A SYSTEM OF LOGO-BASED DISCLOSURE OF DRM ON DOWNLOAD PRODUCTS

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I. Introduction

Many people and organizations maintain the opinion that Digital Rights Management (DRM) technologies are counterproductive, ¹ a part of unsustainable business models, ² or anathema to either the language or the purpose of United States intellectual property laws. ³ Others take the position that Digital Rights Management technologies help to enable new business models, ⁴ protect the rights of artists, ⁵ and create economic

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1. See, e.g., Peter Biddle, Paul England, Marcus Peinado & Bryan Willman, The Darknet and the Future of Content Distribution at 15, Microsoft Corporation archived at http://www.webcitation.org/5VEfn70yX (positing that "increased security (e.g. stronger DRM systems) may act as a disincentive to legal commerce").

2. See, e.g., Bill Rosenblatt, 2003 in Review: Online Content Services, DRM WATCH, Jan. 1, 2004, archived at http://www.webcitation.org/5TN97jUbw ("...[a particular product] is the exception that proves the rule that DRM service provision is an unsustainable business model")

is an unsustainable business model").

3. See, e.g., Letter from Chris Hoofnagle, Legislative Counsel, Electronic Privacy Information Center, Fred von Lohmann, Senior IP Attorney, Electronic Frontier Foundation, and Jason Young, IPIOP Clerk, Electronic Privacy Information Center, to Howard Coble, Chairman of the House Judiciary Subcommittee on Courts, the Internet and Intellectual Property (June 5, 2002), archived at http://www.webcitation.org/5SuANmZYU (noting that DRM weakens the consumer's right to fair use, threatens freedom of expression, and extends copyright terms indefinitely, despite Constitutional restrictions on terms of copyright).

4. See, e.g., Allan Adler, Vice President, Legal and Governmental Affairs, Assoc. of American Publishers; Bob Blakely, IBM Corp.; Sarah Deutsch, Vice President, Verizon Communications; David Reed, Chief Technology Officer, Cable Television Laboratories; Cary Sherman, President, RIAA; Lon Sobel; Donald

benefits.⁶ Some argue that including restrictions for use of a product is within the general freedom to contract.⁷ Others argue that allowing freedom to contract away one's rights in copyrighted works undermines the purpose of copyright law.⁸ I acknowledge the ongoing debate and the valid arguments articulated on each side. My position does not speak to DRM itself. Rather, I acknowledge that the United States Congress has smiled upon the use of such technologies⁹ and created

Whiteside, Vice President, Legal and Government Affairs, Intel Corp., Presentations at the Berkeley DRM Conference discussion entitled "DRM as an Enabler of Business Models" (Feb. 28, 2003) (discussing individually and in a round-table format the various business-enabling benefits of DRM technologies). See also Christopher Kruger, Passing the Global Test: DMCA § 1201 as an International Model for Transitioning Copyright Law into the Digital Age, 28 HOUS. J. INT'L L. 281, 295-307 (2006) (discussing how DRM enables price discrimination, and specifically noting "In addition to creating automatic copyright restrictions, DRM allows for various use and price options for the same content. An individual who does not want to purchase a limited-duration CD can buy an unlimited-duration version of the CD at a higher price"); Hoofnagle, supra note 3 (suggesting that DRM "sets the stage for a pay-per-use business model").

- 5. Press Release, Recording Industry Association of America, Rosen Testimony: Government Help Might Be Necessary (Mar. 13, 2002) *archived at* http://www.webcitation.org/5TUyszM7V (arguing that digital piracy hurts artists and that DRM and copy protected CDs can reduce this harm).
- 6. Consumer Benefits of Today's Digital Rights Management (DRM) Solutions: Hearing before the Subcomm. on Courts, the Internet, and Intellectual Property of the H. Comm. on the Judiciary, 107th Cong. 11 (2002) (statement of Howard Berman, Member, House Comm. on the Judiciary) ("A recent Cato Institute report by noted economics professor Stan Liebowitz concludes that a payper-use world will benefit consumers. Liebowitz discusses the economic benefits of micropayments, theorizing that consumers would accept a model in which they pay for each use they wish to make of a work, so long as the payments reflected the specific value of that use. In many cases, such 'perfect price discrimination' enabled by DRM technologies would significantly lower the cost to the consumer").
- 7. Pamela Samuelson, *Copyright and Freedom of Expression in Historical Perspective*, 10 J. INTELL. PROP. L. 319, 335 (2003) ("In the post-modern copyright era, private ordering and enforcement are becoming more significant. Increasingly, copyright industries are using mass-market licenses and DRM technologies to override statutory rights of users, justifying this as a manifestation of freedom of contract principles").
- 8. Nicola Lucchi, Intellectual Property Rights in Digital Media: A Comparative Analysis of Legal Protection, Technological Measures, and New Business Models Under EU and U.S. Law, 53 BUFF. L. REV. 1111, 1189 (2005) (arguing that much of the existing legislation in and of itself "makes a persuasive argument for considering limits on freedom of contract in the framework of intellectual property licensing agreements because contractual arrangements distort copyright policy") (footnote omitted).
- copyright policy") (footnote omitted).

 9. See, e.g., Audio Home Recording Act of 1992, Pub. L. No. 102-563, 106
 Stat. 4237 (1992) (codified at 17 U.S.C. §§ 1001-1010 (2000)) (requiring a Serial
 Copy Management System on digital home recording devices); Digital Millennium
 Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified at 17 U.S.C. §
 1201 (2000)) (providing significant penalties to people who circumvent digital

significant consequences for those who attempt to undermine DRM technologies. 10

Congressional support does not, however, provide carte blanche to use DRM in any fashion imaginable. Those who utilize DRM in their products must still comport with other areas of law. Further, even within the bounds of congressional approval for DRM, manufacturers must make wise economic and customer relations decisions about how to implement it in order for its use to provide the economic benefits they intend. The past few years have seen lawsuits regarding different aspects of the implementation of DRM¹¹ such as criminal investigations¹², refunds¹³, recalls¹⁴, attempts at revising legislation¹⁵, and even letters to the public from CEOs of major corporations explaining their reasons for using DRM.¹⁶ With this increased activity

rights management technologies).

10. 17 U.S.C. § 1204(a) (2000) (providing up to ten years imprisonment and a million dollar fine for those who willfully circumvent DRM technologies).

- 11. See, Class Action Petition, Bahnmaier v. Sony BMG Music Entm't, No. CJ 2005 06968 (Okla. Dist. Ct. Nov. 28, 2005), archived at http://www.webcitation.org/5T8HcKtMJ; Class Action for Jury Trial Demand, Hull v. Sony BMG Music Entm't, No. BC343385 (Cal. Super. Ct. Nov. 21, 2005), archived at http://www.webcitation.org/5T8Hg0IMj; Class Action Demand for Jury Trial, Guevara v. Sony BMG Music Entm't, No. BC342359 (Cal. Super. Ct. Nov. 1, 2005), archived at http://www.webcitation.org/5T8HhdW1I.
- 12. See, Press Release, Federal Trade Commission, Sony BMG Settles FTC Charges (Jan. 30, 2007) archived at http://www.webcitation.org/5Suyc2Abv; Press Release, Associazione per la Libertà Nella Comunicazione Elettronica Interattiva [Association for Freedom in Interactive Electronic Communication], Legal Proceedings in Italy by ALCEI Against Sony for a "Criminal" Offense (Nov. 4, 2005), archived at http://www.webcitation.org/5SuyksQUF, [It.] (requesting that the Italian Financial Police identify the authors of the XCP2 software used by Sony BMG Music Entertainment, forcing a criminal investigation into the matter in Italy).
- 13. Press Release, Federal Trade Commission, Sony BMG Settles FTC Charges (Jan. 30, 2007), *archived at* http://www.webcitation.org/5Suyc2Abv (discussing the settlement between the FTC and Sony BMG for its XCP software, in which Sony will exchange CDs containing the software and will reimburse customers for up to \$150 in computer damage resulting from the DRM).
- 14. Tom Zeller, *Sony BMG Sued Over CD's With Anti-Piracy Software*, N.Y. TIMES, Nov. 22, 2005, at C6 (discussing Sony's recall of twenty million CDs that contained XCP software as a form of DRM).
- 15. See, e.g., Thomas Crampton, Apple Gets French Support in Music Compatibility Case, N.Y. TIMES, July 29, 2006, at C9 (discussing a French Constitutional Council decision that overturns a newly enacted French law that would force interoperability of iPods or force Apple to remove itself from the French market); American Library Association, DRM Legislation, archived at http://www.webcitation.org/5Suz41n4Q (providing information various post-DMCA proposed legislation regarding DRM).
- 16. See, e.g., Open letter from Steve Jobs, President, Apple Computer, Inc., Thoughts on Music (Feb. 6, 2007), archived at http://www.webcitation.org/5Suz84eRo; Letter from Fred Amaroso, CEO &

in the media and the public intellectual marketplace, companies are realizing that using DRM can cause both an economic backlash and a customer-relations nightmare.¹⁷

I assert that for economic, customer-relations, and legal reasons, it is in the best interest of manufacturers and distributors for customers to have adequate notice of the use of DRM technologies on products they buy. I further assert that the current method of providing notice of DRM technologies on downloaded products is insufficient. I therefore recommend a logo-based method of disclosing the use of DRM for all Internet-downloadable products.

In the first part of this paper I present the problem that downloaded products frequently contain DRM and do not provide adequate notice to consumers. I first argue that adequate notice is beneficial to retailers and copyright holders. Benefits accrue for economic, customer-relations and legal reasons. Second, I show that while license agreements frequently disclose DRM, I also explain how disclosure through license agreements is inadequate. I then explore the reasons that adequate notice is difficult to provide. Finally, I posit the requisite characteristics of adequate notice of DRM.

In the second part of this paper, I present a solution to the problem of inadequate notice and the difficulty in providing it. The solution is based on three elements: a logo based system for basic disclosure at the time of purchase of the presence of generic forms of DRM; additional information provided through linked websites or pop-up text boxes; and disclaimers of further contractual and legal limitations. I then show how this system not only provides all of the benefits proffered in the first part of this paper, but further meets all of the requisite characteristics of adequate notice, and finally provides the possibility of further benefits should the system gain industry-wide acceptance.

II. Definitions

For the purposes of this paper, Digital Rights Management technologies are technological measures that are effective in preventing

President, Macrovision Corporation to Steve Jobs and the Digital Entertainment Industry (Feb. 15, 2007), *archived at* http://www.webcitation.org/5SuzDHfe2; Open letter from Eli Harari, Founder, Chairman, and CEO of SanDisk Corp., (Feb. 7, 2007), *archived at* http://www.webcitation.org/5SuzICpv4; Letter from Michael Robertson, founder, MP3.com, to Steve Jobs (Feb. 8, 2007), *archived at* http://www.webcitation.org/5SuzNRAFQ.

17. See, e.g., Lars Brandle, EMI faces its future; can WMG trump private equity with new bid?, BILLBOARD, June 2, 2007, at 8 (discussing how the consumer backlash may alter the market for a sale of EMI; Paul Sweeting, Technology execs blame content owners for DRM's bad P.R., VIDEO BUS, Sept. 24, 2007, at 8

access to or protecting the authors' rights in copyrighted or copyrightable materials. ¹⁸ The covered technological measures include, but are not limited to, scrambling and encryption. "effective in preventing access to" a copyrightable work if, in their ordinary course of operation, they require the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work. 19 Measures are effective in protecting the rights of a copyright owner "if the measure, in the ordinary course of its operation, prevents, restricts, or otherwise limits the exercise of a right of a copyright owner."²⁰ This definition therefore mirrors the protections offered in the Digital Millennium Copyright Act. 21

For the purposes of this paper, "downloadable material" is any copyrightable content that is delivered to the purchaser via electronic means and in which the content is not delivered in a fixed medium. Downloadable material includes any songs, videos, books, or software delivered through the Internet, games and ring-tones delivered wirelessly to cellular phones and television shows delivered to the end user in a digital format.²²

A "purchaser" is one who pays money to receive the content. This definition encapsulates content that is not sold to the user, per se, but is rather licensed or distributed as part of a service to the consumer. Such "services" might include cable television, digital radio services, Internet downloading services such as paid video-on-demand, and service agreements such as the iTunes Store agreement.

III. Background

The traditional approach to a paper tackling a topic such as this is to spend a portion discussing the history of the issue. In this case, tradition would yield a discussion of the history of the perceived need for and use of DRM. The reasons for this approach have a logical foundation, it is necessary to understand the history of the issue in order to lend credence to the future existence of a problem to be solved.

Despite this tradition, I choose to forgo the ritual on two accounts.

^{18.} This definition accords with the definition adopted by Congress. Digital Millennium Copyright Act, Pub. L. No. 105-304, § 102, 112 Stat. 2860, 102 (1998) (codified as amended at 17 U.S.C. § 1201 (2007)).

^{19. 17} U.S.C. § 1201(a)(3)(B) (2007). 20. 17 U.S.C. § 1201(b)(2)(B) (2007).

^{21.} See Digital Millenium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998).

^{22.} Traditionally, broadcast television and cable television have been analog broadcast methods. Digital satellite dishes and digital cable television are examples of digital television broadcast methods.

First, a detailed history of the use of rights management in general, at least as it pertains to the music industry, currently the most ubiquitous user of such technologies, has recently been exhaustively covered elsewhere.²³ Second, those interested in DRM in the legal community are well aware that the legal issues surrounding it are gaining momentum at a rapid pace.²⁴ As early as 2003, the academic legal community galvanized efforts on the topic in substantial form.²⁵ Since then, academic interest has accelerated.²⁶

Public interest has increased as well. The public face of DRM on downloadable products, Apple Computer, announced in 2007 that it has now sold two billion songs with its "FairPlay" DRM scheme.²⁷ While heralded at first as a boon to the music industry, which was fighting declining sales,²⁸ a groundswell of critical attention centered on Apple's system by 2005. By 2006, France and Apple were at odds,²⁹ and Apple nearly pulled its iTunes store out of France entirely.³⁰ While France backed down temporarily, several other European countries are considering the matter.³¹

Responding to the building concern about the topic, Apple's CEO, Steve Jobs, published an open letter entitled "Thoughts on Music" on February 6, 2007.³² The media widely covered the letter, which

^{23.} See, e.g., Nika Aldrich, An Exploration of Rights Management Technologies Used in the Music Industry, 2007 B.C. INTELL. PROP. & TECH. F. 051001 (2007).

^{24.} A search for "Digital Rights Management" on Westlaw, for example, yields 725 law review, journal, and other articles as of November 15, 2007, over 30% of which have been published since Jan. 1, 2006.

^{25.} The Berkeley Center for Law and Technology co-hosted a conference entitled "The Law and Technology of DRM" in early 2003. The conference featured over forty speakers including law professors, business representatives, computer science engineers, industry lobbyists, and politicians. Digital Rights Management Conference, *archived at* http://www.webcitation.org/5Sv0vzPCI.

^{26.} See Aldrich, supra note 23.

^{27.} Press Release, Apple Computer, Inc., iTunes Store Tops Two Billion Songs (Jan. 9, 2007), *archived at* http://www.webcitation.org/5Sv10FPWF.

^{28.} Matt Richtel, *Apple Is Said To Be Entering E-Music Fray With Pay Service*, N.Y. TIMES, Apr. 28, 2003, at C1 (quoting Hilary Rosen, the chief executive of the Recording Industry Association of America, as saying that "The Apple system has the potential to do for music sales what the Walkman did for the cassette").

^{29.} See Crampton, supra note 15.

^{30.} Out-Law.com, France Dilutes Plans for iTunes Law, *archived at* http://www.webcitation.org/5Sv14Fe96 ("Apple had threatened to pull out of France altogether if the law was passed... 'We are awaiting the final result of France's legislative process,' said a company statement. '[We] hope they let the extremely competitive marketplace driven by customer choice decide which music players and online music stores are offered to consumers."").

^{31.} *See* Crampton, *supra* note 16 (referring to action targeting iTunes in Norway, Denmark, Sweden, Poland, Switzerland, and at the European Union).

^{32.} *See* Jobs, *supra* note 16.

denounced DRM in general, but justified its current use by Apple..³³ Front pages of internet news sites around the world covered the letter and it was a prominent front page story on CNN³⁴ and the BBC³⁵ in addition to hitting the blog community like a presidential scandal.³⁶ This prompted a virtual parade of open letters from industry executives, trade associations and prominent figures in DRM related communities,³⁷ each marking their territory in what appeared to be an imminent battle to win the hearts and minds of consumers and influence the threat of possible future litigation.

Between the media, legal academics, corporations and the public, interest in DRM is at an all time high. In short, there is substantial evidence to support the timeliness of a project aimed at addressing issues related to the use of DRM on downloadable products.

A. Adequate Notice is Beneficial to Retailers and Copyright Holders

Companies that sell products utilizing DRM should notify consumers of the use of DRM on their products. This notice is necessary and in the best interest of businesses for economic, customer relations and legal reasons.

First, companies will find it in their economic interest to disclose the use of DRM on their products.³⁸ When customers have expectations of how they can use a product and the product fails to meet those expectations for any reason, the cost of customer maintenance increases. Among these costs are the increased costs of pre-sales customer contact. If customers are unsure about what a product does, then customers may resort to expensive pre-sale communication with manufacturers,

^{33.} See, e.g, Apple Seeks Online Music Shake-up, BBC News, archived at http://www.webcitation.org/5Sv1CEWba, (Feb. 7, 2007) (reporting the publication of Jobs' open letter); John Markoff, Apple Chief Urges Shift on Piracy, N.Y. TIMES, Feb. 7, 2007, at C1.

^{34.} Paul R. La Monica, *Steve Jobs vs. The Music Industry*, CNNMONEY.COM (Feb. 7, 2007), *archived at* http://www.webcitation.org/5Sv1GnmLz.

^{35.} See Apple Seeks Online Music Shake-Up, BBC NEWS, archived at http://www.webcitation.org/5Sv1CEWba (Feb. 7, 2007).

^{36.} Arik Hesseldahl, *Two Weeks After "Thoughts on Music*," BUSINESS WEEK ONLINE, Feb. 20, 2007, *archived at* http://www.webcitation.org/5Sv1LdHYy (commenting on the blog community response to Jobs' open letter).

^{37.} See, e.g., Amaroso, supra note 16; Harari, supra note 16; Michael Robertson, supra note 16, Letter from Defectivebydesign.org to Steve Jobs, archived at http://www.webcitation.org/5WFhR0Cc5.

^{38.} Robert M. Gomulkiewicz, *Getting Serious About User-Friendly Mass-Market Licensing for Software*, 12 GEO. MASON L. REV. 687, 695-96 (2004) (discussing the benefits to software publishers of providing user-friendly licenses to software consumers).

distributors or retailers. For online-sales companies, the proportional cost of overhead such as customer contact is likely to be more expensive than with non-downloaded products.³⁹ This is due to the fact that online stores operate with lower overhead, therefore addressing each customer communication requires a disproportionately higher percentage of that overhead. 40 Each pre-sale communication with a customer that requires one-to-one email or telephone communication is disproportionately expensive. In addition to pre-sale calls, companies must pay the price of help-line, or post-sale customer support contacts for customers who acquire downloaded products and are dissatisfied because the products fail to meet their expectations,. Worse than the costs of customer support are the costs associated with product returns from customers. Product returns are especially expensive because they require twice the transaction costs but result in no sale. This becomes particularly expensive with downloaded products because no physical product is returned. Companies have difficulty ensuring that the downloaded product has actually been removed from the consumer's computer. For these reasons, it would cost companies less money in overhead to provide customers with advance notice of the use of DRM.

Companies also have customer-relations reasons for providing customers with notice of the use of DRM. Companies that fully disclose their products' capabilities and limitations may earn goodwill in the marketplace for both their corporate honesty and customer care. Full disclosure may also earn customer loyalty, similar to the way in which strong trademarks develop brand loyalty. Strong trademarks reduce consumer selection time. As customers grow to associate a given mark with its product they come to rely on consistency with the product. Customers may purchase more efficiently when they easily

^{39.} The overhead cost associated with a customer service phone call is assumed to be fixed regardless of the institution, so the company with lower overall overhead costs assumes a larger percentage of their overhead costs for each fixed customer service call. Internet retailers generally have lower overhead costs because they can afford less real estate and expensive store fronts. This has been seen in a variety of industries. *See*, *e.g.*, Robert D. Hershey, *Personal Business' For Bank C.D.'s*, *a Return to Fashion*, N.Y. Times, May 21, 2000, at 316 (discussing lower overhead costs for online banks as opposed to "brick and mortar" banks).

^{40.} *Id*.

^{41.} See Gomulkiewicz, supra note 38, at 696.

^{42.} William Landes & Richard Posner, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 168 (2003) ("The value of a trademark to the firm that uses it to designate its brand is the saving in consumers' search costs made possible by the information that the trademark conveys or embodies about the quality of the firm's brand").

^{43.} *Id*. at 167.

recognize a mark from prior purchases and associate this mark with a quality product.⁴⁴ The same is true with consumer notice; when consumers have complete knowledge of a product's capabilities, the consumers' selection time decrease. If a customer comes to associate a given manufacturer or distributor with a certain level of disclosure, a customer will generally rely on the disclosure provided by the manufacturer, whatever it may be.⁴⁵ If a company consistently provides a high level of disclosure, it is assumed that a customer will generally develop loyalty to the brand because he or she can depend on that brand's products more confidently, knowing that the company's disclosure is comprehensive and accurate.

Companies also have strong legal reasons to provide notice to consumers. First, there are legal liability reasons. As Sony/BMG learned in 2005, some DRM schemes can cause damage to consumers' equipment. In that situation, Sony/BMG used a type of DRM on music CDs that made computers more susceptible to viruses. The result cost them millions in CD returns, loss of corporate goodwill, at least one law suit and an eventual settlement with forty states and the FTC. Sony is not alone, however, in using a DRM scheme that yields liability. One company acquired a patent for a DRM scheme that is capable of damaging consumers' home stereo equipment. Another

^{44.} *Id*.

^{45.} The law generally acknowledges the fact that parties to transactions create habits upon which each party relies. *See*, *e.g.*, Restatement (Second) of Contracts S 223 (1981) (giving merit to the "course of dealing" between parties as a part of contract interpretation.)

^{46.} In 2005, Sony/BMG released millions of CDs that contained a type of DRM that made consumers' CDs more susceptible to computer viruses. *See* Aldrich, *supra* note 23 at Section I: Introduction (detailing the history leading to the Sony/BMG fiasco). *See also* Megan M. LaBelle, *The "Rootkit Debacle": The Latest Chapter in the Story of the Recording Industry and the War on Music Piracy*, 84 DENV. U. L. REV. 79, 81 (2006).

^{47.} *In re* Sony BMG Audio Compact Disc Litig., 429 F. Supp. 2d 1378, 1380 (J.P.M.L. 2006).

^{48.} Press Release, Attorney General of Texas Greg Abbott, Attorney General Abbott Brings First Enforcement Action In Nation Against Sony BMG For Spyware Violations (Nov. 21, 2005), *archived at*

http://www.webcitation.org/5SvnbjCTO, (announcing a lawsuit filed under Texas' spyware laws, contending that the software installed on Sony BMG's CDs was, by legal definition, spyware, and thus illegal in the State of Texas).

49. Press Release, Office of Massachusetts Attorney General Thomas Reilly,

^{49.} Press Release, Office of Massachusetts Attorney General Thomas Reilly, AG Reilly Secures \$4.25 Million Settlement with Sony BMG (Dec. 21, 2006) (on file with author) (discussing Sony's settlement with the Attorneys General from forty states).

^{50.} Press Release, Federal Trade Commission, Sony BMG Settles FTC Charges (Jan. 30, 2007), *archived at* http://www.webcitation.org/5Suyc2Abv.

^{51.} Anti-counterfeit Compact Disc, U.S. Patent No. 6,208,598 (filed Jan. 13,

music company developed a type of DRM scheme for CDs, which if the CD is installed in a Macintosh computer, will damage the computer to the point of requiring service. ⁵² As companies continue to push the bounds of the capabilities of DRM, they will continue to risk liability if their DRM schemes damage consumers' equipment.

Second, companies may be liable under the warranty of merchantability for products that have DRM technologies. The Uniform Commercial Code⁵³ provides six tests for merchantability.⁵⁴ Goods are merchantable if they

- (a) pass without objection in the trade under the contract description; and
- (b) in the case of fungible goods, are of fair average quality within the description; and
- (c) are fit for the ordinary purposes for which such goods are used; and
- (d) run, within the variations permitted by the agreement, of even kind, quality and quantity within each unit and among all units involved; and
- (e) are adequately contained, packaged, and labeled as the agreement may require; and
- (f) conform to the promises or affirmations of fact made on the container or label if any.⁵⁵

Some types of DRM schemes result in products that do not pass all six tests. For example, some compact discs do not play in all consumer devices and therefore have resulted in questionable merchantability under subsection (c) of the UCC chapter. ⁵⁶ As companies put more

^{1999),} archived at http://www.webcitation.org/5Svo4WPWF.

^{52.} Apple Computer, Mac OS Cannot Eject Copy Protected Audio Disc, Computer Starts Up to Gray Screen, archived at http://www.webcitation.org/5Svo776UJ.

^{53.} Whether or not downloadable products fall within the definition of "goods" under the UCC has not yet been resolved. See generally Warren Agin & Scott Kumis, A Framework for Understanding Electronic Information Transactions, 15 ALB. L.J. SCI. & TECH. 277 (2005) (addressing the complications of categorizing downloadable products under the UCC). Some courts have definitively held that at least non-downloadable software falls within the ambit of the UCC. See Softman Products Co. v. Adobe Sys., Inc., 171 F. Supp. 2d 1075 (C.D. Cal. 2001); Kan. Stat. Ann. § 84-2-105(2006) (encoding the Uniform Commercial Code's definition of goods); Wachter Mgmt Co. v. Dexter & Chaney, Inc., 144 P.3d 747 (Kan. 2006). No court, however, has addressed whether downloadable software is a "good" under the UCC.

^{54.} U.C.C. § 2-314(2) (2003).

^{55.} *Id*.

^{56.} Some forms of DRM prevent CDs from being played on devices that normally play CDs, such as DVD players, car stereo systems and computers. *See*, *e.g.*, Coldplay, Talk (EMI 2006) (which is labeled "playability on all devices

media products (software, movies, books and music) online with varying DRM schemes, the companies bear a risk of running afoul of the same subsection. Courts have yet to address what the "ordinary purposes" of downloaded movies are, for example. If the "ordinary purpose" is to watch the movie multiple times from a variety of devices, much like the ordinary purpose of a DVD, and if DRM prevents this activity with downloaded movies, then those downloaded movies may require adequate notice and a waiver of the implied warranty of merchantability. Adequate notice can also help shield businesses from the other clauses in the UCC merchantability section, including subsections (a) and (b), and most significantly subsections (e) and (f).⁵⁷

The intriguing case of the DVD and its warranty of merchantability issues is instructive. DVDs have a complex DRM system encoded in them that was written into the original DVD format specification. This system provides two types of protection. First, the Content Scrambling System (CSS) encrypts the data, preventing users from importing the file into a computer. Second, a type of geographical encoding allows manufacturers to restrict playback to particular regions of the world. Thus, Hollywood can release movies on DVD in the United States prior to doing so in other countries because U.S. encoded versions will not play in European DVD players. Both of these DRM schemes would potentially violate merchantability provisions of the UCC if they were released today. Because the DRM schemes were written into the format at the time of the DVD's inception, consumers would have a difficult time arguing that standard, CSS-encrypted DVDs purchased today do not meet their expectations. Consumers are on

cannot be guaranteed"). One international release of a Coldplay CD provided a list of devices with which it was incompatible due to a particular form of DRM used on the disc:

[&]quot;Some CD players that have the capability of burning into an MP3 (such as portable players or car stereos; some CD players that possess CD-R/RW functions (such as portable players or car stereos); some car stereos with satellite "Guidance" systems; some CD players or car stereos with hard disk recording capacity; some CD-R/RW Recorders used for music; some portable CD players; some DVD players; some CD/LD Convertible Players; some Game Players; although you can use your PC's Windows program to listen to certain tracks, this does not mean that the CD can be played in all PCs; this CD does not support Macintosh PC software." Ken Fisher, A CD Insert to Make Sony Blush, ARS TECHNICA, Jan. 2, 2006, archived at http://www.webcitation.org/5SvoFui8w (referencing Coldplay, X&Y (Capitol 2005)).

^{57.} U.C.C. § 2-314(2) (2003).

^{58.} DVD Copy Control Association, *Frequently Asked Questions, archived at* http://www.webcitation.org/5SvoJckMT (discussing the Content Scrambling System).

⁵⁹ *[d*

^{60.} *Id.* (discussing the reasons for the regional encoding system).

constructive notice of the limitations of the DVD format simply because of the extended use of DVDs in contemporary society. ⁶¹

The same UCC exceptions cannot be argued as confidently for other products that utilize DRM technologies. The music industry, for example, attempted to place DRM on CDs twenty years after creating the format and the customers' expectations of its usability. Consumers suddenly could not play CDs in devices that previously played the CDs. Multiple class action lawsuits resulted. The same concerns that were relevant in the Sony case are relevant in the case of downloaded software. Reasonable consumer expectations of new software likely do not incorporate creative new restrictions that creators of new DRM technologies dreamt up. As such, although DVDs may not require notice of the presence of DRM in order to avoid warranty of merchantability liability, downloaded software likely does.

Each of these two liabilities for software utilizing DRM is applicable despite the form of DRM. Other DRM schemes are also subject to liabilities for specific violations of other areas of civil or criminal law, such as negligence⁶⁶, trespass to chattels⁶⁷, fraud,⁶⁸ invasion of privacy⁶⁹, computer fraud⁷⁰, violation of the Consumer Protection Act⁷¹,

^{61.} BLACK'S LAW Dictionary "Constructive Notice" (8th Ed. 2004) (defining "constructive notice" as "[n]otice arising by presumption of law from the existence of facts and circumstances that a party had a duty to take notice of, such as a registered deed or a pending lawsuit; notice presumed by law to have been acquired by a person and thus imputed to that person.").

62. See Aldrich, supra note 24 at II.4.A-B. (tracing the history of the

^{62.} See Aldrich, supra note 24 at II.4.A-B. (tracing the history of the development of the Compact Disc and rights management systems in the audio industry, including the Sony BMG Rootkit debacle).

^{63.} See Aldrich, supra note 23 at II.4.C. (discussing the multiple types of DRM used on music CDs that result in CDs that fail to play properly in car stereos, portable CD players, computers, DVD players, and other red-book compatible devices). See also Fisher, supra note 56.

^{64.} See, e.g., Class Action Petition, Bahnmaier, supra note 11; Class Action Petition, Hull, supra note 12; Class Action Complaint for Jury Trial Demand, Guevara, supra note 11.

^{65.} See, e.g., Class Action Petition, Bahnmaier, supra note 11; Class Action for Jury Trial Demand, Hull, supra note 12; Class Action Complaint Demand for Jury Trial, Guevara, supra note 11.

^{66.} Class Action Petition, Bahnmaier, supra note 11, at ¶¶ 39-42.

^{67.} Class Action Petition, *Bahnmaier*, *supra* note 11, at ¶¶ 44-45; Civil Complaint; Plaintiff Demands a Trial By Jury, *Michaelson v. Sony BMG Music, Inc.*, No. 05 CV 9575 (NRB) (S.D.N.Y. Nov. 14, 2005) at ¶¶ 50-56, *archived at* http://www.webcitation.org/5WFiCPNoV. Both cases settled under *In re Sony BMG CD Tech. Litig.* No 1:05-CV-09575 (NRB) (S.D.N.Y. Dec. 28, 2005), *archived at* http://www.webcitation.org/5VMc2pARz.

^{68.} Class Action Petition, *Bahnmaier*, *supra* note 11, at ¶¶ 46-55; Civil Complaint, *Michaelson*, *supra* note 67, at ¶¶ 58-60.

^{69.} Class Action Petition, *Bahnmaier*, *supra* note 11, at ¶ 57-59.

^{70.} Civil Complaint, *Michaelson*, *supra* note 67, at ¶¶ 44-48.

malware and spyware laws⁷², illegal computer tampering⁷³, violations of the Consumer Legal Remedies Act⁷⁴, breach of the Implied Warranty of Merchantability⁷⁵, breach of the Implied Covenant of Good Faith and Fair Dealing⁷⁶, False or Misleading Statements⁷⁷, as well as international civil⁷⁸ and criminal causes of action.⁷⁹

Companies that use DRM also run the potential risk of future legislation disrupting their continued use of DRM. The Digital Millennium Copyright Act (DMCA) provided strict protection for DRM when it was passed.⁸⁰ It has been criticized roundly, however, as being too strict.⁸¹ As a result, various legislators have proposed legislation that would limit the reach of the DMCA in its protection of DRM technologies.⁸² Further, many grass roots organizations have gained public attention by calling for a repeal of some of the provisions of the DMCA.⁸³ This attention, in addition to the public's attention to DRM and continued public rebuke of the strong protection for DRM, increase the risk of corrective legislation. Small changes in the implementation

71. Class Action Petition, *Bahnmaier*, *supra* note 11, at ¶¶ 67-70.

72. Plaintiff's Original Petition, Texas v. Sony BMG Music Entm't., (Tex. Dist. Ct.) at ¶¶ 15-16, archived at http://www.webcitation.org/5WFiLKvDJ; Class Action Complaint, *Hull, supra* note 11, at \P ¶ 19-34, 44-74.

73. Class Action Complaint Demand for Jury Trial, Guevara, supra note 11, at ¶¶ 43-44. This case settled under Settlement Agreement, *In re Sony BMG CD* Tech. Litig., supra note 67.

74. Class Action Complaint, *Hull, supra* note 11, at ¶¶ 134-51; Class Action Complaint Demand for Jury Trial, *Guevara*, *supra* note 11, at ¶¶ 32-41. These cases settled under Settlement, In re Sony BMG CD Tech. Litig., supra note 67.

75. Bahnmaier, supra note 11, at ¶¶ 61-65.
76. Class Action Complaint, Hull, supra note 11, at ¶¶ 162-64.

77. Class Action Complaint, *Hull, supra* note 11, at ¶ 166-71.

78. Tribunal de Grande Instance [T.G.I.] [ordinary court of original jurisdiction] de Nanterre, Sept. 2, 2003,

No. R.G. 03/06625 (Fr.) archived at http://www.webcitation.org/5SvoRljyZ (granting relief to a French woman who could not play a copy protected CD on her car stereo system).

79. Press Release, Associazione per la Libertà Nella Comunicazione Elettronica Interattiva, *supra* note 12 (requesting that the Italian Financial Police identify the authors of the XCP2 software used by Sony BMG Music Entertainment, forcing a criminal investigation into the matter in Italy).

80. Digital Millennium Copyright Act, Pub. L. No. 105-304, §102, 112 Stat. 2860 (1998) (providing prison sentences and fines of up to one million dollars for willfully violating the DMCA, as well as providing protection for access restrictions and use restrictions on digital content).

81. Edward Cheng, Structural Laws and the Puzzle of Regulating Behavior, 100 Nw. U. L. Rev. 655, 711 (2006).

82. Id. See also American Library Association, supra note 15.

83. See, e.g. Archives of Groups and Organizations in Electronic Frontier Foundation, EFF, archived at http://www.webcitation.org/5SvoWGAya (listing organizations beside the EFF that also opposed DRM, as well as organizations that agree with positions of the EFF on other matters).

of DRM, such as providing adequate notice, could help allay public criticism and possibly head off protection-repealing legislation.

B. Companies Provide Notice through License Agreements

Though there are several reasons that companies would want to provide adequate notice, such notice is difficult to provide. First, some DRM implementations provide multiple restrictions that would require extensive notice. The aforementioned DVD DRM scheme provides methods of preventing copying, ripping, and even playback in specific geographic regions. Apple's Fairplay DRM system provides the following restrictions:

- Downloaded songs may be copied to any number of iPod portable music players;
- Downloaded songs may be played on up to five (originally three) authorized computers simultaneously⁸⁵;
- Downloaded songs may be copied to an unlimited number of computers for archiving or back-up, though playback is limited to authorized computers only;
- Downloaded songs may be copied to a standard audio CD any number of times ⁸⁶;
- A given "playlist" (an arrangement of songs within the iTunes software) that includes a downloaded song may only be copied to a CD seven times before the playlist must be changed; and
- Downloaded songs may not be played on any portable music player other than iPods. 87

These are merely two current examples of DRM implementation. Economics teaches that if use rights yield to capitalistic pressures, companies will provide narrower use rights in order to lower prices. Narrower use rights result in more comprehensive restrictions, which will require more verbose notices. The more types of restrictions enforced, the more comprehensive the notice. However, longer notices are less likely to be read.⁸⁸ This yields the conundrum that the more

^{84.} See DVD Copy Control Association, supra note 58.

^{85.} iTunes Store-Terms of Service, Apple Computer, Inc. at Art. 9(b), *archived at* http://www.webcitation.org/5SvoaGIjS. Only five computers can be authorized to play a given song. De-authorizing a computer allows for another computer to be authorized.

^{86.} A CD made from a downloaded song, however, will still suffer from any audible artifacts of the audio compression used to create the downloadable song file.

^{87.} iTunes Store - Terms of Service, Apple Computer, Inc., *supra* note 85 at Article 9(b).

^{88.} See Larry Magid, It Pays to Read License Agreements, archived at

comprehensive a DRM scheme is the more difficult it is to provide notice that effectively reaches and informs the user. While some of the reasons to provide notice are merely to provide legal liability protection, ⁸⁹ many of the aforementioned reasons require that consumers actually *know* of the DRM scheme and its restrictions. ⁹⁰

Regardless of the economic benefits of customers actually knowing what their products do, advanced notice involving actual customer awareness has been simply impractical. As a result, many companies provide notice through license agreements. Most downloadable products retailed on the Internet are licensed rather than sold, and licensed products require licensing agreements. These agreements can be legally enforceable even when presented after the exchange of money between the consumer and the retailer. Therefore, retailers can ensure that they have legal waivers of liability merely by burying the provisions of their DRM schemes in exhaustive license agreements. A company may concede that providing adequate, consumer-friendly notice at the time of purchase is too difficult, and it is simply easier to disclose DRM in the license agreement, after completion of the sale and at least procure a waiver of legal liabilities.

C. License Agreements Provide Inadequate Notice of DRM

Post-sale license agreements are insufficient to notify customers of the existence of DRM technologies on their products. Even pre-sale license agreements are frequently insufficient for a variety of reasons.

Above, I addressed economic, customer relations, and legal reasons why notice is beneficial to companies who use DRM.⁹⁴ It is well known that customers do not read license agreements.⁹⁵ When customers do

http://www.webcitation.org/5TNOxy1b6 (discussing the fact that most license agreements are not read by consumers anyway).

^{89.} *See supra* Part III.A (noting legal liabilities resulting from failure to provide adequate notice to consumers).

^{90.} See supra Part III.A (noting economic and customer relations reasons for providing notice to consumers).

^{91.} See Gomulkiewicz, supra note 38, at 687 ("Software publishers use standard form end user licenses ('EULAs') in mass market transactions on a regular basis").

^{92.} *Adobe Sys. Inc. v. One Stop Micro, Inc.*, 84 F. Supp. 2d 1086, 1091 (N.D. Cal. 2000) ("[W]ith the exception of video games, software is licensed rather than sold.") (citing Declaration of Raymond T. Nimmer).

^{93.} *ProCD Inc. v. Zeidenberg*, 86 F.3d 1447,1452 (7th Cir. 1996) (holding a software license agreement enforceable though the terms were presented after the financial transaction).

^{94.} See supra Part III.A.

^{95.} See Magid, supra note 89 (referring to a term in a license for software made by PC Pitstop that awarded a "consideration" including money to users who

not read the provided notice then the customers essentially do not *know* or have *actual notice* of the information in question. Providing ineffective notice to customers does not increase corporate goodwill; it does not increase customer loyalty; and it does not decrease customer maintenance. Additionally, ineffective notice does not reduce the threat of future legislation. As customers complain and public sentiment grows against the overabundant use of DRM, the fact that notice was legally provided to consumers in a license agreement may not provide enough conciliation to rebuff legislators in answering the prayers of their constituents.

There are also legal reasons why notice in a post-sale license may be insufficient. One such reason is based in remedies available to the breaching party. The doctrine that teaches that post-sale licenses (rolling contracts) are legally enforceable stems from Judge Easterbrook's decision in *ProCD v. Zeidenberg*. 96 Judge Easterbrook's explanation for the legal enforceability is rooted in contract law and the historical basis of contract formation. Contracts are formed when an offer is made and assent is received. 97 The offeror may determine the means of assent.98 While assent is often manifested through the payment of money, Judge Easterbrook asserts that in the case of contracts with post-sale terms, the offeror does not invite assent through the exchange of money.⁹⁹ Instead, the offeror requests the manifestation of assent by means of agreement to the post-transaction terms. ¹⁰⁰ In other words, a contract is not formed until the user agrees to the terms of the contract received – long after the money has changed hands.

This analysis, which validates post-sale terms, is rooted in contract law. Contract law, however, yields specific remedies. According to the Restatement of Contracts, remedies in contract law are meant to make the non-breaching party whole, as if a breach had not occurred. ¹⁰¹

responded to an invitation in their license agreement. Only one person responded after 3,000 versions of the software had been downloaded. PC Pitstop sent that person a \$1000 check).

^{96.} Zeidenberg, 86 F.3d at 1449 (holding that a license agreement for software was enforceable despite the customer not having an opportunity to read it until after consummation of the financial transaction).

^{97.} Id. at 1452.

^{98.} *Id.* ("A vendor, as master of the offer, may invite acceptance by conduct, and may propose limitations on the kind of conduct that constitutes acceptance. A buyer may accept by performing the acts the vendor proposes to treat as acceptance").

acceptance").

99. *Id.* ("[A] contract can be, and often is, formed simply by paying the price and walking out of the store, the UCC permits contracts to be formed in other ways. ProCD proposed such a different way, and without protest Zeidenberg agreed").

100. *Zeidenberg*, 86 F.3d at 1452.

^{101.} RESTATEMENT (SECOND) OF CONTRACTS Ch. 16 Topic 2 Introductory Note

When a party breaches a contract, the non-breaching party is to receive a remedy equal to the difference between a world in which the contract is not breached and a world in which the contract is breached. 102 Further, the breaching party is only liable for those damages to the non-breaching party that the breaching party could have reasonably foreseen. ¹⁰³ In essence, this encourages "efficient breach" of contracts, which occurs when it is economically advantageous for a contracting party to breach a contract and merely pay the damages. 104

This must be ported, then, to the case of a contract for the license of downloaded, copyrighted information. 105 In the hypothetical case of a movie download service, the DRM might prevent a user from copying the movie onto a second device. The license would spell out precisely the restriction enforced by the DRM scheme and would require the customer to contractually agree not to copy the movie. The license would also require that the user not circumvent the DRM scheme. The user then agrees to both of these terms of the license. Therefore, the consumer agrees to exactly the terms of the DRM technology's limitations. Should the consumer break the contract and copy the information to a second device, the consumer is legally liable for the damages to the movie studio: the lost sale of a second download of the movie to a second device. This would have a fair market value approximately fifteen dollars (the current value of a DVD version of the average movie). 106 Copying the movie to a third device would subject the consumer to liability for double that amount. In essence, the contractual liability for violating the DRM scheme is nominal. 107

While contract law is governed by the principle of efficiency, DRM is protected by other areas of law. 108 A consumer who violates the

^{(1981) (&}quot;The initial assumption is that the injured party is entitled to full compensation for his actual loss. This is reflected in the general measure of damages set out in § 347").
102. RESTATEMENT (SECOND) OF CONTRACTS § 347 (1981).

^{103.} RESTATEMENT (SECOND) OF CONTRACTS § 351(1) (1981).

^{104.} BLACK'S LAW DICTIONARY (8th ed. 2004) (defining "efficient-breach theory" as "The view that a party should be allowed to breach a contract and pay damages, if doing so would be more economically efficient than performing under the contract.").

^{105.} See Dictionary.com, archived at http://www.webcitation.org/5VPk955y1 (defining porting as "the modification of software to use on a different machine or

^{106.} David Scott, World DVD Growth Slows to a Crawl, SCREEN DIGEST, Nov. 2005 at 333 (reporting that the average consumer price for a DVD in 2004 in the United States was \$15.01).

^{107.} Note that parties who defeat DRM technologies are subject to statutory damages in addition to actual damages. 17 U.S.C. § 1203(c)(2) (2000). 108. See, e.g., 17 U.S.C. § 1203 (2000).

contract by circumventing the DRM scheme is liable under the DMCA separately from their liability for breach of the contract. One who cracks or uses a circumvention scheme to work around DRM restrictions is also liable for:

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costs<sup>110</sup>, attorney's fees<sup>111</sup>, as much as $2,500 in statutory damages per instance<sup>112</sup>, the possibility of triple damages for repeat instantiations<sup>113</sup>, and criminal sanctions including up to ten years in prison and one million dollars in fines for willful and commercial infringement.<sup>114</sup>
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These sanctions go beyond the bounds of contract law. They are also decoupled from the principles of efficient breach. As such, the contract law analysis that allows post-sale notice of terms may provide for insufficient legal notice of the use of DRM technologies under the DMCA. A company that uses a DRM scheme to limit copying and includes in their post-transaction contract that copying in violation of the DRM is disallowed may find that the post-transaction notice is only sufficient to warrant contractual damages for the breach – that damages under the DMCA are not allowed.

It is not yet known what kind of notice of the existence of DRM courts will require in order to hold customers liable for statutory violations. The DMCA provides exemptions for "innocent" violators by granting a reprieve to any person who "was not aware and had no reason to believe that its acts constituted a violation." It is entirely possible that having no notice of the existence of DRM at the time of the *transaction* may boost the consumer's defense of an innocent violation under the DMCA. A consumer may have an easier time showing a lack of *mens rea* when they reasonably believed at the time of the transaction that their purchased product was unencumbered by technological restrictions.

In short, while contract law allows post-transaction notice, the DMCA is built upon different legal principles than contract law. Some areas of law have different notice requirements than those of contract law. 116

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109. 17 U.S.C. § 1201 (2000).
110. 17 U.S.C. § 1203(b)(4) (2000).
111. 17 U.S.C. § 1203(b)(5) (2000).
112. 17 U.S.C. § 1203(c)(3) (2000).
113. 17 U.S.C. § 1203(c)(4) (2000).
114. 17 U.S.C. § 1204(a) (2000).
115. 17 U.S.C. § 1203(c)(5)(a) (2000).
116. Special labeling requirements are required by either statutes or regulations.

See, e.g., 27 U.S.C. § 205(e) (2000) (labels on alcohol), 9 C.F.R. 317.300 (1995) (nutrition labels on food), 47 C.F.R. § 15.19 (2003) (FCC labels on devices that transmit radio frequencies), and Pub. L. No. 98-474, 98 Stat. 2200 (1984) (cigarette
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Therefore, statutory protection for DRM may fail when notice only conforms to sufficient notice under contract law's requirements. It is therefore in the best interest of manufacturers and distributors to provide notice in advance of the transaction so as to ensure they may receive all remedies available to them under the law.

Finally, there is a pragmatic reason why the current methods of providing notice are inadequate. Most customers simply do not care about the contractual limitations on what they can do with downloaded material. One could make a strong argument that many customers further do not care about legal limitations on what they can do with downloaded material. Consumers generally know that there is a vague concept called "fair use" that allows them to copy material for personal use. Therefore, they feel unencumbered with legal limitations on what they can do with material they purchase. Further, consumers generally do not care about contracts such as licensing contracts as they are largely unenforced and because customers do not actually know the contractual the limitations. Legal and contractual limitations on use are therefore perceived by consumers as ethereal concepts that do not infringe on the everyday use of content and only exist for rare situations that they perceive do not apply to them.

Customers do care, however, about technological limitations on what they can do. 120 Technological limitations are limitations-in-fact as opposed to ethereal, seemingly unenforceable limitations. When consumers purchase products with technological limitations on use they are actually affected. They even make an issue of it when they feel that the limitations are unjust. 121

For this reason, it is even more important that consumers receive *actual* notice, as opposed to merely legally sufficient notice, and understand the technological limitations of products before they buy them. When customers actually care about an issue it is even more

labels)

^{117.} Wikipedia.com, Fair Use, archived at

http://www.webcitation.org/5VPkKwvI0 (listing a debunking a variety of common misunderstandings about fair use).

^{118.} See Magid, supra note 88 (noting the fact that consumers do not read the license agreements and therefore do not know what terms they contain).

^{119.} See, e.g., Id.

^{120.} See, infra note 122 and accompanying text.

^{121.} Several grassroots organizations have surfaced for the purpose of fighting against the proliferation of DRM. The Free Software Foundation has organized a "Defective by Design" advertising and internet campaign,

http://www.defectivebydesign.org, archived at

http://www.webcitation.org/5Svoip3tN. Meanwhile, the Electronic Frontier Foundation claims 50,000 active members. *Archived at* http://www.webcitation.org/5SvoqoELr.

beneficial for retailers that consumers know about it. The backlash can be debilitating.

D. Effective Notice

Effective notice of DRM would meet four requirements. First, effective notice would be provided before or at the time of the transaction. Second, effective notice would probably be acknowledged and read by the customer. Notice would therefore not be buried in a lengthy contract or amidst excessive language and would instead be obvious and succinct, making it more likely that clients read and acknowledge it. ¹²² Third, effective notice would be meaningful to customers. Notice would not involve legal language, but would be written in user-friendly English, designed for easy comprehension by the average consumer. ¹²³ Fourth, effective notice would be comprehensive. It would indicate all the ways in which DRM restricts abilities of the consumer to use the product.

IV. Recommended Notice System for all Download Products

I recommend a logo based disclosure system for all download products. The system is based on three separate elements: logos that indicate broad categories of DRM restrictions; additional, more specific information linked to the logos; and accompanying text that explains that other restrictions may apply.

A. Overview

1. The Logos

First, I recommend a series of logos designed to communicate to the consumer that DRM affects their rights in broad restriction areas. I have identified seven broad restriction areas currently used in DRM schemes:

1. Use restricted in time¹²⁴;

^{122.} See supra Part III.B.

^{123.} *See* Gomulkiewicz, *supra* note 38, at 697-99 (discussing the ramifications of "user-friendly" licenses).

^{124.} Many software programs are available in trial form, allowing use for a limited amount of time. ConceptDraw Pro, for example, deactivates after 30 days. TiVo, the digital video recording system for television, also incorporates a DRM scheme that deletes or prevents playback of certain television programs after a certain date. Lucas Graves, *Has TiVo Forsaken Us?*, WIRED, Nov. 2004, *archived at* http://www.webcitation.org/5SvovwEZs.

- 2. Use restricted to certain types or brands of equipment ¹²⁵;
- 3. Use restricted geographically ¹²⁶;
- 4. Use restricted until user agrees to contractual terms ¹²⁷;
- 5. Copying restricted 128;
- 6. Use restricted in number of devices ¹²⁹;
- 7. Number of uses restricted. 130
- 125. See, e.g., iTunes Terms of Service, supra note 87 at Article 9(b) (indicating that Apple's FairPlay DRM scheme can only be used with Apple's portable music player, the iPod). Some manufacturers of hardware build schemes in so as to require customers to use their specific brand of accessories. For example, some printer manufacturers have used a "hand shake" arrangement between their printers and their printer cartridges through DRM so as to require customers to use their brand of printer cartridges. See, e.g., Lexmark Intern., Inc. v. Static Control Components, Inc., 387 F.3d 522, 529 (6th Cir 2004). ("...Lexmark began selling discount toner cartridges for its printers that only Lexmark could re-fill and that contained a microchip designed to prevent Lexmark printers from functioning with toner cartridges that Lexmark had not re-filled").
- 126. See, e.g., DVD Copy Control Association, supra note 58 (discussing geographic encoding on DVDs).
- 127. Software programs generally require that users agree to license terms prior to using the software. *See supra* Part III.B.
- 128. See, e.g., iTunes Terms of Service, supra note 86 at Article 9(b) (limiting copying as indicated supra Part III.B); see also EMI Music, End User License Agreement at "Restrictions," http://www.webcitation.org/5VPmhmjk9 (describing the copying restrictions for music CDs with EMI's DRM scheme: "The Software protects the copyrights associated with the Digital Content as follows: (1) you will be unable to make (or "rip") more than one copy of the Digital Content onto a computer, and you may not rip the Digital Content to more than one computer; (2) you will be unable to make (or "burn") more than 3 full copies of the entire album and 7 additional copies of each individual track onto other disc(s), and you will not be able to make any digital copies of that Digital Content from such other disc(s); (3) you will be able to make (or "port") an unlimited number of copies of the Digital Content onto a Compliant Device; and (4) you will be unable to upload the Digital Content to or otherwise share the Digital Content over the Internet"); see also DVD Copy Control Association supra note 58 (referencing the CSS scheme used on DVDs to prevent copying).
- 129. See, e.g., iTunes Terms of Service, supra note 86 at Article 9(b) ("You shall be authorized to use the Products on five Apple-authorized devices at any time"). See also EMI Music, End User License Agreement at "Restrictions," archived at http://www.webcitation.org/5WFk7iktb (describing the copying restrictions for music CDs with EMI's DRM scheme: "The Software protects the copyrights associated with the Digital Content as follows: (1) you will be unable to make (or "rip") more than one copy of the Digital Content onto a computer, and you may not rip the Digital Content to more than one computer; (2) you will be unable to make (or 'burn') more than 3 full copies of the entire album and 7 additional copies of each individual track onto other disc(s), and you will not be able to make any digital copies of that Digital Content from such other disc(s); (3) you will be able to make (or 'port') an unlimited number of copies of the Digital Content onto a Compliant Device; and (4) you will be unable to upload the Digital Content to or otherwise share the Digital Content over the Internet"); see also DVD Copy Control Association supra note 58 (referencing the CSS scheme used on DVDs to prevent copying).

Each broad restriction type has a specially designed logo meant to represent the type of restriction. Respectively:



At the time of purchase, retailers would present the logos matching the broad restriction categories relevant to their product. The warning would be presented prominently on all websites distributing downloaded goods. Warnings would also be prominently displayed on user interfaces of other devices, such as cellular phones and television monitors where appropriate. Preferably, the logos would be presented in a way that consumers have to acknowledge and accept them, perhaps by clicking acceptance in a pop-up window or a click-through page.

Ideally the logos would be displayed uniformly on all user interface devices. Other industries achieved this type of uniform display. For example, the ratings system on movies consumes the entire screen at the beginning of each movie. The same has been accomplished with television ratings. For fixed products, such as cigarettes,131 alcohol132, and food labels,133 regulations require consistent placement of warning labels on the packages. Credit card offers sent by mail are required by law to contain a uniform "Schumer Box," which discloses specific terms of the offer in a uniform layout.134

Uniform presentation is more difficult where all download products are subject to such disclosure. It would be excessive and unnecessary to commandeer the complete computer screen for a warning label as is done with movie ratings warnings. Further, the "uniformity" needs to extend to all devices that can receive digital download products. This

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^{130.} See, e.g., Consumer Electronics Daily, CONSUMER ELECTRONICS, Sept. 19, 2006, at Industry Notes (noting that the new Zune portable music player from Microsoft has a preview function encoded in DRM that "gives the recipient 3 listens or 3 days to preview the content, then requires him to purchase the content to keep it").

^{131.} See Comprehensive Smoking Education Act, Pub. L. No. 98-474, 98 Stat. 2200 (1984).

^{132.} See 27 U.S.C. § 205(e) (1999), invalidated by Rubin v. Coors Brewing Co., 574 U.S. 476 (1995).

^{133.} See 9 C.F.R. § 317.300 (1995).

^{134. 15} U.S.C. § 1637(c)(1) (Supp. 2005).

includes not only computers, but also cellular phones, televisions, possibly car GPS systems or onboard computers, and devices not yet created.

It is difficult to provide a uniform, logo-based disclosure system for the user interfaces of products that can download digital products. The difficulty arises because distributors have different user interface designs. Ideally, a pop-up browser page could be used on websites to host the cautionary logos, but this would be inapplicable to downloads involving television monitors, cellular phones, and other devices. Further, many users block pop-up pages on their personal computer browsers, defeating the purpose of the disclosure system.

Alternatively, retailers could display the logos immediately above the final "accept" button consumers click for purchase. This, too, has its shortcomings. First, the area above the "accept" button is not necessarily the most prominent location on the screen to display the logos. Second, sometimes the final "accept" button comes at the end of a lengthy process of inputting data. In this respect, the consumer has already undergone such an investment in time to purchase the item that she may not pay attention to warnings or other indications of restrictions.135 The result is that consumers may be less likely to acknowledge the logos than if the logos were presented on a previous page.

The most effective way to provide uniformity is to standardize and trademark the logos and then provide for their use under license. The licensee of the entire logo-system would be required to display the logos in a fixed size and color with a uniform font for the accompanying text. A box with fixed characteristics of line thickness and curvature of the corners could encircle the logos and the accompanying text. The license would further require that licensees make an attempt to place the logos "prominently and sufficient to invite acknowledgement and acceptance by end users." The license would further stipulate that one measure of "prominence" is uniformity across the retailer's various downloadable products, as well as uniformity with relevant competitive products. With this verbiage, website designers, or other user interface designers, would gravitate, industry wide, toward finding a prominent place on their pages for display. This provides the ability for prominent placement to mature or change as technology and user interfaces change.

The text, "technological restrictions," would appear above the logos

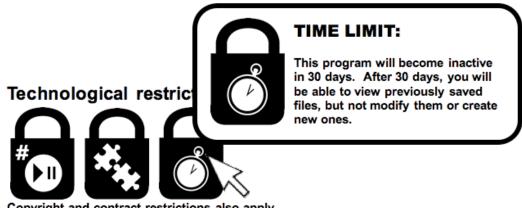
^{135.} Stephen E. Friedman, *Improving the Rolling Contract*, 56 AM. U. L. REV. 1, 15-19 (2006) (discussing the "endowment effect," which indicates that consumers are less likely to read terms in contracts with delayed terms than contracts with advanced notice of terms).

to clarify to the consumer that the logos do not represent contractual limitations, but rather limitations in fact, enforced through technological means.

2. Comprehensive Explanation

Second, I recommend that text accompany each logo to explain the specific limitations represented by the logo. "Mouse-over" boxes that would appear when a user positioned their cursor over one of the logos would accomplish this with respect to products downloaded to a In situations where mousing over a logo would be impracticable, a website would detail the restrictions and this website address would be disclosed under the logos.

Logos, unto themselves, do not provide comprehensive information about the product restrictions. Logos merely indicate broad restriction categories; they do not disclose the specific manifestations of those restrictions. For example, the use of the "copying restricted" logo does not disclose the number of copies one may make. Because it is important that consumers not only know that restrictions exist, but also what those restrictions entail, a comprehensive disclosure of the restrictions is necessary. An example follows:



Copyright and contract restrictions also apply

The text should be written in short, user-friendly language, designed to efficiently and clearly communicate to the consumer how their rights are affected. Manufacturers and/or distributors would provide the text in the box, so they could write it as clearly as possible to communicate the DRM-enacted limitations that they enforce.

The goal is to provide as much information as possible to the consumer in a manner that consumers will acknowledge. The logos provide some of that information through a means likely to be acknowledged. Providing more information runs the risk of diluting all information. Therefore, the system breaks the information into two parts: notice that DRM is present and notice of its specific implementation. The logos accomplish the first part. The remainder needs to arrive, hopefully, with as little work by the consumer as possible. For computer web browser software, mouse-over pop-up boxes can convey the additional information. These boxes are visually unobtrusive, are only triggered when the consumer actually cares to know what they contain, and can be effectuated through minimal programming. Each logo can have a pop-up box that indicates the specific provisions of the DRM restrictions for that broad product category.

It may be possible to contain some of the more specific information within the logos themselves. For example, a DRM provision that allows a consumer to make five copies of a particular song could be represented through a number five placed within the logo. This, however, is not an ideal solution for a few reasons. First, many DRM implementation schemes are more obtuse than simply allowing five copies. example, the iTunes store allows a user to copy the CD to up to five other computers and onto an unlimited number of CDs, but it only allows the consumer to make seven CDs including the song in a given playlist. 136 It is not easy to express each of these limitations in one logo that is still meaningful. Second, such a system would destroy some of the uniformity of the logos. The logos should be as uniform as possible so as to ensure ease in establishing secondary meaning for them within the marketplace. If each logo had several variations representing specific implementations, varying them would hamper the uniformity and decrease the effectiveness of the system. Third, creating a way to explain, in the logos themselves, the specific ramifications of all DRM schemes currently used in the market would deny the ease with which companies can create new schemes that do not fit the pre-configured molds. This would effectively lock the newly created schemes out of the disclosure system. Locking companies out of the disclosure system defeats the goal of the system itself. The goal is not to prevent those companies from using the new DRM schemes, but merely to ensure that they provide consumers with adequate notice of their existence and provisions. The goal is to be as inviting as possible. Therefore, the logo-based disclosure system needs to invite and accommodate new DRM implementations so as to gain the support of as many companies

as possible, while also supplying an adequate way for the companies to provide notice. Therefore, the logos should be static and the additional, specific implementation information should accompany the logos separately.

Not all user interfaces are conducive to mouse-over features or control. For such interfaces the manufacturers should place a static webpage on their website that discloses the specific implementation of the product in question. The URL should be as short as possible so that consumers can type the URL into a computer web browser easily and readily access full disclosure. For example, a download product made available by the University of Washington School of Law, but designed for download onto cell phones, would have the following disclosure:

Technological restrictions:



Copyright and contract restrictions also apply For additional information see: http://www.law.washington.edu/DRMdisclosure

This short URL is user-friendly and designed to make access readily available.

The webpage with the additional information, though hosted on the corporate server for the manufacturer or retailer, would have a uniform layout. Fonts and graphical elements would match the elements used in the logos. Again, this aids in developing secondary meaning for the logo system and helps ensure that the webpage is uniformly accessible to consumers.

Website-based disclosure of information is not as ideal as information presented to consumers immediately, especially if the logos are presented, for example, on a television screen, and consumers then have to access a computer to download the requisite website for the DRM specifics. However, this is an acceptable trade-off for multiple reasons. First, the system still provides pre-acquisition notice to the consumers that DRM technologies are present. Further, it gives them information about the specific types of limitations involved and then tells them where they can go if those broad restrictions categories are pertinent to their use. This tradeoff in providing ideal information is expected with

devices that have limited capabilities.

3. Additional Text

It is important to both the customers and the manufacturers/distributors that customers know that the logos only represent technologically enforced restrictions on use. Therefore, text under the logos would state: "Copyright and contract restrictions also apply." Coupled with the text above the logos, this verbiage indicates to the customer that the logo-based disclosure only covers one of the three ways in which their use rights are limited. Further, this clause reminds the consumer of their liability under copyright law, a concern for the distributors and manufacturers.

B. Implementation

I recommend that this system be voluntarily adopted. Voluntary consumer-disclosure plans have proven beneficial and gained acceptance in other industries, including movie ratings 137, television ratings 138, video game ratings 139, and parental advisory ratings on music releases. 140 The benefits of voluntary compliance systems include faster implementation, less expense, ease in adapting as time and technology require, and a greater likelihood of compliance commensurate with the intentions of goodwill and success of the system.

The alternative would involve legislation to enforce the system. Legislation was used to enforce the Schumer Box on credit card offers by mail.141 Legislation aimed at regulating DRM may be a foreseeable consequence of a failure to make similar changes on a voluntary basis within the business community. France has already experimented with legislation that would drastically alter the type of DRM companies could use.142

^{137.} See Motion Picture Ass'n of America, Film Ratings, archived at http://www.webcitation.org/5SwJQr9eC.

^{138.} See The TV Parental Guidelines, archived at http://www.webcitation.org/5SwJVY87W.

^{139.} See Entm't Software Rating Board, Game Ratings & Descriptor Guide, archived at http://www.webcitation.org/5SwJYbfZc.

^{140.} See R.I.A.A., Information for Parents – Parental Advisory, archived at http://www.webcitation.org/5SwJbFtFP.

^{141. 15} U.S.C. § 1637(c)(1) (Supp. 2005) (requiring the so-called "Schumer box").

^{142.} Associated Press, *France Softens iTunes Law, But Apple Is Still Disgruntled*, N.Y. TIMES, June 23, 2006, at C2 (discussing proposed legislation in France that would require interoperability of DRM-based products).

I recommend that in order to avoid consequential legislation and in light of significant benefits that a disclosure system like this would have for businesses, the business community and trade organizations provide ground level support in attempting to garner support from their constituents.

Further, the system should be utilized before every transaction. It is insufficient to provide notice only at the time of agreeing to the terms of a service agreement, especially if the consumer purchases additional content through the service agreement over time. For example, it is unnecessary for a consumer to receive disclosure when they merely sign up (without paying money) for a video-on-demand service that supplies DRM-encoded video files. On the other hand, it is necessary for the consumer to receive notice every time they pay money for minutes of video or files within the service agreement. The notice should be coupled with the payment and the content paid for in each financial transaction, not just with the service itself.

C. Benefits of Adoption

The proposed system provides a solution to all of the requirements of an effective disclosure system for DRM proposed in Part III of this paper.143

First, the notice is provided prior to or at the time of the transaction, per the terms of the recommended license of the logo system. Second, since the system is logo-based, it has a high likelihood of acknowledgement and internalization by customers. Logos are readily acknowledged and acquire "secondary meaning" by consumers.144 Consequently, federal statutory law has been established to protect the built-up meaning of logos.145 Not only is the trademark industry based on the effectiveness of logos in conveying meaning to customers, but a large subset of trademark law deals specifically with what are called "certification marks."146 A certification mark is one that includes a "word, name, symbol, or device, or any combination thereof (1) used... to certify regional or other origin, material, mode of manufacture, quality, accuracy, or other characteristics of such person's goods or services."147 Certification marks have thus been widely used in the

^{143.} See supra Part III.D.

^{144.} *KP Permanent Make-Up, Inc. v. Lasting Impression I, Inc.*, 408 F.3d 596, 606 (9th Cir. 2005) (upholding a logo's trademark status on the grounds that it had acquired secondary meaning).

^{145.} See Landes & Posner, supra note 42, at 168.

^{146. 15} U.S.C. § 1054 (2007).

^{147. 15} U.S.C. § 1127 (2007).

retail industry to provide effective consumer disclosure to consumers. Examples include the trademarked movie ratings system148, the "PARENTAL ADVISORY EXPLICIT LYRICS" graphic used on CDs149, television ratings graphics, Woolmark150, and the Underwriter's Laboratories Inc.'s "UL Listed" mark.151 Similarly, the CD Digital Audio logo indicates that a compact disc conforms to the Red Book specification for compact discs152 and the DVD mark indicates that a DVD complies with the DVD protocol.153 In some situations, logos can be legally required, such as with food labeling and the Surgeon General's Warning on tobacco products.154 The TM, ®, and © logos are also instantly recognizable and convey legal meaning about rights.155 By using logos instead of words to convey meaning, this system provides a higher likelihood of consumer acknowledgement and appreciation than does mere text alone.

Third, the logos will become meaningful to consumers after acquiring secondary meaning through their repeated use. An average consumer then will easily comprehend the logos. The more specific information available in the pop-up box or website will be written in plain, user-friendly English, designed to communicate clearly how technology limits use of the product.

Fourth, this system provides comprehensive disclosure to customers. This system involves either logos to convey generic information plus "mouse-over" boxes to relate specific information, or logos to convey generic information plus a referenced website that relates specific information. By using a two-step process to relay the notice of technological limitations to customers, comprehensive disclosure can be accomplished without sacrificing likelihood of acknowledgement.

^{148.} See, e.g., U.S. Trademark No. 73601001 (filed May 27, 1986) (registration for "Rated R").

^{149.} U.S. Trademark No. 78142196 (filed July 9, 2002).

^{150.} U.S. Trademark No. 75698839 (filed May 6, 1999).

^{151.} U.S. Trademark No. 71676920 (filed Nov. 18, 1954).

^{152.} Reuters, *CD creator burns copy-protection efforts* (Jan. 17, 2002), *archived at* http://www.webcitation.org/5SwJgYC4t (reporting that Philips, the trademark holder of the CD-DA logo, warned the five major record labels that discs with digital rights management such as Copy Control did not meet the red book CD-DA protocol and would not be allowed to use the CD-DA logo).

^{153.} DVD Format/Logo Licensing Corp., *How To Obtain DVD Format/Logo License* (2005-2009), *archived at* http://www.webcitation.org/5VPmvUeDu (last visited Apr. 13, 2007) (noting that prior to providing a license to use any of the registered DVD logos, the licensing corporation must verify that the products conform to the DVD specification).

^{154.} Comprehensive Smoking Education Act, Pub. L. No. 98-474, § 4 98 Stat. 2200 (1984).

^{155.} See, e.g., 15 U.S.C. § 1111 (2007) (providing protection for registered trademark goods that display the ® logo).

D. Additional Benefits

Due to the manner in which the disclosure system is structured, the system yields further side benefits.

1. Legal notice of Post-Transaction Contract Terms

First, the system allows more efficient legal notice of the existence of post-transaction contract terms. Courts widely uphold license contracts with post-transaction terms.156 Many courts, however, require notice of the existence of those terms before the transaction.157 This leads manufacturers and distributors to provide pre-transaction notice that "terms and conditions apply" on download pages. The recommended logo system provides that notice more effectively.

Many software programs and other downloadable materials contain software code that prevents use until the consumer agrees to post-transaction contract terms. This is frequently accomplished through an "I Agree" button presented during the installation process. The DMCA protects this "access control," so it is therefore a form of DRM as defined in Part I of this paper.158 As such, this system provides a logo for all downloadable materials that require acceptance of contract terms before use. Because the logo indicates that the consumer must agree to contract terms prior to use, it may function as legally sustainable notice of the existence of post-transaction contract terms.

2. Disclosure of Contract Terms

Second, the logo system provides an opportunity for manufacturers and distributors to disclose the entirety of any contract terms in advance of the sale. Because the relevant logo indicates the presence of additional contract terms, and because the "mouse-over" box provides an avenue for a succinct, user-friendly disclosure of the specific

^{156.} See Meridian Project Sys., Inc. v. Hardin Const. Co., 426 F.Supp.2d 1101, 1106-07 (E.D. Cal. 2006) (discussing holdings from multiple courts on the matter of post-transaction terms in rolling contracts); see also Gomulkiewicz, supra note 38, at 688 ("Courts, by and large, have enforced EULAs, provided the software publisher gives the user a reasonable opportunity to review and the user makes a meaningful manifestation of assent").

^{157.} Nicholas F. Aldrich, Jr., *Unplugged: The Music Industry's Approach to Rolling Contracts on Music CDs*, 6 Chi-Kent J. Intell. Prop. 280, 287 (2007) (noting the requirement for either actual notice or constructive notice in rolling contracts such as shrink-wrap licenses). *See also* Gomulkiewicz, *supra* note 38, at 688 ("Courts, by and large, have enforced EULAs, provided the software publisher gives the user a reasonable opportunity to review and the user makes a meaningful manifestation of assent").

^{158.} *See supra* Part I.

implementation of the DRM necessitating that logo, manufacturers and distributors could put a link in the "mouse-over" box to direct consumers to the complete contract terms.

There are several advantages to providing the full contract terms to consumers before a transaction.159 Many of those advantages were discussed in the first portion of this paper.160 The advantages of providing notice of technological limitations also pertain to providing notice of contractual limitations. Additionally, not all states enforce contracts wherein the terms are provided to consumers after consummating the transaction.161 An example of the use of logos to provide complete contract terms can be found in the Figure below.



One concern with providing a direct link to a contract provision is that companies may argue that the mere notice of where one can find the contract online may act as consumer acknowledgement and acceptance of the contract. This argument has merit. If the objective of the logo system is to provide a system so likely to be acknowledged that it absolves manufacturers and distributors of liability, then it should follow that anything linked to the logos may be obvious enough to provide an inference of customer acknowledgement and assent. It is possible,

holding that shrink-wrap licenses were invalid).

^{159.} Gomulkiewicz, *supra* note 38 at 694-96 (discussing benefits to both users and businesses of making licenses "user-friendly").

^{160.} See supra Part III.A.

^{161.} See, e.g., Arizona Retail Sys., Inc. v. Software Link, Inc., 831 F. Supp. 759, 766 (D. Ariz. 1993) (finding that the offer to purchase software came from the buyer, and that the acceptance came from the seller upon commitment to ship the software). The license agreement was, therefore, a proposal to modify the agreement and required the buyer's assent. Novell, Inc. v. Network Trade Ctr., Inc., 25 F. Supp. 2d 1218, 1230 (D. Utah 1997) (noting the ruling in Zeidenberg but

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therefore, that a distributor would put the logo associated with the license provisions on their webpage but then not use a DRM scheme that requires acceptance of the contract. They might then argue that the consumer consented to the contract terms when she acknowledged the logo with the website attached to it when she purchased the goods.

This approach is anathema to the objectives of the disclosure system. One of the license provisions related to this system should require that the logo only be used where such DRM is present. Further, the system should only be used where consumers have a meaningful opportunity to assent to the contract terms. The license could then clarify that inferred consent to contract terms merely by noticing the logos on the purchase page is not a meaningful opportunity to consent.

3. Aiding a Stratified Pricing Model

A third benefit of industry-wide adoption of this system is that it can help steer the industry toward stratified pricing of goods. The current pricing system in industries such as music and videos generally has a single price point. The result is that any consumers unwilling to pay the fixed price set by industry distributors supposedly will not receive the goods. More likely, however, such consumers will use alternative methods to receive the goods – read: piracy or other means that provide no revenue to copyright holders.

Ultimately, the music market and the video market, as two examples, would be best served to seek a model that provides similar goods at various price points.162 This way, the market can supply goods to all of the interested customers, a version of the goods will be available at prices that all consumers are interested in paying. This is already happening to some degree in the music industry, where multiple copies of albums are released at different price points with or without bonus material or limited rights.163 This has been successful for the music industry, and executives have agreed that continued stratified pricing

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^{162.} Telephone Interview with Cary Sherman, President of the R.I.A.A., in Seattle, Wash. (Nov. 7, 2006) (commenting on the benefits of a stratified pricing model in music distribution).

^{163.} Many albums are available in different forms at different price points. For example, the Grammy Album of the Year for 2006, U2's "How to Dismantle an Atomic Bomb" was available in at least five versions at five prices, not including import versions by alternate record labels. *See, e.g.*, U2, HOW TO DISMANTLE AN ATOMIC BOMB (Interscope Records 2004) (regular version at \$13.98; deluxe version at \$22.99; the collector's edition has since been discontinued; iTunes version with FairPlay DRM available at \$9.99; and individual songs available on iTunes for \$.99 each).

will help curb the threat of piracy. 164

As creative industries shift toward online distribution, the threat of piracy increases. Goods sold online are closer in proximity to the "free" version of those goods (pirated, downloadable copies of software are mere mouse clicks away from paid downloads of software). Industries will need to continue to search for stratified pricing systems that make versions available for all users at prices they are willing to pay, negating consumers' compulsion to get pirated versions of goods.

It has frequently been argued that DRM helps provide a stratified model.165 Goods can easily be sold with a variety of restrictions on use merely by altering the DRM scheme. A movie could easily be distributed for one-day use, five-day use, indefinite use, indefinite use plus the ability to make back-up copies, etc., all for different prices. Such a structure would provide consumers with the opportunity to enter the market to purchase the movie at ranging price levels.

The biggest drawback to such a distribution structure is the puzzle of how to clearly delineate for customers what the different prices represent when multiple versions of the same software are available on a webpage at varying price points. Customers can currently buy at least three different renditions of most music albums: a traditional CD, a more expensive CD with enhanced features, or a less expensive version of the album on a download site.166 Customers can have a difficult time determining the differences between the versions available.

A graphical disclosure system such as the one recommended herein helps remedy this problem by developing an association of DRM schemes with logos. As the logos develop secondary meaning they can presumably be licensed for use to distinguish goods on a retailer's website. For example, a retailer could offer three versions of a song for sale with this delineation on their webpage:

^{164.} *See* Sherman, *supra* note 162 (noting that providing the product at various price points makes the product more available to a wide number of potential consumers, reducing the temptation or perceived need to obtain the product through illegitimate means).

^{165.} See Adler, supra note 4; Kruger, supra note 4.

^{166.} See, e.g., HOW TO DISMANTLE AN ATOMIC BOMB, supra note 163 and accompanying text.



V. Conclusion

In conclusion, manufacturers and distributors have many incentives to use a comprehensive, user-friendly system for disclosing to consumers the DRM on their download products. Such a system would provide economic and legal benefits as well as improved customer service. I recommend a logo-based system as the most efficient means of providing comprehensive and easily understandable notice. Further, the recommended logo-based system provides additional advantages as the logos gain secondary meaning in the marketplace. Finally, the system presented herein is easy and inexpensive to implement. The alternatives—possible legislation on the matter of DRM, possible lawsuits, loss of consumer goodwill or simple loss of revenue—would all be significantly more costly.