

DRM: THE GOOD, THE BAD, AND THE UGLY

*Colleges, Code and Copyright: The Impact of Digital Networks and Technological Controls on Copyright:
Publications in Librarianship no. 56
American Library Association*

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Presented June 10-11, 2004

Symposium sponsored by the Center for Intellectual Property in the Digital Environment,
University of Maryland University College, Adelphi, Maryland, U.S.A.

Abstract

Digital rights management technology (or “DRM”) is neither good nor evil, yet its uses can range from laudable to criminal. DRM can be used for lawful purposes, such as to protect copyrights from infringement and to encourage wider dissemination of works. Some positive uses can cause unintended injury that may be minimized by regulation. Other uses may serve no lawful purpose, but instead enforce unlawful agreements in restraint of trade or evade statutory limits upon the copyright. Using established “analog case law,” this paper offers a roadmap for discerning among uses of DRM that should be encouraged as “good”, uses that may be “bad” but tolerable if properly managed, and uses that are so “ugly” they should be prohibited and punished.

“DRM” has moved beyond mere acronym to become one of the newest words in the English language. Although it originally stood for “digital rights management,” current uses reveal that it often has little to do with the management of any rights at all. Rather, it is generally employed gain control over uses of a copyrighted work regardless whether the copyright owner has any “right” to do so and regardless whether the statutory rights of others are trampled.

It is not the DRM itself that is good, bad or ugly, but the uses to which it is placed. By analogy, a gate can be used for the “good” purpose of keeping out persons not entitled to enter the land, it can be “bad” when its use to protect the property from trespassers has the unintended consequence of preventing friends or emergency vehicles from entering, and the

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same gate can be downright ugly when used by private parties, acting without authorization, to charge the public a toll to enter public lands.

This paper suggests that good DRM should be encouraged and refined, bad DRM should be examined using traditional antitrust principles under a “rule of reason” analysis to determine whether harms are outweighed by the benefits, and all ugly DRM should be condemned and prosecuted as vigorously as is copyright infringement. There is excellent legal precedent for this approach. One of the most amazing features of the digital revolution is that prosecutors and regulatory agencies have failed to see how easily the legal principles developed in the analog world can be made to apply in the digital age. Copyright holders have been trying for nearly a century to gain control over downstream uses of their works for reasons ranging from added protection against copyright infringement to bold efforts to engage in illegal price-fixing and monopolistic behavior. The law has changed little. This paper will dust off the “analog case law” and apply it anew to the world of DRM, leaving a road-map for discerning between uses of DRM that should be encouraged, monitored or prosecuted.

Section I outlines the basic copyright and competition principles upon which this analysis is based. Section II reviews the relevant changes brought about by the Digital Millennium Copyright Act, and examines whether Congress really intended to enable copyright owners to employ access control technologies to protect business models and eliminate competition rather than to protect copyrights from infringement. It suggests a more conservative interpretation of the DMCA, consistent with basic copyright and competition principles. Section III distinguishes between “good,” “bad” and “ugly” uses of DRM. It argues that “good” uses of DRM are those that operate within the principles. “Bad” uses of DRM are those that may not necessarily respect the limits of the copyright or other rules of law, yet further important public policy objectives. The discussion will suggest a proper framework under which to analyze DRM restraints that may be tolerated under certain circumstances because of their overall value. Finally, “ugly” uses of DRM, which is to say, uses which have no redeeming social value, are identified. The paper argues that they should be treated as illegal *per se* because they expand the scope of copyright and restrain lawful trade with no countervailing public benefits.

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I. BACK TO THE BASICS OF COPYRIGHT AND COMPETITION LAW

Members of the self-described “Copyright Industry Organizations,”¹ which are trade associations representing the major record companies, motion picture studios, and software publishers, among others, claim the general right to control “use” of their works.² The truth is, however, that the rights granted by the United States Copyright Act, like the copyright laws of all other countries, are limited to certain specified rights, and certainly do not extend to all uses. These limitations are of crucial importance to an understanding of how DRM can be used for good or abused for evil. The important role of these limitations must also come to be understood by the courts and law enforcement agencies, so that they may be equipped to apply them, together with antitrust laws, to prevent abuses of technological means of expanding the scope of the copyright owners’ control over their works beyond the limits of copyright laws.

¹ See, e.g., Joint Reply Comments of Copyright Industry Organizations Report to Congress Pursuant to Section 104 of the Digital Millennium Copyright Act, dated September 5, 2000, submitted by the American Film Marketing Association, the Association of American Publishers, the Business Software Alliance, the Interactive Digital Software Association, the Motion Picture Association of America, the National Music Publishers’ Association and the Recording Industry Association of America.

² The Business Software Alliance (“BSA”), for example, urges consumers to ignore the rules of law and adopt instead the rules of an end-user license agreement: “When you purchase software . . . you are purchasing the right to use the software under certain restrictions imposed by the copyright owner, typically the software publisher. The precise rules are described in the documentation accompanying the software -- the license.” <http://www.bsa.org/usa/antipiracy/Why-a-License-Matters.cfm> (accessed May 9, 2004). BSA member Adobe Systems, Inc., similarly attempts to “educate” the public on the extra-copyright notion that purchasing computer software does not entitle the owner to any of the rights set forth in the Copyright Act. “Unlike other things you purchase, the software applications and fonts you buy don't belong to you. Instead, you become a licensed user.” <http://www.adobe.com/aboutadobe/antipiracy/piracy.html> (accessed May 12, 2003). As will be explained below, the Copyright Act contains no exclusive “right to use” that can be licensed, and myriad uses are beyond the reach of the copyright.

To understand these limitations, it is important to keep in mind the purpose of copyright protection. Many believe, incorrectly, that the principal purpose of copyright law is to generate private profits which will drive trade. For example, the United States Federal Reserve Board Chairman, Alan Greenspan, appeared to share this erroneous view when he remarked:

If our objective is to maximize economic growth, are we striking the right balance in our protection of intellectual property rights? Are the protections sufficiently broad to encourage innovation but not so broad as to shut down follow-on innovation?³

Fortunately, Mr. Greenspan is not responsible for intellectual property policy in the United States, for his premise is entirely wrong. The objective of copyright law is not, and never has been, to “maximize economic growth.” Were that the case, copyright law might content itself with maximizing profits for copyright holders without any regard for the non-economic public welfare. Under Mr. Greenspan’s approach, actions by copyright owners that maximize economic growth by limiting access to copyrighted works to an elite segment of the population would be encouraged. But under the United States Constitution, the only purpose for empowering the legislature to enact copyright laws is “to promote the progress of science and the useful arts.”⁴ Economic growth is never an end in itself. If of any interest at all, economic benefits are only a means to the end of encouraging the creation and dissemination of more and better works of authorship for the public good.

Although the Copyright Industry Organizations represent a substantial segment of commerce, this was not the case when copyright policy was first established. It was, perhaps, easy to understand the public purposes of copyright law when they were served by creating rights for individual authors, as opposed to multinational conglomerates. In modern times, the wealth created by major corporations through the accumulation of numerous works of numerous authors, and the resulting control over various channels for dissemination of those works, makes it easy to believe that copyrights exist to maximize economic growth of major corporations. The Motion Picture Association of America (MPAA), for example, routinely prefaces its requests for new legislative concessions with reminders of the very positive balance of trade generated by Hollywood (and virtually no mention of whether these films promote science and the useful arts, and much less whether the MPAA’s member companies facilitate access to film markets by new independent authors).⁵

This distinction between the true purpose of copyright laws – promotion of science and art – and the purpose suggested by the major copyright holding companies must be underscored anew in this digital age. Up until very recently, copyright owners could rely

³ Remarks by Chairman Alan Greenspan, *Market Economics and Rule of Law*, at the 2003 Financial Markets Conference of the Federal Reserve Bank of Atlanta, Sea Island, Georgia (via satellite), April 4, 2003, available at <http://www.federalreserve.gov/boarddocs/speeches/2003/20030404/default.htm>.

⁴ United States Constitution, Article 1, Section 8. The right to exploit a work is never granted just for the sake of economic growth.

⁵ See, e.g., April 22, 2002 press release by the MPAA, *Study Shows Copyright Industries as Largest Contributor to the U.S. Economy*, available at http://www.mpaa.org/copyright/2002_04_22.htm (last visited May 12, 2003).

upon and enforce the rights granted to them by copyright law, but had very few means of controlling non-infringing uses – uses of their works that are beyond the reach of the specific exclusive rights granted under copyright law. Today, however, it is not only possible, but increasingly likely, that copyright owners will use technological devices – such as DRM technology – to gain control not only over illegal but also over lawful, non-infringing uses of their works in hopes of thereby gaining greater revenues from them. Were the purpose of copyright law solely to stimulate economic growth, perhaps such technological devices would be of no great concern. We could assume that no copyright owner would bother to use DRM for any purpose other than to stimulate at least its own economic growth or protect its own perceived economic interests. But because restrictive DRM that prevents, controls or otherwise limits non-infringing uses directly undermines the purpose of copyright law (even if the stock market responds favorably and the copyright holder profits thereby), it is in the public interest to ensure that use of such DRM not be allowed to forever expand the scope of the copyright holders’ power to limit the progress of science and the useful arts. Copyright holders must be prohibited from employing DRM that is “anti-copyright” unless they can establish that the use has pro-copyright benefits that outweigh the harms.

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With this proper perspective in mind, we can turn to an examination of the historic limits upon the exclusive rights of the copyright owner.

A. Limitations by Exclusion

One type of limitation upon the copyright grant is the limitation upon exclusive rights by virtue for what is excluded from the grant. As the United States Supreme Court once declared, the Copyright Act “has never accorded the copyright owner complete control over all possible uses of his work,” but has instead limited the holder to the enumerated statutory rights.⁶ The Supreme Court had explained previously:

The Copyright Act does not give a copyright holder control over all uses of his copyrighted work. Instead, [Section 106] of the Act enumerates several ‘rights’ that are made ‘exclusive’ to the holder of the copyright. If a person, without authorization from the copyright holder, puts a copyrighted work to a use within the scope of one of these ‘exclusive rights,’ he infringes the copyright. If he puts the work to a use not enumerated in [Section 106], he does not infringe.⁷

⁶ *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 432 (1989). These rights are enumerated in Section 106 of the United States Copyright Act.

⁷ *Fortnightly Corp. v. United Artists Television, Inc.*, 392 U.S. 390, 393-95 (1968) (footnotes omitted, emphasis

Two of these limitations by exclusion warrant special attention because of their importance in preserving the role of antitrust and competition law in furthering the copyright law's parallel interest of ensuring the widest possible dissemination of creative works to the public.

1. Limited performance right

There is no exclusive right to perform a work, but only an exclusive right to perform a work “publicly”. This is true under the laws of the United States,⁸ and it is the international norm. The applicable international treaties limit the obligation of signatory parties to that of protecting a right to perform works publicly – never privately.⁹

Until very recently, little attention was given to this limitation because copyright holders generally lacked the capacity to monitor or control private performances of their works. And, because of this lack of attention, there is little public awareness of the fact that copyright owners simply do not have any exclusive right to perform their works privately, and therefore have absolutely no right to monitor or limit the number of times their works are performed privately, to know the location of those private performances, or to learn the identities of any persons before whom those private performances are made.

But many major copyright holders have begun to use modern DRM technology to infringe upon the public's nonexclusive right to perform works privately. They use DRM technology to gain control over private performances where no legal right exists to do so. As will be discussed below, such uses of DRM technology serve to enlarge the scope of the copyright monopoly beyond the limits established by law, and carry with them substantial antitrust implications.

2. Limited distribution right

There is no general right to “distribute” a work. Rather, the right is limited to the distribution of “copies and phonorecords” in which a work is fixed.¹⁰ Copies and phonorecords are defined in section 101 of the United States Copyright Act to be “material objects” in which the copyrighted works are fixed. Thus, although the industry often uses the term “distribution” to include the licensing of broadcast or other public performance rights, the distribution right is limited to the distribution of the physical media upon which the works are reproduced. The physical property rights in such copies or phonorecords are distinct from the intellectual property rights in the works embodied in them. “Ownership of a copyright, or of any of the exclusive rights under a copyright, is distinct from ownership of any material object in which the work is embodied.”¹¹

added).

⁸ See section 106(4) of the United States Copyright Act.

⁹ See, e.g., Article 11 of the Berne Convention; Article 14.1 of the Agreement on Trade-Related Aspects of Intellectual Property; Article 8 of the World Intellectual Property Organization (“WIPO”) Copyright Treaty; Article 6 of the WIPO Performances and Phonograms Treaty.

¹⁰ Section 106(3) of the United States Copyright Act grants the right – subject to the right of the owner of a lawfully made copy to redistribute it – “to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending.”

¹¹ 17 U.S.C. § 202.

By limiting the right of distribution to physical objects, the Copyright Act avoids any broad grant of a right to “disseminate” a work. The popular press (and sometimes even members of Congress) refers to peer-to-peer “distribution” when what they really mean is peer-to-peer reproduction. The person downloading a work is making a reproduction, whereas the person from whom the download is made – the so-called “uploader” – may be passive or, at most, contributing to the reproduction by actively offering the file for reproduction. There is no right, under the Copyright Act, to prohibit someone from negligently – or ignorantly – leaving their computer accessible to others. Rather, rights holders must look to specific rights, such as the right of distribution, public performance, reproduction, and so on, to determine the scope of their respective monopolies.

Regardless of the specific contours of any given right under the copyright, it nevertheless remains clear that there is no general right to control all forms of dissemination. Furthermore, some forms of dissemination may implicate rights owned by different rights holders. The owner of the right to perform a work publicly, for example, may be a different entity than the owner of the right to distribute copies or phonorecords in which the work is embodied. And some rights pertaining to dissemination may not be exclusive at all. The right of the owner to convey a copy or phonorecord by private gift or lending, for example, trumps the distribution right of the copyright owner. But suppose a copyright holder grants a license to reproduce the work only to prospective licensees who first agree to waive their right to re-distribute the licensed reproductions? Antitrust law principles come into play when one discrete exclusive right under copyright is used to leverage control over, or to suppress, transactions in which a work may be disseminated without implicating the exclusive rights of the copyright holder.

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Finally, the distribution right may be exhausted. At the beginning of the twentieth century, the United States Supreme Court determined that the distribution right of the copyright holder did not extend so far as to empower the copyright holder to place restrictions upon the terms and conditions of resale.¹² Following this decision, the United States Congress specifically provided for the exhaustion of the right of distribution following the first sale of the copy.¹³ This came to be known as the “first sale doctrine,” a term that continues in use today even though the law has changed to entitle the owner of a copy or

¹² See *Bobbs-Merrill Co. v. Straus*, 210 U.S. 339 (1908) (if copyright holders leverage their exclusive rights into control of future sales, it would give them a right not included in the copyright, and in effect expand the operation and construction of the Copyright Act beyond its meaning).

¹³ The rights of owners of lawfully made copies (part of the first sale doctrine) are discussed in greater detail below, on page 9.

phonorecord to dispose of it without the consent of the copyright holder regardless whether the copy was ever sold by the copyright holder.

The exclusive right of distribution is not limited by the “sale” of the copy or phonorecord (although the judicially-created limitation may still stand independent of the statutory limitation), but is limited by the countervailing entitlement (established in section 109(a) of the United States Copyright Act) of the owner of a lawfully made copy “to sell or otherwise dispose of the possession of that copy or phonorecord” without the consent of the copyright holder. For example, a copy lawfully made in a retail store or a private home by downloading it from the Internet under license from the copyright owner may be sold or rented without the copyright owner’s permission.

Regardless whether this limitation on the exclusive right of distribution arises from copyright law (because of the general inapplicability of the right of distribution to copies or phonorecords owned by others) or from antitrust law, the common principle underlying such public policy is that it is a bad idea to allow copyright holders to control the distribution of copies that they no longer own. Nearly one hundred years ago, the committee of the United States Congress that recommended codification of the judicially created first sale doctrine stated that “it would be most unwise to permit the copyright proprietor to exercise any control whatever over the article which is the subject of copyright after said proprietor has made the first sale.”¹⁴ This limitation is of greatest importance today with respect to the rental right, and will be of crucial importance in the future with respect to uses of access control technologies that are in conflict with antitrust law.

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In short, copyrights are like a wedge of cheese sliced from a wheel: Exclusive rights to the cheese in the copyright wedge are given to encourage more cheese-making, but the cheese remaining in the wheel belongs to the public. When the government grants someone rights in a wedge of cheese taken from the public wheel, that ownership excludes any right to control the public’s use of the cheese remaining in the wheel. The public policy granting copyrights “excludes from it all that is not embraced” in the original copyrighted work, and “equally forbids the use of the copyright to secure an exclusive right or limited monopoly” beyond the scope of the Copyright Act and which is “contrary to public policy to grant.”¹⁵

¹⁴ H.R. Rep. No. 2222, 60th Cong., 2d Session (1909). The United States Congress first codified the first sale doctrine in the Copyright Act of 1909. At that time, the House Committee on Patents stated that this codification was intended “to recognize the distinction, long established, between the material object and the right to produce copies thereof.” *Id.* Cf. Section 27 of the Copyright Act of 1909 (“nothing in this title shall be deemed to forbid, prevent, or restrict the transfer of any copy of a copyrighted work the possession of which has been lawfully obtained”).

¹⁵ *Lasercomb America, Inc. v. Reynolds*, 911 F.2d 970, 977 (4th Cir. 1990) (quoting, with revisions, *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 492 (1942)) (brackets omitted).

B. Limitations by Exception

Other copyright limitations are derived from express restrictions imposed by law. These may be derived from judicial interpretation of constitutional requirements, by statutory provisions, or both.

In general, the statutory limitations upon the rights of copyright holders are contained in sections 107 through 122 of the United States Copyright Act. Although there are other statutory limitations, the ones specified in these sections expressly limit the scope of the copyright at its inception. Section 106 of the Copyright Act, from which copyrights are derived, begins by specifying that the six individual rights granted to authors are “subject to” the limitations set forth in sections 107 through 122.¹⁶ Other limitations, such as section 1008 (allowing non-commercial copying of sound recordings), do not diminish the scope of the copyright itself, but serve as a limit upon the enforcement of the right. Two of the statutory limitations most important for this analysis are summarized below:

1. *The right to make “fair use” of copyrighted works.*

Section 107 of the United States Copyright Act establishes a right to make “fair use” of copyrighted works. This limitation upon copyrights represents a codification of a limitation established by the courts, and which was in large measure required to preserve fundamental values found in the First Amendment to the United States Constitution.¹⁷ The “fair use” limitation is important not only for education, news reporting, and similar uses expressly noted in section 107, but also serves an important function in preserving competition. For example, one may make fair use of copyrighted works for purposes of comparative advertising¹⁸ and for the purpose of directing consumers to the copyrighted work.¹⁹ The right of fair use in United States law is consistent with international norms.²⁰

2. *The rights of owners of lawfully made copies.*

Section 109(a) is often referred to as the “first sale doctrine,” reflecting its roots in an early United States Supreme Court case which concluded that one “who has sold a copyrighted article, without restriction, has parted with all right to control the sale of it. The

¹⁶ The six limited rights are (1) to reproduce the copyrighted work in copies or phonorecords; (2) to prepare derivative works based upon the copyrighted work; (3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease or lending; (4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly; (5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly; and (6) in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.

¹⁷ *Eldred v. Ashcroft*, No. 01-618, slip op. at 29, 537 U.S. 186, ___, (Jan. 15, 2003) (“copyright law contains built-in First Amendment accommodations”).

¹⁸ *Triangle Publications, Inc. v. Knight-Ridder Newspapers, Inc.*, 626 F.2d 1171 (5th Cir. 1980) (fair use right to show competitor’s magazine cover to make comparison).

¹⁹ *Ty, Inc. v. Publications Int’l Ltd.*, 292 F.3d 512 (7th Cir. 2002).

²⁰ *Cf.* Berne Convention for the Protection of Literary and Artistic Works, Articles 10, 10*bis*, and 13; Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), Article 13; WIPO Copyright Treaty, Articles 6 and 10; WIPO Performances and Phonograms Treaty, Articles 8(2), 12(2) and 16.

purchaser of a book, once sold by authority of the owner of the copyright, may sell it again, although he could not publish a new edition of it.”²¹ With minor exceptions, this provision prevents the copyright owner from exercising any rental right over copies owned by others.²² Without exception, it also prevents the copyright owner from exercising any control over re-selling, whether new or used.

The first sale doctrine is crucial for preserving markets for second-hand copies and phonorecords, which further the copyright objective of increasing dissemination by making more works accessible to those who have not the will or the means to pay full price for a new copy. Our library system, gifts, informal lending, yard sales and barter (*e.g.*, something as simple as trading baseball cards) depend upon the first sale doctrine for their existence. These uses of copyrighted works – wholly unauthorized by the copyright owner but wholly authorized by law – not only serve to increase circulation to persons unable to pay full price, but also serve to reduce the price of new copies and phonorecords because they offer a price-competitive option to purchasing new. In the case of movie rentals, the downward price pressure has been astounding, even as the home video market continues to grow.

The right of owners to re-sell or rent motion pictures and other audiovisual works without the consent of the copyright owner gave rise to the worldwide video rental market, and has assured the lowest possible cost to consumers for purchases and rental of VHS and DVD copies of motion pictures. In most other countries, there is no first sale doctrine, as such.²³ Had it not been for the United States first sale doctrine, the home video market would most likely have evolved into a niche market similar to the old laser discs, targeted at consumers with high disposable income who could afford to pay over \$50 per copy of a videocassette movie. Instead, the United States home video market grew into a market representing 62% of film revenues, while at the same time, the cost of buying a movie has dropped to less than half of the original price, and access to watching a movie by rental has plummeted to an average of around \$3.²⁴

This phenomenal growth and excellent consumer value was sparked when in December 1972, George Atkinson bought one VHS and one Betamax copy each of 50 movie titles released by Fox – movies that had already been licensed for television broadcast – and offered to rent them for \$10 per day to anyone who would pay a \$50 annual

²¹ *Bobbs-Merrill Co. v. Straus*, 210 U.S. 339 (1908). The copyright owner was attempting to enforce a minimum resale price for its books on the basis of a purported agreement. Having determined that the copyright owner had no right to control the retail sales of books it had already sold at wholesale, the Court concluded that it was not necessary to consider whether such minimum resale price agreement also violated antitrust law.

²² Section 109(a) states: “Notwithstanding the provisions of [the exclusive right of distribution contained in] section 106(3), the owner of a particular copy or phonorecord lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy or phonorecord.” There are exceptions prohibiting rental of sound recordings and certain computer programs without the consent of the copyright owner, but no exceptions for motion pictures or other audiovisual works, books or writings, images, or most popular console video game software.

²³ There is an “exhaustion” principle that may limit the distribution right, but a separate “rental right” nevertheless allows copyright owners – as the rule rather than the exception – to control whether a copy or phonorecord can be rented. In Japan, this rental right is limited by an obligation to not unreasonably withhold consent to rental, such that Japan is the one country in which CD rental is commonplace because the record companies can delay but not prohibit it.

²⁴ Data from the Video Software Dealers Association.

membership fee. Today, very few video stores require membership fees, and movies are available for as little as 99 cents.²⁵

The growth of the home video industry was not due solely to the technology that enabled it, or to ingenuity of people like George Atkinson, who saw the potential of the consumer rental model where Hollywood did not. Both the technology and the entrepreneurial vision could have failed if the copyright owners had been given the power to suppress them. It is paradoxical yet true that the financial success of the home video market in generating the majority of Hollywood's revenue is due to lack of control by the studios that hold the copyrights.²⁶ More important than the substantial profits that have been generated is the fact that they are simply the byproduct of a more important result. Lack of copyright holder control over redistribution of copies has led to much wider dissemination of creative works to the general public without harming copyright holders in the least.

It is hard to imagine what the automobile market, for example, might look like if no one could sell or rent a used car without the car manufacturer's permission. There would be no rental or used car market to create price competition for new models, consumers would be reluctant to buy cars since they would have no resale value, and likely fewer people would be driving. As much as new car retailers may despise the used car market, it has likely been of great benefit to the new car market by reducing the overall cost of owning a new vehicle. On a smaller transactional scale, the same can be said for copies of copyrighted works. The freedom to sell used copies adds value to the original purchase. Even the freedom to give the copy away likely has some less tangible value that makes the consumer more willing to pay for it. And, just as there are millions of people who cannot afford new cars but can drive if given access to a used car market, there are millions of consumers who cannot afford the price of a new DVD movie but can provide an evening of home entertainment with the inexpensive rental of a "previously viewed" movie.

If automobile manufacturers were allowed to add technological controls to their vehicles that eliminated the resale market, or if, in addition to the sales price, they were given the right to charge for extended driving every 10,000 miles, some argue that the manufacturers would have an incentive to build and market more cars because the greater

²⁵ See Richard Roehl and Hal R. Varian, *Circulating Libraries and Video Rental Stores*, FIRST MONDAY, volume 6, number 5 (May 2001) (http://www.firstmonday.dk/issues/issue6_5/roehl/). "The first company to sell pre-recorded videos was Andre Blay's Video Club of America." "While Blay explored the video sale market, the first individual to see the possibilities for a video rental market was George Atkinson who ran a 'Mickey Mouse little business' in Los Angeles called Home Theater Systems." "Atkinson encountered many skeptics. Most studio executives thought that American audiences preferred to buy rather than rent. At the time, video machines were a luxury only affordable by the wealthy who could easily afford to buy videos at the approximately \$50 price that was then charged. Since the video machine was widely expected to remain a luxury item, most Hollywood executives did not anticipate the emergence of a mass rental market. Atkinson's great insight was that video machines would continue to decline in price and become a mass market item with middle class users preferring to rent a video at \$3 rather than buying one for \$50."

²⁶ Hollywood feared this lack of control presented by home video recorders. Jack Valenti, President of the Motion Picture Association of America, likened it to being stalked by a serial killer known as "the Boston Strangler." He testified before the United States Congress: "I say to you that the VCR is to the American film producer and the American public as the Boston Strangler is to a woman alone." Testimony before the Subcommittee on Courts, Civil Liberties, and the Administration of Justice of the Committee on the Judiciary, House of Representatives, Ninety-seventh Congress, Hearing on Home Recording of Copyrighted Works, April 12, 1982.

controls would lead to higher profits. Though it is conceivable that manufacturers with such power over the post-sale use of their vehicles might be able to generate higher revenues from each sale, it is doubtless that substantially fewer people could afford to drive. So it is with works of authorship. If their manufacturers can profitably use DRM to prevent them from being redistributed, or to charge for extended playing, doubtless many fewer people would be able to enjoy the fruits of copyright law's incentives. It is for this reason that substantial attention will be given in this paper to DRM that interferes with the normal incidents of ownership of physical property, which are also protected by the Copyright Act.

C. Limitation by complementary law

Once the precise scope of the copyright is determined, first by examining the grant, and then by examining the limitations to which the grant is subject, other limitations required by complementary laws come into play. Two such limitations stand out: (1) Freedom of expression guaranteed by the First Amendment and (2) antitrust limitations.

1. First Amendment limitations

The First Amendment to the United States Constitution provides that "Congress shall make no law . . . abridging the freedom of speech, or of the press." Although this prohibition is presented in absolute terms, the Constitution itself also authorizes Congress to enact copyright laws. Article I, Section 6 states that Congress shall have the power "To promote the Progress of Science and Useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective writings and discoveries." The courts have, therefore, been called upon to determine the proper balance between Congress' power to grant exclusive rights for authors and the prohibition against Congress restricting freedom of speech, because every prohibition of copyright infringement abridges freedom of speech.

The normative approach to resolving this conflict is to consider the First Amendment interests in the context of a "fair use" analysis.²⁷ Although the results of such an approach may not always be sound, the structure itself, when properly applied, tends to accommodate both interests. But the unrestrained expansion of copyright owner power over freedom of expression outside the bounds of copyright certainly could violate the First Amendment if it were enforced by the courts. Use of DRM technology to evade First Amendment limitations upon copyrights, or to restrain freedom of speech not involving copyright infringement, should find no shelter in the law.²⁸

2. Competition law limitations

The United States Congress also has power to regulate commerce, and hence the power to establish anti-monopoly laws and other antitrust and fair competition laws.²⁹ Much

²⁷ *Eldred v. Ashcroft*, 537 U.S. 186 (2003) (copyright law safeguards freedom of speech by protecting expression, not ideas, and by accommodating fair use of copyrighted works).

²⁸ See, e.g., *Shelley v. Kraemer*, 334 U.S. 1 (1948) (private racially restrictive real estate covenant was not illegal, but it was nevertheless unenforceable in court).

²⁹ The United States Department of Justice and the Federal Trade Commission have overlapping authority to enforce many of the antitrust laws. The Federal Trade Commission has specific authority over unfair trade practices that might not be prohibited by general antitrust law. Private parties may enforce most antitrust laws when they suffer antitrust injury. In addition to federal antitrust law and prohibition of unfair trade practices,

has been written concerning the interplay between antitrust law prohibiting monopolies and unreasonable restraints of trade, on the one hand, and intellectual property law that confers legal monopolies, on the other,³⁰ but one thing is clear: No matter how lawful a statutory copyright monopoly may be, “A copyright owner may not enforce its copyright to violate the antitrust laws or indeed use it in any ‘manner violative of the public policy embodied in the grant of a copyright.’”³¹

In short, when a copyright owner attempts to leverage the copyright into control over matters outside the individual copyright – whether over other copyrighted works, over non-infringing uses of the copyrighted work, or over markets beyond copyright – the law steps in to condemn it.³²

To further refine our cheese analogy, copyrights are like wedges of Swiss cheese. The holes are intentional. Only the cheese in the wedge belongs exclusively to the copyright owner. The remaining cheese and the holes in the wedge of cheese are shared with the public as nonexclusive rights belonging to all.

The space devoted to these introductory basics may appear excessive, and doubtless for many readers it is, but in the course of “doing things the way we always have,” even copyright experts have a tendency to forget the basics. Until only recently, copyright owners and their legal representatives tended to approach copyrights as extending to everything they could control, without limitation, because they generally had no reasonable expectation of preventing non-infringing uses. Private performances could neither be prevented nor discovered. Redistribution of copies and phonorecords was largely uncontrollable. Freedom to perform works on the media player of choice could not be restricted – it was up to the consumer whether to play a record on a homemade phonograph or a high end commercial device, and manufacturers of television receivers needed no permission from copyright owners. Thus, it was perhaps logical that copyright owners saw their rights as coextensive with what was reasonably within their ability to police and control.

each individual state has the authority to enact antitrust and unfair competition laws regulating commerce within their own jurisdictions. This is in contrast to copyright law, which is purely federal and preempts any state regulation over the copyright subject matter.

³⁰ The United States Department of Justice and Federal Trade Commission held a series of hearings on this very issue, seeking input from a great number of experts in the area. See <http://www.ftc.gov/opp/intellect/>. It is unfortunate that these hearings focused primarily upon patent law, because there are so many ventures with a more immediate impact upon consumers and the public interest that involve copyrights as opposed to patents. One of the few copyright-related submissions was made by this author on behalf of a trade association of motion picture video retailers based in the United States. See John Mitchell, *Retailers of Intellectual Property: The Competitive Voice of Consumers*, statement on behalf of Video Software Dealers Association, Public Hearings on Intellectual Property Law and Policy in the Knowledge-Based Economy before the Federal Trade Commission and the Antitrust Division, United States Department of Justice, July 2002 (available at <http://www.ftc.gov/os/comments/intelpropertycomments/0207mitchell.pdf>).

³¹ *Tricom, Inc. v. Electronic Data Systems Corp.*, 902 F. Supp. 741, 745 (E.D. Mich. 1995) (quoting *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970, 978 (4th Cir. 1990)).

³² Greater consideration is given to the antitrust and other limitations upon copyright expansionism beginning at page 43, below.

DRM technology not only enables better control over conduct historically recognized as infringing, but with the same ease enables control over conduct that falls wholly outside of the reach of the copyright monopoly

The advent of digital technology has changed all of that. Today, DRM technology not only enables better control over conduct historically recognized as infringing, but with the same ease enables – for the first time in history – control over conduct that falls wholly outside of the reach of the copyright monopoly and which has been, in some instances, specifically placed off-limits to copyright owner control.

II. THE DIGITAL MILLENNIUM COPYRIGHT ACT AND DRM

The Digital Millennium Copyright Act (“DMCA”) was enacted by the United States Congress in 1998 in large part to fulfill the United States’ obligations under two recent World Intellectual Property Organization (“WIPO”) treaties – the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty. Just as innovations in digital technology made it easier to infringe copyrights, digital technology also promised to make it easier to protect copyrighted works from infringement.³³

The greatest vulnerability to copyright protection technology is the speed at which such technological protections can be circumvented. Existing copyright laws were adequate to punish those who infringed copyrights regardless whether they had to circumvent copyright protection technologies or access controls to do so. The problem is that methods and tools for circumventing such technologies can be disseminated without infringing copyrights, yet it is difficult to police the actual use of such methods or technologies for infringing purposes once the methods and tools have been disseminated. It made sense, then, to consider enacting prohibitions upon the circumvention of technological protection devices.

The aim of restricting the circumvention of technological protections was not, however, to enlarge the scope of the copyright monopoly. Every indication is that the WIPO treaty language on this subject, and the intent of the United States Congress in enacting domestic laws to comply with the treaty obligations, was to add greater protection against the infringement of existing rights in copyright – not to enlarge existing rights, nor to remove any of the numerous limitations upon those rights reviewed above. The WIPO treaties themselves only obligate parties to provide “adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by [copyright owners] in connection with the exercise of their rights . . . and that restrict acts . . . which are not authorized by the [copyright owners] concerned or permitted by law.”³⁴ Quite

³³ As we shall see below, digital technology also makes it easier for copyright holders to extend control over their works beyond the limits of their copyrights.

³⁴ Quoting from (emphasis added) WIPO Copyright Treaty, Article 11 (“Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne

simply, the WIPO treaties do not require legal protection against circumvention of technological measures that restrict acts permitted by law.

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Yet, as benign as the WIPO treaties purposes may have been, they opened an avenue for the major copyright holding industries to forever alter the copyright landscape by converting a publicly designed structure (balancing private rights against public interests) into a regime in which copyright holders can employ modern technology to create their own rights without concern for the public interest.

The impetus for this regime change came prior to the WIPO treaties. These ideas were developed among the major copyright holding companies and, with the assistance and leadership of Bruce Lehman, then Assistant Secretary of Commerce and Commissioner of Patents and Trademarks of the United States Patent and Trademark Office, these designs were eventually put forward in a “White Paper” advocating them as “minor clarifications and updates to existing law”.³⁵ In truth, however, Mr. Lehman proposed a new copyright regime in which copyright holders would continue to enjoy all of the benefits of their exclusive rights without having to abide by any of the limitations upon those rights. The rights of the public could be undermined at will by copyright owners using restrictive end-user license agreements or DRM technology.³⁶ The world envisioned by the proponents of an expansionist view of the DMCA is one in which all uses of copyrighted works, including noninfringing uses that have historically been lawful uses made as of right, would be subject to the control of the copyright holder. It might not constitute infringement, for example, to play a sound recording twice, but those who do so might be subject to civil and criminal penalties if they circumvent a DRM technology in order to play it a second time. An owner of a lawful video is entitled to rent it or re-sell it without the authority of the copyright owner, but DRM technology can convert the rental or sale of a video into the rental or sale

Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.”) and WIPO Performances and Phonograms Treaty Article 18 (“Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by performers or producers of phonograms in connection with the exercise of their rights under this Treaty and that restrict acts, in respect of their performances or phonograms, which are not authorized by the performers or the producers of phonograms concerned or permitted by law.”).

³⁵ See Pamela Samuelson, “The Copyright Grab,” *Wired*, issue 4.01, January 1996 (available at http://www.wired.com/wired/archive/4.01/white.paper_pr.html last visited May 12, 2003).

³⁶ For example, the Copyright Industry Organizations testified that the right of owners of lawfully made copies to redistribute them (under section 109 of the Copyright Act) would apply only “in the absence of licensing or technological restrictions to the contrary” imposed by the copyright owner. *Joint Reply Comments of Copyright Industry Organizations Report to Congress Pursuant to Section 104 of the Digital Millennium Copyright Act*, dated September 5, 2000, page 6 (submitted by the American Film Marketing Association, the Association of American Publishers, the Business Software Alliance, the Interactive Digital Software Association, the Motion Picture Association of America, the National Music Publishers’ Association and the Recording Industry Association of America).

of a worthless piece of plastic. That is, the Copyright Industry Organizations claim the right to use DRM technology to nullify the public rights the United States Congress conferred upon the owners of lawfully made copies.

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The international community rejected most of the recommendations in the White Paper, but some ideas survived. In particular, Article 11 of the WIPO Copyright Treaty and Article 18 of the WIPO Performances and Phonograms Treaty contained the obligation to “provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures” used by copyright owners to prevent uses not authorized by them “or permitted by law.” But by including the clause “or permitted by law,” the WIPO treaties make clear that member states have no obligation to protect a copyright holders’ use of DRM technology to exercise control over lawful, noninfringing uses of their works. On the contrary, the obligation to protect DRM from circumvention is limited to circumvention for infringing uses.³⁷ The language of the agreement on Trade-Related Aspects of Intellectual Property (TRIPS) remains in full force. There are at least three provisions in the TRIPS agreement that demonstrate the international community’s understanding that copyrights must serve the public interest and should not be abused.

The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.³⁸

Members are expected to guard against abuses:

Appropriate measures . . . may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology.³⁹

Anticompetitive practices aided by intellectual property rights are to be guarded against:

1. Members agree that some licensing practices or conditions pertaining to intellectual property rights which restrain competition may have adverse

³⁷ Cf. the *Digital Media Consumers’ Rights Act of 2003*, H.R. 107, Section 4, 108th Congress, which would bring the DMCA more in line with WIPO treaty obligations by providing that it is not a violation of the DMCA to circumvent an access-control DRM to make a non-infringing use of the work.

³⁸ Article 7 (Objectives, emphasis added).

³⁹ Article 8, paragraph 2 (Principles, emphasis added).

effects on trade and may impede the transfer and dissemination of technology.

2. Nothing in this Agreement shall prevent Members from specifying in their legislation licensing practices or conditions that may in particular cases constitute an abuse of intellectual property rights having an adverse effect on competition in the relevant market. As provided above, a Member may adopt, consistently with the other provisions of this Agreement, appropriate measures to prevent or control such practices, which may include for example exclusive grantback conditions, conditions preventing challenges to validity and coercive package licensing, in the light of the relevant laws and regulations of that Member.⁴⁰

Finally, Members are encouraged to consider means of redressing situations in which the copyright holder abridges the rights of members of the public to enjoy lawful, non-infringing uses:

The judicial authorities shall have the authority to order a party at whose request measures were taken and who has abused enforcement procedures to provide to a party wrongfully enjoined or restrained adequate compensation for the injury suffered because of such abuse. The judicial authorities shall also have the authority to order the applicant to pay the defendant expenses, which may include appropriate attorney's fees.⁴¹

So the TRIPS agreement, which continues unmodified by the two WIPO treaties, continues to contemplate that copyright laws exist to serve the public interest, that abuse of intellectual property rights must be guarded against, that competition principles must be preserved, and that it is entirely proper to compensate members of the public whose rights

⁴⁰ Article 40 (emphasis added).

⁴¹ Article 48 (Indemnification of the Defendant). In the United States, this principle has been codified in the Copyright Act and emphasized by the United States Supreme Court. Ordinarily, a successful defendant in litigation in the United States has no recourse to compensate for legal expenses in defending against a failed lawsuit. Section 505 of the Copyright Act makes an exception to this general rule, however. It states in relevant part: "In any civil action under [the United States Copyright Act], the court in its discretion may allow the recovery of full costs by or against any party . . . [and] the court may also award a reasonable attorney's fee to the prevailing party as part of the costs." In the case of *Fogerty v. Fantasy, Inc.*, 510 U.S. 517 (1994), the successful defendant had been denied an award of attorneys fees because the plaintiff had not sued in bad faith or made a frivolous claim. The lower courts had ruled that although successful plaintiffs would be awarded attorneys fees as a matter of course, successful defendants had to show that the suit was initiated in bad faith or upon frivolous grounds. Reversing, the Supreme Court declared such "one-sided" view of copyright law flawed: "Because copyright law ultimately serves the purpose of enriching the general public through access to creative works, it is peculiarly important that the boundaries of copyright law be demarcated as clearly as possible. To that end, defendants who seek to advance a variety of meritorious copyright defenses should be encouraged to litigate them to the same extent that plaintiffs are encouraged to litigate meritorious claims of infringement." *Id.* at 527. Noting that lack of control by a copyright owner may also lead to the creation of additional works, the Supreme Court added that "a successful defense of a copyright infringement action may further the policies of the Copyright Act every bit as much as a successful prosecution of an infringement claim by the holder of a copyright." *Id.*

to enjoy copyrighted works are abridged due to overreaching on the part of copyright holders.

“a successful defense of a copyright infringement action may further the policies of the Copyright Act every bit as much as a successful prosecution of an infringement claim by the holder of a copyright.”

Against this backdrop, Congress enacted the DMCA, prohibiting the circumvention of “a technological measure that effectively controls access to a work protected” by copyright.⁴² On one hand, a long line of copyright history and international treaty obligations recognizes that the private gain of copyright holders can only be justified by the public good to be derived from the creation and dissemination of new works and that the monopoly conferred by copyright is nevertheless subject to competition laws, and should not be abused. On the other hand, the DMCA was crafted in an environment created by the threat of “digital piracy,” which was recited like a mantra to justify greater copyright holder control. From that political environment, compromise was reached.⁴³ Like any legislative compromise, however, what the parties publicly agree to may not be the same as what each privately believes has been accomplished.

No doubt the United States Congress thought that, in enacting the DMCA, it was carrying out its obligations under the two new WIPO treaties to provide “adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by [copyright owners] *in connection with the exercise of their rights* . . . and that *restrict acts* . . . which are *not* authorized by the [copyright owners] concerned *or permitted by law*.” But the language of the DMCA has taken a different approach to achieving these objectives. Sections 1201(a) and 1201(b) of the United States Copyright Act omit the requirement that the use of technological measures be “in connection with the exercise of their rights,” and also omits the words “or permitted by law,” thereby leaving an open invitation to proponents of expanded copyright power to interpret this to mean that, in addition to laws protecting their copyrights from infringement, the DMCA added new *sui generis* laws protecting against the circumvention of their technological access controls even where they are designed and used with no connection to the exercise of their rights, and solely to privately expand their control over non-infringing uses of their copyrighted works that are otherwise permitted by law.

When read in light of existing treaties, the entire language of the DMCA, and the non-abrogation of existing antitrust and copyright misuse policy, Congress appears to have intended that non-infringing uses of copyrighted works continue to lie beyond the control of copyright holders.

⁴² 17 U.S.C. § 1201(a)(1)(A).

⁴³ See JESSICA LITMAN, *DIGITAL COPYRIGHT* (Prometheus Books 2001), which provides a detailed review of the enactment of the DMCA.

One key provision of the DMCA, found at Section 1201(c) of the United States Copyright Act, expressly states that none of the entire panoply of lawful uses set forth in the Copyright Act should be affected by the prohibition upon circumvention of access control technologies as set forth in the DMCA.⁴⁴ Clearly, Congress must have intended for the DMCA to further the Constitutional objectives of the Copyright Act, which include both the rights granted in Section 106 and the limitations placed upon those rights.

Unfortunately, the United States Register of Copyrights appears to agree with the expansionist view. In a report to Congress on the impact of the DMCA upon certain lawful uses, the Register of Copyrights took the position that the Copyright Industry Organizations might be free to use technological devices to thwart the will of Congress, and suggested that Congress need not care.

For example, the Register of Copyrights recognized that the result of tethering a copy to a particular device even if the copy is lawfully downloaded onto removable media is that the work “cannot be accessed on any device other than the device on which it is made. Disposition of the copy becomes a useless exercise, since the recipient will always receive nothing more than a useless piece of plastic. The only way of accessing the content on another device would be to circumvent the tethering technology, which would violate section 1201” of the DMCA.⁴⁵ Notwithstanding this, the Copyright Office went on: “Given that DRM is in its relative infancy, and the use of DRM to tether works is not widespread, it is premature to consider any legislative change to mitigate the effect of tethered works on the first sale doctrine.”⁴⁶ Later, when initiating a proceeding to determine whether certain acts of circumvention should be authorized in order to prevent impairment of lawful uses, the Copyright Office went so far as to argue that the DMCA intended to allow the copyright holders to use technological measures to prevent access to their works without regard to whether the access control was being used to prevent copyright infringement. In fact, the Copyright Office suggested that existing laws were sufficient to deal with copyright infringement, and the prohibition against circumvention of access control technologies was intended for something other than copyright protection.⁴⁷

There is, however, little support in the DMCA for the Copyright Office’s view. The legitimate purposes of the DMCA’s rules prohibiting circumvention of access control technologies were for such things as preventing access to a downloaded work until the person making the licensed reproduction over the Internet had paid for it, or in preventing persons from tapping into streaming media (that is, public performances of works) over the

⁴⁴ Section 1201(c) provides: “(1) Nothing in this section shall affect rights, remedies, limitations, or defenses to copyright infringement, including fair use” under the Copyright Act. “(4) Nothing in this section shall enlarge or diminish any rights of free speech or the press for activities using consumer electronics, telecommunications, or computing products.”

⁴⁵ DMCA Section 104 Report: A Report of the Register of Copyrights Pursuant to §104 of the Digital Millennium Copyright Act, August 2001, at page 75.

⁴⁶ *Id.* at 76. The Register did, however, agree that if the practice became widespread, “it could have serious consequences for the operation of the first sale doctrine.” *Id.* In truth, the practice was already widespread in August 2001, and very much more so today, but in the subsequent rulemaking, the Copyright Office went to great pains to narrow the focus of inquiry to avoid having to address it. *See* note 47, below.

⁴⁷ Notice of Inquiry on the Exemption to Prohibition on Circumvention of Copyright Protection for Access Control Technologies, 67 Fed Reg. 63578 (October 15, 2002).

Internet without paying. It was never intended to permit copyright holders to prevent or charge for additional private performances of works from copies they no longer owned and which had been lawfully reproduced, or to prevent the lawful transfer of legally made and legally obtained copies from one person to another. It was certainly not intended to confer any antitrust or copyright misuse immunity upon copyright holders who use DRM technology in ways that have nothing to do with copyright protection.

There is ample room for improvement in the DMCA, but the Copyright Office is not inclined to cooperate. Until Congress overcomes its apparent impotence on the matter, we must look to existing law to sort out appropriate limitations to be imposed upon DRM gone wild.

Until Congress overcomes its apparent impotence on the matter, we must look to existing law to sort out appropriate limitations to be imposed upon DRM gone wild.

It should be noted, however, that the DRM technology at issue here is not the same as “a technological measure that effectively controls access to a work protected under this [Copyright] title.” DRM technology can be much broader, and would include such things as simple copy-protection technology (*e.g.*, technology that does not control access to the work but may prevent its reproduction) and spying technology (*e.g.*, technology that allows full access but monitors and reports usage). Thus, while the DMCA’s penalties for circumvention of an access control technology may exponentially increase the harm from “bad” or “ugly” uses of DRM, all uses of DRM technology may be analyzed under the principles set forth herein regardless whether the specific DRM technology may lawfully be circumvented under the DMCA.

To put it another way, this discussion of the DMCA is for the purpose of stressing that (1) whether the technology is protected from circumvention by the DMCA is not determinative of whether the DRM use is good, bad or ugly, and (2) the fact that a particular DRM technology may be protected from circumvention by the DMCA has no bearing on whether the DRM technology may lawfully be used in a particular way. The DMCA pertains to the legality of circumvention, not the legality of any given use of DRM technology. Persuading a court to enjoin unlawful use of a particular DRM technology is certainly not the kind of “circumvention” Congress intended to prohibit!

III. USES OF DRM

The key to distinguishing between a “good,” a “bad” or an “ugly” use of DRM is to examine what the DRM is used for rather than its technical capabilities. Just as it would make little sense to say all gates are good or all gates are bad, so it is with DRM. Identical gates, and identical DRM technologies, can be used for either end. The value or harm from any given DRM cannot be judged by its architecture alone, but must be weighed against its use – its purpose and effects, both intended and unintended.

The major Copyright Industry Organizations⁴⁸ are strong defenders of all DRM as “anti-piracy” without regard to its uses, failing to acknowledge that some DRM anti-piracy uses may cause such collateral damage as to be harmful, and some may have nothing to do with copyright protection and everything to do with illegal activity. Similarly, there is a vocal anti-DRM chorus that believes “DRM is theft.”⁴⁹ While catchy, that short phrase fails to take into account that the evil of DRM is not in the DRM itself, but how it is used. As we shall see, some identical DRM technology can have applications that are very good or very evil, depending upon how the DRM technology is used.

A. Good Uses of DRM

As we begin our examination of DRM uses that are pure and positive, the characteristics of “good” uses of DRM will begin to emerge: Good uses of DRM further the objective of copyright law by either protecting the copyright from infringement or increasing dissemination of the work, and do so without enlarging the copyright or impairing non-infringing competition.

Good uses of DRM further the objective of copyright law by either protecting the copyright from infringement or increasing dissemination of the work, and do so without enlarging the copyright or impairing non-infringing competition.

Good DRM may also be unrelated to copyright, but nevertheless further some public good without also creating a public burden. To better understand what constitutes a “good” use of DRM, a few examples of applications meeting the above criteria are in order.

1. *Perfecting Authorized Reproductions*

“Downloading” copyrighted works from the Internet consists of making reproductions of the work into “copies or phonorecords” – terms defined in the Copyright Act to mean any tangible medium, including a computer hard drive, onto which copyrighted works are recorded. Consider the simplest form of downloading for a fee. A popular DRM application involves some form of encryption that will be “unlocked” only after certain conditions take place, such as payment. If I agree to pay \$1 in exchange for the right to make a reproduction (a download) of the work, I will be reluctant to pay until I am sure the download is complete and accurate. The licensor (the entity with the right to authorize me to download it) is reluctant to allow the reproduction until it can be assured that I will make the payment. The solution is for the encrypted file to be reproduced and verified for accuracy before the payment is made and confirmed, at which time the file is unlocked to

⁴⁸ Although calling it a copyright “industry” it may sound derogatory to the ears of those who hold authorship in high esteem, it is a self-imposed label chosen by the trade associations representing the “industry” side of copyright. See note 1, above.

⁴⁹ E.g., New Yorkers for Fair Use, at <http://www.nyfairuse.org/>, has prepared bumper stickers bearing that phrase. See <http://www.cafeshops.com/nyfairuse.6856448>.

allow access. In such case, the DRM serves as a “trustee” for the parties, automatically unlocking the file once a valid credit card account is given. Alternatively, the licensor may be willing to allow the person at my e-mail address to download the copy, and may unlock it only upon confirmation that someone with my e-mail address replied to the licensor’s e-mail.

In both of these examples, confirmation of payment and confirmation of the e-mail identity of the downloader, the DRM serves to confirm that the conditions precedent to the reproduction being licensed are fulfilled. It encourages and supports the purposes of the copyright, because it makes it easier for the parties to the transaction to trust each other. It is no different than automating the analog counterpart. For example, if I am a publisher and the author of a book (the copyright owner, in this example) authorizes me to make 1,000 copies of the book in exchange for payment of \$10 each, when I make the 1,000 copies I am presumptively licensed to do so even before I have made payment, and would not be guilty of infringement. If, having run off 1,000 copies, I refuse to pay the agreed \$10,000, the presumption of permission vanishes, and I become an infringer. But if the author were to insist upon advance payment, I, as publisher, may be reluctant to pay until I am assured that the manuscript provided by the author is in the agreed form. In this non-digital example, the law has long accommodated go-betweens – trustees, escrow agents, and the like who will overcome the lack of trust between the parties. The publisher can make payment to the trustee, who will not transfer the payment to the author until the publisher has received the agreed-upon manuscript and the 1,000 copies have been made.

Remote transactions over the Internet are no different. The DRM can easily take the place of the escrow agent, preventing access to the licensed reproduction until confirmation is made that the conditions upon which the license was given have been met. Assuming that the underlying transaction is legitimate, such use of DRM is “good” because it facilitates the very kinds of transactions envisioned in the law. Indeed, when Congress passed the DMCA, it appears that it had precisely this type of DRM (or access control technology) in mind. As the House Judiciary Committee explained, “In order to protect the [copyright] owner, copyrighted works will most likely be encrypted and made available to consumers once payment is made for access to a copy of the work.”⁵⁰

But Congress was not interested in creating new business opportunities by trampling on the Copyright Act’s limitations. The objective was to protect copyrights, not “copywrongs.”⁵¹ The Report from the House Committee on the Judiciary goes on to explain Section 1201(a) of the DMCA as preventing “the electronic equivalent of breaking into a locked room in order to obtain a copy of a book,” adding:

Paragraph (a)(1) does not apply to the subsequent actions of a person once he or she has obtained authorized access to a copy of a work protected under Title 17, even if such actions involve circumvention of additional forms of technological protection measures. In a fact situation where the access is

⁵⁰ 105th Cong., 2d sess., Rept. 105-551, House Committee on the Judiciary, May 22, 1998 (emphasis added).

⁵¹ I had intended to attribute this play on words to Siva Vaidhyanathan, author of *COPYRIGHTS AND COPYWRONGS: THE RISE OF INTELLECTUAL PROPERTY AND HOW IT THREATENS CREATIVITY* (New York Press 2003), but quickly found numerous “copy wrongs” or “copywrongs” take-off’s on copyright in the DRM context. There is even an organization by the name “copywrongs.org.” I will leave for others the proper attribution of the first coinage.

authorized, the traditional defenses to copyright infringement, including fair use, would be fully applicable. So, an individual would not be able to circumvent in order to gain unauthorized access to a work, but would be able to do so in order to make fair use of a work which he or she has acquired lawfully.⁵²

The section-by-section analysis in the Report further explains that the definition of “circumvent a technological protection measure” in Section 1201(a)(3), as used in paragraph (a), “covers protections against unauthorized initial access to a work” (emphasis added).⁵³

In other words, Congress expected that DRM would be used to prevent people from downloading without paying, but once payment was made, the DRM would permit access without further restricting subsequent access. Such use furthers the interest of the copyright holder in protecting the work from infringement, furthers the public interest in facilitating broader dissemination of the work by removing barriers to the transaction, and goes no further than necessary to achieve those ends.

In like manner, there have always been intermediaries who use and facilitate access to the copyrighted works but who own no copyrights in them. They, too, may need DRM to protect their interests. Theft-prevention technologies used in retail stores – particularly music and video stores – have become ubiquitous. (And, for the retailer, the interest in protecting against theft of an \$18 copyrighted DVD movie is just as great as protecting against theft of an \$18 public domain DVD movie.) The occasional false alarm is an acceptable inconvenience because the reward of lower theft rates is lower prices. And, just as the customer trying to walk out of a store with two copies of a DVD movie having paid for only one may rightfully be prevented from doing so by use of effective anti-theft technology, so we should expect the person trying to reproduce two copies of a movie having paid for the right to download only one may rightfully be prevented from doing so by good DRM. Here again, if the charge for the right of reproduction is to pay for the cost of providing the service (not under copyright but as a matter of private agreement), it makes little difference whether the “right of reproduction” given to make a downloaded copy is granted by the copyright owner as a license of its exclusive right, or granted by a facilitator who owns no copyright and perhaps offers only public domain films.

2. Digital Ticket Taker

Another good use of DRM is as an automated ticket-taker, equivalent to someone controlling access to a theater or museum. The person streaming or displaying the work over the Internet, regardless whether they own the copyright, may wish to limit the audience to patrons who have paid the price to see it – those whose payments make the public performance or public display possible. Use of DRM to limit the audience only to those who have paid is as benign as posting a guard at the theater or museum door to check admission tickets. It is the equivalent of cable signal descramblers intended to limit the consumer’s viewing to the channels paid for.

⁵² 105th Cong., 2d sess., Rept. 105-551, House Committee on the Judiciary, May 22, 1998.

⁵³ *Id.* Where subsequent access is controlled or prevented by the DRM, however, the use would be considered “ugly” and illegal, as discussed below.

It warrants stressing that this use of DRM should have nothing to do with copyright *per se*.⁵⁴ It is never copyright infringement to sneak into a theater without paying, but it may nevertheless be trespass or illegal theft of services to do so, regardless whether the movie being performed is in the public domain. DRM use that permits only paid subscribers to listen to a public performance over the Internet should be considered “good” insofar as it enables the person making the public performance to profitably finance the cost of it. It does so without enlarging the copyright because this use is equally helpful in encouraging more public performances without regard to whether the work being performed publicly is copyrighted.

3. Automated Accountant

In the physical world, a retailer may buy copies of a work at wholesale for resale to the public. The copyright owner needn’t learn how many copies were actually sold to consumers so long as payment is received for all copies at the wholesale price. And, as we can recall from the earlier discussion of the first sale doctrine, the copyright owner should have no control over whether the retailer sells the copies, at what price, or to whom. In the case of downloads, in contrast, the “lawfully made copy or phonorecord” does not come into existence until it is reproduced by the consumer. What is being sold is not technically a copy, but a license to reproduce the work into a copy. Thus, in order for the retailer to “sell” the downloads to consumers, it must first obtain permission from the copyright owner.⁵⁵

The copyright owner selling books at wholesale knows how many were sold. The copyright owner selling (to retailers) licenses to sublicense (to consumers) the right to reproduce the work into a copy must rely upon the retailer to inform the copyright owner as to how many copies were actually reproduced by the retailer’s customers. DRM can, in this case, serve an accounting function by “informing” the copyright owner every time a sublicensed reproduction is made. This can be done by means of a simple “reporting the numbers” function or, in a more complex scheme, having the copyright owner or its designee release the decryption key to the consumer once the retail transaction is complete.

Once again, this use of DRM does not hinge upon whether the work is copyrighted, as it could be used just the same for public domain works. The consumer pays the retailer for the service of providing the work in pristine form (and making it easy to find, and so on), and a license to reproduce it. If copyrighted, the retailer, with the authority of the copyright

⁵⁴ In this regard, Congress may have crafted the DMCA too narrowly by limiting its applicability to DRM that prevents access to copyrighted works without consent of the copyright owner, such that one who is not the copyright owner, or one who seeks to protect the public performance of a work in the public domain, gains no benefit. (Conversely, if protection solely of copyrighted works was the aim, Congress crafted the DMCA too broadly in that it bars access for non-infringing access). It is never copyright infringement to watch a cablecast movie, for example, but it may be theft of a cable signal to watch the program – copyrighted or not – by using a “black box” cable signal decoder to avoid paying for the premium or pay-per-view channel. But even though cable signal theft does not infringe any copyrights, it is nevertheless illegal under 18 U.S.C. § 2511 and 47 U.S.C. § 553. *See* § 553(a)(1) (“No person shall intercept or receive or assist in intercepting or receiving any communications service offered over a cable system, unless specifically authorized to do so by a cable operator or as may otherwise be specifically authorized by law”).

⁵⁵ The Motion Picture Association of America has, however, argued that licenses to reproduce copies at the consumer level should indeed be treated as though they constituted sales of goods. *See* note 144, below, and accompanying text.

owner, licenses the reproduction and pays the copyright owner for the reproduction right based on the number of downloads accounted for. If not copyrighted, the retailer permits the reproduction and uses the accounting function for its own internal business control.

Without such DRM, copyright owners would be reluctant to allow any retailers to sublicense reproductions for fear that there would be no accountability and, regardless whether copyrighted, retailers would be reluctant to allow unlimited downloads that tax their system and offer no remuneration. Unless the copyright owner could trust the retailer's word, the transactions might not take place at all. By using DRM, the copyright owner can trust the DRM where trust of its business partner may be lacking. Plus, even where trust is present, the automation of this function using DRM adds substantial efficiencies to the process. Thus, this use of DRM directly contributes to wider dissemination of the work relying on a larger number and broader variety of retailers, who can competitively seek out customers by offering the best price and quality of reproductions and support services.

4. Anti-Theft Device

Theft of copies of copyrighted works contributes to two problems adversely impacting availability. Theft of master copies, pre-release copies, sample copies and so on often are the sources from which infringing copies are made and distributed, or made available on the Internet from where additional infringing copies can be made. Theft of copies at retail may not contribute as much to piracy, but the economic impact upon the retailer results in a greater burden upon public access to the works in the form of higher prices for the remaining copies. In both instances, normal product security measures may not be enough. Use of DRM to destroy stolen copies would lower the overhead associated with piracy and inventory shrinkage. Although there does not appear to be widespread application of DRM for such purposes, it may be only a matter of time before we see experiments with product "activation" at the checkout counter, such that a stolen copy could not be accessed, or the use of tethering technologies to ensure that pre-release copies in the studio cannot be accessed on equipment outside of the studio. To the degree that such uses only impair the private performance of stolen copies, the general purposes of copyright law are furthered. Although it is certainly true that the thief does not infringe the copyright by performing the work privately from the stolen copy, there is no serious harm to the public interest if thieves and their customers are prevented from doing so.

Theft of services is another anti-theft application of DRM, such as the cable television signal encryption. It infringes no copyright to decrypt a cable television broadcast without permission from the cable service provider, but the cable service nevertheless has a legitimate interest in ensuring that only subscribing customers will have access, without regard to whether the works being broadcast are copyrighted.⁵⁶

5. Benign Supervisor

As will be evident in the discussion of "bad" and "ugly" uses of DRM, the evils associated with harmful uses can be just as damaging when employed by third parties acting

⁵⁶ As noted in note 54, Congress recognized the legitimacy of this interest in protecting cable signals against theft by making it a federal offense to engage in signal theft. Notably, that provision has nothing whatsoever to do with copyright. DRM relating to cable signal theft is discussed in greater detail above in the context of DRM as "ticket taker".

by agreement with the copyright owner. Whenever DRM is used by persons acting independent of the copyright owner, however, it is much more likely to be “good,” particularly where the third party has no particular legal power over access to the work which is DRM-protected. An excellent example of “good” DRM used by third parties independently might be educational institutions and libraries that use DRM to facilitate lawful access up to the limits of the law, while protecting the institution and its patrons from claims of copyright infringement.

One example is DRM employed by an educational institution to implement the institution’s rights under the TEACH Act⁵⁷ while ensuring compliance with the law’s requirements needed to qualify for the exemption. The TEACH Act requires that the institution using the exemption provide informational materials to faculty, students and staff that accurately describes and promotes compliance with copyright law.⁵⁸ That requirement might be met by use of DRM that prevents access to works available electronically by disseminating such information before the first use and requiring the user to acknowledge receipt of such information before being given electronic access.

Similarly, the TEACH Act itself requires that, in the case of digital transmissions, the institution employ DRM to reasonably prevent retention of the work beyond the class session and to reasonably prevent unauthorized further dissemination of the work.⁵⁹ Such DRM is required by law. Consequently, its use is “good” even if the law might itself have room for improvement.

Although the use of DRM by third parties may be to protect the copyright from infringement (such as to protect the entity employing the DRM from liability for the conduct of others), such uses may also be for purely self-serving purposes. A few examples of the latter “benign supervisor” uses might be:

- An employer uses DRM to prevent employees from accessing certain sites from computers at work (regardless whether such access is infringing).
- A law firm uses DRM to allow give its clients access to their files, but not to the confidential files of others.
- Medical personnel are given access to patient records on a need-to-know basis, using DRM to verify authorized users and to make inaccessible all unrelated patient records.
- Universities give each student access to their own electronic records using DRM to deny access to the records of others.
- Banks and financial institutions offer online banking services using robust DRM that verifies the identity of the customer before granting access to the appropriate account records.

⁵⁷ Technology, Education, and Copyright Harmonization Act of 2002, 116 Stat. 1758, Pub. 107–273, Nov. 2, 2002, Tit. III-C, codified primarily at 17 U.S.C. § 110.

⁵⁸ 17 U.S.C. § 110(2)(D)(i).

⁵⁹ 17 U.S.C. § 110(2)(D)(ii).

- Parents unable to trust their children use DRM to prevent access to Internet sites of which the parent disapproves.
- An ATM machine – enough said.

These types of DRM uses are so positive that they are generally controversial only when they fail. Yet, Congress curiously chose not to include them in the DMCA's protection against circumvention unless the files or records being protected happen to be copyrighted.

Conceptually, the purpose and effect of "good" DRM is to manage rights that belong to the entity employing the DRM. In this regard, there is nothing significant about copyrights to distinguish them from other rights to which DRM may be applied. DRM can lawfully be employed for more than just copyright protection, and "good" uses of DRM should be encouraged, even when they do not involve intellectual property rights.

**"good" uses of DRM should be encouraged,
even when they do not involve intellectual
property rights**

This is not to say that good DRM can never cause harm. Just as an adult may trip over a child safety gate installed at the top of the stairs, perhaps the purists could come up with a hypothetical or anecdotal situation in which "good DRM" use has unintended consequences, but on the whole in the case of copyrighted works, the examples above have both the purpose and effect of facilitating the intended objectives of copyright protection by enabling access to works that might otherwise be unavailable. Certainly, there could be situations in which the accounting software malfunctions and incorrectly reports the number of downloads (authorized reproductions), but this is no greater evil than the book publisher miscounting the number of books reproduced. Or the ticket-taking DRM may refuse access to a streaming movie (a public performance) when the digital key was lost, just as the human ticket-taker may refuse entry to a paid-up patron who lost the ticket. In all, however, any injury will tend to be of a type that can be redressed through ordinary customer service channels.

B. Bad Uses of DRM

"Bad" DRM ostensibly protects copyrights from infringement or facilitates greater access to copyrighted works, but its use carries with it a degree of "collateral damage" to rights belonging to the public. If the DRM is effective in protecting copyrights from infringement or facilitating greater access to copyrighted works and attempts to do no more than that, it may be tolerated as a necessary evil if the overall benefit to the public is positive. On the other hand, if the furtherance of copyright law's interests is slight in comparison to the damage to those interests, to competition, or to the general welfare, its use should either be prohibited or regulated so as to minimize the harmful effects.

This area is perhaps the most difficult one in which to apply legal rules for analysis because the outcome may depend upon the intent of the user of the DRM technology, the balance of benefits and harms, and the availability of less restrictive alternatives. This paper

proposes that courts borrow from the “rule of reason” analysis in antitrust law to evaluate the legality of such DRM use.

Most antitrust disputes are evaluated under a “rule of reason” analysis. If the restraint is likely to have an anticompetitive effect (and is not a “naked” restraint of trade), the court will assess whether the claimed pro-competitive benefits outweigh them, and whether the restraint is reasonably necessary to achieve the stated benefits.⁶⁰ In the case of copyrights, we must look beyond “restraint of trade,” as such, and include expansion of the copyright reach beyond its statutory limits (and the counterpart, denial of rights, benefits and entitlements reserved for the public under the Copyright Act) among the harms against which any purported benefits must be balanced. Moreover, unlike antitrust, which looks to “pro-competitive” benefits only, the copyright analysis should include benefits that further the objectives of copyright law.

“Ugly” uses of the kind discussed in the next subsection would be considered unlawful *per se* because, borrowing again from *per se* treatment under antitrust law; they are so plainly contrary to the purposes of copyright law or competition that no elaborate inquiry into positive effects is necessary.⁶¹ The “bad” DRM, as described here, might be lawful or not depending upon the totality of the circumstances, which could change over time or from one product line to another. The “ugly” uses of DRM described in the next subsection would be unlawful all the time.

For example, uses of DRM which only prevent noninfringing reproductions would serve no valid purpose, and would be considered unlawful *per se*. DRM that is designed to prevent infringing reproductions, in contrast, serves the valid objective of protecting the copyright from infringement. Such DRM might, however, have the unintended consequence of suppressing non-infringing reproductions as well. If all available copies of a given work are locked down by anti-copying DRM, it might fail a rule of reason analysis because the ability to make fair use reproductions is an integral part of copyright law.⁶² But if access for fair use reproduction from some copies is widely available despite the application of anti-copying technology to certain “high risk” copies, courts may find that the increased public burden on fair use copying is outweighed by a countervailing public benefit from reducing infringing reproductions.

It is not the intent of this paper to discern whether a given use of DRM would or should survive a rule of reason analysis. Similar factual situations may yield differing results. Rather, the examples below will suggest DRM uses that cannot be considered lawful (or laudable) under all circumstances, but neither should they in every instance be prohibited.

⁶⁰ See, e.g., *Federal Trade Commission v. Indiana Federation of Dentists*, 476 U.S. 447 (1986); *Broadcast Music, Inc. v. Columbia Broadcasting System, Inc.*, 441 U.S. 1 (1979).

⁶¹ See, e.g., *Federal Trade Commission v. Superior Trial Lawyers Association*, 493 U.S. 411 (1990); *National Society of Professional Engineers v. United States*, 435 U.S. 679 (1978).

⁶² Because the right of reproduction is subject to the right of fair use, for example (*see* 17 U.S.C. §§ 106 introduction), and the right to make fair use is essential to accommodate copyright law to First Amendment liberties (*see Eldred v. Ashcroft*, 537 U.S. 186 (2003)), anti-copying DRM must, by necessity, leave sufficient room for fair uses. The same would be true for other noninfringing uses.

1. *Timing Out for Public Good*

In the next section we shall discuss “Timing Out for Private Gain – The Limited Download,”⁶³ explaining why certain uses of timing out DRM are downright ugly. But there are at least three uses of timing out DRM that could well pass muster because their purpose and overall benefits weigh more heavily than the restraint.

One such use encourages transactions that result in an increased number of lawful copies through licensed reproduction (downloading). A second facilitates transfer of the possession of – not title to – a copy for the purpose of promoting the work, such as in so-called “screeners” of motion pictures. The third would allow timing out as a tool for mimicking physical distribution such as re-sales, rental or lending, but to properly do so would need to be kept beyond the control of the copyright owner.

a) *Try before you buy*

The first uses of timing out technology appear to have been to encourage consumers to take a chance on software by offering a “trial” version. Unlike products that can be returned for a refund when satisfaction is guaranteed, the digital counterpart can be delivered as a download to a computer hard drive. Even if delivered on a tangible medium, most computer software so delivered is intended to be “installed” (*i.e.*, reproduced) onto the hard drive of a computer (which then becomes a “copy or phonorecord” of the work) before it is performed.⁶⁴ Once the hard drive becomes the lawful copy, it cannot be returned. Thus, timing out technology offers a practical substitute for the return of the physical media for a refund. A consumer dissatisfied with the product could decline to pay, with the understanding that the copy would be rendered inoperable after a reasonable trial term.

Under strict interpretation of the Copyright Act, a time-limited reproduction is a “lawfully made copy” and entitles the owner to dispose of possession of that copy. Arguably, the consumer who downloads the trial version to a CD is entitled to sell, lend or give away that copy without regard to the copyright owner’s wishes, and the timing out DRM would destroy that entitlement because the copy would become a useless piece of plastic. But the substance of the transaction is, in essence, to allow closer examination of the work before taking ownership. It is basically a delayed process of “Perfecting Authorized Reproductions” discussed above.⁶⁵ The copyright owner (directly or through licensees) offers the consumer the right to reproduce the work in exchange for payment. The consumer is reluctant to pay for a reproduction only to find out that the music is distasteful or that the computer program does not function as advertised. Thus, in a manner similar to the marriage annulment fiction, the parties can pretend the transaction never happened. “If you don’t like the lawfully made copy, we can pretend you never made it. Your money will

⁶³ At page 50, below.

⁶⁴ The Register of Copyrights has conceded that a computer hard drive containing a copy of a work is itself a “copy or phonorecord” as those terms are defined in the Copyright Act, 17 U.S.C. § 101. *See* “Section 104 Report: A Report of the Register of Copyrights Pursuant to §104 of the Digital Millennium Copyright Act,” U.S. Copyright Office, August 2001 at 87 (“the copyright owner’s reproduction right does not interfere at all with the ability of the owner of the physical copy to dispose of ownership or possession of that copy, since the first sale doctrine applies fully with respect to the tangible object (e.g., the user’s hard drive) in which the work is embodied.”).

⁶⁵ *See* page 21, above.

be refunded (or your payment obligation cancelled) and your lawfully made copy will be as though it had never been made.” Such assurances will tend to oil the wheels of dissemination by removing a barrier comparable to a retail store posting a notice of its policy stating “Buyer beware, all products sold on an as-is basis with no warranties express or implied. All sales are final. No exchanges, returns or refunds.”

To survive rule of reason analysis, the timed-out copy would almost certainly have to be at no cost. That is, the copy would be timed out only if the buyer of the license to reproduce it refuses to pay. If payment is made for a timed out copy (or any other consideration, such as disclosure of valuable data unnecessary for the transaction or receipt of advertising), then the reproduction should be viewed as licensed and paid for, and unless refunded, the timing out would be deemed to restrain trade in the aftermarket and unlawfully expand the copyright owner’s control over performances to include private ones.⁶⁶

b) Retention of ownership

The second type of timing out DRM could be used to ensure return – or its virtual equivalent – of copies that are owned by the copyright owner. Suppose a motion picture studio wants to allow critics to review a film before its release, or let video stores see a “screener” to encourage buying decisions long before the “street date” of the DVD, or allow the over 5,000 members of the Academy of Motion Picture Arts and Sciences to see the film in order to vote for the Academy Awards (the Oscars) without ever taking title to a copy or having the opportunity to place it into the stream of commerce where someone could use it as a master for infringing reproductions.

This past year, the Motion Picture Association of America suffered a major embarrassment when its ban on distribution of screeners to Academy voters was overturned by a federal judge, citing antitrust violations.⁶⁷ The purported reason for the ban was to prevent these screeners owned by the studios from being reproduced, particularly if they were in high demand in piracy channels because they had not yet been released on DVD.⁶⁸ But timing out technology is readily available to render a DVD inoperable a few hours after viewing and, so long as the studio distributing them at no cost to Academy voters retains ownership, the studio is free to render its own copies unplayable. Plus, to the degree that the Motion Picture Association of America may have had some valid anti-piracy objective, it would make perfect sense to facilitate use of timing out technology for any copyright holder of a nominated film who desired it.

c) Space-Shifting

The question has been around in popular discourse ever since e-mail: Is it copyright infringement if I forward a copy to a friend and delete the original? Only a few years ago, the only way to lend, trade or give away one’s copies was to transfer possession of the

⁶⁶ See “Timing Out for Private Gain – The Limited Download,” at page 50, below.

⁶⁷ See “Judge Blocks Ban on ‘Screeners’: Temporary Restraining Order allows Indies to Send Out Tapes,” MSNBC Dec. 8, 2003, available at <http://msnbc.msn.com/id/3660332/>.

⁶⁸ The court was not impressed by this rationale, since each studio was entirely free to make that choice independently. It could certainly serve no legitimate anti-piracy purpose to require copyright holders to protect their copyrights in this way against their will. Opponents of the screener ban argued that it favored the major studios by raising barriers to the Oscar competition against smaller independent filmmakers.

physical medium on which the work was recorded. Digital technology has, in effect, freed these transactions from their physical limitations. It is the equivalent of magically transferring the ink from my book to a friend's blank pages in another state. My friend can now read the book (while I am left with blank pages), but the copyright owner remains whole because no *additional* copies have been made. The fundamental question is not so much what constitutes copyright infringement as whether certain activities never before available should be considered infringing – whether the ability to “move the bits (or ‘content’) around” should not be legally limited by a requirement that they remain on the same physical medium.

The idea of moving the “content” around as opposed to the physical medium certainly has an appeal. It is generally perceived as more efficient for all concerned. The tension comes over the question whether consumers are free to select their own technology for doing so or whether such “space-shifting” should belong within the grant of copyright, and under the exclusive control of the copyright owner.

Copyright owners do not appear fundamentally opposed to the idea of space-shifting,⁶⁹ provided that they can control it: They feel they must be able to prevent it (otherwise they would be unable to control it or profit from it), they must be able to police it to guard against cheating (for example, policing whether the original was, in fact, deleted, and no other copies were retained) and they must be able to authorize it (recognizing that if there is a consumer demand that is not being met, some revenue might be derived from permitting the prohibited conduct).

To the degree that space-shifting might be infringing, DRM that prevents it might be considered “good”. But if certain forms of space-shifting might not be infringing, DRM that prevents noninfringing space-shifting would logically be an “ugly” use of DRM, akin to placing a private fence around public land. The ability to use DRM to control compliance with space-shifting “permission” could lead to an ability to control a vast new market outside of traditional copyright. The possibilities seemed endless: Mining the data on who forwards what to whom, perhaps charging extra for the privilege of doing so, using consumers to market to other consumers otherwise unreachable by the copyright owner, reducing digital deliver costs by using consumers’ own resources to deliver the “content”. But if space-shifting is lawful, what right does the copyright owner have to profit from giving permission to perform a non-infringing act?

⁶⁹ I use the term “space-shifting” in a broad sense to include any variation on the theme of allowing only one accessible (perceivable, reproducible or communicable) copy at any given time. “Forward-and-delete” is perhaps the most rudimentary form of space-shifting, as it requires a separate action to delete the original and allows for a brief moment in which two copies might be accessible. So-called “move” technology that automates the process of reproducing the bits on the second medium concurrent with rendering the identical bits on the first medium inaccessible ensures that only one copy can be accessed at any given time. More complex variations include a “check-out/check-in” process that envisions access being passed to each authorized reproduction and “returned” to the original when no longer needed. An additional layer of sophistication might establish a “parent/child” relationship between reproductions, such that second-generation copies (copies of copies) are not permitted, but the master DRM from the original copy might allow for a pre-determined number of accessible “child” copies. Once the limit is reached, one “child” would have to be checked back in to the “parent” before another “child” could be made accessible. This latter model might be most appropriate in imitating a library or school lending process or a video store rental, whereas serial reproductions might imitate physical copies being passed along from one consumer to another by gift or resale. Sony designed such a model in 1999 for its portable players. See note 133, below.

copyright owners may be best advised to move beyond the debate over legality and instead use DRM to facilitate "secure" space-shifting that does not result in any additional copies

If called upon to draw a line between space-shifting activities that are lawful and those that are not, courts may well draw it much more favorably to the public than copyright owners might hope. For this reason, copyright owners may be best advised to move beyond the debate over legality and instead use DRM to facilitate "secure" space-shifting that does not result in any additional copies, even if it means giving up the opportunity to leverage copyrights into greater control over space-shifting activities.

Under a secure "forward-and-delete" approach, the owner of a lawful reproduction of a song, for example, could e-mail it to a friend along with the DRM access key. The original is not deleted, but is rendered inaccessible until the friend returns the access key, thereby preventing that person's access. In a more sophisticated variation on the same concept, it has been suggested that if there was a license to reproduce one digital copy, it does not matter how many actual replicas are made so long as only one can be accessed at any time. The definition of "copy" requires that it be accessible in some way in order to implicate the right of reproduction.⁷⁰ If DRM can be deployed to prevent the multiplication of accessible copies, copyright owners would be better served by facilitating the use of such DRM so that the public can transfer the "content" from one person to another with the same freedom and anonymity with which they currently transfer possession of tangible copies and phonorecords.

But who gets to decide? The ability to "move" the copy from one medium to another is considered by some to be a consumer right. Ever since the "Betamax" ruling,⁷¹ it has become common practice to make fair use of a broadcast television program by "time-shifting" (reproducing the broadcast work for viewing at a more convenient time). Advocates of a similar "space-shifting" fair use right insist that if a consumer has, for example, paid for a reproduction onto medium "A", the owner of that lawful copy should be able to "move" the copy to a more convenient medium.⁷² It is often left unclear whether proponents believe that the original should be deleted.⁷³

⁷⁰ "Copies" and "phonorecords" must be capable of being "perceived, reproduced, or otherwise communicated." 17 U.S.C. § 101.

⁷¹ *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417.

⁷² DigitalConsumer.org, for example, advocates a "Bill of Rights" giving consumers the right to "space-shift," ("the right to use your content in different places," such as copying to a portable player) and the "right to use legally acquired content on the platform of their choice." They do not seem concerned with limiting the proliferation of accessible copies, however. See <http://digitalconsumer.org/bill.html>.

⁷³ Because the Audio Home Recording Rights Act prohibits filing infringement claims against persons reproducing sound recordings for "non-commercial" purposes, many believe that any non-commercial copying is non-infringing. A "buy one, get as many as I want free" policy may be allowed for certain types of non-commercial sound recording reproductions (17 U.S.C. § 1008), but presumably the affected copyright owners derive some revenue from the royalty on recording devices and media. That provision does not, however,

The concept certainly has some appeal. Imagine a public library allowing patrons to check out electronic copies of works so long as one library copy is rendered inaccessible until checked back in. Or suppose I want to let someone “borrow” a new song I downloaded? I could check it out to them and ask that they check it back in to me by the next day, and in my communication to them I could recommend they go to the same site I did to download their own copy. Or suppose a video store bought licenses to reproduce twenty copies of a movie, and could allow its patrons to check out (download) the movie and charge them during the period it is checked out. For each movie checked out, one less movie would be available until the movie is checked back in. In that manner, we could duplicate the vigorous competition that has made video rental such a consumer bargain.

But is it legal? For a copyright law purist, the quick answer would be “not unless the copyright owner consented,” because an unauthorized reproduction is made before the original is deleted.⁷⁴ Complicating this is the “Catch-22” that if the copyright owner consents to the reproduction, it becomes a “lawfully made” reproduction and therefore the copyright owner should not interfere with the perpetual private performance or re-distribution of it.⁷⁵ Others might argue that though an unauthorized reproduction may have occurred, it falls within the fair use exception because at the end of the transaction there is still just one copy left – that it is the digital equivalent of giving your copy to someone else. Also, a persuasive case can be made that an inaccessible copy does not infringe the right of reproduction if it cannot be perceived, reproduced or otherwise communicated.

In an attempt to remove any doubt about the legitimacy of the “forward-and-delete” method of space-shifting, Congressman Rick Boucher introduced legislation during the 105th Congress that would have legalized the reproduction of a copyrighted work from one medium to another so long as the original was deleted. The “Digital Era Copyright Enhancement Act,” provided that Section 109(a) (*i.e.*, the entitlement of owners of lawfully made copies to transfer possession of them without the consent of the copyright owner)

applies where the owner of a particular copy or phonorecord in a digital format lawfully made under this title, or any person authorized by such owner, performs, displays or distributes the work by means of transmission to a single recipient, if that person erases or destroys his or her copy or

apply to literary works, to visual works, or to motion pictures or other audiovisual works, for which there is not even a “personal use” exception.

⁷⁴ The possibility of obtaining such consent from record companies appeared imminent a few years ago, albeit under a carefully controlled environment. As part of the Secure Digital Music Initiative (or “SDMI”) led by the major record companies, efforts were made to obtain agreement from hardware and software manufacturers to create a “secure” digital environment operating under certain rules. Before failing, the organization issued specifications for portable devices that included concepts of “Move” (content “copied to its destination, and the original is made permanently un-usable”), “Check-Out” (“the ability to render SDMI Protected Content for Local Use is copied via the LCM [Licensed Compliant Module] to a single other location . . . and the number of permitted copies decremented by one”), and “Check-In” (“the ability to render SDMI Protected Content for Local Use is restored via the LCM to its original location . . . and the number of allowed copies is incremented by one. The Checked-Out copy shall then be rendered unusable.”) *SDMI Portable Device Specification*, Part 1, Version 1.0, July 8, 1999, available at http://www.sdmi.org/download/port_device_spec_part1.pdf.

⁷⁵ See “Timing Out for Private Gain – The Limited Download” at page 50, below, and “Eliminating Competition” at page 54, below.

phonorecord at substantially the same time. The reproduction of the work, to the extent necessary for such performance, display, distribution, is not an infringement.

H.R. 3048, 105th Cong., Section 4. The intent was to permit the owner of a lawfully made copy to do the equivalent of transferring possession even though the tangible medium itself would not change hands. As one advocate of the legislation explained:

Copyrighted content can be delivered to consumers with digital rights management (DRM) systems that enable secure electronic transfers of possession or ownership, and that protect against unauthorized retention of the transferred copy. Through technological processes such as encryption, authentication, and password-protection, copyright owners can ensure that digitally downloaded copies and phonorecords are either deleted after being transferred or are disabled (such as by permanently transferring with the content the only copy of the decryption key).⁷⁶

Congressman Boucher's proposal appeals to common sense. The single significant drawback is the inability to police compliance with the deletion requirement. Making a lawful copy or phonorecord by reproducing a work onto a tangible medium, for example, and then transferring possession or title to that tangible medium to another person is perfectly lawful. The legislation would have overcome the difficulty presented by tangible media such as a hard drive, which may contain many works and be impracticable to transfer to another person, by allowing the reproduction of the work onto the other person's media and deleting it from the original. At the end of the day, one person would own a lawful reproduction, just as before the transfer.⁷⁷

Opposition to the measure was based principally on the fact that it would be virtually impossible to police compliance. The idea that consumers would simply say "trust me, I deleted my copy after forwarding it to a friend" was too unnerving.⁷⁸ Yet, when opponents were asked whether their opposition would remain if technology was sufficiently secure to assure that the deletion took place, their opposition appeared to lessen.⁷⁹

⁷⁶ Summary of Testimony of Gary Klein, Vice Chairman, Home Recording Rights Coalition, November 29, 2000, Public Hearing Filed in Response to 65 Fed. Reg. 63626 (October 24, 2000), reprinted in *DMCA Section 104 Report*, U.S. Copyright Office, August 2001, vol. 3, appendix 8. (Admittedly, Mr. Klein's testimony falls into the common semantic errors by, for example, speaking of a "transferred copy." By definition, a copy is tangible, and must be transferred physically. As we will see below, however, courts may avoid the semantics by simply concluding that the copy so created is not a "new" copy in that there is no multiplication of copies.)

⁷⁷ As is explained shortly, it is for this very reason that Congressman Boucher's legislation may not even be necessary. That is, such actions may already be non-infringing.

⁷⁸ The National Music Publishers association, for example, noted "The impossibility of enforcing a mandate to delete one's own copy of a protected work when a copy of that work is forwarded to another" (*id.*, appendix 9, Panel 3, testimony of Susan Mann).

⁷⁹ Mr. Bernard Sorokin, testifying for Time Warner, Inc., objected to the use of technology to enforce the intent of the legislation, saying "I don't think the technology exists, to say nothing of the goodwill." But when pressed with the question whether "if indeed it is effective and comes about," he responded: "it sounds like something my company and perhaps others . . . would be willing to consider. We would have to be assured of its effectiveness on several levels . . ." *Id.*, appendix 9, Panel 3.

Assuming, for a moment, that the DRM technology is sufficiently robust to lend reasonable confidence that the original will in fact be deleted when the copy is made by another (and practically any level of security is far greater than the security of an average music CD), what do we make of DRM used by the copyright holder to automate a process of forwarding to another and deleting the original, or using a keyed check-in/check-out mechanism to allow access by one person at a time? Certainly, all copies are lawfully made, even if the first are destroyed or made inaccessible (and incapable of being performed privately). With respect to the destroyed or inaccessible copies, the DRM serves to impair rights not belonging to the copyright owner (the Section 109 first sale rights and the right of private performance), but in exchange, the work is made available to a wider audience. And, because the impairments with respect to the original are no worse than the impairment as a result of an outright transfer of the tangible medium itself, it is safe to say that such DRM could be implemented by the copyright owner in a way that withstands rule of reason scrutiny.

Nevertheless, even this technology could be abused. For example, if the copyright owner were to authorize and enable the use of such DRM to facilitate forward-and-delete or check-in/check-out models, one would anticipate a great temptation on the part of the copyright owner to charge for the privilege through cash payments, data-mining, or the like. Perhaps, for example, the DRM would require that the identity of the sender and the recipient be disclosed to the copyright owner or its designee in order to function. In such case, rule of reason scrutiny might find the balance tipped the other way because the right is being leveraged into an entirely new market – the data-mining market.

But let's consider two other models – one in which a third party (a library or a retailer, for example) employs the DRM to imitate lawful transactions in the physical world and does so outside the control of the copyright holder, and another in which consumers employ “off the shelf” DRM to perform these automated tasks. Perhaps, for example, someone develops software that will automate the deletion after forwarding and keep an audit trail of proof. Or software is developed to ensure that one single decryption key is available to any one user no matter how many encrypted copies are reproduced. In such circumstances, there is no concern for enlargement of the copyright (since it is persons acting independently of the copyright owner who employ them), and any anti-competitive concerns are minimized by the fact that anyone else with a lawful copy may step in to supply a more positive consumer experience. In all, it might be safe to say that automated forward-and-delete or check-in/check-out DRM technology employed by persons other than the copyright holder could be considered “good” DRM but for the possibility that the users of it might be guilty of copyright infringement.

courts in the United States and in Canada have ruled, in very analogous “analog” fact patterns, that transfer of the work from one medium to another using a technology that leaves only one copy at the end of the process is not a reproduction at all

I say “possibility” because it is not at all a certainty that such conduct would be infringing. The reason it has not been tested may have more to do with the high stakes risk in the event a court disagrees, but courts in the United States and in Canada have ruled, in very analogous “analog” fact patterns, that transfer of the work from one medium to another using a technology that leaves only one copy at the end of the process is not a reproduction at all. That is, these courts did not base their holdings on any fair use rights, but on a finding that the processes used did not infringe the reproduction right in the first instance. In the United States, the defendant in *C.M. Paula Co. v. Logan*⁸⁰ had used “acrylic resin, emulsions, or similar compounds which act as the transfer medium to strip the printed indicia from the original surface on which it is printed, whereupon the image carrying film is applied to another article.”⁸¹ The Court concluded that “such process is not a ‘reproduction or duplication.’”⁸²

Each ceramic plaque sold by defendant with a Paula print affixed thereto requires the purchase and use of an individual piece of artwork marketed by the plaintiff. For example, should defendant desire to make one hundred ceramic plaques using the identical Paula print, defendant would be required to purchase one hundred separate Paula prints. The Court finds that the process here in question does not constitute copying.⁸³

The *C.M. Paula* court may well be onto something. The Copyright Act itself defines “copies” as “material objects, other than phonorecords, in which a work is fixed by any method now known or later developed, and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.”⁸⁴ By definition, therefore, an inaccessible copy is not a “copy”. Moreover, since the exclusive right of reproduction is limited to the right “to reproduce the copyrighted work in copies or phonorecords,” it is not unreasonable to conclude that an alleged “reproduction” that cannot be “perceived, reproduced, or otherwise communicated” is not a reproduction at all under the meaning of the Copyright Act. That is, one can reasonably conclude that the act of reproducing a work into copies and phonorecords must, by definition, result in at least one additional perceivable, reproducible, or otherwise communicable copy.

The Supreme Court of Canada has also adopted this view. In *Théberge v. Galerie d’Art du Petit Champlain, Inc.*,⁸⁵ it arrived at the same legal conclusion as did the *C.M. Paula* court, on very similar facts, and using a logic that is entirely consistent with the United States Copyright Act. In that case, the Court concluded that by transferring authorized reproductions from a paper support to a canvas support for purposes of resale did not involve making a “copy” of the work infringing the right of reproduction.

⁸⁰ 355 F. Supp. 189 (N.D. Tex. 1973).

⁸¹ *Id.* at 190.

⁸² *Id.* at 191.

⁸³ *Id.* See, also, *Peker v. Masters Collection*, 96 F. Supp. 2d 216 (2000) (mere transfer of ink from oil painting replica to another medium is not a reproduction, but using the work on the new medium as a template to add brushstrokes imitating the original oil painting was infringement).

⁸⁴ 17 U.S.C. § 101 (emphasis added). The term “phonorecords” contains identical accessibility requirements.

⁸⁵ 2002 SCC 34.

They purchased lawfully reproduced posters of his paintings and used a chemical process that allowed them to lift the ink layer from the paper (leaving it blank) and to display it on canvas. They were within their rights to do so as owners of the physical posters (which lawfully incorporated the copyrighted expression). At the end of the day, no new reproductions of the respondent's works were brought into existence. Nor, in my view, was there production (or reproduction) of a new artistic work "in any material form" within the meaning of s. 3(1) of the [Canadian] *Copyright Act*. What began as a poster, authorized by the respondent, remained a poster.⁸⁶

It may be but a matter of time before courts in the United States and Canada are faced with a claim for infringement of the right of reproduction through the use of a technology that takes the bits from one digital medium ("leaving it blank") and places them on another medium or "backing". If, at the end of the day, no additional copy exists, it seems reasonable to believe that the courts could follow these non-digital precedents and conclude that consumers are free to use software that "transfers the bits to a new tangible medium" without infringing the right of reproduction, since a single "copy" remains.

As we would expect from the very word "copyright", "reproduction" is usually defined as the act of producing additional or new copies of the work in any material form. Multiplication of the copies would be a necessary consequence of this physical concept of "reproduction."⁸⁷

copyright holders may be wise to allow retailers, libraries, consumers (and any other independent intermediary) to unleash competition in the transfer of the bits from one medium to another in a manner imitating the characteristics of redistribution authorized by Section 109(a)

Before that day comes, copyright holders may be wise to allow retailers, libraries, consumers (and any other independent intermediary) to unleash competition in the transfer of the bits from one medium to another in a manner imitating the characteristics of redistribution authorized by Section 109(a), using robust DRM technology that is reasonably immune from abuse. If they fail to allow even robust DRM to be used in this positive way, they may learn the hard way that the courts are prepared to find non-infringement when less secure methods are used to achieve the same outcome.

To summarize this rather lengthy discourse, "space-shifting" technology allows for the "content" to be moved from one medium to another:

- If such conduct constitutes copyright infringement, then copyright owners may authorize it.

⁸⁶ *Id.* at ¶ 2.

⁸⁷ *Id.* at ¶ 42 (emphasis by the court).

- Like any authorized reproduction, DRM technology that enforces lawful limitations on the license to reproduce the copy or phonorecord may be used.⁸⁸
- But because the original and the second copy are both authorized, they are both lawfully made, and the provisions of Section 109 (and the first sale doctrine in general) might apply.
- Similarly, because the right to perform a work privately does not belong to the copyright owner, rendering one copy inaccessible would enlarge the copyright.
- Accordingly, whether the copyright owner's use of DRM to permit reproduction on a second medium provided that the first reproduction is destroyed or rendered inaccessible necessarily burdens trade and enlarges the copyright. It is, therefore, necessary to assess whether these burdens are outweighed by the benefits of DRM-enabled space-shifting.
- If space-shifting is not infringing because no “new” copy is made, then the owners of the original copy may freely use DRM technology to enable such conduct.⁸⁹
 - Copyright owners who use the DRM to facilitate such non-infringing use would be providing a public service, but those who use DRM to prevent or burden such non-infringing use might be guilty of unilaterally enlarging their copyright monopoly beyond its scope, or worse, entering into agreements in unreasonable restraint of trade.
 - Persons other than the copyright owners who use such space-shifting DRM technology for non-infringing purposes would be furthering the public policy objectives of copyright law. To the degree that any of them used it in a way that burdened redistribution, others could be expected to step forward and provide a more competitive and less burdensome service.

Because copyright owners will be limited in what they can do to restrict space-shifting, and because “the jury is still out” on whether narrow space-shifting may be beyond their control as a matter of law, copyright holders would be better served by encouraging libraries, retailers and even consumers to freely employ robust space-shifting DRM technologies that are easy and transparent for the users while preventing abuses wherein copies are in fact multiplied.

2. Pure Copyright Protection

Several methods have been used to prevent unlawful reproductions of copyrighted works. Even when the sole purpose of the DRM is to prevent “unauthorized”

⁸⁸ See “Perfecting Authorized Reproductions” at 21, above.

⁸⁹ As noted above, in the case of sound recordings, if more than one phonorecord becomes accessible, the legality may depend upon whether the reproduction is immunized by the Audio Home Recording Rights Act. See 17 U.S.C. §§ 1001-1008.

reproductions, the problem is that reproductions that are unauthorized by the copyright owner may nevertheless be authorized by law. Such is the case of a reproduction made for fair use,⁹⁰ ephemeral recordings,⁹¹ certain reproductions of computer programs,⁹² or reproductions for the vision impaired.⁹³ Because DRM technology is generally not sufficiently sophisticated to distinguish whether a particular reproduction attempt is authorized by law, we can assume that copy-protection technology will, in general, impair the ability to make lawful reproductions authorized by law. Courts have yet to deal with this issue, but if we apply the “rule of reason” to the impairment of reproduction rights reserved to the public, it may be possible to determine whether the impairment is tolerable in light of other benefits to be gained by copy-protection DRM.

One of the first examples of copy-protection technology was the Serial Copy Management System⁹⁴ which must be incorporated into certain new audio recording technology pursuant to the Audio Home Recording Rights Act. Because digital reproduction is virtually identical to the original, there was fear that multiple-generation copies would proliferate much faster than for analog reproductions (which degrade with each generation of copying), thereby impairing the right of reproduction. In imposing DRM technology by statute to prevent serial copying,⁹⁵ Congress was careful to preserve the ability of the public to make non-infringing reproductions. The Serial Copy Management System applied only to digital reproductions, and did not interfere with the ability to make the first reproduction. Moreover, even infringing reproductions of sound recordings would be immune from prosecution,⁹⁶ as the Act provided a means of compensation to the copyright owners to offset the anticipated economic impact from lost sales.⁹⁷ Thus, rather than impose a DRM to prevent all reproductions, the Act provided that the DRM would prevent only certain types of reproductions and provided a safety valve to ensure that other reproductions could be made even more easily.⁹⁸ The Act is, therefore, self-balancing.

⁹⁰ 17 U.S.C. § 107.

⁹¹ 17 U.S.C. § 112.

⁹² 17 U.S.C. § 117.

⁹³ 17 U.S.C. § 121.

⁹⁴ 17 U.S.C. § 1002.

⁹⁵ 17 U.S.C. § 1001(11) (“The term ‘serial copying’ means the duplication in a digital format of a copyrighted musical work or sound recording from a digital reproduction of a digital musical recording”).

⁹⁶ 17 U.S.C. § 1008.

⁹⁷ 17 U.S.C. §§ 1003(c)(3) and 1004.

⁹⁸ The Audio Home Recording Rights Act did not anticipate the phenomenon of peer-to-peer reproductions over the Internet. Record companies have been struggling with how to stop such reproductions without directly challenging the act of the consumer in downloading a copy. To date, recording industry lawsuits have focused on the so-called “uploading” (not really uploading at all, as it simply leaves an existing file available from which others can make a reproduction), attempting to shut down the source for reproductions that would likely fall within the 17 U.S.C. § 1008 exemption, particularly if the reproduction is made directly to a “digital audio recording medium.” It appears that the record companies were, in the beginning, content to let music retailers bear the brunt of sales cannibalization from Section 1008 reproductions, expecting to receive greater revenue from the royalty structure than through lost sales. In hindsight, it appears that the record companies might have fared better if they had not brokered such a deal and, instead, helped music retailers compete on price, quality and service against the so-called “pirate” reproductions. For example, in the home video industry,

Another example of copy-control technology that could pass muster here is the Macrovision encryption of certain motion pictures. Although it cannot properly be called “DRM” when applied only to analog (*e.g.*, video cassette) copies, it is also used in the digital environment. Macrovision is intended to degrade the picture quality when a second generation reproduction is made, yet it does not interfere with the consumer’s ability to record over-the-air analog broadcasts of audiovisual works.⁹⁹ And, so long as reproductions without degradation are readily available, the ability to make fair use of the work is generally preserved, impacting perhaps only a few very specialized applications. The Content Scrambling System (or “CSS”) used on DVDs through agreement with the hardware manufacturers prevents reproductions, but it is more of a speed bump than a technology that would prevent fair use or other reproductions authorized by law because movies are typically available in other usable formats.¹⁰⁰ While there may be disagreement as to how balanced such a DRM use is, the primary purpose is to prevent infringing copies of DVDs from being made and sold, and its impact on other lawful uses has, so far, been rather miniscule.

More recently, record companies have begun experimenting with new copy-protection technology to prevent “CD-quality” reproductions. There has been some controversy concerning the legality of preventing the very reproductions for which copyright owners are receiving royalties via taxes on hardware and blank media, but the response of the music industry has been to experiment with multiple reproductions on a single medium, enabling, for example, the reproduction of a compressed version while impairing the reproduction of the uncompressed version.¹⁰¹

3. Implementation of Legitimate License Terms

Copyright owners do have certain exclusive rights, and are entitled to license them to others. Use of DRM to facilitate the licensing could generally be considered good,¹⁰² but we can treat as “bad” those uses of DRM that go further than necessary to implement the copyright license by seeking agreement to (or simply enforcing) terms that may be anti-competitive or impose restrictions beyond the scope of the copyright.

it is hard for professional pirates or casual consumers to compete with the convenience, quality, selection and price of a cheap rental at the local video store. Wholesale prices of feature length motion pictures are often lower than for a music CD because the competition among legitimate sales and rental channels is fierce and there is no subsidy for “free” non-commercial reproductions.

⁹⁹ Macrovision uses “four-line colorstripe copy control technology.” See 17 U.S.C. § 1201(k).

¹⁰⁰ A more controversial feature of CSS is the provision for “regional coding” that impairs the redistribution of lawful copies and tends to facilitate price discrimination. Although the motion picture industry defends it as an “anti-piracy” tool, in reality it probably contributes to the proliferation of infringing copies, as legitimate retailers in one region are unable to meet the demand because the only copies available lawfully are coded for a different region. The pirates, who make their infringing copies without regional coding DRM limitations, are guaranteed exclusive access to the market.

¹⁰¹ The National Association of Recording Merchandisers, issued a statement on September 12, 2003, on release of the first “copy-managed” CD by BMG and Arista. “They have found a way to not only protect their content from piracy, but to recognize that some copying by consumers and retailers is legal and appropriate.” (http://www.narm.com/Content/NavigationMenu/Media_Center/Press_Releases/20033/BMG_Arista.htm.) The copy-managed CD allows some copying intended to accommodate customary uses.

¹⁰² See, *e.g.*, pages 21 (“Perfecting Authorized Reproductions”) and 23 (“Digital Ticket-Taker”), above.

An example from the early days of digital downloading is Universal Music Group's failed "Blue Matter" venture. Before being permitted to exercise the licensed right of reproduction to download a UMG song, consumers had to agree to an end-user license agreement ("EULA") in which they promised never to exercise their statutory right to sell the copies legally made under UMG's license.¹⁰³ It purported to create a "right to use" the downloaded music¹⁰⁴ and prohibited the user from allowing others to play the legally made copies ("phonorecords") even upon the licensee's death. Curiously, in the course of trying to prevent certain uses by agreement, the UMG license also expressly granted the right to make several copies, albeit subject to an agreement not to transfer possession to anyone else. Had UMG remained silent, a consumer making a reproduction and then selling it could have been prosecuted for copyright infringement. As a result of the UMG license, however, the consumer was authorized to make two MP3 copies and two copies onto CDs. These copies, having been lawfully made, could be distributed without the consent of the copyright owner pursuant to section 109 of the Copyright Act. UMG's DRM-required EULA purported to require relinquishment of a federal entitlement as condition of obtaining the license to reproduce the work, thereby enlarging the copyright holder's control. The consumer was free to sell the legal copies without risk of copyright infringement liability, but might have had to argue (in defense of a breach of contract claim) that the EULA provisions were void as against public policy.¹⁰⁵

This is but one example of myriad possible iterations of DRM technology through which the copyright owner may intend to protect its copyrights while carrying out legitimate licensing agreements that help further disseminate the work, but fail, in that process, to respect the countervailing rights outside of the copyright – rights reserved to the public. Here again, if the DRM (or EULA to which the DRM requires agreement) serves to enlarge the copyright power beyond its statutory limits, to infringe upon non-exclusive rights reserved to the public, or to restrain trade, it is incumbent upon courts and law enforcement officials to weigh whether such harms are outweighed by resulting benefits, and to determine whether the harms are no greater than necessary to achieve the identified benefits.

4. DRM to Enable New Business Models

The major copyright holding companies often refer to "new business models" they wish to develop using DRM. These models typically involve copyright expansionism and restraints of trade discussed below – reverse infringement by use of DRM technology to enlarge the reach of the copyright and suppress competition in aftermarkets. When it comes to reproduction and distribution of copies to the masses, systems controlled by the copyright

¹⁰³ The UMG Blue Matter EULA is available at <http://www.copyright.gov/reports/studies/dmca/sec-104-report-vol-3.pdf> at page 491 (DMCA Section 104 Report, vol. 3, Appendix 9, Hearing Transcript Appendix 3).

¹⁰⁴ There is no such general "right to use" a copyrighted work under the Copyright Act. As discussed above, the right to play one's own music – to perform the work privately – is excluded from the copyright grant, such that playing music privately is never infringing, and never within the right of the copyright holder to control.

¹⁰⁵ See, e.g., *Softman Prods. v. Adobe Systems, Inc.*, 171 F. Supp. 2d 1075, 1090 (C.D. Cal. 2001) (EULA purporting to diminish rights consumers enjoy under copyright law is inconsistent with the balance of rights established by Congress). The legal dynamics at issue here are discussed more fully under "ugly" uses of DRM, at page 54, under the heading "Eliminating Competition." UMG's plan is somewhat more benign than a bare restraint in that it would be hard to enforce the EULA, and the accompanying license authorizes additional copies that can be placed in circulation, albeit in breach of the EULA.

owner are likely to pale in comparison to competitive offerings. For example, in the music industry, major retailers were ready, willing and able to offer downloads before Napster ever came along to fill the demand with a non-monetized peer-to-peer delivery system. These retailers complained that the record companies would not license to them the reproduction rights they needed to offer these downloads or, if they did, the licenses came with restrictions beyond simply naming a wholesale price and requiring accountability and some level of security.¹⁰⁶

if third parties are offered licenses to sublicense works in competition with each other and on a non-discriminatory basis, we could expect unlimited innovation

At the time the record companies were refusing to allow music retailers to compete, they were entering into joint ventures with each other, tied to two brands of media players (one camp supporting Microsoft's player and the other RealNetworks' player). These services were based on distorting copyrights by licensing a reproduction at no charge, but charging for noninfringing private performances of the lawful reproductions. This so-called "subscription" service is equivalent to a book publisher charging people for the right to read books they own. Although DRM-controlled new business models run by joint ventures of major copyright holding companies may be anti-competitive for a number of reasons, that is not to say that individual copyright owners could not, acting independently, make creative and lawful uses of DRM that would result in new positive business models. And, if third parties are offered licenses to sublicense works in competition with each other and on a non-discriminatory basis, we could expect unlimited innovation. Any speculation in this paper as to all possible models would certainly fail to predict many new types of business ventures that could be created by relying on DRM technology that facilitates competitive offerings rather than suffocating innovation by keeping vertical control within a copyright holder's clenched fist. But a quick glimpse at the future may nevertheless be useful.

DRM would, for example, be helpful in facilitating any number of creative ways of fighting to gain and keep customers: Guaranteed quality of downloads, buy two downloads and get the third free, buy a pizza and download a movie at half price, hear music you like at the record store and have it waiting for you on your home hard drive by the time you get home, switch from a competitor's media player to ours and get ten downloads free or get a free top-of-the-line media player after ten downloads, come to retailer A because they offer a turnkey system good for people who know little about computers, or come to retailer B because it is designed for those who want to mix and match the operating systems, codecs

¹⁰⁶ See, e.g., Testimony of Mike Farrace, Senior Vice President, Digital Business, Tower Records, before the Senate Judiciary Committee, April 3, 2001 ("Online Entertainment: Coming Soon to a Digital Device Near You"). (Tower's first online store began in 1995. Its attempts to grow were stifled not by piracy but by the record companies, which required the equivalent of having "a different cash register for every distributor," inefficient steps in the downloading process, mining Tower's customers for private data, and "horrible" end-user license agreements that were not even available to customers until after they bought the copy. "OK. My suppliers have the right to get into retailing. Tower isn't afraid to compete with retailers. We think we're pretty good. But we don't think it's fair to let these companies use their power over us to steal our customers and ultimately steal our business. Retailers need rules that protect competition.")

(compression/decompression algorithms), media players, rippers and file organizers of their choice.

Some business models might even push copyright law to its limits, or require clarifying litigation or enabling legislation to facilitate.¹⁰⁷ The point is not to cover every future business model, but to underscore that for most of them to be viable, some form of DRM technology will probably be essential. It may be as simple as recognizing the source of your file (such as digital “watermarking”) so that the person who complains that the download contained imperfections can prove that it came from source A rather the source B, or that the person getting the third download free actually paid for the first two. Whether DRM used to enable these new business models is good, bad or ugly is going to depend more on the character of the business model itself than the structure of the DRM code. Most important, however, is the principle that DRM use will tend to be best if it enables the development of competing business models in which independent businesses compete (*i.e.*, competing channels, each populated by independent competitors). At the ugliest extreme would be joint ventures among copyright holding companies with a narrow selection of business models in which there is no real competition.¹⁰⁸

C. Ugly Uses of DRM

Some uses of DRM have the sole purpose and effect of expanding the scope of the copyright, through technology, to give the copyright owner control over non-infringing uses. "Ugly" DRM is the kind that has little to do with managing or protecting copyrights, as its primary purpose is to unlawfully extend the scope of the copyright holder's control beyond the limits of copyright.

Examples of ugly DRM are technologies that tether legal copies to specific hardware or a specific user so that the market for lawful redistribution of those copies is eliminated. DRM that enables copyright holders to extend their copyright monopoly into control over the markets for codecs and media players is also very ugly, as there is absolutely no valid reason why copyright holders must condition the licensing of a reproduction or public performance on the use of any specific technology among many technologies that protect copyrights from infringement equally well. Another example is that of the timed out copy (also know as the "limited download") that has the sole purpose of preventing the continued lawful, noninfringing private performance of a work – like printing books in disappearing ink so that they cannot be re-read or sold in the used book market. Since copyright owners have no exclusive right to perform any of their works privately (including stolen or pirated copies), any DRM that gives them control over private performances from lawful copies is downright ugly, and should result in criminal penalties.

¹⁰⁷ See, e.g., “Space-Shifting” at 30, above.

¹⁰⁸ During the heyday of its launch, the *pressplay* subscription music service joint venture of Sony Music and Universal Music Group purported to deliver the service through competing affiliates (MSN Music, Yahoo!, and Roxio). Consumers seeking to comparison shop would, however, find an identical selection, identical prices and identical promotions at each of the three retail sites. For Tower records, Best Buy or Joe’s Music Store to participate in this new business model, they would have had to agree to offer the same prices and terms of service as each so-called competitor. All essential terms and conditions that could have bred vigorous competition were controlled horizontally and vertically by the joint venture copyright-owner partners.

There are three broad categories of “ugly” uses of DRM. First, DRM may leverage the strength of the copyright to gain control over markets outside of the copyright. Examples of this might be use of the copyright as a tool for data-mining (requiring the disclosure of private consumer data (in addition to cash) as a condition of allowing access to the work), monitoring lawful non-infringing activity, such as reporting back the number of private performances made of the work, or using the copyright to give a competitive advantage with respect to another product, such as a media player, operating system or proprietary compression format. I will address examples under the heading of “Tying,” not in the narrow antitrust sense, but in a broader sense peculiar to copyrights and recognized by the Supreme Court sixty years ago.

The second category includes DRM uses that seek to gain control over a right not belonging to the copyright owner, such as gaining control over the right to perform the work privately – a right which, as noted above, is excluded from the copyright. This category is discussed under the “Limited Download” heading.

Finally, there are those uses of DRM that simply constitute bare restraints on trade by eliminating all legitimate competition in the sale and rental of lawful copies. The heading for this discussion is, simply, “Eliminating Competition.” The Limited Download also has this effect, so these two categories should not be considered in isolation.

1. Copyright Tying

In the 1940’s, the United States Supreme Court in *United States v. Paramount Pictures*¹⁰⁹ struck down the “block booking” practices of motion picture studios. By refusing to license one or more copyrighted movies unless another undesired copyrighted movie was accepted, they sought to leverage the copyright in the desirable movie into power in the market for the less desirable. The Court’s reasoning should apply equally well to efforts to leverage the copyright into control over any matter outside the copyright. That is, if it is illegal to use the copyright in one work to tie in acceptance of an undesired second copyrighted work, it should be no less illegal to use the copyrights in several works to tie in acceptance of an undesired computer operating system, codec software or media player. The court found the practice analogous to unlawful “tying” under pure antitrust analysis, but because the tying works were copyrighted, there was no need to perform a full antitrust analysis. Rather, the leveraging of a lawful copyright monopoly in this manner was sufficient to condemn it. The Court stated:

Where a high quality film greatly desired is licensed only if an inferior one is taken, the latter borrows quality from the former and strengthens its monopoly by drawing on the other. The practice tends to equalize rather than differentiate the reward for the individual copyrights. Even where all the films included in the package are of equal quality, the requirement that all be taken if one is desired increases the market for some. Each stands not on its own footing but in whole or in part on the appeal which another film may have. As the District Court said, the result is to add to the

¹⁰⁹ 334 U.S. 131 (1948).

monopoly of the copyright in violation of the principle of the patent cases involving tying clauses.¹¹⁰

In *United States v. Loew's, Inc.*,¹¹¹ the United States Supreme Court once again condemned block booking, this time in relation to the licensing of motion picture films for televised performances. And again, the ruling diverged from traditional antitrust analysis by giving special attention to the importance of keeping the copyright holder's competitive actions limited to the exercise of exclusive rights in each individual copyrighted work. The Court simply saw that use of a copyright to gain an advantage in relation to transactions beyond the scope of the individual copyright is unlawful.

use of a copyright to gain an advantage in relation to transactions beyond the scope of the individual copyright is unlawful

Pure antitrust law relates to competition alone, but a copyright holder's restraints on trade must also take into account the public policy concerns relating to copyrights. The Copyright Act conveys legal but very limited monopolies over certain activity in exchange for additional limitations that would not apply where a product is not copyrighted. Therefore, the tying of the copyright to something outside of the copyright is a misuse of the lawful monopoly. It avoids the Copyright Act's limitations and results in both an expansion of the individual copyright and a restraint in the market for the product or service outside of the copyright. Thus, any use of the copyright monopoly to exercise control beyond the bounds of the lawful monopoly must be unlawful.

For example, under the Copyright Act, the person who downloads a movie under license from the copyright owner owns that copy and has the right to give it away, sell it, or lend it. Are copyright holders free to nullify those rights by conditioning the license to download on waiver of the federal entitlement to re-distribute the copy without the copyright holder's consent? Because the rights of owners are part of the Copyright Act, and part of the trade-off of being granted certain exclusive rights in exchange for certain limitations, then it should be clear that copyright holders have no right to prevent the owners of lawfully made copies from disposing of them lawfully. Similarly, since the right to perform the work privately is beyond the scope of the copyright, conditioning a license of the right of reproduction upon the licensee's agreement to use only the tied operating system, codec or media player in conjunction with the reproduction and private performance of the work would appear to be unlawful on its face.

The Supreme Court's longstanding disapproval of such copyright tying has its roots in similar patent tying. In 1917, it explored the issue of private enlargement of the patent from an intellectual property law premise rather than as a mere antitrust concern. In *Motion Picture Patents Co. v. Universal Film Mfg. Co.*,¹¹² it determined that the owner of a patented motion picture film projector could not lawfully use a "licensing" mechanism to obligate

¹¹⁰ Id. at 158 (footnote omitted).

¹¹¹ 371 U.S. 38 (1962).

¹¹² 243 U.S. 502 (1917).

purchasers of the machine to use it solely with motion pictures licensed under another patent (an expired patent, no less) which the company also owned.

A restriction which would give to the plaintiff such a potential power for evil over an industry which must be recognized as an important element in the amusement life of the nation, under the conclusions we have stated in this opinion, is plainly void, because wholly without the scope and purpose of our patent laws, and because, if sustained, it would be gravely injurious to that public interest, which we have seen is more a favorite of the law than is the promotion of private fortunes.¹¹³

Although the exercise of exclusive rights conferred by patent law could not be unlawful in themselves, the Supreme Court concluded that the exclusive right of use could not be employed as a tool to expand the scope of the patent, and that “it is not competent for the owner of a patent, by notice attached to its machine, to, in effect, extend the scope of its patent monopoly by restricting the use of it to materials necessary in its operation, but which are no part of the patented invention, or to send its machines forth into the channels of trade of the country subject to conditions as to use”¹¹⁴

The relevance to copyrights of the Supreme Court’s analysis in *Motion Picture Patents Co.* is inescapable. If it is unlawful to extend the statutory monopoly by limiting the use of a patented motion picture projector to products beyond the scope of the projector patent, then it stands to reason that it is equally unlawful to condition the licensing of copyrighted works upon the consumer’s use of the computer operating system, codec or media player designated by the copyright owner, or upon relinquishment of statutory rights of the licensee. By agreeing to license rights the legislature gave to the copyright owner – such as the right to perform a work publicly or to reproduce it into copies – only in conjunction with the licensee’s agreement to use specified access controls, codecs, digital media players or operating systems, the copyright owner is using the rights conferred by the legislature to bargain for rights denied to the copyright owner by the same legislature. In the process, the limited copyright monopoly is enlarged, and competition in the related goods and services is diminished. This is particularly true if the owner of the copyrighted motion pictures also owns an interest, either through direct investment or through a joint venture, in the exploitation of the intellectual property associated with the tied technologies.

But the law did not stand still in 1917. From this premise, the courts continued to develop a unique theory of misuse of intellectual property compatible with but independent of traditional antitrust law. In *Morton Salt Co. v G.S. Suppiger Co.*,¹¹⁵ for example, the United States Supreme Court examined the appellate court’s approval of the use of the patent

¹¹³ *Id.* at 519. This position was followed in *Carbice Corp. of Am. v. Am. Patents Dev. Corp.*, 283 U.S. 27 (1931) (owner of a patented package that used solid carbon dioxide could not obligate licensees to use its own solid carbon dioxide). In *Carbice*, the court noted that the law had already risen to prevent the unwarranted extension of other limited monopolies, such as trademarks and trade names, *id.* at 35 n.5 (characterizing this limitation as being “inherent” in the monopoly grant).

¹¹⁴ 243 U.S. at 516. “The patent law furnishes no warrant for such a practice and the cost, inconvenience and annoyance to the public which the opposite conclusion would occasion forbid it.” *Id.*

¹¹⁵ 314 U.S. 488 (1942).

monopoly in a machine for depositing salt tablets to force licensees to use only salt tablets manufactured by the patent holder. The appellate court had reasoned that, under traditional antitrust law, “it did not appear that the use of its patent substantially lessened competition or tended to create a monopoly in salt tablets.”¹¹⁶ The Supreme Court reversed on grounds of patent misuse, and concluded that, having done so, it was unnecessary to decide whether the antitrust statute itself had also been violated.¹¹⁷

[t]he public policy which includes inventions within the granted monopoly excludes from it all that is not embraced in the invention. It equally forbids the use of the patent to secure an exclusive right or limited monopoly not granted by the Patent Office and which it is contrary to public policy to grant.¹¹⁸

Thus, even though misuse of intellectual property rights is consistent with antitrust theory, the misuse claim was viewed as independent of the antitrust claim. And this line of reasoning is not limited to patents. The *Morton Salt* ruling noted with approval the application of this doctrine to copyrights.¹¹⁹ In *Paramount Pictures*, the Supreme Court further explained the limitations on copyright power in the context of “block booking.”¹²⁰ It approved of the lower court’s reasoning, which was based not only on the illegality of the restraint as a matter of competition law, but also for reasons based squarely upon the United States Constitution and Copyright Act:

The District Court held it illegal for that [traditional antitrust law] reason and for the reason that it “adds to the monopoly of a single copyrighted picture that of another copyrighted picture which must be taken and exhibited in order to secure the first.” That enlargement of the monopoly of the copyright was condemned below in reliance on the principle which forbids the owner of a patent to condition its use on the purchase or use of patented or unpatented materials.¹²¹

Based upon these principles, the doctrine of copyright misuse has developed both as a violation of antitrust law and as an affirmative defense against copyright infringement

¹¹⁶ *Id.* at 490.

¹¹⁷ *Id.* at 494.

¹¹⁸ *Id.* at 492.

¹¹⁹ *Id.* at 494.

¹²⁰ Block booking is “the practice of licensing, or offering for license, one feature or group of features on condition that the exhibitor will also license another feature or group of features released by the distributors during a given period.” 334 U.S. at 156.

¹²¹ *Id.* at 157 (quoting the lower court, citations omitted). *See, also, In re Napster*, 2004 U.S. Dist. LEXIS 7236 at *39-40 (Feb. 22, 2004) (“Under the ‘public policy’ approach, copyright misuse exists when plaintiff expands the statutory copyright monopoly in order to gain control over areas outside the scope of the monopoly. . . . The test is whether plaintiff’s use of his or her copyright violates the public policy embodied in the grant of a copyright, not whether the use is anti-competitive. However, as a practical matter, this test is often difficult to apply and inevitably requires courts to rely on antitrust principles or language to some degree”) (citations omitted).

when the copyright holder, by means of an over-reaching license or other method of control, tries “to secure an exclusive right or limited monopoly not granted by the [Copyright] Office and which it is contrary to public policy to grant.”¹²²

Although some have questioned whether a pure copyright misuse claim may be pled affirmatively, the United States Supreme Court has shown no such reluctance. *Paramount Pictures*¹²³ and *Loew’s*¹²⁴ did not involve separate claims for copyright misuse, but were antitrust cases. They arguably could have served to limit copyright misuse to just another label for a type of conduct unlawful under traditional antitrust law.¹²⁵ Nevertheless, they find copyright tying unlawful precisely because the tying products were copyrighted. As the Supreme Court later explained in the “Betamax”¹²⁶ case,

The Court of Appeals’ holding that respondents are entitled to enjoin the distribution of [video tape recorders], to collect royalties on the sale of such equipment, or to obtain other relief, if affirmed, would enlarge the scope of respondents’ statutory monopolies to encompass control over an article of commerce that is not the subject of copyright protection. Such an expansion of the copyright privilege is beyond the limits of the grants authorized by Congress.¹²⁷

If not even the Supreme Court could authorize such enlargement of the copyright monopoly as a remedy for instances of clear copyright infringement, certainly the copyright owner is not permitted to use the anti-piracy veil as a reason to enlarge its own copyright power.

Moreover, it is not necessary to establish market power in the manner of ordinary products because “either uniqueness or consumer appeal” of the product is sufficient to establish unlawful tying.¹²⁸ “This is even more obviously true when the tying product is patented or copyrighted.”¹²⁹ To viewers, “there is but one ‘*Gone With The Wind*,’”¹³⁰ and the

¹²² *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970, 976 (4th Cir. 1990), quoting from *Morton Salt*, 314 U.S. at 491. Moreover, copyright misuse is such a violation of public policy that some courts will not require that the person against whom the misuse is directed be a party to the litigation. “[T]he fact that appellants here were not parties to one of Lasercomb’s standard license agreements is inapposite to their copyright misuse defense.” *Lasercomb*, 911 F.2d at 979.

¹²³ 334 U.S. 131, 156-159 (1948).

¹²⁴ 371 U.S. 38 (1962).

¹²⁵ See *Paramount Pictures*, 334 U.S. at 159 (referencing the public policy of antitrust laws). The discussion of copyright misuse was under the heading “Restraint of Trade,” *id.* at 141. “The antitrust laws do not permit a compounding of the statutorily conferred monopoly.” *Loew’s*, 371 U.S. at 52. See, also, *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451, 4808 n. 29 (1992) (“The Court has held many times that power gained through some natural and legal advantage such as a patent, copyright, or business acumen can give rise to liability if ‘a seller exploits his dominant position in one market to expand his empire into the next’” (citations omitted)).

¹²⁶ *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984).

¹²⁷ *Id.* at 421.

¹²⁸ *Loew’s*, 371 U.S. at 45 and n.4. See also *id.*, at 48 and n.5

¹²⁹ *Id.* at 45 n.4.

¹³⁰ *Id.* at 48 n.6. *Gone With The Wind* was ranked fourth among the “top 100 films of all time” by the American

use of it to force others to take a less desired film, to install and use an unwanted media player, to confer upon the copyright owner the power to meter out wholly private performances, or to relinquish a federal entitlement to sell or rent the downloaded copy, is unlawful precisely because the appeal of a copyrighted film is being used to enlarge the power and scope of the copyright in that film and gain control over market decisions pertaining to lawful noninfringing activity.

These legal foundations remain viable today, and have been expanded beyond the tying of other copyrighted works. For example, in *MCA Television Ltd. v. Public Interest Corp.*,¹³¹ the Eleventh Circuit relied on these cases where the copyright owner was not leveraging a copyrighted work to force a second work upon an unwilling buyer, but instead, was using the copyrighted work to force certain economic terms upon the willing buyer of the second work. Although the issue came to the court as an antitrust counterclaim in a contract dispute, the court's analysis was substantively one of pure copyright law, as it expanded the reach of the *Loew's* and *Paramount* cases beyond mere block booking to cover the conditioning of a license of desired works (various television programs) on accepting another desired work (*Harry and the Hendersons*) for partial payment in cash rather than barter.

The applicability of *MCA Television* to the use of DRM technology is inescapable. Indeed, if unwanted business terms in contractual agreements would not pass muster, DRM technologies that foist those terms upon the other party without any bargaining opportunity must be even more deficient. For example, competing retailers and consumers may desire all of the copyrighted works being offered, and may also desire to use certain operating systems, media players, codecs or “good” DRM technologies that compete with those to which the copyrighted works are tied.¹³²

Finally, it should be noted that this is not a mere exercise in legal theory. Copyright holders (at least those who have aggregated a sufficiently large stable of copyrights to avoid being ignored) have already shown a propensity for using the power of the demand for their copyrighted works to dictate ties to products and services of their choice. Sony was one of the first to tie its music to its hardware and proprietary software, eschewing the popular MP3 format in favor of its own ATRAC3 format.¹³³ Individual record companies attempted to dictate the winners and losers in the digital delivery marketplace. Joint ventures among major record companies and movie studios have seen fit to eliminate competition among related products and services by dealing exclusively with persons who select their chosen operating systems, codecs and media players.¹³⁴

Film Institute.

¹³¹ 171 F.3d 1265, 1277 and n.13 (11th Cir. 1999).

¹³² They may also rather not have to “pay with the right of private performance” (see “Timing Out for Private Gain – The Limited Download,” below at page 50) or “pay with first sale rights” (see “Eliminating Competition,” below at page 54) rather than just paying with cash.

¹³³ See Yoshiko Hara, “Sony puts Memory Stick into latest Walkman,” EETIMES, September 23, 1999 (available at <http://www.eetimes.com/story/OEG19990923S0025>) (“The scheme accepts audio CD data and MP3 files distributed on networks, but Sony has prepared a proprietary environment and new data compression technology to handle the data.” “OpenMG application software resident on a personal computer accepts digital data, encrypts it with an OpenMG key, and converts the data for ATRAC3 to store on the PC's hard disk. (ATRAC3 is an encoder/decoder that Sony has developed for the Memory Stick.)”).

¹³⁴ For example, MusicNet, a music “limited download” joint venture of Bertelsmann, Time Warner, EMI

While Apple gained initial notoriety by tying its music downloading service to its iPod hardware, Apple is not the copyright owner, so presumably it is not extending anyone's copyrights into the market for portable music players.¹³⁵ Until the major record companies begin allowing all traditional music retailers to compete with Apple by offering them the same "wholesale" prices for downloads, and allowing each to decide which codecs, media players and hardware systems to support, the public may never learn just how easy and inexpensive it can be to enjoy downloaded music.

2. Timing Out for Private Gain – The Limited Download

In the eyes of copyright law, a "limited download" is the same as a store-bought copy in every respect, except that it has not been distributed.¹³⁶ Yet, more sophisticated DRM can be used when allowing the consumer to reproduce the copies at home, one at a time, for a specific computer operating system and media player, than when it is being reproduced by the thousands or millions at a factory for distribution to people with different operating systems and media players. When hardware manufacturers must somehow be persuaded to inject complexities into the devices that will give copyright owners greater control over what consumers can do, extreme behavior is likely to be somewhat muted. But when "software side" DRM can exploit features of a particular hardware or operating system platform, the countervailing interest of hardware manufacturers can be disregarded. The copyright owner's only limitations are the limits of its own ingenuity. Thus, DRM that is dependent only upon computer software at the disposal of the copyright owner is likely to be used much more aggressively. It is also likely to be uglier.

Such has been the case in several efforts by copyright owners to gain control over the public right of private performance.¹³⁷ The most recent has been through Microsoft

Group and Real Networks required subscribers to use Real Networks' Real Player; *pressPlay*, a music "limited download" joint venture of Sony Music and Universal Music Group (though they sold their controlling interests as the Department of Justice was investigating the ventures) required users to patronize Microsoft software; *Movielink*, a movie "limited download" joint venture of Time Warner, MGM Studios, Sony Pictures Entertainment, Paramount and Universal Studios, to which the movie collections of Disney and Arista were added, required subscribers to exclusively use a Microsoft operating system supporting Windows Media Player 8 or higher. Each of these joint ventures obligated consumers to keep paying for the "right" to privately perform copies and phonorecords they had lawfully made using these services, using "ugly" DRM to enforce those terms, as described in the next subsection.

¹³⁵ It is certainly conceivable that a hardware manufacturer could enter into an agreement with the major record companies to give them a share of the revenue from the sales of the hardware, in which case the same anti-competitive and copyright-enlarging evils would come into play.

¹³⁶ Under the authority of the copyright owner, the store-bought copy is reproduced at a factory (an exercise of the exclusive right of reproduction), and then distributed to wholesalers and retailers (an exercise of the exclusive right of distribution). Once sold, however, Section 109 of the Copyright Act kicks in, exhausting most of the distribution right over those copies. In contrast, under the authority of the copyright owner, the downloaded copy is reproduced in a home and is not distributed. The copyright owner has only exercised the right of reproduction. Section 109 nevertheless exhausts the distribution right because it applies whenever someone other than the copyright owner owns the copy or phonorecord. Since the consumer owns the tangible medium upon which the download is reproduced, the consumer owns the resulting copy or phonorecord, and the Section 109 rights of such owner trump most of the distribution rights of the copyright owner.

¹³⁷ See the limitations upon the performance right at page 6, above.

Corporation's "Janus" DRM – a new version of its DRM for the Windows Media Player.¹³⁸ The new DRM would limit the length of time or number of times that the owner of a legally downloaded copy of a work could perform it privately (*i.e.*, play the music, movie or game, or read an electronic book). As explained above, no copyright owner has the exclusive right to perform a work privately. This DRM, both in purpose and in effect, would empower the copyright owner that uses it to claim that right by might.¹³⁹

**Microsoft is pitching this devastating blow to
the public's statutory rights as "good for you"**

Microsoft has been skillfully spinning this limitation as just the opposite. Instead of acknowledging that the DRM would place limitations upon the uses of lawfully downloaded works that Congress has entitled the public to exploit without limitation from the copyright owner, or admitting that what Microsoft is actually offering is greater monopoly power to the copyright owner to limit the uses to which the public is entitled by law, Microsoft is pitching this devastating blow to the public's statutory rights as "good for you." The Microsoft Press Release quotes a Disney executive calling it "a positive development in the continuing effort to provide consumers with more choices for enjoying legitimate entertainment content on emerging digital platforms."¹⁴⁰ In reality, the DRM gives copyright owners more choices for gaining control over lawful noninfringing activity, such as private performances, rentals, gifts, sales or lending.

One of the "new" freedoms is supposedly the ability to "rent" downloaded copies. The term "rental" has never meant having to pay for the freedom to enjoy your own property. This is the equivalent of letting copyright owners charge books store patrons for reading a book twice.

Copyright owners enjoy an exclusive right of public performance, but do not have an exclusive right of private performance.¹⁴¹

¹³⁸ "Microsoft Announces New Version of Windows Media Digital Rights Management Software" (hereafter "Microsoft DRM Press Release"), press release by Microsoft Corporation, May 2, 2004, available at <http://www.microsoft.com/presspass/press/2004/may04/05-03DigitalRightsManagementTechnologyPR.asp>. See, also, John P. Mello, Jr., "Microsoft Updates DRM, Code-Named Janus," *Ecommerce Times*, May 4, 2004, available at <http://www.ecommercetimes.com/story/security/33626.html> ("Janus will offer other pricing opportunities, such as renting music," according to one of its supporters.)

¹³⁹ Moreover, the new Microsoft DRM could effectively eliminate competition in the secondary markets for lawful copies. The fact that Section 109 of the Copyright Act entitles the owner of a lawfully downloaded copy of a copyrighted work to sell or transfer possession of it without the consent of the copyright owner is not in dispute. Even the major copyright holding companies agree. See, *e.g.*, *Joint Reply Comments of Copyright Industry Organizations Report to Congress Pursuant to Section 104 of the Digital Millennium Copyright Act*, dated September 5, 2000, submitted by the American Film Marketing Association, the Association of American Publishers, the Business Software Alliance, the Interactive Digital Software Association, the Motion Picture Association of America, the National Music Publishers' Association and the Recording Industry Association of America; *Hearing Before the Copyright Office and the National Telecommunications and Information Administration on a Joint Study on 17 U.S.C. Section 109 and 117* (November 29, 2000) (statement of Cary Sherman on behalf of the Recording Industry Association of America, Inc., p. 298).

¹⁴⁰ See note 138, above.

¹⁴¹ Section 106(4). "No license is required by the Copyright Act, for example, to sing a copyrighted lyric in

The Copyright Act does not give a copyright holder control over all uses of his copyrighted work. Instead, [Section 106] of the Act enumerates several "rights" that are made "exclusive" to the holder of the copyright. If a person, without authorization from the copyright holder, puts a copyrighted work to a use within the scope of one of these "exclusive rights," he infringes the copyright. If he puts the work to a use not enumerated in [Section 106], he does not infringe.¹⁴²

Thanks to the Microsoft DRM, however, copyright owners can obtain for themselves an exclusive right of private performance over copies owned by those who legally downloaded them.¹⁴³

Although Section 202 of the Copyright Act makes clear that the copyright holder's copyrights in the work are distinct from the owner's rights in lawful copies of the work, the new Microsoft DRM would enable copyright owners to pretend that ownership of the copy has no bearing. Ironically, this would run counter to the position, vigorously defended by copyright owners when it was to their benefit – a tax benefit – to do so. In testimony before Congress addressing the question of whether the delivery of content of e-commerce networks should be considered trade in goods or trade in services, or both, the Motion Picture Association of America insisted that downloaded copies should be treated just like physical copies, giving this example:

If a consumer were to place a telephone order for a DVD of the film "Finding Forrester" and have a copy of that DVD delivered to his house on a UPS truck, that is a "goods" transaction. Likewise, if the same consumer ordering a copy of the same DVD on his/her computer and had the same content delivered digitally and downloaded from his computer to a write-able DVD – that is still a "goods" transaction. The only difference is that a digital network instead of a delivery van provided the transportation from the retailer to the consumer.¹⁴⁴

sending an agent along with the delivery truck to prevent the owner from enjoying the work as Congress intended unless the copyright owner is paid again

the shower." *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151, 155 (1975). Of course, those who own lawfully made copies and phonorecords should not be relegated to singing in the shower, but have the right to play them in the car or the living room as well.

¹⁴² *Fortnightly Corp. v. United Artists Television, Inc.*, 392 U.S. 390, 393-95 (1968) (footnotes omitted).

¹⁴³ It warrants noting that private performances do not constitute infringement regardless whether the person rendering the private performance owns a copy (or phonorecord) of the work.

¹⁴⁴ *Impediments to Digital Trade*: Hearing before the Subcommittee on Commerce, Trade and Consumer Protection of the House Committee on Energy and Commerce, 107th Cong., Serial No. 107-36 (May 22, 2001) at 21 (statement of Bonnie J.K. Richardson, Vice President for Trade & Federal Affairs for the Motion Picture Association of America).

The Motion Picture Association of America maintains that the digital nature of the delivery does not change the character of what is in substance still a physical “goods” transaction, and rightly so. The only thing that has changed is the location of the manufacturing facility – from a large factory to an individual’s home. Yet, with the advent of Microsoft’s new tool for, in effect, sending an agent along with the delivery truck to prevent the owner from enjoying the work as Congress intended unless the copyright owner is paid again, at least two members of the Motion Picture Association – Disney and Time Warner – appear to have abandoned their principled position in exchange for one favoring exploitation of copyright expansionism enabled by use of Microsoft’s new DRM technology.

To illustrate why copyright owners should not be permitted to gain control over private performances using Microsoft’s new DRM for so-called “rental” business models, let’s consider what would happen if the copyright owner engages in a true rental business model. The copyright owner would reproduce copies or phonorecords and rent them to consumers. All it would be doing is transferring possession of the disc (not ownership), with no transfer at all of any copyrights. Yet, the renter would be free to play the work as many times as desired, without any limitation other than the expiration of the rental period, at which time the return of the disc to its owner – the copyright owner – would make it impossible to continue performing the work. But if the renter fails to return the disc when due and continues to perform the work after the right of possession has expired, such private performances would infringe no copyright. The copyright owner’s only recourse would be for late fees – simple breach of the rental agreement. If we consider, in contrast, a downloaded copy, owned lock, stock and barrel by the consumer, it is evident that, just as with the rental copy, the copyright owner has no claim under law to prevent the private performance of the work, and since no rental is involved, there is no obligation to return anything to the copyright owner (as the copyright owner has never even owned the copy in question). The public policy foundation of the Copyright Act is to encourage all uses short of infringement.¹⁴⁵ The use by the copyright owner of Microsoft’s DRM to limit noninfringing use constitutes a major expansion of copyright power by technological fiat.

Finally, it would be short-sighted to focus solely on the copyright owners of the works to which the Microsoft DRM would be applied. What is in this for Microsoft? The pay-off for agreeing to implement the restraints on secondary markets and expansion of the copyright into the realm of private performances is that Microsoft’s Windows Media Player would be designated as the sole “supported” media player. In exchange for Microsoft assisting in the ugly DRM effort, the copyright owners force the consumer to use Microsoft’s Windows Media Player. Consumers who wish lawfully to download copies of copyrighted works and perform them privately on a more competitive media player of their choice will find that they are unable to do so. They may be able to use any number of media players for some works, but still have to use Microsoft’s product to gain access to those works whose copyright owners chose to enter this agreement with Microsoft to restrain trade in second-hand products and extract payment for (or control over) non-infringing private performances.

¹⁴⁵ *Fortnightly*, 392 U.S. at 393, n.8 (citing BENJAMIN KAPLAN, AN UNHURRIED VIEW OF COPYRIGHT (New York: Columbia University Press, 1967), 57).

3. *Eliminating Competition*

The first sale doctrine is codified in section 109 of the Copyright Act, which states in 109(a) that notwithstanding the copyright owner's section 106(3) right of distribution, the owner of a lawfully made copy "is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy." Section 202 establishes that the owner of the copy doesn't necessarily control the section 106 rights, and the owner of the section 106 rights does not necessarily control the copy. The intellectual property interest and the physical property interest are separate (and, as we have seen above, the intellectual property interest does not extend to noninfringing uses, such as the always noninfringing private performance or display of a work). If through use of DRM technology, however, the owner of the intellectual property interest can gain control over the tangible property interest, the copyright owner could nullify section 202's distinction, nullify section 109(a)'s entitlement to part with ownership or possession of the tangible medium without the copyright owner's consent, and nullify the public's freedom to perform the work privately from any copy.

In the two previous sections we have seen that it is unlawful to leverage the copyright monopoly into control over rights, products or services that are not part of the copyright being leveraged, and we have seen that it is improper to interfere with the public's right to perform works privately. While it may be the case that such burdens are but unintended collateral damage in an effort to protect copyrights or enhance dissemination, when the purpose and effect of a given DRM is to eliminate lawful competition, the practice should be condemned *per se*. Unfortunately, the practice is becoming more widespread.

As we saw in reviewing use of DRM to "time out" access to works, thereby rendering them incapable of being performed privately, some such limitations might be positive, as when it facilitates and encourages more reproductions,¹⁴⁶ and other limitations may be tolerable under the right circumstances.¹⁴⁷ In some instances, in contrast, the sole purpose of using DRM technology to make a work inaccessible for private performances is to eliminate competition from the lawful secondary markets involving redistribution of the work. (The same purpose and result may be achieved by "tethering" a particular copy to a device, such that it is only accessible for private performance if it is present with the device, such that it cannot be fruitfully sold, lent or given away apart from the hardware.)

May the monopoly power of copyright, however limited, be used to gain control over distribution of a work after the distribution right has been terminated by law? May the copyright holder use technological devices to destroy competition in the market for used copies of its works, including commerce by sale, rental, gift, or lending? As noted above,¹⁴⁸ the answer is straightforward: "A copyright owner may not enforce its copyright to violate the antitrust laws or indeed use it in any 'manner violative of the public policy embodied in the grant of a copyright.'"¹⁴⁹

¹⁴⁶ See "Perfecting Authorized Reproductions," at page 21, above.

¹⁴⁷ See "Timing Out for Public Good" on page 29, above.

¹⁴⁸ See page 12, above, discussing competition law limitations upon copyrights, generally.

¹⁴⁹ *Tricom, Inc. v. Electronic Data Systems Corp.*, 902 F. Supp. 741, 745 (E.D. Mich. 1995) (quoting *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970, 978 (4th Cir. 1990)).

Some of the motion picture studios have made no secret of their desire to leverage copyright and market power into control over the distribution markets, particularly video rental stores. One could argue that if copyright holders are too restrictive, their sales will be impacted, and they will make adjustments. But such view ignores two basic principles.

First, copyrights are monopolies. There are no substitutes for the works in greatest demand. Competition in the delivery of copyrighted works occurs primarily at levels of distribution below the copyright owner. For example, if consumers are dissatisfied with terms and conditions imposed by the retail seller, they can look to competing retailers for satisfaction. Even though each retailer may pay the same wholesale price for copies of the work, they can compete on all terms and conditions of the sale to attract customers. If, however, the copyright owner can impose uniform terms and conditions that all retailers must honor, then there would be no alternative source offering better terms and conditions for the same product.

To illustrate, if one retailer were to make each customer sign a EULA stating that they will not let anyone else watch the movie, read the book or listen to the CD, or agreeing to destroy their copy after reading it or playing it, a consumer who objects to those terms needs only go to a competing retailer. If, on the other hand, the copyright owner imposes those very same restrictions upon a copy by use of technology or EULAs, every retailer will be forced to pass those restrictions on to the consumer, and the competitive benefits the consumer might enjoy are lost. Moreover, because each copyrighted work is unique, there is not likely to be a satisfactory market substitute for the work. For example, even among popular films, a consumer wanting to watch *The Matrix Reloaded* is not likely to substitute *Spy Sorge* just because the price is better, or because they do not like the restrictions the copyright owner placed upon the film. Plus, if there is independent demand for *Spy Sorge* and *The Matrix Reloaded*, buying, renting or watching one is not going to reduce the desire to buy, rent or watch the other.

Second, because of the uniqueness of each copyrighted work, there is little true competition between the major motion picture studios for consumer loyalty. That is, they attempt to draw consumers to demand a particular movie title, but not to demand a particular movie studio. With few exceptions, consumers are oblivious to which studio owns the copyright in a motion picture. When a group of friends decides to watch a movie, they may discuss which genre of film they want to watch, which theater or video rental store they will go to, and which specific movie title they can agree on, but it would be very unusual to discuss which copyright owner's works to patronize. The same is true for books: A person walking into any bookstore may find books organized by author, by title, by genre, but rarely by publisher. Music stores will organize CDs by artist or by genre, but not by record label. Movies, likewise, depend upon independent aggregators who present them to consumers based on genre or title, not by copyright owner.

Precisely because of the second point, motion picture studios have been unsuccessful in their efforts to establish a studio-based retail presence. Warner announced it was shutting down its retail stores, and Disney is cutting back as well.¹⁵⁰ Consumers simply do not wish to shop studio-by-studio. The consumer interface for motion pictures requires the services of aggregators who will select the merchandise most likely to be in demand without regard to

¹⁵⁰ "That's All Folks," *ICv2* July 9, 2001, available at <http://www.icv2.com/articles/news/528.html>.

who owns the copyright. With independent retailers, it matters not whether a given studio has the greatest market share. If a retailer believes there will be consumer demand for a particular title from a small independent studio, then that title will be given prominence based upon its own merit, and not based upon the studio's size. The same is true for libraries, swap meets, flea markets and yard sales.

"It's like a \$2.50 video rental but we keep all the money."

Although physical constraints and distribution logistics made it difficult for copyright owners to exercise complete control over distribution in physically delivered copies, DRM controls are clearly intended to impact competition in the physical distribution of lawful copies. Consider the words of Walt Disney's Chief Executive Officer, Michael Eisner, four years ago, as his company was viewing the Internet video-on-demand market, and considering possible alliances with other major studios. He explained that he wanted to eliminate the middleman, which is to say, eliminate competition from retailers and distributors. "The studio would like to offer downloads directly from their own websites." "It's like a \$2.50 video rental but we keep all the money."¹⁵¹ Warren Lieberfarb, who at the time was President of Warner Home Video, told investors that the very first "business goal" of Warner Home Video was to "Replace video rental business and create a higher margin alternative to VHS rental."¹⁵² Mr. Lieberfarb explained: "It's almost a business imperative for studios to displace the rental market" with VOD (video-on-demand) where the studios are "in control of their own margins."¹⁵³

"It's almost a business imperative for studios to displace the rental market."

To achieve such objectives, movie studios who own the copyrights must keep upward pressure on the price (particularly the rental price) of DVDs containing new release movies.¹⁵⁴ In Europe, for example, where the rental right is not limited to those copies owned by the copyright owner, movie studios can routinely set a much higher wholesale price for copies they "authorize" for rental, thereby suppressing the kind of price competition that exists in the United States between rentals and sales. The resulting higher rental prices relieve downward pressure on sales prices and will make what are now relatively expensive Movielink downloads appear more competitive.¹⁵⁵

In the United States, where the rental right cannot be used to suppress price competition between rental and sales channels (including re-sales), these stated objectives are

¹⁵¹ Paul Sweeting, "Digital Could Break Chains That Bind Studio Profits," *Variety*, April 10, 2000.

¹⁵² Paul Sweeting, "VB In Depth: Lieberfarb Talks Rent Control," *Video Business*, November 4, 2002.

¹⁵³ *Id.*

¹⁵⁴ *Id.*

¹⁵⁵ Unfortunately, video retailers in Europe are also finding that the artificially higher retail (sales and rental) prices lend themselves to a more attractive market for professional pirates. They, too, benefit from less price competition.

being pursued through the use of DRM technology aimed squarely at the elimination or suppression of competition from secondary markets. Disney, for example, is pursuing secondary market elimination on three fronts: Time-limited downloads, vanishing DVD movies, and, most recently, time-limited personal video recorder functions.

We have discussed time-limited downloads above. In Disney's case, it has recently joined the MovieLink joint venture¹⁵⁶ to disseminate its works under a plan that licenses the reproduction by the consumer but employs DRM (through Microsoft's Media Player) so that it cannot be sold, rented, lent or given away.

"The intent is to have a per-viewing capability and a price per view."

The MovieLink joint venture goes far beyond mere pooling of copyrighted assets, as the venture involves the joint use by the member studios of identical restraints upon lawful uses – restraints such as tethering and timing out, which serve no purpose but to extend control over copyrighted works beyond the limits of the copyright authority. Although use of such restraints is not protected from antitrust scrutiny,¹⁵⁷ particularly when used in concert by the major studios, the DMCA nevertheless protects them from being circumvented by the public.¹⁵⁸ This gives the major motion picture studios the power to license reproductions from the Internet into lawful copies, coupled with the suppression of all trade in those lawful copies and the unauthorized charging for private performances. In an interview with *Video Store Magazine*, Jim Ramo, the CEO of Movielink, recently explained it this way:

"[Consumers] will simply go to a web site, search and choose titles and be given suggestions. They'll click on the movie, click 'buy' and then download it," Ramo said. "The intent is to have a per-viewing capability and a price per view."¹⁵⁹

¹⁵⁶ See Holly J. Wagner, "Buena Vista PPV Inks Deal With Movielink," Video Store Online, posted July 23, 2003, available at http://www.hive4media.com/index.cfm?sec_id=2&newsid=5109; Alex Veiga, "Disney, Movielink Ink Deal to Make Movies Available Online," *The Miami Herald, Herald.com*, June 23, 2003, available at <http://www.miami.com/mld/miamiherald/business/6369515.htm>.

¹⁵⁷ The Department of Justice has already raised concern about the effects of pooling where the pool includes non-essential patents. "Inclusion in the pool of one of the patents, which the pool would convey along with the essential patents, could in certain cases unreasonably foreclose the competing patents from use by manufacturers; because the manufacturers would obtain a license to the one patent with the pool, they might choose not to license any of the competing patents, even if they otherwise would regard the competitive patents as superior." Letter from Joel I. Klein to Garrard R. Beeney, Esq., December 16, 1998, at p.10. (At the time, Mr. Klein was Assistant Attorney General, Antitrust Division, United States Department of Justice.) It stands to reason that this concern would be just as valid where pooled copyrighted works were made available only on condition that certain non-essential technologies or business models were employed, thereby foreclosing competition in competing and possibly superior technologies and business models.

¹⁵⁸ It is conceivable that courts will refuse to enforce the DMCA where it is being used to protect the use of technologies to unlawfully expand copyrights beyond their lawful limits, but this possibility has not yet been tested in United States courts.

¹⁵⁹ Holly Wagner, "UPDATE: Movielink's New CEO Talks Business," *Video Store Magazine*, February 1, 2002, available at www.hive4media.com/news/html/industry_article.cfm?article_id=2539. As noted, copyright law

In other words, the Movielink studios intend to charge for the right of reproduction (the download), and then usurp the right of private performance by charging the owner of the lawfully made copy on a “per view” basis. Indeed, the article goes on to explain that viewing these copies will be permitted during the “pay-per-view window,” which is to say, consumers could get to privately perform the works from their own copies only during the period in which cable systems were licensed to make public performances of the works. (The cable pay-per-view service is simply another way that licensees can structure payment for public performances, as an alternative to cable subscription fees or selling of advertising time during free (to the public) broadcasts.¹⁶⁰) And, in case Movielink’s plan to take control over private performances of lawfully made copies was not sufficiently clear, Ramo indicated a willingness to actually destroy the lawful copies belonging to others:

“We definitely are going to have a fee-per-use basis,” he said.
“What will happen to the content on your hard drive, whether it self-destructs or sits there on your hard drive, will be in the software business rules.”¹⁶¹

Of course, it would not really “self-destruct,” as those “software business rules” would implement affirmative steps by Movielink, in cooperation with DRM software companies (Microsoft, in this case), to destroy or disable the lawfully made copies belonging to others and prevent those copies from being lawfully re-distributed in competition with their new copies.

“The movie studios aren't about to give up their best product for VOD until they're absolutely satisfied they've gotten the best deal for themselves, which means exploring direct-distribution options like streaming video over the Internet; hammering out favorable revenue splits with operators; and possibly eliminating middlemen ‘aggregators.’”¹⁶² Warner Home Video’s spokesperson was quoted along those same lines: “‘The video rental and sales business has matured and now exhibits only marginal rates of growth,’ [Warner Home Video President Warren] Lieberfarb said. ‘Accordingly the opportunity growth for Hollywood comes . . . from the aggregation of VOD and DVD [sales].’”¹⁶³ The article notes that Lieberfarb “also suggested that the industry unify its VOD message under one brand,” which appears to explain part of the rationale for the MovieLink joint venture. These comments echoed a similar statement by Yair Landau, president of Sony Pictures

does not authorize copyright owners to charge “per view” for private performances.

¹⁶⁰ The copyright holder has the right to authorize the public performance, but the decision whether to cover the cost of the license and earn a profit from the public performance by selling advertising on “free” television broadcasts, charge for cable subscriptions, or charge cable subscribers an additional “per-view” fee is not within the exclusive rights of the copyright holder. See, e.g., *United States v. Paramount Pictures, Inc.*, 334 U.S. 131, 142 (1948) (license to publicly perform a motion picture does not entitle the copyright owner to set minimum theater admission prices).

¹⁶¹ Holly Wagner, “UPDATE: Movielink’s New CEO Talks Business,” *Video Store Magazine*, February 1, 2002.

¹⁶² Charles Paikert, “Oh VOD, Where Art Thou?,” *Cablevision* (April 9, 2001, In Focus, p.8).

¹⁶³ R. Thomas Umstead, “Warner Video Chief Bullish on VOD,” *Multichannel News* (March 26, 2001, Top Stories, p.3).

Entertainment, four years ago, as reported in *Daily Variety*: “Studios must work together and act swiftly or ‘you’re opening it up to someone else to aggregate the services.’”¹⁶⁴

“The real danger of monopoly might arise when many works of the same kind are pooled and controlled together.”

Large copyright holding companies such as these are able to gain monopoly controls that are exponential in relation to the number of copyrighted works they control. In the words of the Register of Copyrights:

Copyright has sometimes been said to be a monopoly. This is true in the sense that the copyright owner is given exclusive control over the market for his work. And if his control were unlimited, it could become an undue restraint on the dissemination of the work.

On the other hand, any one work will ordinarily be competing in the market with many others. And copyright, by preventing mere duplication, tends to encourage the independent creation of competitive works. The real danger of monopoly might arise when many works of the same kind are pooled and controlled together.¹⁶⁵

The restraints do not stop at joint ventures for movies downloaded over the Internet. Disney recently announced a new venture of its own, “Movie Beam,” intended to allow consumers to reproduce copies at home, but armed it with a DRM technology that destroys the copies in 24 hours.¹⁶⁶

Restraints on the ability to re-distribute lawfully reproduced copies may seem quaint considering that most applications at the moment involve reproductions onto hard drives or “personal video recorders” that are unlikely to be lent, traded or resold for their content, but DRM technology is now available, and currently being test-marketed by Disney, to eliminate competition in the secondary market (resales, rentals, gifts and lending) for ordinary store-bought DVD movies.

They take a standard DVD and go the added time and expense of making it inoperable after a period of time. Despite the increased cost of manufacturing, the wholesale price will be much lower than the standard DVD that costs less to manufacture.

¹⁶⁴ Scott Hetrick, “Bishop fast-forwards MGM video-on-demand,” *Daily Variety* (December 8, 2000, p. 8 (quoting Yair Landau)).

¹⁶⁵ *Register’s Report on the General Revision of the U.S. Copyright Law* (1961), at 5.

¹⁶⁶ See Erik Gruenwedel, “Disney to Expand Movie Beam as DVD Sales Push Q2 Net,” May 12, 2004: Disney CEO Michael Eisner “said Disney remains encouraged by the ‘technological opportunity’ represented by Movie Beam, a TiVo-like video-on-demand subscription service launched last year Movie Beam allows consumers to download up to 100 films (at \$4 per new release; \$2.50 per catalog release) into a set-top box via over-the-air TV broadcast spectrums. Each film can be viewed repeatedly over a 24-hour period.”

The product itself will be less versatile. It will have a shelf life of only about a year unopened, but once removed from the package, it will last only 48 hours. The standard DVD is cheaper to manufacture, has a virtually unlimited life span, and will not degrade after opening. How can a copyright owner justify going to the added expense of making a product much less valuable, and then selling it for a fraction of the cost of the more valuable product that was cheaper to make? At first glance, it would seem to be against the copyright owner's self-interest to do so. If the copyright owner expected to benefit from selling at a much lower wholesale price, one would think that the cheaper price could more easily be offered on an unaltered DVD, since the manufacturing cost is lower and demand for a more versatile product (with a resale value) would be higher. The benefit to the copyright owner can only be derived from its theft of the public's rights and elimination of the lawful secondary markets.¹⁶⁷

As we saw above, the copyright owner has no right to control private performances. Even a thief can watch a stolen DVD without infringing the copyright. By taking away from the public the ability to perform works using lawful copies that are already in circulation, the copyright owner using the time-limiting technology apparently expects to sell more copies at greater total net profits, even if that means a lower number of viewers. To do so, the lowest priced copies (such as by rental and re-sales) and free copies (such as from gifts or library lending) that are currently available would have to be suppressed. Those who are least advantaged economically – that is, those who depend upon the cheapest rentals, used product markets, library borrowing, private lending and bartering or gift economies (because they cannot afford anything more) – are the most likely to be harmed, even as more copies are available at a cheaper price for those who can afford to buy new products.

Accordingly, the copyright owner's motive in deploying such DRM is profit, but it can only achieve those profits by eliminating competition from lawful secondary circulation. That is, a DVD that “vanishes” after 48 hours will only be attractive at a \$6-\$7 retail price if used DVDs at that same price (with unlimited playback and resale value) are eliminated, if rentals available for \$2-\$4 are eliminated, and if library lending and free gifts of used DVDs are eliminated. Flexplay Technology's “EZ-D” DRM technology¹⁶⁸ being tested by Disney's Buena Vista Home Entertainment accomplishes all this.

¹⁶⁷ Admittedly, the rental market need not be eliminated completely, but simply made less competitive or more profitable to the copyright owner. If the cheap 48-hour DVD were to take off, one would expect copyright owners to simply price the unlimited play DVD much higher, knowing the rental stores will have no choice but to buy the unlimited play version. This is exactly what is occurring in Europe, where the “rental right” (instead of the DRM technology) enables the copyright owner to prevent price competition between sales and rentals.

¹⁶⁸ The EZ-D DRM technology is the DRM technology currently being market tested by Buena Vista Home Entertainment, and described below. It is a product of Flexplay Technologies, Inc. See <http://flexplay.com> for a description of Flexplay and the EZ-D technology, and <http://video.movies.go.com/ez-d/> for Buena Vista Home Entertainment's implementation of it.

copyright owners who agree with Flexplay to suppress those secondary markets will be the only beneficiaries. They will make higher profits even as fewer people get to enjoy the movies and the public bears the cost of millions more discs being manufactured, sold, and tossed in a landfill

Thus, Disney and other copyright owners who agree with Flexplay to suppress those secondary markets will be the only beneficiaries. They will make higher profits even as fewer people get to enjoy the movies and the public bears the cost of millions more discs being manufactured, sold, and tossed in a landfill. The unlimited life-span of freely re-circulating copies envisioned by Congress would be tossed in the dust-heap of history.

When copyright owners use DRM technology to gain additional rights or additional control beyond the copyright, they circumvent the limitations the law has placed upon their exclusive rights. The public policy granting copyrights “excludes from it all that is not embraced” in the original copyrighted work, and “equally forbids the use of the copyright to secure an exclusive right or limited monopoly” beyond the scope of the Copyright Act and which is “contrary to public policy to grant.”¹⁶⁹ In short, an agreement between a copyright owner and Flexplay to employ the EZ-D DRM technology is calculated to eliminate lawful trade in, and repeat lawful performances of, non-infringing copies in violation of antitrust law and unlawful avoidance of the limitations imposed upon copyrights. It is directly antagonistic to the purpose of copyright law in encouraging the widest possible dissemination of creative works, and should be unlawful *per se*.

When copyright owners use DRM technology to gain additional rights or additional control beyond the copyright, they circumvent the limitations the law has placed upon their exclusive rights.

IV. CONCLUSION

Before making use of a particular DRM technology, the copyright owner should first ask whether the technology serves to either protect any of the six specific rights under copyright law, or whether it serves to increase dissemination of the work. If the answer is no, then such use should be abandoned because it serves no legitimate purpose. If the answer is yes, a determination should be made as to whether any negative impacts (enlargement of the copyright beyond its statutory scope, reduction in public access to and

¹⁶⁹ *Lasercomb America, Inc. v. Reynolds*, 911 F.2d 970, 977 (4th Cir. 1990) (quoting with revisions from *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 492 (1942)) (brackets omitted).

enjoyment of the work, reduction in competition for licensed reproductions, displays or public performances) are minimized and are reasonable in light of the public benefits to be gained, and no greater than necessary to achieve those public benefits.

Just as there is a "good" gate that I might install to prevent unauthorized access to my driveway, an "ugly" gate might be one I put up on your driveway, or on a public road, preventing access without my permission to property I do not own. Like good uses of gates, it makes sense that good uses of DRM should be encouraged, and picking their locks should generally be prohibited. Like ugly uses of gates, ugly uses of DRM should be prohibited, as the installer of the gate or the DRM has no right to limit the access, the motives of the installer are unjust, and the burden on the public and on the rights of others is too great.

Somewhere in between is the "bad" gate used to protect my property, but that I installed in a way that partially blocks the public road or damages my neighbor's property. Just as it is not unreasonable for the government to prohibit private gates from swinging out into the roadway, and just as my neighbor should have a cause of action for trespass if the hinge post of my gate is installed on my neighbor's property, so, too, should the government have freedom to require that DRM technology likely to have adverse effects upon the public or the rights of others be redesigned so as to avoid those effects.

DRM can, indeed, be used to manage rights of the copyright holder, and to the degree that it does it can serve a valuable purpose by encouraging the copyright holder to disseminate works with some comfort that the rights conferred by law will be respected. DRM can sometimes be used to manage rights for a positive end but with unintended consequences. Technological limitations imposed with the sole intent of protecting the copyrights from infringement may have the effect of limiting lawful uses the copyright holder has no right to control. In those cases, a careful assessment of whether the end justifies the means is in order. Finally, DRM can be abused, either by automating and technologically enforcing what would ordinarily constitute an unlawful agreement in restraint of trade or by using technology to trump statutory limits upon the copyright or to diminish freedoms to which the public is entitled by law. Such uses of DRM must be challenged and changed.
