason for the circumvention.²⁶ Even if a consumer is legally entitled to make a particular use of a work, the mere act of circumventing the DRM to do so would render her liable both civilly and criminally.

1. Effects on Fair Use

The doctrine of fair use, codified in section 107 of the Copyright Act, permits certain socially beneficial uses of copyrighted works without permission of the copyright owner.²⁷ The Supreme Court has held that fair use protects citizens' free speech rights from being impinged by the copyright monopoly.²⁸ However, the blanket prohibitions of the anti-circumvention provisions of the DMCA prevent consumers from making fair use of digital content. As more content moves from analog to digital formats, consumers' inability to use digital media will further imperil consumer rights.²⁹ Examples of these restrictions abound:

- Access control technologies used in digital publications, such as e-books, prevent the visually impaired from using tools (such as synthetic speech, screen magnification software, and Braille devices) in a way that enables them to access such works.³⁰
- DRM technologies have been used to prevent consumers from exercising their home recording rights, as recognized by the Supreme Court in *Sony Corp. of*

²⁶ *Universal City Studios v. Corley*, 273 F. 3d 429, 443-44 (2d. Cir. 2001); *321 Studios v. MGM*, 307 F. Supp. 2d 1085, 1097 (N.D. Cal. 2004); *United States v. Elcom Ltd.*, 203 F. Supp. 2d 1111, 1125 (N.D. Cal. 2002).

²⁷ 17 U.S.C. §107 (The statute lists criticism, comment, teaching, news reporting, scholarship, and research as exemplary fair uses).

²⁸ *Eldred v. Ashcroft*, 537 U.S. 186, 190 (2003).

²⁹ 7 years ago, the *321 Studios* court had observed that DVDs made up 39% of sales of “video and film works.” *321 Studios*, F. Supp. 2d, at 1089. Now there are reports of the VHS format completely disappearing. See Geoff Boucher, Entertainment, *VHS Era is Winding Down*, LOS ANGELES TIMES, December 22, 2008, available at <http://www.latimes.com/entertainment/news/la-et-vhs-tapes22-2008dec22,0,5852342.story>

³⁰ Comments of the American Foundation for the Blind, In the Matter of Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Docket No. RM – 2008-08, [hereinafter *2008 Rulemaking*], available at <http://www.copyright.gov/1201/2008/comments/american-foundation-blind.pdf>.

*America v. Universal City Studios Inc.*³¹ For example, in *Real Networks. v. Streambox*,³² Streambox created a product that would allow consumers to record music streamed through RealNetwork's servers. Despite the fact that Streambox's product had substantial noninfringing uses, its distribution was enjoined on the basis of its circumvention of DRM. The court observed that the DMCA required equipment manufacturers to vet their products for compliance with section 1201 even if their products passed the *Sony* test.³³

- DRM hinders consumers' ability to make transformative uses of digital content. One study estimates³⁴ that between 4000 and 6000 videos containing clips from TV shows and movies were uploaded to YouTube each day in October and November 2008. As one commenter notes,³⁵ many of these videos make fair use of the clips included within them and add valuable voices to culture.

2. Effects on Secondary Markets and the First Sale Doctrine

Section 109 of the Copyright Act provides that the owner of a lawful copy of a work may dispose of that copy by sale, lending, or some other means.³⁶ This allows a consumer to resell used books, or a library to lend them to its patrons. However, a great deal of DRM-equipped content would be barred from these uses or any secondary market. For example, many online music stores sell DRM-equipped tracks that require consumers to authenticate the particular devices on which the music is to be played.³⁷ This eliminates a consumer's ability to lend a copy of music she has purchased without also lending her personal computer or device. Similarly, many publishers sell e-books wrapped in DRM that would prevent consumers from copying, printing, or distributing the books they purchased.³⁸

Other problems with the first sale doctrine are tied to the nature of media that is "born digital"—sold or distributed in forms not tied to a particular fixed copy, such as a bound volume or a CD. When content is purchased in the form of a downloaded file, for example, the buyer of that work still retains a copy of that work even after he transmits it electronically to a secondary user. Many argue that such a transmission implicates the copyright owners' reproduction right.³⁹ Although "forward and delete" systems—often themselves a type of DRM—may provide a means by which a copyright holder might allow for first sale-like secondary transfers, there is no guarantee—and in fact a high

³¹ 464 U.S. 417 (1984).

³² 2000 WL 127311 (W. D. Wash.).

³³ *Id.*, at 8 (citing 1 *Nimmer on Copyright* (1999 Supp.), § 12A.18[B]).

³⁴ PROF. MICHAEL WELSH, COMMENT OF THE ELECTRONIC FRONTIER FOUNDATION, APPENDIX A, 2008 *Rulemaking*, available at <http://www.copyright.gov/1201/2008/comments/lohmann-fred.pdf>.

³⁵ Comment of the Electronic Frontier Foundation, 8-9, *supra* note 34, available at <http://www.copyright.gov/1201/2008/comments/lohmann-fred.pdf>.

³⁶ 17 U.S.C. § 109 (2007).

³⁷ BBC News (International Version), *Q&A: What is DRM?*, (Apr. 2, 2007), at <http://news.bbc.co.uk/2/hi/technology/6337781.stm>.

³⁸ See *United States v. Elcom Ltd.*, 203 F.Supp. 2D 1111, 1118 (N. D. Cal. 2002).

³⁹ U.S. COPYRIGHT OFFICE, A REPORT OF THE REGISTER OF COPYRIGHTS PURSUANT TO §104 OF THE DIGITAL MILLENNIUM COPYRIGHT ACT, 41-47, (August 2001), available at <http://www.copyright.gov/reports/studies/dmca/sec-104-report-vol-1.pdf>.

unlikelihood—that any such systems would be compatible with other types of DRM in use in the market.⁴⁰ As such, the eminently valuable first sale doctrine may be obviated by a shift to increasingly born-digital media.

3. Effects on Other Specific Exemptions

Although much of the discussion surrounding anticircumvention is focused upon the barriers it presents to fair use and first sale, there is a panoply of user rights guaranteed in sections 107 through 122 of Title 17. Any of these could be abrogated by the operation of DRM that prevented users from particular activities.

One notable example of such an exception is section 110(1), which permits teachers and students to perform copyrighted works in the course of face-to-face teaching in classrooms.⁴¹ However, the use of DRM on certain media, such as movies released on DVDs, prevents many such uses. This is because many classroom uses depend on being able to make compilations of clips from various films or being able to excerpt clips that will be embedded in other material. Although the Copyright Office has permitted educators in certain disciplines to circumvent access controls,⁴² many educators note that this exemption is too limited.⁴³ They explain that classroom use of media is vital in many courses of study other than those contemplated by the Copyright Office. One commenter cites examples of “an ethnic studies or American cultures instructor using sequences from Hollywood films to study changing representations of race and ethnicity; or “an English instructor using clips from filmed literary adaptations or particular film genres to study narrative and plot conventions.”⁴⁴

C. Reassessment of Anticircumvention and Consumer Rights

Three factors in particular contribute to the DMCA’s adverse effects on consumers. First, many TPMs act as both access controls and rights controls, thereby obfuscating the policy rationale for treating the two differently. Congress differentiated between access controls and copy controls in order to protect non-infringing use rights of consumers who had gained legitimate access to works.⁴⁵ Yet the actual deployment of DRM has not followed a clear distinction between access controls and copy controls thus preventing uses of media to which consumers have acquired legitimate access. For instance, the CSS encryption used on DVDs permits access only on compliant players, thus acting as an access control and also prevents copying by users who have gained

⁴⁰ *Id.* at 46.

⁴¹ 17 U.S.C. § 110(1).

⁴² U.S. COPYRIGHT OFFICE, RECOMMENDATION OF THE REGISTER OF COPYRIGHTS IN RM 2005-11, Nov. 17, 2006, available at http://www.copyright.gov/1201/docs/1201_recommendation.pdf.

⁴³ COMMENTS OF GARY HANDMAN, 2008 *Rulemaking*, COMMENTS OF KEVIN L. SMITH, 2008 *Rulemaking*, COMMENTS OF LIBRARY COPYRIGHT ALLIANCE, 2008 *Rulemaking*, COMMENT OF GAIL B. FREDAK, 2008 *Rulemaking*, available at <http://www.copyright.gov/1201/2008/index.html>.

⁴⁴ COMMENTS OF GARY HANDMAN, 1-2, 2008 *Rulemaking*, available at <http://www.copyright.gov/1201/2008/comments/handman-gary-ucberkley-media-center.pdf>.

⁴⁵ See Exemption to Prohibition on Circumvention of Copyright Protection System for Access Control Technologies, Final Rule, Library of Congress, 65 Fed. Reg. 64556, 64568 (October 27, 2000).

access, thus acting as a rights control measure. The confusion between these two separate provisions leads to even greater uncertainty as to liability, even in the presence of a stated exemption.

Second, although the statute provides that its provisions will not affect any rights or defenses under the Copyright Act,⁴⁶ courts have not interpreted this provision to permit circumvention done for the purpose of achieving non-infringing uses. Rather, courts have viewed the ban on circumvention as a separate offense, even if it was done to achieve non-infringing use.⁴⁷

Third, the triennial rule-making proceeding, which was supposed to protect non-infringing uses, does not effectively achieve this objective. The most significant limitation on these proceedings is the fact that they are limited to exempting acts of circumvention to gain access while not extending the exemption to the marketing or acquiring devices that can be used to achieve the exempted circumvention. This leaves only the technically skilled in a position where they can take advantage of the exemptions. In addition, those who have participated in the proceedings have alleged that the process puts unfair burdens of proof on digital consumers.⁴⁸

D. A Multi-pronged Solution

So long as the DMCA's anticircumvention provisions remain disconnected from the substance of copyright law, restrictions implemented by copyright owners and DRM vendors will be elevated to the status of law. By penalizing circumvention regardless of the lawfulness of the eventual use, the DMCA grants the force of civil and criminal law to technological restrictions created for particular commercial purposes and expediencies, without the consideration of public policy that has gone into the crafting of copyright law.

A complete solution to this problem will doubtless require legislation creating a stronger nexus between copyright and circumvention liability, but in the meantime, a number of other programs can mitigate the harms to consumers. A comprehensive notice regime can play a smaller role in an eventual solution, not only informing consumers of the limitations placed on media, but also notifying them of the legal barriers to circumvention. In addition, the Commission may be able to undertake additional studies into the effects that technological constraints on user rights have upon consumer welfare and the value available in both initial and secondary markets.

⁴⁶ 17 U.S.C. § 1201(c)(3).

⁴⁷ *Universal City Studios v. Corley*, 273 F. 3d 429 (2d. Cir. 2001); *321 Studios v. MGM*, 307 F. Supp. 2d 1085, 1097(N.D. Cal. 2004).

⁴⁸ FRED VON LOHMANN & GWEN HINZE, DMCA TRIENNIAL RULEMAKING: FAILING THE DIGITAL CONSUMER, (Dec. 1, 2005), *available at* http://w2.eff.org/IP/DMCA/copyrightoffice/DMCA_rulemaking_broken.pdf.

III. Enabling Anti-Competitive Practices

Technological restrictions such as DRM can prevent a wide variety of activities other than access to or infringement of copyrighted works. For instance, DRM can be used to prevent interoperability with a wide range of third-party products.

A. Examples of DRM-enabled Lock-in

Notable examples have included universal garage door openers, replacement inkjet cartridges, and cell phone firmware. In many cases, the technological restrictions were not used primarily (if at all) to protect copyright interests, but to promote vendor lock-in. In each of these cases, too, statutory prohibitions against circumventing copyright-protecting DRM have been cited in attempts to preserve lock-in.

In *Chamberlain Group, Inc. v. Skylink Technologies, Inc.*, a garage door manufacturer sued a manufacturer of third-party universal garage door openers, claiming that the third-party products, having found a way to interface with their garage door systems, were circumventing DRM in violation of the DMCA.⁴⁹ Similarly, in *Lexmark International, Inc. v. Static Control Components, Inc.*, a manufacturer of printers used technological measures to prevent third parties from providing compatible replacement ink cartridges, and sued replacement manufacturers.⁵⁰

In both of these cases, an established manufacturer of a technological system used DRM in an attempt to prevent competitors from competing with interoperable products. In and of itself, a firm that uses DRM to frustrate third-party uses may raise competition questions, particularly if that firm has significant market power. Even absent a demonstrated market power, however, the lockout achieved by DRM is further strengthened. Fortunately, in the cases of *Chamberlain* and *Lexmark*, appellate courts have upheld the principle that technological measures must be protecting a copyrighted (and copyrightable) work in order to receive the additional legal backing of the DMCA.

In a number of other situations, however, the distinction between protections of copyrighted material and protections of market power are not so clearly drawn. When DRM controls access to and use of works that are clearly copyrighted and copyrightable, manufacturers can more plausibly expand their market power through a misapplication of the DMCA, or through commonplace misunderstandings of the law's scope.

In 2006, the Wireless Alliance and Robert Pinkerton filed a request for a DMCA exemption, asking that the Library of Congress allow the circumvention of software locks that controlled access to the operating systems of cell phones.⁵¹ These locks prevented

⁴⁹ 381 F.3d 1178 (Fed. Cir. 2004).

⁵⁰ 387 F.3d 522 (6th Cir. 2004).

⁵¹ Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 71 Fed. Reg. 68,472, 68,476 (Nov. 27, 2006).

consumers from using a phone on different wireless networks, even after all of the contractual obligations to a given network had been fulfilled.⁵²

The Library of Congress, in granting the exemption, noted that these software locks adversely affected consumer welfare, and that their circumvention would not adversely affect the availability of or the market for copyrighted works.⁵³ Yet the ruling by Library of Congress implied that these software locks did in fact protect access to a copyrighted work—the cell phone operating system—unlike the examples in *Chamberlain* and *Lexmark*. Circumventing DRM to access this operating system was therefore a violation of the DMCA, and access to the operating system was essential for unlocking a phone from its default network. The Library of Congress's ruling therefore illustrates two telling limitations that have a bearing on future uses of software for device lock-in. First, absent the Library of Congress's rulemaking, unlocking a phone from its network might be presumed by many to be a violation.

Secondly, even after the grant of the exemption, circumventing the software locks for purposes other than unlocking a given handset from its network may still be considered violations of the DMCA. For example, accessing the operating system in order to let the handset operate with aftermarket software or third-party devices (such as personal computers or aftermarket input or output devices) would fall outside the extremely narrow scope of the granted exemption.⁵⁴

Apple's iTunes provides another example of potential lock-in. In Norway, competition authorities filed a complaint against Apple, as its DRM-enabled music files precluded the use of third-party music players. The complaint was recently dropped only after announcements by Apple that it will drop DRM from its music store, allowing for interoperability.⁵⁵

A provision of the anticircumvention provisions does allow for circumvention in order to insure interoperability, but this exemption may well be too narrow to allow for the various examples provided above. Section 1201(f) is limited in its language to permitting reverse engineering "for the sole purpose" of achieving "interoperability of an independently created computer program with other computer programs."⁵⁶ The various constraints of this provision cast into doubt whether interoperability between software and a device (along with its embedded software) would be permitted, or interoperability between a piece of media (as distinct from the DRM that accompanied it) and other software. It is also questionable as to whether the exemption would be available for circumventions that allowed two programs not only to interoperate, but also to achieve

⁵² *Id.*

⁵³ *Id.*

⁵⁴ See, e.g., COMMENT OF THE ELECTRONIC FRONTIER FOUNDATION, *2008 Rulemaking*, available at <http://www.copyright.gov/1201/2008/index.html> (requesting separate exemption for interoperation with third-party software).

⁵⁵ *Norway Drops Complaint Against Apple's iTunes*, AFP, (Feb. 4, 2009), available at http://www.google.com/hostednews/afp/article/ALeqM5jwu0c48_I9q9IzGmcRjwpsi747mg.

⁵⁶ 17 U.S.C. § 1201(f).

some new functionality, since the circumvention would then not be "for the sole purpose" of interoperability.

The uncertainty contained within 1201(f) only compounds the greater uncertainty surrounding various applications of DRM that encourage consumer lock-in. So long as a colorable argument exists that a piece of DRM is protected by the DMCA, attempts by consumers or third-party vendors to prevent lock-in and enhance consumer choice will be chilled. Long before a conclusion can be reached in litigation, consumers and smaller aftermarket firms who lack the legal resources of a potential plaintiff can be priced out of testing their defenses at trial. A firm can use this chilling effect to help maintain or leverage existing market power at the expense of competitors and consumers.

B. Vigilance through Antitrust and Section 5 Authority

As with many of the other issues raised by DRM, no one policy can provide a complete solution to the problems of DRM chilling competition. However, the above examples indicate that the Commission may well have a role as an antitrust enforcer in investigating the use of DRM and consumer lock-in to disadvantage competitors, maintain or expand market power, or leverage existing power in one market into another. Such activities might also be enjoined under the Commission's section 5 authority as an unfair and deceptive trade practice.

Conclusion

The foregoing comments include but a few examples of the problems that surround DRM, and some of the steps that the Commission might play in alleviating these problems. This catalog of issues is by no means exhaustive. Other issues include DRM that actively violates consumers' rights to privacy, or directly causes damage to their property; the harms to consumers when a vendor uses DRM that requires periodic communication and then ceases operations; and the possibility of restrictive and opaque licensing agreements to further bolster the control over products already allowed by copyright law and DRM. Although increased awareness of consumer complaints has led to some major firms removing some DRM implementations, there is no reason to believe that DRM will continue to be a part of the technological marketplace for the foreseeable future. In initiating this inquiry, the Commission has begun a process that hopefully will result in enhanced consumer awareness, effective enforcement of competition and consumer protection policy, and comprehensive analysis that might inform further actions by other agencies and the legislature.

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