



Preserving the Aftermarket in Copyrighted Works: Adapting the First Sale Doctrine to the Emerging Technological Landscape

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I. INTRODUCTION

¶1 Technological copyright protection in the form of access controls and copy controls has existed for decades, but the current epidemic of digital piracy only recently has occasioned the next step in copyright protection: anticircumvention laws. Against the backdrop of explosive parallel growth in digital and Internet technology, § 1201 of the Copyright Act (the anticircumvention arm) holds out antipodal promises of copyright utopia and dystopia. In an ideal world, legally enforceable access and copy controls will offer copyright proprietors adequate protection to make their works widely available at prices commensurate with the greatly reduced reproduction and distribution costs that digitization and the Internet afford. In the most feared of scenarios, a world in which information is totally commercialized, these same protections will be used to gouge consumers with exorbitant pay-per-view fees for access to copyrighted material as well as ideas, facts and other elements outside the scope of copyright protection, all to the impoverishment of the public treasury of ideas and information. With an eye to forestalling eventual dystopia, the U.S. Copyright Office has commissioned numerous studies and has widely solicited comments from copyright proprietors, legal experts and consumers' rights groups regarding possible exemptions to § 1201's ban on circumvention as well as amendments to the Copyright Act itself. In June 2000, the Copyright Office issued a notice of inquiry seeking comments in connection with the effects of Title I of the Digital Millennium Copyright Act ("DMCA") on §§ 109 and 117 of the Act.¹ That notice inspired the undertaking of this paper, which considers amendments to § 109 in light of evolving technologies.

¶2 A cursory review of §§ 109 and 117 reveals a common theme of ownership of copies of copyrighted works. U.S. copyright law embodies the insight that a short-term restraint on speech to protect the property interests of authors serves a vital speech-enhancing function in the long run. So premised, the copyright is a bundle of temporal incorporeal rights - or covenants that run with the work - that together give the copyright holder exclusive control over the market for his work. The exclusive rights to control the reproduction, adaptation, distribution, performance and display of a work for the duration of the copyright monopoly offer authors an important economic incentive to create and disseminate new works destined for the public

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¹ See REPORT TO CONGRESS PURSUANT TO SECTION 104 OF THE DIGITAL MILLENNIUM COPYRIGHT ACT, 65 Fed. Reg. 35,673-74 (June 5, 2000); 17 U.S.C. §§ 109, 117 (2001).

domain. If this control were unlimited, however, it would become an undue restraint on the dissemination of the work. Thus, to preserve the growth of learning and culture for the public welfare against the dangers of monopoly, the Copyright Act contains limitations on the author's rights where copyright restrictions would inhibit dissemination. The subject matter and fair use provisions, for example, which respectively exempt facts and ideas from copyright protection and permit limited use of protected works without the authority of copyright holders, relieve some of the tension between copyright law and the First Amendment by ensuring that future authors have available to them an adequate supply of raw materials. Another such provision is § 109, the first sale doctrine, which extinguishes the copyright holder's right to control the disposition of a copy of his work where he has been compensated for the initial distribution. When that copy has been procured by means of a lawful "first sale" vesting title in the purchaser, the copyright holder's rights with respect to the copy have been fully exercised and further limitations would unduly encroach upon the hallmarks of private property ownership, including the rights of alienation and trade. For example, without the first sale exception, the owner of a copyrighted book could not display (much less sell) it at a garage sale without the consent of the copyright holder. This aftermarket in second-hand works serves those members of the public who lack the means or opportunity to buy directly from the copyright owner.

¶3 A password query, perhaps the simplest of access controls, follows a copy of a copyrighted work wherever it may go. It is not destroyed or disabled after completion of a first sale vesting title in the purchaser. If the password is lost, the owner of the protected copy may not circumvent the query where, as in the United States, the law strictly forbids circumvention. Without access, the work cannot fulfill the constitutional requirement that copyright promote innovation and creativity because the work is useless to the owner and to anyone to whom it is sold in exercise of the first sale privilege. The copyright holder, if available, may elect - but is not required - to issue another password or authorize circumvention, but transaction costs may be prohibitive. This is especially true in the United States, where a ban on mass-marketed circumvention devices deprives consumers of the means to circumvent. In any case, the work's post-purchase market - historically shielded from authors' exclusive control in the interest of securing the widest possible dissemination - exists at the mercy of the copyright holder. Ownership without access is a real threat in such an anticircumvention copyright regime.

¶4 Compounding the abridgement of the property rights of alienation, trade, and the right to enjoy the work wrought by this anticircumvention law is the fact that digital transmissions do not fall within the first sale exception. With electronic mail (e-mail), for example, the electronic transmission of digital material involves the unauthorized creation of a second-generation copy on the recipient's computer, while the original copy remains perfectly intact on the transmitter's computer for further distribution. Since § 109 does not permit unauthorized copying in the course of distribution, the owner of a digitized copy of a copyrighted work cannot transmit that copy without infringing the copyright. In other words, the first sale privilege is generally unavailable in cyberspace. Thus even if our hypothetical consumer had found his long-lost password to the work he rightfully owns, he could not distribute that work to another over the Internet without infringing the copyright. In sum, the stark realities of ownership without access and access without the right to distribute by digital transmission, combined with the growing number of § 109(b) limitations on lending and the proliferation of mass-market licenses calculated to keep copyrighted works outside the protective realm of the first sale privilege by reserving title in the copyright holder, presage a pay-per-view dystopia in which the free flow of information and creative expression are greatly diminished.

¶5 This paper, which considers various measures for salvaging a shrinking aftermarket in copyrighted works, is divided into four parts. Part II details the first sale doctrine as codified at § 109. Part III's analysis of automated copyright management systems lays the technological groundwork for later discussion of possible amendments to § 109. Part IV sets forth proposed §§ 109(f) and 109(g), a bipartite digital first sale doctrine, in connection with § 109's current limitations respecting digital transmissions. Part V examines proposed § 109(h), a proprietary right of access doctrine, in light of § 1201 and its accommodation, if any, of § 109.

II. THE FIRST SALE DOCTRINE

¶6 This section examines the first sale doctrine's history before undertaking a detailed examination of § 109 and the closely related topic of ownership versus licensure.

A. *Historical Antecedents*

¶7 The modern first sale doctrine traces its conceptual beginnings as far back as the year 1854. The case was *Stevens v. Royal Gladding*, in which the U.S. Supreme Court expounded the conceptual severability of the copyright from real property rights in the material object of embodiment.² Plaintiff James Stevens owned the copyright in a map of Rhode Island. Pursuant to a civil judgment against him, the copperplate engraving used to print the map was sold to one Issac Cady, who subsequently used the plate to print the map without Stevens' authorization. Defendant Royal Gladding, who had contracted with Cady to sell his maps, argued that the rights to publish and sell copies made from the plate were necessary incidents or accessories of owning the same. In other words, Cady asserted, as the lawful owner of the copyright by virtue of acquiring title to the copperplate he was well within his rights to hire Gladding to sell the maps. The Court disagreed, holding that the rights to publish and sell the map did not pass with the sale of the copperplate, that the copyright and plate were "distinct subjects of property, each capable of existing, and being owned and transferred, independent of the other."³

¶8 More than fifty years later, in *Bobbs-Merrill v. Isidor Straus*, the issue before the Court was the validity of the following notice appearing on the title page of plaintiff's copyrighted book: "The price of this book at retail is \$1 net. No dealer is licensed to sell it at a less price, and a sale at a less price will be treated as an infringement."⁴ The copyright statutes, said the Court, insofar as they conferred upon the plaintiff copyright owner the sole right of vending, did not authorize him to control the retail sales of his work by future purchasers with whom he had no privity of contract. The copyright owner exercised his exclusive right to vend when he sold copies of his books in quantities and at prices satisfactory to him. To add the right to control future sales, the Court concluded, "would give a right not included in the terms of the statute, and, in our view, extend its operation, by construction, beyond its meaning."⁵

B. *The Modern First Sale Doctrine*

¶9 The Copyright Act of 1976⁶ "represents the culmination of a major legislative reexamination of copyright doctrine."⁷ It endows a copyright holder with the exclusive rights of reproduction, distribution (or publication), adaptation, performance and display.⁸ These individually assignable rights constitute the bundle of rights that is the copyright, which "subsists . . . in original works of authorship fixed in any tangible medium of expression" for more than a transitory period "from which they can be perceived, reproduced, or otherwise communicated."⁹

² See *Stevens v. Royal Gladding and Issac T. Proud*, 58 U.S. 447 (1854).

³ *Id.* at 452.

⁴ *Bobbs-Merrill Co. v. Isidor Straus*, 210 U.S. 339, 341 (1908).

⁵ *Id.*

⁶ See generally 17 U.S.C. (1976) (setting forth the federal copyright laws).

⁷ *Harper & Row, Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539, 552 (1985).

⁸ See 17 U.S.C. § 106 (2001).

⁹ See 17 U.S.C. § 102 (2001).

1. *Section 109(a) and the Distribution Right*

¶10 Section 109(a) concerns itself exclusively with the § 106(3) right of distribution.¹⁰ The right of distribution is the right to "distribute copies¹¹ or phonorecords¹² of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending."¹³ The term "distribute" is not statutorily defined. As the distribution right has come down to us, the copyright holder has the right to control, *inter alia*, the initial public distribution (including the first publication) of an authorized copy or phonorecord of his work.¹⁴ Without such a right, the copyright owner would be helpless against the distribution of lawfully made copies by unauthorized persons.¹⁵

¶11 The distribution right is equally applicable to copies and phonorecords made without the authority of the copyright holder.¹⁶ Even where the alleged infringer reasonably believes that the work in question was purchased from an authorized dealer, he bears the legal burden of "tracing the chain of title" to show that the dealer's authority "flows from the copyright holder."¹⁷ If the unlawful copier is unknown or unavailable for prosecution, the copyright holder may obtain relief from the unauthorized distributor.¹⁸

¶12 Only the distribution of copies and phonorecords "to the public" falls within the ambit of § 106(3).¹⁹ In other words, the term "distribution" was used rather than "publication" merely for the sake of clarity.²⁰ Thus, distribution to a limited group of persons for a limited purpose and not to the public at large would not infringe the copyright.²¹ A garage sale, for example, would amount to public distribution, as would the rental of videocassettes to customers off the street. The contrary view — that the right of distribution need not necessarily be to the public at large because § 106(3) incorporates both the right to vend and right to publish under § 1 of the Copyright Act of 1909, the latter right applying to any sale, not just a sale to the public at large — effectively strips the phrase "to the public" of all its meaning.²²

¶13 In *Hotaling v. Church of Christ*, the Fourth Circuit U.S. Court of Appeals held that actual receipt of copies distributed without the copyright holder's authorization need not be shown to prove a violation of the distribution right.²³ Plaintiffs asserted that defendant libraries infringed their copyrights by distributing unauthorized copies of their works to the public. Although the libraries did not record patron use of microfiche that contained the copyrighted material, plaintiffs argued that proving the libraries held publicly available, unauthorized copies in their collections was sufficient to establish distribution within the meaning

¹⁰ See 17 U.S.C. §§ 106(3), 109 (2001).

¹¹ Copies are "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." 17 U.S.C. § 101 (2001).

¹² Phonorecords are "material objects in which sounds, other than those accompanying a motion picture or other audiovisual work, are fixed by any method now known or later developed, and from which the sounds can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device." 17 U.S.C. § 101 (2001).

¹³ 17 U.S.C. § 106(3) (2001).

¹⁴ H.R. REP. NO. 94-1476, at 3 (2001); see also *Harper & Row*, 471 U.S. at 552.

¹⁵ See MELVILLE NIMMER & DAVID NIMMER, 2 NIMMER ON COPYRIGHT, § 8.12(A) at 8-150.4 (2000) [hereinafter 2 *Nimmer on Copyright*]; John Kernochan, *The Distribution Right in the United States of America: Review and Reflections*, 42 VAND. L. REV. 1407, 1410 (1989).

¹⁶ See 2 *Nimmer on Copyright*, § 8.11[A], at 8-150 (2000) (noting that the distribution right is applicable to unlawfully made copies and phonorecords); see also H.R. REP. NO. 94-1476, at 3 ("[A]ny unauthorized public distribution of copies or phonorecords that were unlawfully made would be an infringement.").

¹⁷ *Microsoft Corp. v. Harmony Computers & Electronics Inc.*, 846 F.Supp. 208, 212 (E.D.N.Y. 1994).

¹⁸ See 2 *Nimmer on Copyright*, § 8.12[A] at 8-150 (2000).

¹⁹ 17 U.S.C. § 106(3) (2001).

²⁰ See 2 *Nimmer on Copyright*, § 8.11[A] at 8-148 (2000).

²¹ See *id.*

²² See *id.* at 8-148-49; Kernochan, *supra* note 15, at 1410; 17 U.S.C. § 1, 35 Stat. 1075 (1909) (current version at 17 U.S.C. § 106 (1976)).

²³ See *Hotaling v. Church of Jesus Christ of Latter-Day Saints*, 118 F.3d 199 (4th Cir. 1997).

of the statute. In contrast, the libraries contended that holding a work in a library collection that is open to the public constitutes a mere *offer* to distribute the work. It was held that plaintiffs need not show that a member of the public accepted such an offer to prove unauthorized distribution: "When a public library adds a work to its collection, lists the work in its index or catalog system, and makes the work available to the borrowing or browsing public, it has completed all the steps necessary for distribution to the public."²⁴ If it were otherwise, a library could avoid liability by deliberately failing to keep records of public use.²⁵ This holding, which should apply by analogy to distributions by transmission in the online environment, is consistent with the definition of public display and performance in § 101. This definition does not require actual receipt or viewing of performances and displays by transmission; it is enough that the public is *capable* of receiving the performance or display.²⁶

¶14 A copyright holder who has consented to the public distribution of his work has realized the full value of that work; any further application of the right of distribution would effectively control the disposition of personal property embodying the copyrighted work.²⁷ Thus, where a sale authorized by the copyright holder has been consummated, the "policy favoring a copyright monopoly for authors gives way to the policy opposing restraints of trade and restraints on alienation."²⁸ As the legislative history makes clear, under § 109 the copyright holder's right of distribution "cease[s] with respect to a particular copy or phonorecord once he has parted with ownership of it."²⁹ Section 109(a) states:

Notwithstanding the provisions of 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 holder, to sell or otherwise dispose of the possession of that copy or phonorecord.³⁰

¶15 Section 109(a) "restates and confirms" the principle developed by courts that the "copyright owner's exclusive right of public distribution would have no effect upon anyone who owns 'a particular copy or phonorecord lawfully made under this title' and who wishes to transfer it to someone else or to destroy it."³¹ The copy or phonorecord in question must have been "lawfully made"³² under the Copyright Act to come within the scope of § 109(a), "though not necessarily with the copyright owner's authorization" (i.e., lawfully made copies include copies created pursuant to the fair use or other statutory exception).³³ The resale of a pirated copy or phonorecord would therefore be an infringement of the distribution right.³⁴ Lastly, one need not acquire ownership of copies or phonorecords via a formal "first sale" from the copyright holder to enjoy immunity under § 109(a);³⁵ transfer of title may also occur by court order³⁶ or by gift.³⁷

²⁴ *Id.* at 203.

²⁵ *See id.*

²⁶ 17 U.S.C. § 101 (2001).

²⁷ *See* 2 *Nimmer on Copyright*, § 8.12[A], at 8-150.4 (2000).

²⁸ *Id.*

²⁹ H.R. REP. NO. 94-1476, at 62.

³⁰ 17 U.S.C. § 109(a) (1976).

³¹ H.R. REP. NO. 94-1476, at 79.

³² 17 U.S.C. § 109(a) (2001).

³³ H.R. REP. NO. 94-1476, at 79. This passage has been interpreted to mean that "lawfully made" copies include copies made without the authority of the copyright but permitted under § 107 and/or the other statutory exceptions at § 108 et seq. *See* Information Infrastructure Task Force, *Report of the Working Group on Intellectual Property Rights ("White Paper")*, 93 (1995) [hereinafter *Report of the Working Group*] available at <http://www.uspto.gov/web/offices/com/doc/ipnii/>.

³⁴ *See* H.R. REP. NO. 94-1476, at 79; 2 *Nimmer on Copyright*, § 8.12[B][4], at 8-164-65 (1999); *Red Baron-Franklin Park, Inc. v. Taito Corp.*, 883 F.2d 275, 280-81 (4th Cir. 1989).

³⁵ *See* 2 *NIMMER ON COPYRIGHT*, § 8.12[B][3], at 8-158-64 (1999).

³⁶ *See* *Platt & Munk Co. v. Republic Graphics*, 315 F.2d 847 (2d Cir. 1963).

2. Section 109(b)

¶16 Section 109(b) is an exception to § 109(a) that evolved in stages.³⁸ Responding to mounting evidence that records were rented primarily for the purpose of illegal duplication, Congress introduced the Record Rental Agreement of 1984³⁹ to prevent owners of phonorecords from renting, leasing or lending those phonorecords for direct or indirect commercial purposes.⁴⁰ In 1990 the Computer Software Rental Amendments Act⁴¹ likewise exempted the rental, lease or lending of computer software from the first sale doctrine.⁴² Although illegal duplication was not then widespread, Congress recognized the potential for such duplication and concluded that preemptive action was needed.⁴³ It was thought that the rental of computer software was more analogous to the rental of sound recordings than videocassettes, which today enjoy immunity under the first sale doctrine as a result of the failed efforts to pass the Consumer Sales-Video Rental Agreement.⁴⁴

¶17 What does it mean to lease or lend a computer program or phonorecord for direct or indirect commercial advantage? While the statute does not define "commercial advantage," recent case law holds that "direct economic benefit is not required to demonstrate a commercial use."⁴⁵ If "the user stands to profit from exploitation of copyrighted material without paying the customary price,"⁴⁶ the use is commercial even if the copies were not offered for sale.⁴⁷ Applying this rule to § 109(b), the owner of copies of sound recordings and computer programs may not lend them — even for free — if the recipient stands to profit from not renting or purchasing the copies through such authorized channels as a retail outlet.

¶18 Because §109(b) limits the first sale doctrine's effectiveness in fostering the free exchange of ideas and information following a first sale, it is important to know whether additional classes of works exceptions to the first sale privilege are in the offing. The DVD, for one, seems a good candidate for exception, but its fate will depend on the success of its many technological protection measures. Not surprisingly, at least one commentator has gone so far as to propose a prohibition on the lending of *all* digitized works.⁴⁸

3. Section 109(c) and the Display Right

¶19 Section 109(c) concerns itself exclusively with the § 106(5) right of public display.⁴⁹ In turn, the right of display concerns itself exclusively with the public display of copies, not phonorecords.⁵⁰ To display a work means to "show a copy of it, either directly or by means of a film, slide, television image, or any other device or process, or in the case of a motion picture or other audiovisual work, to show individual images

³⁷ See *Walt Disney Prods. v. Basmajian*, 600 F. Supp.439, 442 (S.D.N.Y. 1984); see also 2 *Nimmer on Copyright*, § 8.12[B][1], at 8-151 (1999).

³⁸ See 17 U.S.C. § 109(b) (2001).

³⁹ Pub. L. No. 98-450, 98 Stat. 1727 (1984).

⁴⁰ See 17 U.S.C. § 109(b)(1)(A) (2001).

⁴¹ See Pub. L. No. 101-650, 104 Stat. 5132 (1990).

⁴² See 17 U.S.C. §109(b)(1)(A) (2001).

⁴³ See Kenneth Corsello, *The Computer Software Rental Amendments Act of 1990: Another Bend in the First Sale Doctrine*, 41 CATH. U. L. REV. 177, 192-3 (1991); see also Keith Kupferschmid, *Lost in Cyberspace: The Digital Demise of the First Sale Doctrine*, 16 J. MARSHALL J. COMPUTER & INFO. L. 825, 834 (1998).

⁴⁴ See Corsello, *supra* note 43, at 192-3.

⁴⁵ *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1015 (9th Cir. 2001).

⁴⁶ See *Harper & Row*, 471 U.S. at 562.

⁴⁷ See *Napster*, 239 F.3d at 1015.

⁴⁸ See Kupferschmid, *supra* note 43, at 854-5.

⁴⁹ See 17 U.S.C. § 109(c) (2001).

⁵⁰ See 17 U.S.C. § 101 (2001) (defining "display"); 2 *Nimmer on Copyright* § 8.20[A], at 8-278-9 (2000).

nonsequentially."⁵¹ To display a work *publicly* is to display "it at a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered."⁵² A public display also occurs where one transmits or otherwise communicates a performance or display of the work to "a place specified by clause (1)⁵³ or to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times."

¶20 Section 109(c) provides that the owner of a copy lawfully made under the Copyright Act may display that copy, directly or by the projection of no more than one image at a time, to viewers "present at the place where the copy is located."⁵⁴ Viewers are present at the place where the copy is located when they are "present in the same physical surrounding as the copy, even though they cannot directly see the copy,"⁵⁵ suggesting an expansive definition of "place."⁵⁶ Accordingly, the public display of unlawfully made copies would infringe the display right, as would the simultaneous projection of images of a work in a lecture hall equipped with multiple viewing stations because "the copyright holder's permission would generally be required in order to project an image of a work on each individual screen at the same time."⁵⁷

4. *Ownership v. Licensure*

¶21 Section 109 applies exclusively to owners of copies of copyrighted works. Licensees of copies, then, do not enjoy the traditional rights of property ownership protected under the first sale doctrine.⁵⁸ Section 202 reflects the principle that the copyright is distinct from the copy, such that one may own or license the former independently of the latter and vice versa.⁵⁹ Building upon this provision, § 109(d) stipulates that §§ 109(a) and 109(c) "do not, unless authorized by the copyright owner, extend to any person who has acquired possession of the copy or phonorecord from the copyright owner, by rental, lease, loan, or otherwise, without acquiring ownership of it."⁶⁰ In determining whether the transaction constitutes a license or transfer of ownership, the actual restrictions imposed on the use of a copyrighted work control regardless of whether the transaction characterizes itself as a license or bill of sale.⁶¹ Where, for example, a contract forbids the user to (1) disclose the copyright holder's software to anyone but its employees on a need-to-know basis and (2) use the software on hardware not agreed upon in writing, its terms are "inconsistent with the rights normally enjoyed by owners of copies of software," thus making it a license.⁶²

¶22 The distinction between licensure and ownership is vital to the software industry. Licensing precludes transfer of ownership, and thus the propagation of copyrighted works under the first sale doctrine,

⁵¹ 17 U.S.C. § 101 (2001). With respect to motion pictures and other audiovisual works, the display is distinguished from the performance by defining the latter to include the showing of images in "any sequence," whereas displays are limited to the nonsequential showing of images. *Id.*

⁵² *Id.*

⁵³ See 17 U.S.C. § 101 (2001) ("To perform or display a work "publicly" means — (1) to perform or display it at a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered.")

⁵⁴ 17 U.S.C. § 109(c) (2001).

⁵⁵ See H.R. REP. NO. 94-1476 at 80.

⁵⁶ See 2 *Nimmer on Copyright*, § 8.20[B], at 8-281 (2000).

⁵⁷ H.R. REP. NO. 94-1476 at 80.

⁵⁸ See *Microsoft Corp. v. Harmony Computer & Electronics, Inc.*, 846 F.Supp. 208, 213 (E.D.N.Y. 1994) ("Entering a license agreement is not a 'sale' for purposes of the first sale doctrine.").

⁵⁹ See 17 U.S.C. § 202 ("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. Transfer of ownership of any material object, including the copy or phonorecord in which the work is first fixed, does not of itself convey any rights in the copyrighted work embodied in the object; nor, in the absence of an agreement, does transfer of ownership of a copyright or of any exclusive rights under a copyright convey property rights in any material object.").

⁶⁰ 17 U.S.C. § 109(d).

⁶¹ See 2 *Nimmer on Copyright* § 8.08[B][1], at 8-123 (2000).

⁶² *DSC Communications Corp. v. Pulse Communications, Inc.*, 170 F.3d 1354, 1361 (Fed. Cir. 1999).

by conditioning customer use on assent to contractual terms reserving title in the copyright holder. Software companies deploying lawful price discrimination schemes tailor their products to particular markets, offering lower prices to those consumers who desire fewer rights or uses.⁶³ Mass resale cartels trafficking in software to which they have acquired legal title would force these companies to charge all users a single, prohibitive price rather than operate at a loss.⁶⁴ By foreclosing transactions that consummate sales, licensing avoids the first sale doctrine and so precludes an aftermarket for software that ultimately would result in higher retail prices for consumers.⁶⁵

¶23 The growing use of copyright licensing nevertheless bears an inverse relationship to the effectiveness of the first sale doctrine in insuring wide dissemination. To avoid the soaring transaction costs of forming custom-tailored licensing agreements with countless customers in scattered markets, many copyright holders have resorted to standardized mass-market licenses.⁶⁶ Among licenses, the mass-market species is far and away the most efficient at enabling the copyright holder to control remotely the disposition of his work by precluding first sales and the rights of alienation and trade that flow therefrom. One type of mass-market license is the online "clickwrap license," which requires the customer to click the "I Accept" icon in order to use the program (typically downloaded from the Internet). Another type of mass-market license is the "shrinkwrap license," so called because it appears within the cellophane shrinkwrap that covers retail software packages and may purport to become effective when the customer tears the wrapping from the package.⁶⁷ The shrinkwrap license in particular has received much judicial attention because consumers who have purchased software products at retail have been understandably loath to agree to additional terms upon unwrapping the packaging and attempting to use the program for the first time. Whether this type of license is a contract of adhesion depriving consumers of the benefits of ownership they bargained for at the point of sale is beyond the scope of this paper.⁶⁸ It is sufficient to note that courts of law have widely recognized the validity of mass-market licenses.⁶⁹

¶24 Lest the reader be left with the impression that contractual restrictions on the disposition of a work following a lawful first sale are unenforceable, the legislative history to § 109 makes clear that an "outright sale of an authorized copy...does not mean that conditions on future disposition of copies or phonorecords, imposed by a contract between their buyer and seller, would be unenforceable between the parties as a breach of contract, but it does mean that they could not be enforced by an action for infringement of copyright."⁷⁰ Thus, where the buyer acquiring title consents to a contractual prohibition on, say, alienation, he breaches the contract, but not the copyright, if he sells or lends the work to another.⁷¹ Such a prohibition presumably would survive preemption under § 301 because it establishes a contractual right against alienation that, thanks to the first sale doctrine, has no copyright (or statutory) equivalent.

¶25 Before leaving the topic of ownership versus licensure, a brief word about the Uniform Computer Information Transactions Act ("UCITA") is in order. UCITA originally was conceived as new Article 2B of the Uniform Commercial Code and is largely patterned after Article 2 on sales of goods.⁷² Following the

⁶³ See Daniel Ravicher, *Facilitating Collaborative Software Development: The Enforceability of Mass-Market Public Software Licenses*, 5 VA. J. L. & TECH. 11, 35 (2000).

⁶⁴ See *id.* at 37.

⁶⁵ See *id.* at 34.

⁶⁶ See *id.* at 39.

⁶⁷ See *ProCD Inc. v. Zeidenberg*, 86 F.3d 1447, 1449 (7th Cir. 1996).

⁶⁸ A contract of adhesion is a "standard-form contract prepared by one party, to be signed by the party in a weaker position, usu. a consumer, who has little choice about the terms." BLACK'S LAW DICTIONARY 318-319 (7th ed. 1999).

⁶⁹ See, e.g., *Adobe Sys., Inc. v. One Stop Micro, Inc.*, 84 F.Supp.2d 1086 (N.D. Cal. 2000) (holding shrinkwrap license enforceable); *Klocek v. Gateway, Inc.*, 104 F.Supp.2d 1332 (D. Kan. 2000) (acknowledging validity of shrinkwrap licenses under Uniform Commercial Code); *ProCD*, 86 F.3d 1447 (holding shrinkwrap license valid under UCC and not preempted); *Microsoft*, 846 F.Supp. at 208 (enforcing shrinkwrap license).

⁷⁰ H.R. REP. NO. 94-1476 at 79.

⁷¹ See 2 *Nimmer on Copyright*, § 8.12(B)(1), at 8-155-6 (2000); Kernochan, *supra* note 15, at 1421.

⁷² U.C.C. § 2-101 et seq. (1962).

withdrawal of the American Law Institute's co-sponsorship, the National Conference of Commissioners on Uniform State Laws renamed the Act and offered it to the States as stand-alone body of model law designed to bring uniformity to the enforcement of software and digital content contracts. Thus far adopted in Virginia and Maryland, UCITA revolutionizes certain aspects of contract law. In connection with the first sale doctrine, UCITA recharacterizes software and digital content contracts as licenses of use rather than sales of copies, placing such contracts beyond the reach of the first sale doctrine.⁷³ In the same vein, UCITA's validation of post-payment disclosure of terms paves the way for widespread enforcement of mass-market licenses crafted to skirt the first sale privilege.⁷⁴

III. SAFEGUARDING DIGITAL WORKS

¶26 The digital age necessitates new methods for safeguarding copyrighted works. The following analysis of automated copyright management systems sets the stage for later discussion of amendments to § 109.

¶27 Rather than secure to the author an absolute right to control the physical embodiment of a work originating in his mind as a reaction of his personality upon nature, the Copyright Act embodies a utilitarian (or instrumentalist) philosophy. Under this philosophy, a limited copyright monopoly serves the ends of society, not the individual author, by providing incentives for the creation and wide dissemination of new works.⁷⁵ To preserve a free and robust exchange of ideas and information in the spirit of the First Amendment, the Act bestows a bundle of carefully circumscribed temporal rights calculated to preserve public access to copyrighted material, while simultaneously securing to copyright holders a fair reward for their works. Against this theoretical backdrop, the advent of digital technology is in one respect a boon: digitized works, reduced as they are to 1's and 0's, can be reproduced and widely disseminated for public enjoyment at little cost without degradation. Technology never comes without a cost, however, since what aids the author in the dissemination of his works likewise aids his black-market competitor. In the case of digital technology and the Internet, the absence of practical delivery barriers associated with traditional offline copyright distribution systems has made cyberpiracy a very profitable enterprise. Indeed, every single Internet user is a potential cyberpirate capable of creating and transmitting thousands of perfect digital copies in the space of a day. The classic public goods problem is thus more acute in the online environment, with copyright holders of digital works requiring more sophisticated protections against unauthorized copying and distribution to preserve their economic incentives to create and to disseminate.⁷⁶

⁷³ See Uniform Computer Information Transactions Act (UCITA) § 102(a)(41) (2000) ("License' means a contract that authorizes access to, or use, distribution, performance, modification, or reproduction of, information or informational rights, but expressly limits the access or uses authorized or expressly grants fewer than all rights in the information, whether or not the transferee has title to a licensed copy. The term includes an access contract, a lease of a computer program, and a consignment of a copy. The term does not include a reservation or creation of a security interest to the extent the interest is governed by [Article 9 of the Uniform Commercial Code]."). See also Official Comment to UCITA § 102, n. 37 ("[A] software agreement whose terms expressly govern use of the software is a license even if the agreement also gives the licensee ownership of the copy. A license exists if a *contract* grants greater rights or privileges than a first sale, if it restricts rights or privileges that might otherwise exist, or if it deals with other issues of scope of use.").

⁷⁴ See *id.* at §§ 102(a)(44-5), 208-9.

⁷⁵ See *Mazer v. Stein*, 347 U.S. 201, 219 (1954).

⁷⁶ Informational and other works subject to copyright protection resemble public goods inasmuch as they are non-exclusive (i.e., it is very difficult to exclude people from consuming them) and non-rival (i.e., they can be simultaneously used or consumed by more than one person without interference). A novel, for instance, once published, can be copied an indefinite number of times and enjoyed by each possessor of a pirated copy without interference from another. Since the marginal cost of reproducing and distributing such a work is low, especially in the online environment, authors will have little monetary incentive to publish where book sales are undercut by pirates selling at or near the marginal cost. Intellectual property law protects against this type of free riding by bestowing exclusive rights that permit inventors and artists to extract payments for use of their works. These rights serve as initial incentives to creation and public dissemination. See Dan Burk, *Muddy Rules For Cyberspace*, 21 CARDOZO L. REV. 121, 133 (2000); LAWRENCE LESSIG, *CODE: AND OTHER LAW OF CYBERSPACE*, 130-5 (New York: Basic Books 1999). See also JAMES BOYLE, *SHAMANS, SOFTWARE, AND SPLEENS: LAW AND THE CONSTRUCTION OF THE INFORMATION SOCIETY*, 35-46 (Harvard University Press 1996) (discussing the public goods problem in terms of information economics).

¶28 One answer to rampant digital piracy is to scale back the first sale doctrine by, say, proscribing the commercial rental or distribution of computer software as Congress has done under §§ 109(b) and 117(b).⁷⁷ Licensing may also be used to preclude first sales and generally to reinforce copyright rights. Proponents of a free market in property rights rooted in the natural entitlement of creators favor private arrangement as a means to safeguard valuable information. In this view, the author's natural rights to control and reap the benefits of his creation take precedence over the benefits to society that would accrue from public access to that creation. From this perspective it naturally follows that licensure (i.e., contract law) is preferable to statutory copyright protection because the former, unfettered by the latter, allows sophisticated parties to bargain for prices commensurate with the package of rights the copyright holder elects to offer the licensee.⁷⁸ For example, if § 301 of the Copyright Act were amended to allow parties to opt out of copyright protection, licensing would clear up uncertainty surrounding judicial application of the fair use doctrine insofar as the parties could contractually define up front fair uses and prices.⁷⁹ But licensing *per se* is impotent against piracy by the same degree that large-scale infringement of digital works — even by renegade licensees — is difficult to detect.⁸⁰ Moreover, licenses whose onerous terms stipulate rights not recognized by copyright effectively reorders the delicate balances struck by Copyright Act between copyright holders' and users' rights to the detriment of the latter.⁸¹ Consider the ramifications of recalibrating the idea/expression, fact/expression, and fair/infringing use dichotomies codified at §§ 102 and 107 of the Act; legions of copyright holders deploying mass-market licenses could essentially override these statutory provisions by contractually proscribing clear-cut fair uses as well as the use of facts, ideas and other material beyond the scope of copyright protection.⁸² Where a first sale occurs, contractual provisions against displaying, distributing and archival copying would eviscerate the buyer's statutory rights of ownership.

¶29 The automated digital copyright management system ("CMS") is the wave of the present and the future.⁸³ Computer code, Larry Lessig prognosticates, will increasingly displace law as the primary defender of intellectual property in cyberspace.⁸⁴ Operating in conjunction with licensing, CMS comprises an arsenal of coded self-help security measures that run with the physical copy wherever it may go, enforcing copyright law behind doors previously closed to inspection.⁸⁵ Under a typical CMS package, the copyright holder wishing to make his works electronically available can arm each and every copy with an array of "technological fences,"⁸⁶ including digital watermarks,⁸⁷ copy control flags,⁸⁸ Serial Management Copyright

⁷⁷ See 17 U.S.C. §§ 109(b), 117(b) (2001). Section 117(b) provides that "exact copies" prepared as an essential step in the utilization of a computer program or created for archival purposes may be "leased, sold, or otherwise transferred, along with the copy from which such copies were prepared, only as part of the lease, sale, or other transfer of all rights in the program." In simpler terms, the owners of copies of software cannot dispose of those copies without restriction: the possessor may sell or otherwise transfer the copies only to the person who has acquired *all* rights in the program. Section 117(b) is therefore a limitation upon, rather than an extension of, the § 109(a) first sale exemption from the right of public distribution. Moreover, adaptations of computer programs, as distinct from exact copies, may be transferred only with the authorization of the copyright holder. In other words, no first sale right of alienation attaches to copies of software adaptations created under § 117. See 2 *Nimmer on Copyright* § 8.08[B] (2000).

⁷⁸ See Maureen O'Rourke, *Drawing the Boundary Between Copyright and Contract: Copyright Preemption of Software License Terms*, 45 DUKE L.J. 479, 484, 523-24 (1995).

⁷⁹ See Tom Bell, *Fair Use v. Fared Use: The Impact of Automated Rights Management on Copyright's Fair Use Doctrine*, 76 N.C. L. REV. 557, 614-8 (1998). Section 301, 17 U.S.C. § 301 (2001), preempts state law (including contract law) that protects rights equivalent to those protected under the Copyright Act.

⁸⁰ See O'Rourke, *supra* note 78, at 489-90.

⁸¹ See Dennis Karjala, *Federal Preemption of Shrinkwrap and On-line Licenses*, 22 U. DAYTON L. REV. 511, 518-21 (1997).

⁸² See *id.* at 521.

⁸³ See Bell, *supra* note 79, at 564-67.

⁸⁴ See Lessig, *supra* note 76, at 126.

⁸⁵ See *id.*

⁸⁶ Burk, *supra* note 76, at 168.

⁸⁷ A digital watermark, or digital fingerprint, is encoded digitized information 'with attributes that cannot be dissociated from the file that contains that information.'" Rosemarie Jones, *Wet Footprints? Digital Watermarks: A Trail to the Copyright Infringer on the Internet*, 26 PEPP. L. REV. 559, 568 (1999) (quoting *Report of the Working Group, supra* note 33, at 189). Digital watermarks typically contain the author's name, e-mail address and other authenticating information discernible only with special equipment. Digital watermarks remain recognizable even after

System ("SCMS") technology, encryption and other embedded applications that control the copy's subsequent use, "leav[ing] the purchased information . . . in its original medium."⁸⁹ As part of this protective wrapping of covenant-enforcing applications, the copyright holder may include technological access controls that function like a shield against piracy.⁹⁰ Importantly, access controls enable copyright holders to charge on a pay-per-view (or fared use) basis, a feature essential to any online business that generates profits exclusively from providing access to, as opposed to copies of, copyrighted material.⁹¹ Where digital piracy abounds, access control technology is the defensive weapon of choice to the extent that unauthorized copying is impossible without initial access.

¶30 Automated copyright management systems ultimately could mean cheaper, more conveniently available works for public enjoyment. Writing just prior to the enactment of the Digital Millennium Copyright Act, Tom Bell astutely noted a judicial trend toward rejecting the fair use defense where copyright proprietors were conveniently able to collect licensing fees.⁹² This trend has continued into the present with cases like *Napster v. A & M Records*, wherein fair use was denied because "[h]aving digital downloads available for free on the Napster system necessarily harm[ed] the copyright holders' attempts to charge for the same downloads" through licensing and Internet sales.⁹³ In theory, the fair use privilege corrects for prohibitive transaction costs associated with seeking the copyright holder's permission.⁹⁴ To curtail fair use therefore would increase transaction costs.

¶31 However, CMS-backed licensing could reduce transaction costs to levels not possible under the fair use doctrine. The Internet today encompasses most regions of real space (as distinguished from cyberspace) where previously it was not possible for the copyright owner to meter and charge for use. The availability of works online could practically eliminate the costs of physically seeking out the desired work for most consumers, obviating the need for a fair use exception.⁹⁵ Onerous license terms will drive consumers elsewhere. If enough consumers feel the same way, the market will correct the imbalance (i.e., copyright owners will offer more acceptable terms). Competition among information providers inevitably would drive access prices downward, with the benefits accruing to consumers in the form of reduced pay-per-view fees.⁹⁶ Some forecast that these licensing and delivery mechanisms would be so efficient that consumers will soon have little need for the first sale privilege.⁹⁷

¶32 Automated rights systems have additional advantages. First, CMS-protected pay-per-use business models are "use-facilitating" in that they allow, for example, a consumer to purchase a single journal article from a database at \$2 rather than purchase an unwanted, and perhaps prohibitively expensive, journal subscription at \$100.⁹⁸ On a second and related point, this micropayment feature achieves greater allocative

several conversions such as photocopying, scanning, etc. An intentional attempt to delete a watermark results in conspicuous degradation in the quality of the work. *See id.* at 568-9.

⁸⁸ Copy control flags are digital bits that indicate whether copying is authorized. *See* Dean Marks & Bruce Turnbull, *Technical Protection Measures: The Intersection of Technology, Law and Commercial Licenses*, 46 J. COPYRIGHT SOC'Y U.S.A. 563, 597 (2000).

⁸⁹ The SCMS is a method of using copying controls that allows digital copies to be made from a master, but not from a copy of that master. *See* Marks & Turnbull, *supra* note 88, at 597.

⁹⁰ *See id.* at 567.

⁹¹ *See id.* at 566.

⁹² *See id.* at 570-71.

⁹³ *Napster*, 239 F.3d at 1017.

⁹⁴ *See* Bell, *supra* note 79, at 581-84.

⁹⁵ *See id.* at 583-84.

⁹⁶ *See id.* at 588-89.

⁹⁷ *See* National Telecommunications and Information Administration, *NTIA Report to Congress: Study Examining 17 U.S.C. Sections 109 and 117 Pursuant to Section 104 of the Digital Millennium Copyright Act*, pt. III(A) ("Initial Comments — Copyright Community") (March 2001) available at <http://www.ntia.doc.gov/ntiahome/occ/dmca2001/cover.html> [hereinafter *Report to Congress*].

⁹⁸ *Final Rule: Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, U.S. Copyright Office, 65 Fed. Reg. 64,555, 64,564 (2000) [hereinafter *Final Rule*]; *see also* Burk, *supra* note 76, at 168-70 (explaining that the level of price discrimination

efficiency by making the journal article accessible to more people and by permitting the database owner to gauge consumer demand for particular articles and to adjust the price accordingly. Third, by clearly establishing the permitted uses of the relevant work in advance, CMS affords both the consumer and the copyright holder a measure of certainty that the prospect of litigation, with all its perils, cannot.⁹⁹ Fourth, CMS will prevent market failure and thus encourage information providers to invest further in projects largely beyond the scope of intellectual property protection. Consider electronic databases, the factual content of which is beyond the scope of copyright protection.¹⁰⁰ A prospective compiler would be more likely to create and make available to the public an online database if he knew he could at least recoup his expenses by charging users for different levels of access and intended uses. Indeed, content providers like Westlaw and Lexis almost certainly would not have migrated to the online format had they not been assured of the successful implementation of password queries and other technological protection measures designed to secure a fair reward for the sweat of the brow invested in their works. As Jerome Reichman has cogently argued in the case of subpatentable inventions, a work that lies outside intellectual property protection still may prove valuable to its creator in the form of profits gained under favorable market conditions. The work may also be valuable to the progress of the relevant art or science, meriting a separate but limited form of legal protection as an incentive to its production and dissemination.¹⁰¹ Legal protection of access controls could serve as an important spur to the proliferation of electronic databases.

¶33 Of course, one cannot in good faith paint an entirely rosy picture of the automated digital rights management technology. Like overreaching licensing, CMS technology threatens to restrict fair uses of material within and without the subject matter of copyright protection.¹⁰² Imagine, for example, that a CMS package in cooperation with an online license forbade established fair uses as well as the use of unprotected facts and ideas embedded in the copyrighted work. Where a first sale has occurred, CMS could be deployed to prevent the lawful display and distribution of a work as well as the lawful copying of a computer program under § 117. Additionally, search and negotiation costs associated with finding and licensing works online may be prohibitive, there being no comprehensive Internet index or filing system (not unlike trying to find information in the Library of Congress without the aid of call numbers).¹⁰³ In sum, automated licensing cannot guarantee - indeed, will likely prevent — lower search costs than the fair use doctrine. Such licensing will also interfere with the fair use doctrine's ability to promote creativity and innovation through transformative uses that, contrary to the copyright holder's objections, would not harm the market for the underlying protected work.

¶34 With regard to access control technologies in particular, Yochai Benkler's fence analogy (below, modified slightly) vividly illustrates the dangers of an anticircumvention copyright regime.¹⁰⁴ Imagine a residential neighborhood in which homeowners are plagued by pedestrians who walk roughshod over their front lawns. As a preventative measure, the homeowners collectively decide to erect five-foot, electronic fences around their properties. In their enthusiasm, they extend their fences across the sidewalks in front of their homes and in some cases capture portions of the roadway as well. To surmount these obstacles, pedestrians traveling by sidewalk or roadway carry five-foot stepladders. But widespread illicit use of the stepladders to trespass on private property prompts the local government to enact an anti-stepladder ordinance, which effectively prevents the public from using the sidewalk and portions of the roadway that run through this particular neighborhood. Worse still, when the members of the household die or move away,

afforded by micro-payment features of automated rights management systems will increase public welfare by enabling copyright holders to service consumers who could not afford the \$100 journal subscription in the example above).

⁹⁹ See Bell, *supra* note 79, at 586-7.

¹⁰⁰ 17 U.S.C. § 102 (2001); *Feist Publications, Inc. v. Rural Telephone Service Co.*, 499 U.S. 340, 363-64 (1991).

¹⁰¹ See Jerome Reichman, *Of Green Tulips and Legal Kudzu: Repackaging Rights in Subpatentable Innovation*, 53 VAND. L. REV. 1743, 1781-82 (2000) (proposing a compensatory tort-like liability scheme to protect subpatentable inventions).

¹⁰² See Bell, *supra* note 79, at 592-96.

¹⁰³ See Burk, *supra* note 76, at 152-59.

¹⁰⁴ See Yochai Benkler, *Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain*, 74 N.Y.U. L. REV. 354, 420-21 (1999).

the fences cannot be removed, leaving the property and captured portions of the sidewalk and street inaccessible to all but those who have the entry code or unlawfully traffic in stepladders.

¶35 Anticircumvention legislation is analogous. The copyright holder employing technological access controls (the electronic fences) can lock-up material already in the public domain (the sidewalk and adjoining roadway), which comprises abandoned works, material beyond the scope of copyright protection, and works whose copyright has expired.¹⁰⁵ In real property terms, the copyright is a negative easement on speech otherwise protected under the First Amendment, and if its holder unlawfully expands the easement to include surrounding portions of the servient tenement that is the public domain, and additionally fortifies that expansion with high-tech fencing, then commerce with respect to the expanded easement will be unduly burdened. Eventually, the public domain could degrade into a "fallow landscape of private plots."¹⁰⁶ To state the matter plainly, legally sanctioned access controls effectively create in the copyright holder a property right to information and other material that is "free as the air to common use."¹⁰⁷ Such a monopoly right on information, by impairing the efficient flow of information, will lend itself to a world in which otherwise free informational goods are perfectly excludable.¹⁰⁸ The legislative history to § 1201 of the Copyright Act states:

These newly created rights will dramatically diminish public access to information, reducing the ability of researchers, authors, critics, scholars, teachers, students, and consumers to find, to quote for publication and otherwise make fair use of them. It would be ironic if the great popularization of access to information, which is the promise of the electronic age, will be short-changed by legislation that purports to promote this promise, but in reality puts a monopoly stranglehold on information.¹⁰⁹

¶36 Worse still, technological access controls threaten to survive the copyright indefinitely - just as the electronic fence outlasted the homeowner in the above analogy — thereby bootstrapping the "limited [copyright] monopoly into a perpetual right."¹¹⁰ Even worse, it would not merely be a perpetual right, but would actually be a stronger, patent-like right, because the pertinent anticircumvention provision is immune to a defense of fair use. Without the right to reverse engineer an unpatented software technology, the copyright holder may charge licensees as much as he likes: the option (or threat) of independently recreating the technology by way of reverse engineering (which traditionally tended to cap the price of copyright licenses) is foreclosed where initial access is restricted and circumvention proscribed.¹¹¹ In sum, given the "inverse relationship between the ability to create and the ability to access" copyrighted and uncopyrighted material, anticircumvention laws, like the anti-step ladder provision that prevented the public from walking the street and the roadway, threaten to curtail the public's ability to create and innovate towards the advancement of social welfare.¹¹²

¶37 In his article chronicling the history of U.S. copyright law, L. Ray Patterson illustrates the extent to which legal protection of technological access controls effectively collapses common law copyright and statutory copyright in violation of the Copyright Clause of the U.S. Constitution.¹¹³ Common law copyright is premised on a natural law conception of intellectual property that endows the author with a perpetual and absolute right to do with his creation as he pleases.¹¹⁴ It traces its origin to England's Statute of Anne, ¹¹⁵

¹⁰⁵ See *id.* at 421-22.

¹⁰⁶ Boyle, *supra* note 76, at 38.

¹⁰⁷ Benkler, *supra* note 104, at 355 (quoting Justice Brandeis (dissenting) in *International News Serv. v. Associated Press*, 248 U.S. 215, 250 (1918)).

¹⁰⁸ See *id.* at 420-22; Boyle, *supra* note 76, at 35-46.

¹⁰⁹ H.R. REP. NO. 105-551 pt. 2 at 26 (quoting a June 1998 letter from the Committee for the Consumers' Union).

¹¹⁰ David Nimmer, *A Riff on Fair Use in the Digital Millennium Copyright Act*, 148 U. PA. L. REV. 673, 721 (2000).

¹¹¹ See Burk, *supra* note 76, at 172-76.

¹¹² Thomas Heide, *Access Control and Innovation Under the Emerging EU Electronic Commerce Framework*, 15 BERKELEY TECH. L.J. 993, 996 (2000).

¹¹³ See L. Ray Patterson, *Understanding the Copyright Clause*, 47 J. COPYRIGHT SOC'Y U.S.A. 365 (2000).

¹¹⁴ See *id.* at 392-93.

which destroyed the common bookseller's printing monopoly by making the author rather than the bookseller the initial owner of a copyright of limited duration.¹¹⁶ In limiting copyright as an instrument of monopoly, the Statute of Anne endeavored to eradicate censorship and to promote human advancement by securing public access to a plentitude of learning materials.¹¹⁷ However, a gaping loophole remained with respect to the rights of authors: the Statute did not protect a work between the time of its creation and publication.¹¹⁸ Filling this gap, common law copyright bestowed an absolute right to exclude the world up to the point of publication.¹¹⁹ Today, however, common law copyright in fixed works no longer exists. Yet anticircumvention law, which Patterson would describe as embodying the "essence of censorship"¹²⁰ that is access control, increasingly threatens to combine the privileges of common law copyright, namely an absolute pre-publication right of exclusion, with those of statutory copyright (e.g., the post-publication rights of reproduction, adaptation, and display) to create a post-publication right to control both use and access.¹²¹ This infusion of natural copyright principles into the Copyright Act runs counter to the Copyright Clause, which, grounded as it is in a utilitarian calculus of incentive and access, plainly calls for a regulatory scheme aimed at safeguarding the public's right of access to creative works within and without the public domain.¹²²

IV. PROPOSED §§ 109(f) & 109(g): A DIGITAL FIRST SALE DOCTRINE

¶38 Thus far the application of § 109 in conventional offline media has been considered. The peculiarities of electronic media, most notably the Internet, complicate that analysis. This section reviews the recent findings of the U.S. Copyright Office and the National Telecommunications and Information Administration with respect to the viability of § 109 in e-commerce. It then sets forth proposals to extend the distribution and display rights into cyberspace.

A. *Digital Transmissions and the Internet*

¶39 Keith Kupferschmid identifies several theories on how the first sale doctrine applies to digital transmissions and concludes that a typical Internet transmission may well infringe a copyright in the transmitted work.¹²³ When an Internet user sends a legitimate copy of a digitized work to another Internet user through a secure e-mail connection, without the authority of the copyright holder, the transmission would not appear to be infringing because it is not public.¹²⁴ However, the transmission would be infringing for other reasons. First, a digital transmission entails the unauthorized reproduction of the transmitter's original copy, with individual parts of the unauthorized copy traveling "many and varying paths"¹²⁵ and ultimately recombining as a second-generation copy residing indefinitely in the recipient device's random access memory ("RAM").¹²⁶ While the affirmative defenses of implied license¹²⁷ and fair use may be

¹¹⁵ See U.S. CONST. art. I, § 8; 8 Anne, c. 19 (Eng. 1709).

¹¹⁶ See Patterson, *supra* note 113, at 374-84.

¹¹⁷ See *id.*

¹¹⁸ See *id.* at 380.

¹¹⁹ See *id.*

¹²⁰ *Id.* at 373.

¹²¹ See *id.* at 387-96.

¹²² See *id.*

¹²³ See Kupferschmid, *supra* note 43, at 839, 844.

¹²⁴ 17 U.S.C. §§ 106(3), 106(5) (2001). See also discussion accompanying notes 19-22, *supra*.

¹²⁵ 1 COMPUTER LAW, § 1.14[5], at 1-36 (2000).

¹²⁶ See Kupferschmid, *supra* note 43, at 838; accord *Report of the Working Group, supra* note 33, at 92-95. It is essential to the utilization of any software program that a copy be created in a computer's Random Access Memory (RAM) for manipulation by the central processing unit (CPU). The CPU is the "heart of the computer" [that] "coordinates the functions of the computer and performs arithmetic and logical operations" at the control of software programs. 1 COMPUTER LAW, §1.02[1] at 1-4 (2000). Because a RAM copy remains until the computer is turned off, it can be perceived for more than a transitory period as required of infringing copies. See *MAI Systems v. Peak*

available,¹²⁸ this RAM copy remains an infringing reproduction that is not covered by the first sale defense, which applies only to copies "lawfully made"¹²⁹ under the Copyright Act.¹³⁰ The copy distributed is not the "particular copy"¹³¹ owned by the transmitter but a second-generation copy not covered under § 109.¹³² The public display exception under § 109(c) similarly does not apply to this situation, not only for the reasons just stated in respect to § 109(a), but also because an Internet transmission to an electronic bulletin board available for viewing by countless users will result in the display of a single image on multiple screens simultaneously and in most cases to recipients located far from where the transmitter's copy actually resides.¹³³ Since § 109(c) immunizes only the public transmission of one image at a time to viewers present at the place where the copy is located, it is not applicable to most public displays by digital transmission.¹³⁴

¶40 Another theory is that because the transmitter's original copy remains on his computer, digital transmissions are not distributions and therefore do not require immunity under the first sale doctrine.¹³⁵ Imagine two persons, (A) and (B), standing at opposite ends of a photocopy machine. (A) inserts his copy into the machine one page at a time, and (B) receives the copy piecemeal at the output end of the machine. A simultaneous reproduction and distribution no doubt has occurred in the manner of an e-mail transmission. As with facsimile (fax) transmissions, the original copy does not move from one location to another but remains with the sender. That the original copy remains with the sender renders neither the fax nor the digital transmission a non-distribution; the relevant inquiry, particularly in light of the heightened need for copyright protection in cyberspace, is whether at the end of the transaction a copy, first-generation or not, is transferred from one location to another.¹³⁶

¶41 An opposing theory is that the first sale doctrine should apply in situations where the transmitter destroys the original copy.¹³⁷ This theory is flawed on two counts. First, there is no assurance that the transmitter actually destroyed the original, and no practical mechanism by which the copyright holder can verify such destruction.¹³⁸ Can the copyright holder rest assured that consumers at large will destroy their original copies following transmission? To quote a recent report from the U.S. Copyright Office, "relying on

Computer, Inc., 991 F.2d 511 (9th Cir. 1993) (holding that an independent service company that loaded copyrighted software into RAM in order to view computer system errors created infringing copies); 17 U.S.C. § 101 (2001) (defining "copies").

¹²⁷ See Bob Hyde, *The First Sale Doctrine and Digital Phonorecords*, DUKE L. & TECH. REV. 0018, ¶ 26 (2001) (arguing that, despite a digital phonorecord's enhanced vulnerability to reproduction and distribution, an implied license to make RAM copies during the course of playing a digital phonorecord likely exists, but an implied license to reproduce a digital phonorecord while distributing it likely does not) available at <http://www.law.duke.edu/journals/dltr/Articles/2001-dltr0018.html>. See also U.S. Copyright Office, *A Report of the Register of Copyrights Pursuant to § 104 of the Digital Millennium Copyright Act*, at 130-48 (2001) available at http://www.loc.gov/copyright/reports/studies/dmca/dmca_study.html (hereinafter "Report of the Register") (recommending that Congress enact legislation precluding any liability arising from the creation of temporary copies incidental to a licensed digital performance).

¹²⁸ See *Report of the Working Group*, *supra* note 33, at 93 (noting that "lawfully made" copies under § 109 include copies made without the authority of the copyright holder but permitted under the fair use provisions of the Copyright Act. This interpretation is consistent with the legislative history to § 109. See *supra* discussion accompanying note 27.) See also *Report of the Register*, *supra* note 127, at 133-34 (arguing that the making of buffer copies in the course of digital transmission by streaming may amount to fair use under § 107); JESSICA LITMAN, *DIGITAL COPYRIGHT*, 183 (Prometheus Books 2001) (calling for a general right to read pursuant to which the public could engage in copying or other uses incidental to a licensed or legally privileged use).

¹²⁹ 17 U.S.C. § 109(a) (2001).

¹³⁰ See Kupferschmid, *supra* note 43, at 838; accord *MAI Systems*, 991 F.2d at 511 (holding that RAM copies are infringing copies); H.R. Rep. No. 105-796, at 76, (legislative history to § 117(c) acknowledging that RAM copies are infringing copies under § 106(1)); *Report of the Register*, *supra* note 127, at 106-29.

¹³¹ 17 U.S.C. §§ 109(a), 109(c) (2001).

¹³² See Kupferschmid *supra* note 43, at 838.

¹³³ See *id.* at 853-54.

¹³⁴ See *id.*

¹³⁵ See *id.* at 848-49.

¹³⁶ See *id.* at 849-50.

¹³⁷ See James Mahon, *A Commentary on Proposals for Copyright Protection on the National Information Infrastructure: An Analysis of Proposed Copyright Changes and Their Impact on Copyright's Public Benefits*, 22 RUTGERS COMPUTER & TECH. L.J. 233, 262-5 (1996).

¹³⁸ See Kupferschmid, *supra* note 43, at 845-6.

voluntary deletion is an open invitation to virtually undetectable cheating, and there is no reason to believe there would be general compliance with such a requirement."¹³⁹ Second, as a purely technical matter, good faith destruction by the transmitter would not change the fact that the distributed copy is not the transmitter's "particular" copy.¹⁴⁰ The simultaneous destruction theory is therefore at odds with the specific language of § 109 and, moreover, does not offer copyright holders adequate assurance that Internet users will not engage in the unauthorized viral distribution of protected works.¹⁴¹ Without this assurance, many copyright holders will forgo making their works widely and cheaply available over the Internet.¹⁴²

B. *The NTLA Report to Congress*

¶42 The Copyright Office and the National Telecommunications and Information Administration ("NTIA") received an overwhelming volume of responses to a notice of inquiry seeking comments in connection with the effects of the Digital Millennium Copyright Act.¹⁴³ After reviewing the comments, the NTIA offered its own recommendations regarding amendments to §109. The following analysis draws from the March 2000 NTIA report.¹⁴⁴

¶43 Proponents of amending § 109 called for a "digital first sale doctrine" that would permit the transmission and re-transmission of digitally-delivered works. To protect the "paramount public interest in the dissemination of and proliferation of copyrighted works," proponents argued that the Copyright Office and the NTIA should endorse the provisions of the vetoed Digital Era Copyright Enhancement Act, which would have permitted the operation of the first sale doctrine by digital transmission where the transmitter simultaneously destroyed or disabled his original copy or phonorecord.¹⁴⁵ To ensure simultaneous destruction or disablement, the copyright holder could deploy "forward and delete" technology as part of an automated copyright management system.¹⁴⁶ Without a first sale doctrine for digitally-delivered media, its proponents warned, circumvention technologies would gain popularity among consumers who refuse to abide by onerous CMS packages and "hyper-technical copyright laws" that restrict access and alienation.¹⁴⁷

¶44 On the other side of the debate, the copyright community observed that digital transmissions involve the unauthorized creation and distribution of second-generation copies. Further, they observed that regardless of any disagreement as to whether § 109 should allow such copies in the presence of adequate digital rights management systems, the systems that are currently available do not sufficiently protect copyright holders' pecuniary interests.¹⁴⁸ Additionally, opponents of the amendments contended that the first sale doctrine applies only to tangible copies, which plainly electronic digital copies are not.¹⁴⁹ They stressed that licensing is a proven, flexible alternative to the proposed digital first sale doctrine, offering adequate incentives for innovation and creativity while at the same time promoting e-commerce.¹⁵⁰

¶45 After weighing the evidence for and against the proposed amendment, the NTIA Report concludes on a reservedly optimistic note that "it would be premature to ... make any legislative recommendations at

¹³⁹ *Report of the Register*, *supra* note 127, at 97.

¹⁴⁰ Kupferschmid, *supra* note 43, at 847; 17 U.S.C. §§ 109(a), 109(c) (2001).

¹⁴¹ Kupferschmid, *supra* note 43, at 847-8.

¹⁴² *See id.* at 853.

¹⁴³ *See* Report to Congress Pursuant to Section 104 of the Digital Millennium Copyright Act, 65 Fed. Reg. 35,673.

¹⁴⁴ *See Report to Congress*, *supra* note 97.

¹⁴⁵ *Id.* at part III(A) ("Initial Comments — Proponents of a First Sale Doctrine").

¹⁴⁶ *See id.*

¹⁴⁷ *Id.* at part III(A) ("Reply Comments — Proponents of a First Sale Doctrine").

¹⁴⁸ *See id.* at part III(A) ("Initial Comments — Copyright Community").

¹⁴⁹ *See id.*

¹⁵⁰ *See id.* at part III(A) ("Reply Comments — Copyright Community").

this time with respect to either section 109 or 117 ..."¹⁵¹ The Report noted that § 109 would apply to a second-generation copy of a file downloaded with the copyright holder's consent.¹⁵² It also described the forward and delete features of automated copyright systems as promising, but expressed misgivings about the level of protection it offers copyright holders in connection with digital transmissions.¹⁵³

C. *The U.S. Copyright Office's DMCA Report*

¶46 Pursuant to § 104 of the Copyright Act, the Copyright Office recently completed its own evaluation of the impact of copyright law and proposed amendments on electronic commerce and technology development. Like the NTIA, the Copyright Office was not persuaded that the effects of title I of the DMCA on the operation of § 109 warrant a new digital first sale doctrine.¹⁵⁴ The two organizations differed sharply, however, over the viability of forward and delete technology and, more generally, the first sale doctrine's applicability to digital content.

¶47 In contrast to the cautious optimism of the NTIA, the Copyright Office viewed forward and delete technology as an expensive, marginally reliable imposition on copyright holders and ultimately consumers, who would be forced to pay higher costs for products incorporating the technology.¹⁵⁵ Alternatively, the cost may be sufficiently high so as to place copyrighted works incorporating forward and delete technology at a competitive disadvantage, and copyright owners may therefore forgo the use of the technology entirely.¹⁵⁶ Having established its skepticism of the viability of this technology, the Copyright Office went on to argue that § 109 should not apply to the transmission of digital content. Relying on an archaic, pre-digital notion of common-law ownership, complete physical dominion over a tangible copy,¹⁵⁷ the Copyright Office concluded that the first sale doctrine pertains exclusively to material objects of embodiment (e.g., a CD-ROM or similar removable storage medium capable of physical transfer), rather than the digital information stored therein. Thus, § 109 does not authorize digital transmissions.¹⁵⁸

¶48 The Copyright Office rightly concluded that the risks of piracy inherent to cyberspace caution against the expansion of § 109 to digital media. However, its skepticism toward automated copyright management technology and its formalistic theory on the applicability of the first sale privilege to digital transmissions should be viewed with caution. The Copyright Office failed to appreciate the conceptual severability of ownership of intangible digital content and ownership of tangible storage devices. Technological change has transformed nineteenth century conceptions of property as absolute dominion over a physical thing into property conceived as a limited bundle of rights in both material and non-material things.¹⁵⁹ That a digital first sale doctrine comports with common-sense assumptions about the nature of ownership is evident from the following examples. Can it be doubted that ownership of digital files exists independently of ownership of the hard drive or floppy disk on which said files are stored? If I hack into a co-worker's e-mail account from my office computer and delete his incoming messages, cannot my co-worker sue me for the tort of conversion even though the employer owns all the underlying hardware and software? To take another example, if I download a video game I purchased directly from the Internet onto a friend's hard drive with the understanding that I will reclaim the video game at a future date, it seems uncontroversial to argue that I retain ownership in the game even though I do not own the computer. Notwithstanding the infringing second-generation reproduction, the same right of ownership should therefore allow me to transmit the game

¹⁵¹ *Id.* at part IV ("Conclusion").

¹⁵² *See id.*

¹⁵³ *See id.*

¹⁵⁴ *See Report of the Register, supra* note 127, at 73-105.

¹⁵⁵ *See id.* at 84, 98.

¹⁵⁶ *See id.*

¹⁵⁷ *See id.* at 86-87.

¹⁵⁸ *See id.* at 86-87, 100.

¹⁵⁹ *See Boyle, supra* note 76, at 47-50.

to my own personal computer, provided that I delete the original copy. This example, and countless situations like it, point out the impossibility of reconciling the Copyright Office's antiquated notion of ownership with the intangible nature of electronic commerce, wherein proprietary digital information is traded instantaneously without the burden of traditional offline delivery and storage mechanisms. While trespass against electronic files resting in the ether of cyberspace is an undoubtedly reasonable concern, automated copyright management technology can envelope such files with an array of incorporeal fences that turn away potential trespassers and discipline the actions of invitees, permitting the copyright owner to control when, how and by whom digital content is used. The existence of works in cyberspace requires a redefinition of what it means to own something: the Copyright Act's definitions of "copy" and "phonorecord" should be amended to reflect the realities of ownership in the online milieu. In any case, the magnitude of the risk of unauthorized copying, not centuries-old conceptualizations of property ownership, should decide the fate of digital transmissions with respect to § 109.

D. *Crafting a New Digital First Sale Doctrine*

¶49 Because digital copies differ from traditional types of copies in that they can be easily copied at minimal cost and without degradation in quality, Kupferschmid has suggested an amendment to § 109(b) that would forbid the rental or lending of *any* digital work.¹⁶⁰ In a similar spirit, the White House's Information Infrastructure Task Force ("IITF") proposed an amendment that would have brought electronic transmissions (including digital transmissions) within the ambit of the distribution right.¹⁶¹ The effect would have been to outlaw public distribution by transmission without the authority of the copyright holder.¹⁶² In its preliminary report, the IITF further urged that the first sale doctrine not apply to this new right of distribution by transmission.¹⁶³ Ultimately, however, the final report abandoned this exception to the first sale privilege.¹⁶⁴

¶50 The NTIA Report suggests that a new first sale doctrine authorizing the electronic transmission of digitally-delivered works would be warranted if forward and delete CSM technology, backed by laws proscribing circumvention, circumvention devices and tampering with copyright management information, proved successful at destroying or disabling the transmitter's original copy. The NTIA recommendation recalls the Digital Era Copyright Enhancement Act ("DECEA"), an earlier attempt to enact a digital first sale doctrine. The relevant section of the proposal, which was ultimately deleted from the final text of the Digital Millennium Copyright Act of 1998, read as follows:

Sec. 109(f). The authorization for use set forth in subsection (a) 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 phonorecord at substantially the same time. The reproduction of the work, to the extent necessary for such performance, display, distribution, is not an infringement.¹⁶⁵

¶51 The construction of this provision of the DECEA is ambitious but heavy-handed. First, it groups performances, distributions and displays together into a single provision without addressing the special concerns that apply to each. Second, it naively relies on the transmitter to destroy his or her original copy.

¹⁶⁰ See Kupferschmid, *supra* note 43, at 854-55.

¹⁶¹ See *Report of the Working Group*, *supra* note 33, at app. 1 § 2-3 ("Proposed Legislation").

¹⁶² Although the copyright holder's exclusive right to distribution by transmission has yet to receive statutory recognition, it is firmly established in federal case law. See e.g., *Napster*, 239 F.3d at 1013-14 (holding that the unauthorized uploading of digital sound recordings for other Internet users to copy violated plaintiffs' distribution rights).

¹⁶³ See Information Infrastructure Task Force, *Preliminary Draft of the Working Group on Intellectual Property ("Green Paper")*, at part IV(A)(1)(c), (1994) (setting forth proposed § 109(a)(2): "This subsection [i.e., 109(a)] does not apply to the sale or other disposal of the possession of that copy or phonorecord by transmission.") available at http://iitf.doc.gov/ipc/ipc-files/ipwg/ipwg_draft.html.

¹⁶⁴ See *Report of the Working Group*, *supra* note 33, at 90-95.

¹⁶⁵ H.R. 3048 105th Cong. § 4 (1997).

Third, the statute permits the unauthorized public performance of copyrighted works.

1. *Section 109(f) — Public Distribution by Digital Transmission*

¶52 The DECEA's successor will avoid its predecessor's fate in part by taking advantage of emerging automated digital rights management technology. The first part of this new digital first sale doctrine, proposed § 109(f), would read roughly as follows:

§ 109(f). Public Distribution by Non-Analog Transmission.

(1) Notwithstanding the provisions of subsections 106(1), 106(3), and 109(a), the owner of a particular copy or phonorecord in digital or other non-analog format lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright holder, to distribute that copy or phonorecord to the public by transmission, provided the transmission is to a single recipient and the copy or phonorecord is adequately protected by automated copyright management technology that effectively deletes or disables that copy or phonorecord simultaneous with or immediately following transmission.

(2) This subsection shall not apply to any cached copy, or portion thereof, created by reason of the intermediate and transient storage of material on a system or network in the course of transmitting.

¶53 Section 109(f) authorizes digital transmissions notwithstanding the rights of reproduction and display as well as § 109(a)'s requirement that the copy distributed be the transmitter's original copy. The single recipient requirement ensures that no more than one second-generation copy is created per copy transmitted.¹⁶⁶ The lawful owner of multiple copies of, for example, a digitized photograph could transmit a single copy to each of several consumers (collectively the public), provided that each copy was so programmed as to delete or disable itself immediately following or simultaneous with its respective transmission. In sum, when the threat of copyright infringement is effectively neutralized by technological protection measures, the consumer's right of alienation and free trade under proposed § 109(f) should prevail in the interest of promoting the continued growth and development of the electronic marketplace for ideas and information.

2. *Section 109(g) — Public Display by Digital Transmission*

¶54 Public displays by transmission are another matter. In the realm of brick-and-mortar commerce, the distributor who physically conveys his sole copy of a work to another is left with nothing in his possession. Similarly, the online distributor should not be allowed to retain his copy of the distributed work. In displaying the work, however, the work may change hands, but the displayer does not intend to surrender any possessory rights thereto. Accordingly, the owner of a copy of a copyrighted work should be allowed to display the work publicly by transmission without having his original copy deleted or disabled. What is needed, then, is CMS technology that would effectively delete or disable the second-generation copy, while leaving the original intact, at the transmitter's intended conclusion of the display. Such technology must also protect the second-generation copy against unauthorized copying during its period of residency on the recipient's viewing device. Given that the NTIA Report makes no mention of such technology, it can safely be assumed that currently it is not widely commercially available. Assuming said technology were widely commercially available, § 109(g) would read roughly as follows:

§ 109(g). Public Display by Non-Analog Transmission.

(1) Notwithstanding the provisions of subsections 106(1), 106(5) and 109(c), the owner of a particular copy in digital or other non-analog format lawfully made under this title, or any person

¹⁶⁶ A multi-recipient digital transmission creates a separate second-generation copy for each recipient and therefore should be prohibited, notwithstanding the implementation of CMS technology. See *infra* part IV(D)(2)(A) "The Multi-Recipient Transmission."

authorized by such owner, is entitled, without the authority of the copyright holder, to display that copy by transmission of no more than one image at a time to a single recipient present at a place open to the public or to a single recipient present at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered, provided the particular copy is adequately protected by automated copyright management technology that effectively —

(a) protects the rights of the copyright holder while a copy created in the course of such transmitting is fixed on the recipient's machine or device for viewing or otherwise utilizing the transmission; and

(b) deletes or disables any copy created in the course of such transmitting that is fixed on said machine or device for viewing or otherwise utilizing the transmission.

(2) This subsection shall not apply to any cached copy, or portion thereof, created by reason of the intermediate and transient storage of material on a system or network in the course of transmitting.

¶55 Section 109(g) authorizes digital transmissions notwithstanding the rights of reproduction and display as well as § 109(c)'s requirement that the copy displayed be the transmitter's particular copy. The "single recipient" provision prevents a multi-recipient transmission¹⁶⁷ and the simultaneous projection of a single image on multiple viewing devices. The reader will note, however, that § 109(g) as drafted clears the way for public displays by transmission by eviscerating the copyright holder's § 109(c) right to limit the transmission to the display to viewers present where the copy is located. Since the right to control public displays by transmission undoubtedly will grow in importance as copyright holders continue to migrate in droves to the online environment, the wisdom of broadening the display right to permit more than just the transmission of images to viewers present where the copy is located must be investigated thoroughly before implementing § 109(g). However, in light of the fact that the Internet is steadily becoming the dominant medium of exchange, amendment of the display right is warranted. If each copy of the work on display is effectively destroyed by the appropriate CMS application, the risk of piracy is minimal.

¶56 Alternatively, § 109(g)(1) could be amended to read in relevant part as follows:

Notwithstanding the provisions...[the owner of a particular copy may] display that copy by transmission of no more than one image at a time to a single recipient present at a place open to the public or to a single recipient present at any place where a substantial numbers of persons outside of a normal circle of a family and its social acquaintances is gathered, provided -

(a) the recipient is present at the place where the copy is located; and

(b) the particular copy is adequately protected by automated....

¶57 Under this provision, the owner of a copy of a copyrighted work employing forward and delete technology could publicly display that work in accordance with § 109(c).

a. *The Multiple-Recipient Transmission*

¶58 It is axiomatic that the owner should not be permitted to distribute more copies than he owns. Accordingly, §§ 109(f) and (g), like the DECEA, restrict digital transmissions to the "single recipient" because with multi-recipient transmissions each user receives a separate second-generation copy. For example, if an owner transmits a single digital copy to four recipients simultaneously, he distributes three more copies than he owns. Section 109(f) should not be drafted to permit such a transmission because even if the original copy is destroyed by forward and delete technology, three unlawful copies remain in circulation. In addition to preventing unauthorized copies associated with multi-recipient transmissions, §109(g)'s single recipient

¹⁶⁷ See *id.*

limitation ensures that no more than one image is displayed at a time, since a transmission to multiple recipients would amount to the simultaneous projection of a single image on multiple viewing devices in violation of § 109(c). While an owner may publicly display a work by transmitting it to a single computer present where the public is gathered, often the need arises to display a single copy to multiple recipients simultaneously. If the original copy were equipped with CMS technology such that every second-generation copy would be deleted or disabled, the risk of piracy in connection with the simultaneous projection of a single image on multiple viewing devices would be minimal. Were the requirement that viewers be present where the copy is located eliminated (*see* discussion above) along with the single image projection provision, § 109(g)(1) would read, in relevant part, as follows:

(1) Notwithstanding the provisions...[the owner of a particular copy may] display that copy by transmission to a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered *or to the public whether the members of the public capable of receiving the display receive it in the same place or in separate places and at the same time or at different times*, provided the particular copy is adequately protected by automated copyright management that effectively...

b. *Streaming*

¶59 The analysis thus far has considered digital transmissions in terms of the uploading of whole copies of copyrighted works. There is an alternative method of digital transmission that would not require the elaborate protections of proposed § 109(g). *Streaming* is a technique for transferring data such that it can be processed as a steady and continuous stream. Most users do not have fast enough access to download large multimedia files quickly. With streaming, the client browser can start displaying the data in real-time before the entire file has been transmitted. The client receiving the data must be able to collect that data and send it as a steady stream to the application that is processing the data. Often the streaming client receives the data more quickly than is required, in which case the data needs to be saved (cached) in a buffer, or temporary storage area (usually in RAM) for later use. The buffer contains only a small, insubstantial fraction of the transmitted work at any given time. In the aggregate, however, these *de minimis* portions may constitute a copy of the entire work.

¶60 Web server streaming, which relies on a standard web server and does not require the installation and management of a new software infrastructure, necessarily creates a local cached copy of every media file played, making it difficult to prevent end users from copying the files to a personal directory for later viewing. Streaming with a streaming media server, however, involves the installation and interaction of proprietary client-side software with the content provider's software such that the client is prevented from copying the file directly to his hard disk. As data are received over the network, they are delivered directly to the client application with no easy way for the end user to intervene and make a copy.

¶61 A considerable portion of the Copyright Office and NTIA reports was dedicated to the issues surrounding streaming.¹⁶⁸ Proponents of a first sale doctrine contended that buffer memory copies are "technical necessities" that should be exempted from the right of reproduction.¹⁶⁹ The copyright community responded that their role was not to "subsidize certain type[s] of business model[s] by refraining from enforcing, or seeking no compensation for the exercise of, one of their exclusive rights."¹⁷⁰ The Copyright Office rejected the proposition of a blanket exception for temporary buffer copies incidental to a lawful use, but opined that the making of such copies may amount to fair use under § 107.¹⁷¹ It also called for legislation clarifying that incidental buffer copies created in the course of a licensed digital performance are

¹⁶⁸ *See Report to Congress, supra* note 97, at part III(C) ("Streaming").

¹⁶⁹ *Id.* (quoting Greenstein Testimony, Hearing Transcript, at 329-330).

¹⁷⁰ *Id.* (quoting Metalitz Testimony, Hearing Transcript, at 276).

¹⁷¹ *See Report of the Register, supra* note 127, at 130-148.

noninfringing.¹⁷²

¶62 The provisions that follow envisage a network of smaller interoperable networks called trusted systems.¹⁷³ Built into the architecture of each trusted system would be a sophisticated arrangement of automated copyright management technologies that govern the terms, conditions and fees for using digital works. Compatible trusted systems, each secured by its own encryption method, would automatically exchange material subject to the pre-programmed contractual wishes of the member copyright owners. For example, Bob, a consumer enlisting the services of a retailer operating within repository (i.e., trusted system) A, could purchase an e-book from Bill, the copyright owner whose work resides in repository B. Assuming A and B are compatible systems, A would upload the entire book to Bob via B as a single file or stream it in increments along with all information governing use of the book. Bob would be billed per hour or portion read, depending on Bill's specified preferences as enforced by CMS technology. If Bill has given advance consent, the technology would permit Bob to loan the book, or chapters thereof, to Chris, operating within repository C, and repositories A, B, and C would cooperate so as to ensure that Bob's copy is disabled during the loan period. At the expiration of the loan, Chris' copy would be deleted and Bob's reactivated.

¶63 A slight modification of § 109(g)'s proposed language would accommodate streaming. The streaming media server application, as distinguished from the Web server streaming application, is essentially a type of automated copyright management system technology that prevents the creation and distribution of unauthorized copies. The information stored in the client-side application is fixed but protected from copying and eventually deleted. It makes no difference with respect to § 109(f) whether the copies are streamed or uploaded at all once, because the concern in this section is with the original copy, not the second-generation copy. So long as the original copy is disabled or deleted, the method of transmission of a single copy is inconsequential. With respect to § 109(g), on the other hand, a streaming provision would round out the statute's protection. Such a provision would require that the recipient of the display have employed streaming technology (or some similar technology) that protects the rights of the copyright owner by preventing unauthorized copying and ultimately deleting or disabling any material resident on the recipient's computer. Consequently, the owner would be put to a choice: whether to arm the original copy with CMS technology that disables or deletes the second-generation copy without the need for special interactive software on the receiving end, or stream the copy to devices on which the appropriate streaming media server technology has been installed. Incorporating the foregoing proposed amendments,¹⁷⁴ § 109(g)

¹⁷² See *id.* at 142-46.

¹⁷³ See Mark Stefik, *Shifting the Possible: How Trusted Systems and Digital Property Rights Challenge Us to Rethink Digital Publishing*, 12 BERK. TECH. L.J. 137 (1997); LESSIG, *supra* note 76, at 127-30.

¹⁷⁴ The § 109(c) first sale right to publicly display a work by transmission, as amended, would not be limited to persons present where the copy is located. Neither would said right be limited to the projection of no more than one image at a time. As important, an amended § 106(5) display right would permit the transmission of nonsequential images as well as digital copies of works in their entirety. See 17 U.S.C. § 101 (2001) (defining "display"). Consequently, an owner could transmit either nonsequential images of a protected work or a CMS-protected digital file (or files) containing the work in its entirety.

in its final form would read as follows:

§ 109(g). Public Display by Non-Analog Transmission.

(1) Notwithstanding the provisions of subsections 106(1), 106(5) and 109(c), the owner of a particular copy in digital or other non-analog format lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright holder, to display that copy by transmission to a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered or to the public whether the members of the public capable of receiving the display receive it in the same place or in separate places and at the same time or at different times, provided -

(a) the machine or device of each direct recipient contains automated copyright management technology that effectively —

(i) protects the rights of the copyright holder while any copy, or portion thereof, created in the course of such transmitting is fixed on said machine or device for viewing or otherwise utilizing the transmission; and

(ii) deletes or disables any copy, or portion thereof, created in the course of such transmitting that is fixed on said machine or device for viewing or otherwise utilizing the transmission;

or

(b) the particular copy is adequately protected by automated copyright management technology that effectively —

(i) protects the rights of the copyright holder while any copy, or portion thereof, created in the course of such transmitting is fixed on a recipient machine or device for viewing or otherwise utilizing the transmission; and

(ii) deletes or disables any copy, or portion thereof, created in the course of such transmitting that is fixed on a recipient machine or device for viewing or otherwise utilizing the transmission.

(2) This subsection shall not apply to any cached copy, or portion thereof, created by reason of the intermediate and transient storage of material on a system or network in the course of transmitting.

V. PROPOSED § 109(h) - A PROPRIETARY RIGHT OF ACCESS

¶64 The quandary of ownership without access is a real and present danger of the current anticircumvention copyright regime. This section examines § 1201 of the Copyright Act and its accommodation, if any, of § 109 as a background to the discussion of proposed § 109(h).

A. *Section 1201*

¶65 In implementing the "black box" (or "anticircumvention") provisions of the World Intellectual Property Organization ("WIPO") Copyright Treaty and Performances and Phonograms Treaty, the Digital Millennium Copyright Act ("DMCA")¹⁷⁵ purposes to bring "U.S. copyright law squarely into the digital age."¹⁷⁶ Title 1 of the DMCA promulgates § 1201 of the Copyright Act, the anticircumvention arm of the

¹⁷⁵ Pub. L. No. 105-304, 112 Stat. 2860 (1998).

¹⁷⁶ H.R. REP. NO. 105-190, at 2, (1998).

DMCA.¹⁷⁷ Section 1201(a)(1)(A) states that "[n]o person shall circumvent a technological measure that effectively controls access to a work protected under this title [i.e., the Copyright Act]."¹⁷⁸ This provision, which took effect October 28, 2000, applies to initial access and not 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."¹⁷⁹ While a few technologically savvy individuals will create for themselves the means to circumvent, most users will require the products and services of others.¹⁸⁰ Unfortunately the *Sony*¹⁸¹ doctrine for gauging the permissibility of duplication machinery has proved ineffective against "black boxes" designed primarily to infringe but capable of substantial noninfringing uses:¹⁸² § 1201(a)(2), the centerpiece of § 1201, forbids the manufacture, import or sale of devices designed to circumvent technological measures that effectively control access to copyrighted works.¹⁸³ The prohibition of the act of circumvention — likened to the "electronic equivalent of breaking into a locked room in order to obtain a copy of a book"¹⁸⁴ — effectively shores up the legitimacy of the anti-device provision. Without a ban on the act of circumvention it would be difficult to sustain a ban on the manufacture and sale of devices necessary to enable consumers to gain access to privileged copyrighted works.¹⁸⁵ Because the gravamen of § 1201(a) is access control and not copyright infringement, the bans on circumvention and circumvention devices are properly characterized as "paracopyright" protection.¹⁸⁶

¶66 Paralleling § 1201(a), § 1201(b) proscribes the sale, manufacture, import, etc. of devices designed to circumvent copy controls, technological measures that protect not access but the rights of the copyright holder against copyright infringement.¹⁸⁷ To illustrate the difference, David Nimmer describes a § 1201(a) violation as breaking into someone's home and a § 1201(b) violation as offending the house rules.¹⁸⁸ Because Congress anticipated that the *act* of circumventing copy controls would generally culminate in actionable copyright infringement, a ban on the act of circumventing copy controls was not included.¹⁸⁹ In other words, the act of circumventing a copy control for the purpose of making an unauthorized copy was not made actionable under § 1201 because it was thought that the remedy for infringement of the reproduction right would offer adequate compensation for the § 1201 violation as well.¹⁹⁰

B. *The DVD*

¶67 The controversy surrounding the Digital Versatile Disk ("DVD") epitomizes the paradox of ownership without access. The DVD is a five-inch disk that provides high quality video resistant to wear and damage.¹⁹¹ In addition to the motion picture, the DVD may also provide features not available in

¹⁷⁷ 17 U.S.C. § 1201 (1998).

¹⁷⁸ 17 U.S.C. § 1201(a)(1)(A) (2001).

¹⁷⁹ H.R. REP. NO. 105-551, part 1, at 18 (1998).

¹⁸⁰ See Benkler, *supra* note 104, at 416.

¹⁸¹ See *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984) (holding that where a manufacturer lacks direct contract with end users and has neither induced nor materially contributed to their unlawful conduct, that manufacturer will not be held contributorily liable for infringing activity in connection with the use of its device by said end users if that device is capable of substantial noninfringing use).

¹⁸² See 3 *Nimmer on Copyright*, § 12A.01[C] at 12A-8-9 (1999); 3 *Nimmer on Copyright*, § 12A.03[A] at 12A-28 (1999).

¹⁸³ See 17 U.S.C. § 1201(a)(2) (2001).

¹⁸⁴ H.R. REP. NO. 105-551, pt. 1, at 17 (1998).

¹⁸⁵ See Benkler, *supra* note 104, at 416.

¹⁸⁶ See 3 *Nimmer on Copyright*, § 12A.03[C], at 12A-31 (1999).

¹⁸⁷ 17 U.S.C. § 1201(b) (2001).

¹⁸⁸ See 3 *Nimmer on Copyright*, § 12A.03[C], at 12A-31 (1999).

¹⁸⁹ H.R. REP. NO. 105-190, at 29.

¹⁹⁰ See *id.*

¹⁹¹ See Marks & Turnbull, *supra* note 87, at 578.

conventional videotape format, (e.g., outtakes, interviews with actors and directors, and language features).¹⁹² Despite the DVD's superiority to analog videocassettes, many film studios would not release their movies in the new digital format without protections against unauthorized copying.¹⁹³ In 1996 computer companies roundly rejected legislation that would have required computer-based DVD players to look for, read, and respond to copy protection information embedded in DVD video because, as a technical matter, it was thought that such technology would cripple the functioning of computer products.¹⁹⁴ After extended research and negotiation, the Content Scramble System ("CSS") was introduced as the encryption technology upon which DVD protection would be built.¹⁹⁵

¶68 CSS effectively controls access to DVD video in cooperation with a CSS Technology License. The License is issued by the DVD Copy Control Association ("DVD CCA"), a multi-industry body controlled by licensees.¹⁹⁶ It requires that manufacturers of DVD players incorporate copy control technologies, such as devices that guard against content originally encrypted with CSS being recorded onto any type of disc in unencrypted form.¹⁹⁷ To protect the staggered distribution scheme of motion pictures worldwide, DVD players also must incorporate regional playback codes that can be reset up to 25 times by the same consumer.¹⁹⁸

¶69 The DVD controversy comes down to this: the consumer who has lawful ownership of a DVD cannot play —much less excerpt for fair use purposes— that DVD unless he has a DVD CCA-licensed playback device that contains the requisite CSS decryption keys, and then only if the device's regional playback codes are compatible with those of the DVD. Linux users, for example, cannot view lawfully purchased DVDs because currently there is no Linux-compatible DVD CCA-licensed playback device on the market.¹⁹⁹ The now famous DeCSS, a software utility that decrypts CSS-protected DVDs, allows users to play DVDs on a Linux operating system.²⁰⁰ However, as was held in *Universal Studios v. Reimerdes*, the DeCSS application violates the § 1201(a) ban on circumvention devices and technologies.²⁰¹ Defendants who posted DeCSS on public Internet websites were adjudged ineligible for the § 1201(f) reverse engineering exemption because they were not the reverse engineers who developed DeCSS and, moreover, DeCSS was not developed for the sole purpose of achieving the interoperability of Linux and DVD playback devices in the market.²⁰²

¶70 The plight of Linux users caused the U.S. Copyright Office to give serious consideration to but to ultimately reject a § 1201(a)(1)(A) exemption for DVDs. The Copyright Office's October 2000 Final Rule cited several reasons for its denial of an exemption. First, most works available in DVD format are also available in analog format.²⁰³ Second, the added value of DVDs would not have been included but for the added protection of CSS; the benefits of CSS therefore outweigh the harms on this count.²⁰⁴ Third, there is "no unqualified right to access works on any particular machine or device of the user's choosing."²⁰⁵ Fourth,

¹⁹² See *Final Rule*, *supra* note 98, at 64,568.

¹⁹³ See Marks & Turnbull, *supra* note 88, at 580.

¹⁹⁴ See *id.* at 579.

¹⁹⁵ See *id.* at 581.

¹⁹⁶ See *id.* at 585.

¹⁹⁷ See *id.* at 582-85.

¹⁹⁸ See *id.* at 600-01.

¹⁹⁹ See *Final Rule*, *supra* note 98, at 64,568-69.

²⁰⁰ See *Universal City Studios, Inc. v. Reimerdes*, 111 F.Supp.2d 294, 311 (S.D.N.Y. 2000).

²⁰¹ See *id.* at 316-19.

²⁰² See *id.* at 320.

²⁰³ See *Final Rule*, *supra* note 98, at 64,568.

²⁰⁴ See *id.*

²⁰⁵ *Id.* at 64,569.

generally speaking, regional code restrictions do not rise to the level of a substantial adverse effect.²⁰⁶ Fifth, Linux-compatible DVD players are forthcoming.²⁰⁷ Sixth, the DVD does not merge copy and access controls into a dual-function control that effectively bootstraps anticircumvention protection for the copy control by clothing it in access control technology.²⁰⁸ In sum, the Final Rule concludes, "the restrictions on DVDs are presently offset by the overall benefit to the public resulting from the digital release of audiovisual works."²⁰⁹

C. Section 1201 and First Sale Rights

¶71 This section considers whether lawful ownership is a defense to § 1201. When construing legislation "in which a general statement of policy is qualified by an exception," the exception is read "narrowly in order to preserve the primary operation of the provision."²¹⁰ Section 1201(c)(1) provides that nothing in § 1201 shall affect the "rights, remedies, limitations, or defenses to copyright infringement, including fair use, under the [Copyright Act]."²¹¹ On the one hand, a general fair use provision would not eviscerate the statute. If the manufacturer of a circumvention device incapable of substantial noninfringing (or fair) use were made directly liable for its mere construction, sale or attempted sale, rather than merely held secondarily liable for infringement by persons who subsequently use said device, the copyright owner would have a cause of action in the absence of infringement, direct or otherwise. By predicating the ban on circumvention devices on a right outside copyright, namely paracopyright, the copyright owner could interdict a circumvention device incapable of substantial noninfringing use well in advance of infringement by end users. In this respect, anticircumvention would function like anticybersquatting laws that permit trademark owners to intercept potentially infringing and dilutive domain names in the registration stage and thus long before the commencement of commercial use.

¶72 On the other hand, the apparent consensus among scholars and courts is that § 1201(a) forbids a general defense of fair use.²¹² This view is further supported by the structure of § 1201, including the safe harbors at §§ 1201(d)-(k) as well as the triennial procedure for exempting additional classes of works from the § 1201(a)(1)(A) prohibition.²¹³ The Digital Era Copyright Enhancement Act, discussed above in connection with digital transmissions, provided that, "In making a determination concerning fair use, no independent weight shall be afforded to the application of an effective technological measure (as defined under section 1201(c)) to the work."²¹⁴ This provision would have created a § 107 fair use defense to § 1201. Yet, if one could simply invoke fair use as grounds for circumvention without the consent of the copyright holder, the statutory and class of works exemptions that permit unauthorized circumvention for fair uses might be rendered largely superfluous. It therefore stands to reason that § 1201 governs pre-access conduct, forbidding access to the preclusion of fair use, but ceases to apply once access has been lawfully acquired, reserving post-access determinations of fair use in § 107 and complementary provisions.

²⁰⁶ *See id.*

²⁰⁷ *See id.*

²⁰⁸ *See id.* at 64,570.

²⁰⁹ *Id.* at 64,569.

²¹⁰ *C.I.R. v. Clark*, 489 U.S. 726, 739 (1989).

²¹¹ 17 U.S.C. § 1201(c)(1) (2001).

²¹² *See* Benkler, *supra* note 104, at 417-18; Nimmer, *supra* note 110, at 723; *Reimerdes*, 111 F. Supp. 2d at 311; *Universal Studios, Inc. v. Corley*, 273 F.3d 429, 443-44, 458-59 (2nd Cir. 2001); *RealNetworks, Inc. v. Streambox, Inc.*, 2000 WL 127311, *7 (W.D. Wash. 2000).

²¹³ *See* 17 U.S.C. §§ 1201(a)(1)(B)-(E) (2001). The Copyright Office is charged with triennially proposing to the Librarian of Congress class of works exemptions to the ban on circumvention at § 1201(a)(1)(A). Such an exemption would not apply to the § 1201(a)(2) ban on circumvention devices.

²¹⁴ H.R. 3048 105th Cong. § 2 (1997).

¶73 But does § 1201 also foreclose fair use to owners seeking access following a lawful first sale? The idea that Congress intended fair use and first sale exceptions to the ban on circumvention in addition to the explicit statutory exemptions at §§ 1201(d)-(k) was not without precedent: § 107, the fair use provision, and § 109, the first sale doctrine, have long operated in conjunction with the statutory exceptions to copyright infringement at §§ 108-122. The legislative history of § 1201(a) suggests that one who had acquired ownership of a copy of a copyrighted work had an implicit right to circumvent technological protection measures for fair use purposes:

In a fact situation where the access is 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.*²¹⁵

¶74 A consumer who lawfully purchased a software program from a retail store, thereby acquiring title to the copy, could, under this rationale, circumvent a password query required to access the program in the event the password were lost and the consumer had the means to circumvent. On the other hand, a user in possession of a pirated software program may not circumvent a password query under §1201 — not even for noninfringing purposes — because she had not lawfully acquired that program.

¶75 Does the theory that ownership *per se* imparts a circumvention right square with overall scheme of § 1201, particularly the exemptions at §§ 1201(d)-(k)? Consider the reverse engineering safe harbor at §1201(f).²¹⁶ If the proprietary right of access hypothesis is correct, § 1201(f) merely makes explicit for reverse engineers the bedrock principle implicit throughout § 1201: that one who has lawfully acquired title to a work may circumvent technological protection measures with an eye to fair use as an incident of property ownership. Section 1201(f) provides that the reverse engineer who has lawfully obtained the right to use a copy of a computer program may circumvent technological protection measures for the purpose of achieving interoperability.²¹⁷ The right to use a work attaches where the computer program has been "lawfully acquired from a legitimate source, along with any necessary serial codes, passwords, or other such means as may be necessary to be able to use the program as it was designed to be used by a consumer of the product."²¹⁸ If lawful acquisition is not only necessary but a sufficient prerequisite to circumvention, then the user who lawfully owned a computer program along with its password could circumvent the query in the event the password was lost.

¶76 The theory that ownership *per se* affords the right to circumvent finds some support in the structure of § 1201. Significantly, § 1201(f) is not designated an "exemption" like § 1201(d), which grants libraries, archives and educational institutions that have yet to acquire a copyrighted work the right to circumvent access controls "solely in order to make a good faith determination of whether to acquire a copy of that work

²¹⁵ H.R. REP. NO. 105-551, part 1, at 18 [emphasis added].

²¹⁶ See 17 U.S.C. §1201(f) (2001) ("Reverse Engineering.—(1) Notwithstanding the provisions of subsection (a)(1)(A), a person who has lawfully obtained the right to use a copy of a computer program may circumvent a technological measure that effectively controls access to a particular portion of that program for the sole purpose of identifying and analyzing those elements of the program that are necessary to achieve interoperability of an independently created computer program with other programs, and that have not previously been readily available to the person engaging in the circumvention, to the extent any such acts of identification and analysis do not constitute infringement under this title. (2) Notwithstanding the provisions of subsections (a)(2) and (b), a person may develop and employ technological means to circumvent a technological measure, or to circumvent protection afforded by a technological measure, in order to enable the identification and analysis under paragraph (1), or for the purpose of enabling interoperability of an independently created computer program with other programs, if such means are necessary to achieve such interoperability, to the extent that doing so does not constitute infringement under this title. (3) The information acquired through the acts permitted under paragraph (1), and the means permitted under paragraph (2), may be made available to others if the person referred to in paragraph (1) or (2), as the case may be, provides such information or means solely for the purpose of enabling interoperability of an independently created computer program with other programs, and to the extent that doing so does not constitute infringement under this title or violate applicable law other than this section. (4) For purposes of this subsection, the term "interoperability" means the ability of computer programs to exchange information, and of such programs mutually to use the information which has been exchanged.").

²¹⁷ See 17 U.S.C. § 1201(f)(1) (2001).

²¹⁸ Committee on the Judiciary House of Representatives, 105th Cong., 2d Sess., *Section-by-Section Analysis of H.R. 2281* (1998), at 14.

...."²¹⁹ Unlike §§ 1201(f) and (g) — the latter stipulating that persons desiring circumvention for encryption research purposes, like persons desiring circumvention for reverse engineering purposes, first must lawfully obtain the protected work —²²⁰ § 1201(d) has its own stand-alone penalty provisions for misuse of the exemption. These distinctions seem to invite the inference that a true exemption to § 1201 bestows the right to circumvent upon users who fail to acquire title to protected works. On this theory, §§ 1201(f) and 1201(g) are not exemptions because they require ownership as a condition precedent to circumvention. If not an exemption, then § 1201(f) must serve merely to clarify or affirm the proprietary right of access for fair use purposes implicit in the ban on circumvention.

¶77 This construction of § 1201 admittedly makes too much of language stipulating that the prospective circumventer must lawfully obtain the right to use a work. Said right, which vests in owners and licensees alike, is a prerequisite to circumvention that serves merely to foreclose access to pirated copies and legitimate copies unlawfully acquired. It does not imply an absolute privilege to circumvent; rather, it must be shown that circumvention was made of a lawfully acquired work for the sole purpose of achieving interoperability. Had Congress intended a general-purpose first sale exception, it would have explicitly included such a provision rather than leave it to implication under the elliptical scheme described above. The better interpretation, then, is that § 1201 absolutely forbids unauthorized access to the preclusion of first sale (and fair use) rights. The statutory exemptions, including § 1201(f), authorize access for carefully circumscribed purposes. Once a person has obtained authorized access to a copy of a copyrighted work, however, he is, pursuant to § 1201(c)(1), safely outside the jurisdiction of paracopyright and within the province of copyright.²²¹

D. *Rethinking Anticircumvention*

¶78 Section 1201 generally forbids even lawful owners to circumvent technological protection measures without the authority of the copyright holder, but should it? If consumers could routinely invoke fair use as a defense to unauthorized circumvention, § 1201 might be rendered impotent against digital piracy. But do the same risks of piracy adhere where the prospective circumventers are owners rather than licensees? The licensee, on the one hand, will contractually agree not to circumvent a password protection in the event the password is lost. Laws against circumventing password queries are critical to the success of online content providers such as Lexis or Westlaw that charge on a pay-per-use basis and therefore must closely monitor every licensee who is logged on to their system. While some owners will engage in unlawful copying, treating all owners as presumptive infringers incapable of exercising in good faith the right to access by circumvention works they have lawfully purchased is unfair. If the copyright holder has significant reason to fear that his work will be pirated, then he should either withhold the work from the public or employ licensing that prevents the transfer of title and dictates the terms of use. But where the copyright holder has consented to the outright sale of his work, the right to control access, like the rights to control distribution and display under the first sale doctrine, should yield to the new owner's property right in the work.

1. *The Copyright Office's DMCA Report*

¶79 In its recent report on the effects of § 1201 on electronic commerce, the Copyright Office took the position that the "first sale doctrine does not guarantee the existence of a secondary market."²²² It did observe, however, that tethered copies (i.e., "copies that are encrypted with a key that uses a unique feature of a particular device, such as a [central processing unit] identification number, to ensure that they cannot be used on any other device") would render post-sale disposition a "useless exercise, since the recipient will

²¹⁹ 17 U.S.C. § 1201(d)(1) (2001) ("Exemption for nonprofit libraries, archives, and educational institutions").

²²⁰ See 17 U.S.C. § 1201(g)(2)(A) (2001).

²²¹ See *Reimerdes*, 111 F. Supp. 2d at 323 (citing H.R. REP. NO. 105-551, pt. 1, at 18).

²²² *Report of the Register*, *supra* note 127, at 74.

always receive nothing more than a useless piece of plastic."²²³ The Copyright Office posited that the practice of tethering, if widespread, "could have serious consequences for the operation of the first sale doctrine, although the ultimate effect on consumers of such a development remains unclear."²²⁴

2. *The First Amendment Challenge*

¶80 The First Amendment "protects the right to receive information and ideas."²²⁵ That the bans on circumvention and circumvention devices operate to the exclusion of the fair use doctrine, which historically has alleviated much of the tension between copyright law and the First Amendment, weighs in favor of a finding of constitutional infirmity. That copyright owners can use technological protection measures to lock-up material outside the subject matter of copyright likewise weighs against the DMCA.

¶81 In *Universal Studios v. Corley*, the Second Circuit took up the First Amendment issues addressed in *Reimerdes*.²²⁶ In deciding the proper standard of review, the court rejected a strict scrutiny approach that would have required Plaintiff-Appellees to prove that the § 1201 anti-trafficking provisions are narrowly tailored to a compelling state interest such that no less restrictive means are possible.²²⁷ Speech can be burdened if it creates a clear and present danger of "imminent lawless action."²²⁸ Such danger exists if the illegal conduct is "likely" and the speaker intended to cause it.²²⁹ The DeCSS, like all computer software programs, is protected, albeit highly functional, speech. Corley, who like Reimerdes posted a copy of the DeCSS on his web site, no doubt intended to facilitate circumvention, and the high probability of imminent unauthorized circumvention resulting from the posting of DeCSS over the Internet is incontrovertible. The critical inquiries, then, had the court addressed them, would have been whether the act of circumvention is unlawful (i.e., whether the act of circumvention can be prohibited under the First Amendment)²³⁰ and, if so, whether the § 1201 anti-device provisions of the DMCA are as narrowly tailored such that no less restrictive alternatives exist.

¶82 The content neutrality/intermediate scrutiny approach, which the court elected, is equally appealing on its merits.²³¹ A government regulation is neutral if it serves purposes unrelated to the content of the expression.²³² Such a regulation will pass constitutional muster if it burdens substantially more speech than necessary to advance a significant (important) government interest and leaves open alternative channels of communication.²³³ By way of analogy, a law that proscribes the dissemination of computer programs designed to circumvent home security systems is not content-based simply because the program is itself

²²³ *Id.* at 75.

²²⁴ *Id.* at 76.

²²⁵ *Kleindienst v. Mandel*, 408 U.S. 753, 762 (1972).

²²⁶ *See Universal Studios*, 273 F.3d at 443-44, 458-59; *Reimerdes*, 111 F. Supp. 2d at 323.

²²⁷ *Id.*

²²⁸ *See Brandenburg v. Ohio*, 395 U.S. 444, 447-48 (1969).

²²⁹ *See id.*

²³⁰ If the First Amendment safeguards the right to circumvent technological copyright protection measures, then, by extension, the First Amendment also protects the right to disseminate information or technology that facilitates circumvention. In other words, if the act of circumventing cannot be outlawed, neither can the act of disseminating circumvention technology be outlawed, for such dissemination is incapable of creating a clear and present danger of imminent lawless action. However, the § 1201(a)(1) ban on the act of circumvention is content neutral and therefore would be subject only to intermediate scrutiny under the First Amendment. *See infra* notes 234-5 and accompanying discussion of intermediate scrutiny. The act of circumventing is protected under the First Amendment to the extent that such conduct conveys a message. *See infra* note 234 and accompanying discussion. However, laws regulating symbolic conduct receive intermediate scrutiny. *See id.* A sweeping prohibition like § 1201(a)(1), which forbids circumvention regardless of the subject matter of the copyrighted material, cannot be said to be content-based. That one may circumvent for other purposes (e.g., reverse engineering and security testing) further proves that § 1201(a)(1) restricts the manner, not the content, of protected speech.

²³¹ *Universal Studios*, 273 F.3d at 449-458.

²³² *Hill v. Colorado*, 530 U.S. 703, 720 (2000).

²³³ *Id.*

protected, albeit highly functional, speech or because the sole purpose of the dissemination was to enable others to break into homes containing, say, uncopyrighted public records or copyrighted books from which fair use is sought. Neither would a prohibition on the act of breaking and entering be content based with respect to persons in search of said records and books. The anticircumvention arm of the DMCA, like these hypothetical statutes, is arguably a content-neutral measure that proposes to protect the property interests of copyright owners rather than to suppress speech that the Government finds objectionable. For example, had DeCSS been created and disseminated for the sole purpose of achieving the interoperability of the Linux operating system and DVDs, Reimerdes et al. would have prevailed under the § 1201(f)(3) reverse engineering exemption. In other words, § 1201 restricts the manner, not the content, of protected speech. That defendants by their conduct intended to express an idea — namely, that owners are entitled to fair use of DVDs — does not of itself warrant heightened scrutiny.²³⁴ To the extent the DMCA sanctions technological protection measures that assimilate portions of the public domain and prevent fair use, it may burden more speech than necessary.²³⁵

¶83 Seizing on the non-speech, functional aspects of computer code, *Corley* held that § 1201's anti-trafficking provisions survive intermediate scrutiny.²³⁶ In arriving at this finding, the court noted that fair use is neither constitutionally required nor unduly restricted by the DMCA because users are perfectly capable of commenting on the content of DVDs, quoting excerpts from their screenplays and recording sound and video images with a hand-held camcorder and microphone.²³⁷ That the DVD's technical protection measures prevent direct access to the movie in digital format, thus precluding perfect, easily manipulated copies for fair use purposes, is an issue the U.S. Supreme Court should give consideration to in the future.

3. *Section 109(b)*

¶84 Proposed §§ 109(f) and (g) are fairly strong candidates for enactment, but would they aid the password-needing consumer we encountered in the introductory section of this paper? Surely not, because neither section would authorize circumvention of the password query at issue. Hopefully our consumer or the person to whom he distributes the work can obtain a new password from the copyright holder. Where that event is unlikely, the Librarian of Congress could issue a class of works exemption for lawful owners who have lost their passwords, decryption codes, etc. But such an exemption is all but foreclosed by the Copyright Office's ruling that a "'class of works' cannot be defined simply in terms of the purpose for which circumvention is desired."²³⁸ Such an exemption would provide consumers the right, but not the means to circumvent. Alternatively, Congress could amend the Copyright Act to read as follows:

§ 109(h). A Proprietary Right of Access.

(1) Notwithstanding the provisions of subsection 1201(a), the owner of a particular copy or phonorecord lawfully made and protected under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to circumvent, and develop and employ the means to circumvent, a technological measure that effectively controls access to that copy or phonorecord, to the extent any such acts do not constitute infringement under this title.

(2) The means to circumvent shall not be made available to others, except for the sole purpose of enabling the owner of a copy or phonorecord lawfully made and protected under this title to gain access to that copy or phonorecord.

²³⁴ See *United States v. O'Brien*, 391 U.S. 367, 376 (1968) (holding that a government regulation of symbolic conduct passes constitutional muster if it advances important interests unrelated to the suppression of speech and does not burden substantially more speech than necessary to further those interests).

²³⁵ See *Turner Broadcasting System, Inc. v. F.C.C.*, 512 U.S. 622, 661-62 (1994).

²³⁶ *Universal Studios*, 273 F.3d at 449-458.

²³⁷ *Id.*, at 458-59.

²³⁸ *Final Rule*, *supra* note 98, at 64,570.

¶85 Section 109(h) has the virtue of authorizing owners to circumvent if they possess the technical know-how (very few will) and, if not, to hire an independent service provider that does. It also imposes a legal duty not to disseminate circumvention technology except for the legitimate purpose of enabling lawful owners to acquire access to their works. Unfortunately § 109(h) also has the vice of placing circumvention devices and technology back in widespread circulation among consumers. In view of the present dangers surrounding circumvention devices and the probability that copyright holders at large customarily will make replacement passwords or the means to circumvent conveniently available in order to preserve customer goodwill, consideration of § 109(h) should be reserved.

VI. CONCLUSION

¶86 "Strengthen the technology, holding the law constant, and the [intellectual property] right is weaker."²³⁹ Mindful of this truism, Congress steadily has brought about a marked increase in the strength of intellectual property rights to the diminishment of First Amendment freedoms. In the trademark context, for example, federal legislation has evolved from an initial emphasis on consumer deception, to a growing concern with dilution in the absence of deception, to an overriding solicitude for the interests of trademark proprietors regardless of deception or dilution. For example, the new anticybersquatting provisions of the Lanham Act forbid the bad faith registration of Internet domain names regardless of any commercial use amounting to dilution or deception.²⁴⁰ Similarly, in the copyright context, an anticircumvention regime has been constructed by Congress, while courts, solicitous of copyright proprietors, have preferred licensing as an alternative to the fair use privilege. Where the interests of copyright proprietors are favored, a strong first sale doctrine is necessary to preserve a free and robust aftermarket in copyrighted material.

¶87 Like a double-edged sword, automated digital copyright management technology promises to favor copyright utopia by effectuating a digital first sale doctrine while also favoring copyright dystopia by enabling copyright holders to lock up copyrighted and uncopyrighted material from public use. Proposed §§ 109(f) and 109(g), the digital first sale doctrine, should be considered seriously by lawmakers when the appropriate forward and delete CMS technology becomes widely commercially available. Although § 1201 would not forbid the act of circumventing forward and delete technology as a type of copy control, the broad ban on circumvention devices would place circumvention beyond the reach of most users.

¶88 With respect to proposed § 109(h), in this, the aftermath of § 1201's ban on circumvention, it is perhaps too soon to codify a proprietary right of access. Neither the Copyright Office nor the NTIA has adopted an aggressive or reactionary policy of refashioning the Copyright Act in the wake of § 1201.²⁴¹ The paucity of cases interpreting § 1201 at this writing does not lend itself to easy prognosis. History, however, may offer better guidance: copyright holders have invariably resisted the introduction of any technology that promised simpler reproduction and distribution of copyrighted works. Consider the case of videocassettes: the film industry would have preferred that personal VCRs would be contraband and the rental of videotapes outlawed under the first sale doctrine.²⁴² In the case of § 1201, the tables have been turned: consumers rather than copyright holders are resisting CMS technology because, in cooperation with anticircumvention laws and overreaching licensing, it seems to portend a pay-per-view copyright dystopia. The overwhelming success of the cable and satellite television industries, both of which have long employed such technological protection measures as encryption, counsels a wait and see approach.

²³⁹ LESSIG, *supra* note 76, at 124.

²⁴⁰ See 17 U.S.C. § 1125(d) (1999).

²⁴¹ See generally *Report to Congress*, *supra* note 97; see generally *Report of the Register*, *supra* note 127.

²⁴² See *Sony v. Universal Studios*, 464 U.S. 417 (representing the film industry's failed attempt to eradicate video tape recorders, such as VCRs. The Consumer Sales-Video Rental Agreement, which would have immunized the rental of videotapes from § 109 protection, was likewise unsuccessful). See *supra* discussion accompanying note 44. See also PAUL GOLDSTEIN, *COPYRIGHT'S HIGHWAY: THE LAW AND LORE FROM GUTENBERG TO THE CELESTIAL JUKEBOX*, 145-58 (Hill and Wang 1994).