

FAIR'S FAIR: AN ARGUMENT FOR MANDATORY DISCLOSURE OF TECHNOLOGICAL PROTECTION MEASURES

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I. INTRODUCTION

Most authors don't like to have their works copied and distributed for free. They make a living, or try to, by selling access to their creations.¹ Since 1790, U.S. copyright law has assisted authors by giving them a relatively exclusive right² to make copies of their work in order, according to the Constitution, "to Promote the Progress of Science."³ Legal rights, however, are not costless to enforce. Infringements must be detected, infringers pursued, and if threats of legal action prove insufficient, costly litigation may be the only recourse. Nevertheless, until the closing decades of the twentieth century the legal right to control copying served authors and publishers reasonably well, primarily because copying itself was also costly. Before the advent of photocopiers, tape

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1. There are of course many exceptions. Academic authors, for example, typically prize dissemination over compensation for their articles and research (although not usually for their textbooks). Even then, publishers and other middlemen often have a different agenda at odds with free access.

2. The first U.S. copyright statute, Act of May 31, 1790, ch. 15, 1 Stat. 124, granted the copyright owner "the sole right and liberty of printing, reprinting, publishing and vending." Current law grants broader rights, including control over reproduction, derivative works, distribution, performance, and display. 17 U.S.C. § 106 (2000). However, there have always been limitations. The list of "exclusive rights" in § 106 of the Copyright Act, for example, is preceded by the phrase, "[s]ubject to sections 107 through 122." 17 U.S.C.A § 106 (West 1996 & Supp. 2004).

3. U.S. CONST. art. I, § 8, cl. 8.

recorders, VCRs, and the eventual shift to digital formats, wholesale copying was generally a laborious and expensive task likely to be undertaken only by someone intent on commercial exploitation. Those were precisely the kinds of infringements that would justify a significant investment in copyright enforcement. Technology, particularly computers, brought an abrupt change. Copying became easy, even for private users. Legal remedies against private copiers are problematic because lawsuits are rarely cost effective and non-commercial copying can raise credible claims to fair use. As the practical limitations on copying eroded, copyright owners increasingly turned to self-help in the form of technological protection schemes. The original floppy disks that held early computer programs also soon contained anti-copying software.⁴ Video cassettes and digital audio tape also came with technologies intended to foil a copier⁵, joined later by DVDs, e-books, and now music CDs and television broadcasts.⁶ The result has been an escalating battle between copyright owners who lock up their works with the latest technology and professional and amateur hackers who pick the locks for profit or fun. For a time, copyright owners had reasonable hopes of at least moderate success in this technological rivalry. Technological protection measures could foil most private copiers; commercial users who circumvented protective measures to copy works could still be pursued through traditional copyright infringement actions. The exploding popularity of the Internet and the World Wide Web altered the landscape. Decryption tools developed by a single sophisticated user could now be distributed over the Internet to anyone with the ability to click the “download” button on a web site.⁷ Even worse for copyright owners, decrypted versions of their

4. See, e.g., *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255 (5th Cir. 1988) (involving anti-copying software released in 1983).

5. By 1992, a new chapter had already been added to the Copyright Act in an effort to assist the music industry in its attempt to control the copying of digital audio tapes. See Audio Home Recording Act of 1992, Pub. L. 102-563, 106 Stat. 4237 (current version at 17 U.S.C. §§ 1001–1010 (2000)).

6. See *infra* text accompanying notes 51–58.

7. The decryption program developed by a Norwegian teenager to defeat the protective software deployed by motion picture studios on their DVDs was quickly available on hundreds of web sites. See *Universal City Studios, Inc. v. Corley*, 273 F.3d 429, 437–39 (2d Cir. 2001). Some circumvention techniques are even easier to disseminate. Sony, for example, came up with a technology intended to prevent users from playing or copying music CDs on personal computers. The system relied on an initial track of bogus data that CD players ignored but PCs continuously tried to read, preventing access to the subsequent music tracks. A few music fans discovered that if they marked over the edge of the CD with a felt-tipped pen, the computer would skip the bogus track and go straight to the music. News of their discovery quickly spread over the Internet. Matt Richtel, *Digital Lock? Try a Hairpin*, N.Y. TIMES, May 26, 2002, § 4, at 12. Another experiment with copy-protected CDs in 2003 produced a similar result. BMG Music released a CD by R & B singer Anthony Hamilton that contained copy-protection developed by SunnComm. A graduate student at Princeton quickly discovered that

works could now themselves be disseminated to anyone with a computer and Internet access. Copyright owners asked Congress for help, and Congress responded with the anti-circumvention provisions of the Digital Millennium Copyright Act.⁸

Section 1201(a)(1) of the Copyright Act prohibits the act of “circumvent[ing] a technological measure that effectively controls access to a work,” including, for example, by-passing password protection or encryption intended to restrict access to paying customers. Section 1201(a)(2) prohibits the manufacture or sale of “any technology, product, service, device, component, or part thereof” primarily designed for the purpose of circumventing access controls on copyrighted works. Additionally, § 1202(b) prohibits the manufacture or sale of products, devices or services primarily designed to circumvent “a technological measure that effectively protects a right of a copyright owner”—for example, a technological measure intended to prevent reproduction of a copyrighted work.⁹ Both the justification and breadth of the anti-circumvention provisions were quickly challenged.¹⁰ The ban against circumvention devices, for example, can prevent many users from making a fair use of protected works. The problem illustrates a more general threat. A legal prohibition against circumventing the protective measures adopted by copyright owners leaves those owners with virtually absolute control over the terms of use. Technological restrictions backed by the force of law, coupled with contractual restraints imposed on users as a

the protection could be defeated by holding down the shifty key when the CD was loaded into the computer—a standard Windows technique used to prevent a program from running. After he posted his findings on the Internet, SunnComm stock dropped 25 per cent in two days. SunnComm threatened to sue under the anti-circumvention provisions of the Digital Millennium Copyright Act, but backed down under pressure from BMG Music following a web and e-mail campaign in support of the graduate student. Kevin Maney, *Debate Heats Up as Student Spots Hole in CD Protection*, USA TODAY, Oct. 27, 2003, at A1.

8. Pub. L. No. 105-304, 112 Stat. 2863 (1998) (codified as amended at 17 U.S.C. §§ 1201–1205 (2000)).

9. The absence of a corresponding prohibition against the *act* of circumventing a technological measure that protects a right of a copyright owner is explained in the legislative history: “The copyright law has long forbidden copyright infringements, so no new prohibition was necessary. The device limitation in 1201(b) enforces the longstanding prohibitions on infringements.” S. REP. NO. 105-190, at 12 (1998).

10. See, e.g., Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to be Revised*, 14 BERKELEY TECH. L.J. 519 (1999), and Michael Landau, *Has the Digital Millennium Copyright Act Really Created a New Exclusive Right of Access?: Attempting to Reach a Balance Between Users' and Content Providers' Rights*, 49 J. COPYRIGHT Soc'y U.S.A. 277 (2001) (both commenting on the overbreadth of the provisions). The empirical basis for the argument that the prohibitions are necessary to prevent significant market failure has also been questioned. See Glynn S. Lunney, Jr., *The Death of Copyright: Digital Technology, Private Copying, and the Digital Millennium Copyright Act*, 87 VA.L.REV. 813 (2001); Diane Leenheer Zimmerman, *Adrift in the Digital Millennium Copyright Act: The Sequel*, 26 U. DAYTON L. REV. 279 (2001).

condition of granting access, allow owners to avoid the limitations on their control that have defined the traditional balance of copyright law—limitations like first sale,¹¹ fair use,¹² and the absence of protection for facts and ideas.¹³

Few dispute that the law should be alert to insure adequate incentive to create in the face of new technologies for reproduction and dissemination. However, if the fundamental goal of copyright remains the “Progress of Science”, as the Supreme Court continues to assure us,¹⁴ leaving copyright owners with complete control over every use of their work is probably not for the best. The courts are not likely to take the lead in preserving an efficient balance between protection and access; poor public policy is not itself unconstitutional.¹⁵ Congress too is unlikely to withdraw or substantially reduce the support it has extended to technological self-help measures through the DMCA. One means of maintaining a reasonable equilibrium between owners and users does remain. The system runs on the users’ money. The market for works, if functioning properly, can provide users with the leverage to insure adequate access. If owners wrap their works too tightly, users can decline to buy. However, the power that users can exert through the market depends on the quality of the information they have about the existence and effect of the technological protective measures deployed by owners. Owners should be required to disclose that information as the price for invoking the DMCA’s protection against circumvention and circumvention devices. After examining the legal and political background of the anti-circumvention rules, this article analyzes the economics of disclosure and proposes a version of mandatory disclosure that appears consistent with both the objectives of the DMCA and the legitimate expectations of users.

11. 17 U.S.C. § 109 (2000). *See also, e.g.*, 17 U.S.C. § 117 (2000) (allowing users to make adaptations and archival copies of computer programs).

12. 17 U.S.C. § 107 (2000). *See also, e.g.*, 17 U.S.C. § 108 (2000) (allowing limited reproduction by libraries).

13. 17 U.S.C. § 102(a) (2000). *See, e.g.*, *Bowers v. Baystate Techs., Inc.*, 320 F.3d 1317 (Fed. Cir. 2003) (upholding a claim for breach of a contract that barred users from reverse engineering the plaintiff’s copyrighted software). *See also* Robert C. Denicola, *Mostly Dead? Copyright Law in the New Millennium*, 47 J. COPYRIGHT SOC’Y U.S.A. 193, 194 (2000) (“To paraphrase Sir Henry Maine, we will have a movement from copyright to contract.”).

14. *See, e.g.*, *Eldred v. Ashcroft*, 537 U.S. 186, 212, 123 S. Ct. 769, 784–85 (2003).

15. “Beneath the facade of their inventive constitutional interpretation, petitioners forcefully urge that Congress pursued very bad policy in prescribing the [Copyright Term Extension Act]’s long terms. The wisdom of Congress’ action, however, is not within our province to second guess.” *Id.* at 222, 123 S. Ct. at 790 (upholding a twenty-year extension of the term of copyright for works already in existence).

II. THE LAW AND POLITICS OF ANTI-CIRCUMVENTION

The Digital Millennium Copyright Act was enacted in 1998.¹⁶ It has two main components. First, it offers a degree of immunity to Internet service providers.¹⁷ Businesses offering Internet access, web hosting, and information location services had been targeted by copyright owners seeking to control on-line access to their works. The practical limitations on suits against individual, often anonymous, Internet users made service providers a tempting alternative. Section 512 establishes a series of safe harbors for service providers, but only if they enlist in the fight against unauthorized distribution.¹⁸

The second principal component of the DMCA is the anti-circumvention provisions codified in §§ 1201–05.¹⁹ They broadly prohibit the circumvention of technological measures that control access to works and the manufacture or trafficking in devices primarily designed to circumvent either access controls or copy-protection. The anti-circumvention provisions do incorporate minor attempts to preserve a semblance of balance between protection and access. Section 1201 includes narrowly-drawn exemptions for circumvention by nonprofit libraries, reverse engineering of computer programs in order to achieve interoperability, and encryption research and network security testing.²⁰ It also authorizes the Librarian of Congress to exempt particular classes of works from the anti-circumvention (although not the anti-trafficking) prohibition.²¹ The anti-circumvention and anti-trafficking provisions are

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

17. 17 U.S.C. § 512 (2000).

18. To be eligible for the limitations on liability offered under § 512, service providers must implement policies for terminating the accounts of customers who are repeat infringers; they must also accommodate standard technical measures used by copyright owners to identify and protect copyrighted works. 17 U.S.C. § 512(i). Providers who host potentially infringing material, or who provide links to infringing content, must also, *inter alia*, comply with notice and take-down requirements in order to earn the limitation on liability. 17 U.S.C. §§ 512(c)–(d). *See generally* Alfred C. Yen, *Internet Service Provider Liability for Subscriber Copyright Infringement, Enterprise Liability, and the First Amendment*, 88 GEO. L.J. 1833 (2000) (concluding that § 512 creates too much incentive for service providers to cooperate with copyright owners).

19. 17 U.S.C. §§ 1201–05 (2000). In addition to the anti-circumvention provisions, the DMCA in § 1202 includes protection for “copyright management information.” 17 U.S.C. § 1202. Removal of information identifying the work or the copyright owner, or the terms and conditions of use, is prohibited if there are reasonable grounds to know that the removal will facilitate or conceal infringement. *Id.*

20. 17 U.S.C. §§ 1201(d)–(j).

21. 17 U.S.C. § 1201(a)(1)(B)–(E). There is no reason to believe that Congress intended this administrative delegation to yield major exclusions. “The Committee intends that the ‘particular class of [exempted] copyrighted works’ be a narrow and focused subset of the broad categories of works of authorship than is identified in Section 102 of the Copyright Act.” H.R. REP. NO. 105-551, pt. 2, at 37–38 (1998). The Librarian of Congress has been

applicable only to protective measures used on copyrighted works, but the ease with which copyrighted and public domain works can be bundled effectively ties up the latter works as well.²² Section 1201(c) proclaims that the anti-circumvention provisions shall not affect “defenses to copyright infringement, including fair use,” but the effect is not what it seems. A violation of the anti-circumvention provisions is not “copyright infringement;” violations are actionable not as infringement under § 501 of the Copyright Act, but under the DMCA’s own cause of action in § 1203, with its distinctive provisions on injunctions, actual damages, and statutory damages.²³ Thus, while fair use remains a defense to claims of copyright infringement arising from the use of a work after circumvention, it is no defense to the circumvention (or trafficking) itself.²⁴ Taken as a whole, the anti-circumvention provisions deliver as advertised, leaving owners with the legal right to control virtually all access and use of their protected works.

It seems unlikely that legal challenges will significantly limit the prerogatives of copyright owners under the anti-circumvention provisions. At least in their major contours, the language and intent of the provisions seem plain, and judicial assessments of their wisdom will not play a decisive role. Users and their champions are left with an assortment of constitutional attacks against the anti-circumvention rules, none with much chance of success.

The first prominent judicial challenge to the anti-circumvention provisions came in *Universal City Studios, Inc. v. Corley*.²⁵ A group of motion picture studios had employed an encryption program called CSS to protect movies distributed on DVDs. The system was intended to allow viewing only on DVD players and computers equipped with technology that prevented copying. A Norwegian teenager reversed-

cautious in formulating exemptions. See 65 Fed. Reg. 64,555 (Oct. 27, 2000) (exempting from the circumvention prohibition literary works and databases protected by access controls that fail because of malfunction, damage, or obsolescence and works consisting of compilations of websites blocked by filtering software); 68 Fed. Reg. 62,011 (Oct. 31, 2003) (exempting access controls on e-books that prevent use of read-aloud functions).

22. Additionally, the prohibition on the distribution of devices capable of circumventing protective measures used on copyrighted works means that those devices will not be readily available to circumvent protective measures used on public domain works.

23. 17 U.S.C. § 1203 (2000). The anti-circumvention provisions are also backed by their own criminal penalties in § 1204, including fines of up to \$ 1 million and 10 years in prison for repeat offenders. 17 U.S.C. § 1204 (2000).

24. *Universal City Studios, Inc. v. Corley*, 273 F.3d 429, 443 (2d Cir. 2001). See also *United States v. Elcom Ltd.*, 203 F. Supp.2d 1111, 1124 (N.D. Cal. 2002) (“In short, the statute bans trafficking in any device that bypasses or circumvents a restriction on copying or performing a work. Nothing within the express language would permit trafficking in devices designed to bypass use restrictions in order to enable a fair use, as opposed to an infringing use.”).

25. 273 F.3d 429 (2d Cir. 2001).

engineered a protected DVD and developed a decryption program he called DeCSS.²⁶ The decrypted movies could be played on non-compliant equipment; they could also be copied onto DVDs or transmitted over the Internet. The defendant Corley ran a web site that offered DeCSS for downloading and also contained links to other sites where the DeCSS program was available. The Second Circuit upheld an injunction under the DMCA barring the defendant from posting DeCSS on his web site or knowingly linking to other sites where it appeared. Although the court said that the DeCSS program was protected speech, it held that the anti-circumvention provisions targeted only the functional, non-speech component of the program and thus were content-neutral restrictions. It found the government's interest in preventing unauthorized access to encrypted copyrighted works sufficiently substantial to defeat the defendant's First Amendment challenge. The court also rejected an argument that the anti-circumvention rules had the unconstitutional effect of eliminating fair use. Deciding whether fair use is actually entitled to constitutional status under either the First Amendment or the Copyright Clause was unnecessary according to the court, since the defendant web site owner was not seeking to make fair use of any copyrighted work. As to third parties wishing to make fair use of the plaintiffs' encrypted movies, the court said that the statutory right of fair use under the Copyright Act did not guarantee the right to copy a work in its original format; users could still quote from the movies, or even copy portions necessary for fair use with a camcorder during playback of the encrypted DVDs. There was also the obligatory deferral to Congress on the public policy implications of the DMCA.²⁷

Similar conclusions were reached in *United States v. Elcom Ltd.* when constitutional challenges to the anti-circumvention rules were raised in the context of a criminal prosecution.²⁸ The defendant sold a Windows-based program that could remove the technological restrictions

26. Jon Johansen (a/k/a "DVD Jon"), the 15-year old who developed DeCSS in order to watch protected DVDs on his Linux-based computer, was acquitted on criminal charges brought under Norway's data security laws. The Oslo City Court apparently believed that he could not be convicted of breaking into his own DVDs. Timothy L. O'Brien, *Norwegian Hacker, 19, is Acquitted in DVD Piracy Case*, N.Y. TIMES, Jan. 8, 2002, at C4. The acquittal was ultimately upheld on appeal. *Verdict Upheld in DVD Piracy Case*, N.Y. TIMES, Dec. 23, 2003, at C5.

27. "In facing ['the fundamental choice between impairing some communication and tolerating decryption'], we are mindful that it is not for us to resolve the issues of public policy implicated by the choice we have identified. Those issues are for Congress." 273 F.3d at 458.

28. 203 F.Supp.2d 1111 (N.D. Cal. 2002). The defendant was eventually acquitted, apparently because of doubts about whether the violation was willful, as required under § 1204. Matt Richtel, *Russian Company Cleared of Illegal Software Sales*, N.Y. TIMES, Dec. 18, 2002, at C4.

from content files formatted for Adobe's eBook Reader. It was indicted under § 1204 for willfully violating the anti-trafficking provisions in § 1201(b)(1). The defendant moved to dismiss the indictment, raising a variety of constitutional objections. Following the analysis in *Corley*, Judge Whyte held that the DMCA did not violate the defendant's First Amendment rights since the restrictions were content-neutral and furthered the government's substantial interests in preventing unauthorized copying and promoting electronic commerce. The defendant's assertion that the restrictions infringed on the First Amendment rights of third parties by compromising access to public domain works and undermining fair use was also rejected. Even if those rights were protected by the First Amendment, they had not been substantially impaired. Protecting technological restrictions on the use of particular copies of public domain works did not amount to an impermissible grant of rights in the public domain work itself. As for fair use, although a user might find it more difficult to engage in some fair uses of electronic texts, the DMCA neither eliminated nor substantially impaired fair use rights. The court also rejected an argument that Congress had exceeded its power under the Copyright Clause in enacting the anti-circumvention provisions. Judge Whyte held that the restrictions on trafficking in circumvention devices were a valid exercise of congressional power under the Commerce Clause and were not fundamentally inconsistent with any aspect of the Copyright Clause.²⁹ Although legal challenges to the anti-circumvention rules will doubtless continue, the early results are not encouraging to those counting on the courts to redress any perceived imbalance between owners and users.

Congress is an even less likely source of aid for users. The privilege to use self-help in the protection of tangible property, both real and personal, has a long history in American law. Reasonable force can be used to protect one's land and chattels;³⁰ even use of mechanical devices reasonable under the circumstances—a barbed wire fence, for example—is permissible.³¹ Reasonable force can be employed to recover property tortiously taken.³² Injunctive relief against tortious conduct may be de-

29. The court relied on the analogous result reached by the Eleventh Circuit in *United States v. Moghadam*, 175 F.3d 1269 (11th Cir. 1999), *cert. denied*, 529 U.S. 1036 (2000). That case upheld a federal criminal statute imposing substantial penalties for making unauthorized recordings of live musical performances. According to the court, the fact that congressional power to protect "Writings" under the Copyright Clause might not extend to unfixed works like live performances did not preclude Congress from extending copyright-like protection to those works under the Commerce Clause.

30. RESTATEMENT (SECOND) OF TORTS § 77 (1965).

31. RESTATEMENT (SECOND) OF TORTS § 84 (1965).

32. RESTATEMENT (SECOND) OF TORTS § 100 (1965).

nied if self-help seems an adequate alternative.³³ Self-help protection of intellectual property is also well-known. The owner of a trade secret, for example, has no claim against a competitor who uncovers the secret by analyzing the owner's publicly available product,³⁴ but no rule of law prevents the owner from trying to make such reverse engineering hard or impossible. In copyright, many of the statutory "rights" of users—fair use,³⁵ making back-up copies of software,³⁶ home copying of musical recordings³⁷—are actually only limitations on liability for copyright infringement. Nothing in the Copyright Act expressly requires a copyright owner to accommodate such uses or prohibits the use of technology in an attempt to thwart them.³⁸ Indeed, nothing in the Act requires a copyright owner to make the copyrighted work available in any form.³⁹ It seems improbable that Congress will forbid the use of self-help protective measures by copyright owners. The anti-circumvention rules of course go further, backing such self-help measures with the force of law. However, given the congressional enthusiasm for the provisions, a serious legislative reassessment of even that step also appears unlikely.

Both the House and Senate seem convinced that legal prohibitions against the circumvention of technological protection measures are a necessary prerequisite to the development of a flourishing on-line marketplace for copyrighted works. They fear that without that protection, many copyright owners will refuse to allow their works to be distributed

33. RESTATEMENT (SECOND) OF TORTS §§ 938, 950 (1965).

34. RESTATEMENT (THIRD) OF UNFAIR COMPETITION, § 43 (1995).

35. 17 U.S.C. § 107 (2000).

36. 17 U.S.C. § 117 (2000).

37. 17 U.S.C. § 1008 (2000).

38. The first sale doctrine in § 109, 17 U.S.C. § 109 (2000), however, is phrased in terms of an entitlement rather than as a limitation on liability. However, the entitlement is merely to transfer possession of the particular physical copy owned by the user. Technological protection that limits the use of that copy to certain geographic regions or to compliant devices does not technically intrude on the entitlement to transfer possession. *See* U.S. COPYRIGHT OFFICE, DMCA SECTION 104 REPORT 74 (2001) ("The first sale doctrine does not guarantee the existence of a secondary market or a certain price for copies of copyrighted works."). The Copyright Office *Report* does acknowledge that technological protection that "tethers" a copyrighted work to one particular device makes the ability to dispose of the copy a "useless exercise," but concludes that it would be premature to consider a legislative response. *Id.* at 75–76. Another exception is § 1201(k)(2), 17 U.S.C. § 1201(k)(2) (2000), which prohibits television broadcasters from employing a particular anti-copying technology except on specified transmissions. The limitation was adopted as part of a compromise that requires manufacturers of analog video cassette recorders to incorporate the designated copy control technology into their machines. 17 U.S.C. § 1201(k)(1) (2000).

39. Copyright protection subsists as soon as a work is created, 17 U.S.C. § 302 (2000), defined in section 101 as when the work is fixed in a copy or phonorecord for the first time. 17 U.S.C. § 101 (2000) (definition of "created"). There is no requirement that the work be published or otherwise made available to the public.

or performed over the Internet.⁴⁰ According to Congress, circumventing measures used to safeguard copyrighted works basically amounts to burglary.⁴¹ Strong anti-circumvention rules also set the standard for similar protection abroad, safeguarding global markets for American works. Indeed, repeal of the anti-circumvention provisions in their entirety would probably leave the United States in violation of its obligations under the World Intellectual Property Organization's Copyright Treaty and Performances and Phonograms Treaty to provide protection against the circumvention of technological measures used by authors and performers to protect their rights under international law.⁴²

The merits of the DMCA aside, users almost certainly lack the political clout to force a dramatic rollback of the anti-circumvention rules. The rules are backed by powerful interests, notably Hollywood and the music industry, while opponents (mainly file-swappers and downloaders, supported by handfuls of academics), although numerous, are unorganized and less single-minded.⁴³ In fashioning the DMCA, Congress took particular note of the economic importance of the copyright industries.⁴⁴

40. "Due to the ease with which digital works can be copied and distributed worldwide virtually instantaneously, copyright owners will hesitate to make their works readily available on the Internet without reasonable assurance that they will be protected against massive piracy. Legislation implementing the [World Intellectual Property Organization's Copyright Treaty and Performances and Phonograms Treaty] provides this protection and creates the legal platform for launching the global digital on-line marketplace for copyrighted works." S. REP. 105-190, at 8 (1998). "When copyrighted material is adequately protected in the digital environment, a plethora of works will be distributed and performed over the Internet." H.R. REP. 105-551, pt. 1 at 10 (1998).

41. "The act of circumventing a technological protection measure put in place by a copyright owner to control access to a copyrighted work is the electronic equivalent of breaking into a locked room in order to obtain a copy of a book." H.R. REP. 105-551, pt. 1, at 17.

42. See WIPO Copyright Treaty, Apr. 12, 1997, art. 11, S. TREAT. DOC. 105-17 (1997), 36 I.L.M. 65, 71; WIPO Performances and Phonograms Treaty, art. 18, S. TREAT. DOC. 105-17 (1997), 36 I.L.M. 65, 74.

43. Copyright laws are written largely through negotiations between the major players in the copyright industries. See Robert C. Denicola, *Freedom to Copy*, 108 YALE L.J. 1661, 1684-86 (1999). There have been some attempts to organize popular opposition to the anti-circumvention rules, notably by the Electronic Frontier Foundation. See Jefferson Graham, *Little Guy Battles the RIAA Giant*, USA TODAY, Aug. 5, 2003, at 3D. The magnitude of the political task facing opponents of the anti-circumvention rules is evident in a suggestion by Senator Orrin Hatch, former Chair of the Senate Judiciary Committee (with jurisdiction over copyright bills) and composer of inspirational songs such as *The Answer's Not in Washington*. At a hearing on peer-to-peer transfers of musical works, he endorsed technology that would, after two warnings, fry the file-sharer's computer. See Jon Healey, *Deep-Six Computers to Sink Net Pirates?*, L.A. TIMES, June 18, 2003, at C1.

44. "[T]he copyright industries contribute more to the U.S. economy and employ more workers than any single manufacturing sector, including chemicals, industrial equipment, electronics, food processing, textiles and apparel, and aircraft. More significantly for the WIPO treaties, in 1996 U.S. copyright industries achieved foreign sales and exports of \$60.18 billion, for the first time leading all major industry sectors, including agriculture, automobiles and auto parts, and the aircraft industry." S. REP. 105-190, at 10 (1998).

Philosophy too may be running against the users' case. The Republican ascendancy in Congress has brought increased prominence to the role of private property. For copyright, the result has been less concern with the balance between protection and access and greater emphasis on private property rights in works of authorship. The current thinking is succinctly captured by Senator Orrin Hatch: "The first principle of a contemporary copyright philosophy should be that copyright is a property right that ought to be respected as any other property right."⁴⁵

Even if Congress could be persuaded that some moderation of the anti-circumvention rules was appropriate in order to recalibrate the balance between owners and users, practical difficulties may make meaningful adjustment impossible. The prohibition in § 1201(a)(1)(A) against the act of circumventing access controls could of course be softened by precluding liability when the circumvention doesn't result in an infringement of the copyright in the protected work—circumvention to make a fair use, for example.⁴⁶ However, for most users circumvention is possible only when the technological means are supplied by someone else, which is precisely what the anti-trafficking provisions in §§ 1201(a)(2) and 1201(b) are designed to prevent. Adjusting those provisions is no easy matter. Rules on circumvention devices seem to require something close to an "all" or "nothing" choice, and "nothing" is an unrealistic option for Congress. Circumvention devices cannot divine the motives of the users who employ them. Devices capable of overcoming access and copy controls in order to permit non-infringing use also leave the work vulnerable to the kinds of reproduction and distribution that prompted the DMCA.

Two bills introduced to temper the anti-trafficking rules illustrate the difficulty. One would have exempted the manufacture or distribution of devices "capable of enabling significant noninfringing use of a copyrighted work"⁴⁷; the other would exempt devices "necessary to make a noninfringing use" as long as the device was "designed, produced, and marketed" for that purpose.⁴⁸ For better or worse, both proposals would largely nullify the ban on circumvention devices. Neither bill made any progress. There have also been more heroic efforts to find a compromise on circumvention devices. Professor Alfred Yen, rejecting the inevitability of an all or nothing approach, has proposed a regulatory scheme for circumvention devices modeled on federal gun control. Sellers would be

45. Orrin Hatch, *Toward a Principled Approach to Copyright Legislation at the Turn of the Millennium*, 59 U. PITT. L. REV. 719, 721 (1998). See Denicola, *supra* note 13, at 205–06.

46. Two bills introduced in the 108th Congress would have added a defense to circumvention along these lines. See H.R. 107, 108th Cong. (2003), introduced by Representative Boucher, and H.R. 1066, 108th Cong. (2003), introduced by Representative Lofgren.

47. H.R. 107, *supra* note 46, § 5(b)(2).

48. H.R. 1066, *supra* note 46, § 5(2).

licensed and sales recorded. The devices would be available only in hardware form to reduce further distribution, and sales to minors (perhaps more prone to infringing uses) would be banned.⁴⁹ Professors Dan Burk and Julie Cohen have suggested that the law require owners to incorporate “fair use defaults” into their protective measures that would accommodate the customary norms of permissible use. This is coupled with a proposal that owners be required to deposit “keys” to their protective technology with an organization such as the Library of Congress that could evaluate and respond to user requests for broader access on a case by case basis.⁵⁰ The administrative burdens alone seem sufficient to preclude serious congressional consideration of these or similar ideas.

Meanwhile, technological protection measures continue to proliferate. After experimenting with copy-protected CDs in Europe (where fewer consumers use computers to play or manage their music), the record companies appear poised to try out similar protection in the United States.⁵¹ Licensed on-line music distribution systems employ a variety of technological restrictions aimed at controlling the use of purchased music files.⁵² DVDs have included copy protection since their inception⁵³; they also contain embedded regional codes designed to limit play to DVD players coded for a particular geographic region.⁵⁴ Some video games include similar regional restrictions.⁵⁵ Electronic books have measures designed to control both printing and electronic distribution.⁵⁶ Computer programs sometimes require “activation” that effectively tethers the program to a particular computer.⁵⁷ A “broadcast flag” may soon protect digital television broadcasts from distribution over the Internet.⁵⁸

49. Alfred C. Yen, *What Federal Gun Control Can Teach Us About the DMCA's Anti-Trafficking Provisions*, 2003 WIS. L. REV. 649 (2003).

50. Dan L. Burk & Julie E. Cohen, *Fair Use Infrastructure for Rights Management Systems*, 15 HARV. J.L. & TECH. 41 (2001).

51. Ben Fritz, *Inside Moves: Revolver Fires Blanks With iPod Users*, Daily Variety, June 23, 2004, at 5.

52. See *infra* text accompanying notes 71–75.

53. See, e.g., *Universal City Studios, Inc. v. Corley*, 273 F.3d 429 (2d Cir. 2001).

54. U.S. COPYRIGHT OFFICE, DMCA SECTION 104 REPORT 74 (2001).

55. See *Sony Computer Entm't. Am., Inc. v. Gamemasters*, 87 F.Supp.2d 976 (N.D. Cal. 1999) (granting a preliminary injunction under the DMCA against the sale of a device that allowed users to bypass the plaintiff's geographic restrictions).

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

57. Microsoft's Windows XP program, for example, includes such a restriction. Russell Kay, *Microsoft Explains XP Software Activation*, COMPUTERWORLD, Aug. 6, 2001, at 40. Intuit was forced to remove a similar restriction from its popular TurboTax program after users complained about being unable to run the program on multiple computers. *Intuit Apologizes For Restricting Use of Tax Program*, N.Y. TIMES, Oct. 10, 2003, at C4. Even the Copyright Office has expressed concern about the implications of “tethering” for the first sale doctrine. U.S. COPYRIGHT OFFICE, DMCA SECTION 104 REPORT 75–76 (2001).

58. *FCC Adopts 'Broadcast Flag' Rules to Curb Digital Broadcast Piracy; July 2005 Deadline*, 67 Pat. Trademark & Copyright J. (BNA) No. 1645, at 7 (Nov. 7, 2003).

One restraint on the deployment of technological protection measures still remains. Copyright owners need a market for their works. A reduction in consumer demand for works that are wrapped too tightly in protective technologies would force owners to reassess the costs and benefits of the protection. However, the market can effectively restrain the use of protective technologies only if consumers know about them in advance. The law should insure that they do by implementing a system that will prompt copyright owners to disclose the presence and effect of technological protection measures to prospective purchasers.

III. THE ECONOMICS OF DISCLOSURE

Orthodox economic analysis is skeptical of mandatory disclosure rules. The market itself provides sufficient incentive for sellers to disclose information about their products according to the traditional view. A rational consumer will presume that the quality of a product is the lowest that is consistent with the information that the seller supplies, since if the quality was higher, the seller could increase the product's value in the eyes of consumers simply by providing more information. Buyers, in other words, will presume that any undisclosed information must be unfavorable to the seller. Even a monopolist thus has an incentive to provide information about the quality of its product. Consumers will (and should) assume the worst, so if the product is better than the worst, the seller will be better off disclosing more information.⁵⁹ For example, if a seller of aluminum foil does not disclose how many feet are in the roll, consumers will assume that it probably contains less than the amount in products that do disclose their quantity; if the seller's product actually contains the same amount or more, the seller has an incentive to disclose the quantity to consumers. Mandatory disclosure rules and their associated costs are thus unnecessary.⁶⁰ Under this analysis, copyright owners already have an incentive to tell prospective buyers about technological protection measures that limit the use and enjoyment of a work in order to keep those buyers from assuming that the work is even more tightly controlled than it actually is. There is thus no need for a mandatory disclosure requirement.

This analysis of course fails to account for the existence of mandatory disclosure laws in numerous markets ranging from securities and credit to food. There are many possible explanations. In some cases,

59. See, e.g., Sanford J. Grossman, *The Informational Role of Warranties and Private Disclosure About Product Quality*, 24 J.L. & ECON. 461 (1981).

60. "If information transmittal or warranties are costless, then there is no role for government intervention to encourage disclosure." *Id.* at 479.

sellers with lower quality goods may feel that the benefit of a disclosure that would distinguish their product from the very worst is outweighed by the detriment of reminding consumers how far their product is from the very best.⁶¹ Additionally, since the incentive for voluntary disclosure comes from the threat of adverse inferences that consumers may draw in the absence of the disclosure, the incentive to disclose weakens if some consumers are not conscious of the issue at the time of purchase. Also, if the percentage of consumers who would understand a disclosure is low, sellers may choose not to disclose since any attempt to capture the increased value of the product to knowledgeable consumers through a higher price could reduce sales to consumers who do not understand the significance of the information.⁶² This may be a significant issue with respect to technical information about access and copy controls used on copyrighted works.⁶³

The proof is in the pudding, and many copyrighted works in fact make little or no reference to their accompanying protective measures. The packaging for most DVDs, for example, contains no statement that reveals their ubiquitous⁶⁴ anti-copying protection. Additionally, the only reference to the regional coding that limits play to DVD players marketed in a specific area of the world is usually a cryptic statement that the DVD is licensed for distribution only in the United States. (The movie studios do, however, find enough space on the packaging to point out that copyright infringement can be a criminal offense.) Software packaging also typically includes little useful information about technological protection measures.⁶⁵ The record companies' initial experiments with copy-protected CDs in 2001 led to at least two lawsuits alleging that sales of the products without adequate warning labels amounted to

61. See, e.g., Alan D. Mathios, *The Impact of Mandatory Disclosure Laws on Product Choices: An Analysis of the Salad Dressing Market*, 43 J.L. & ECON. 651 (2000) (finding that prior to a mandatory disclosure law, some salad dressings in the middle range of the fat distribution chose not to distinguish themselves from products with higher fat content through voluntary disclosure).

62. See Michael J. Fishman & Kathleen M. Hagerty, *Mandatory Versus Voluntary Disclosure in Markets with Informed and Uninformed Customers*, 19 J.L. ECON. & ORG. 45 (2003).

63. A survey in 2003 conducted by chip maker Advanced Micro Devices found that about half of PC users didn't understand the term "megahertz", which has long been used in computer advertisements. Sam Diaz, *Tech Jargon Confuses Consumers*, San Jose Mercury News, July 17, 2003, at 2E.

64. See *Universal City Studios, Inc. v. Corley*, 273 F.3d 429 (2d Cir. 2001).

65. The packaging for Microsoft's Windows XP software does include a marginally informative reference to its protective measures: "This product uses technological measures for copy protection—you will not be able to use this product if you do not fully comply with the product activation procedures." It also states, "For installation and use on one computer"—although it does not make clear that the admonition is technologically enforced.

false advertising because consumers would assume that the CDs could be used in all the usual manners.⁶⁶

What would happen if copyright owners were required to disclose the existence and effect of their technological protection measures? Consumers would presumably take that information into account in determining how much they are willing to pay for the product. Those who otherwise would have been unaware of the presence or consequences of a protective measure might now conclude that the product is worth less to them than they originally thought. At any given price the seller will thus sell less, and this decrease in consumer demand translates directly into decreased revenue. Even a monopolist will experience a decrease in revenue when demand is reduced.⁶⁷ A loss of revenue resulting from the disclosure of technological protection measures will force copyright owners to confront a basic question: Are their protective measures worth that cost? When protective measures are largely unknown to consumers and hence have little impact on sales, technological protection is basically costless for owners, and they have little disincentive to tightly control their works. However, when the protection affects the bottom line, owners must think more carefully about how much protection they need and are willing to pay for through reduced revenue. All of this depends on the assumption that consumers actually care about technological protection measures and will place a higher value on less protected works than on more protected ones. There is evidence that they do. A 2003 survey found that while forty-one per cent of Internet customers would pay \$17.99 for a CD with no copy protection, only ten per cent would pay that amount for a CD that could not be copied, and more customers would pay \$19.99 for a DVD that could be copied than \$9.99 for one that could not.⁶⁸ Intuit, the largest seller of tax preparation software, was forced to drop a protective measure introduced in 2002 that limited use of its TurboTax program to a single computer. In response to a flood of customer complaints, the 2003 version could again be installed on

66. See *Parties Settle Claim Over Crippled Music CDs; Discs' Shortcomings Will Be Stated on Label*, PAT. TRADEMARK & COPYRIGHT L. DAILY (BNA), Feb. 26, 2002 (commenting on the settlement in *DeLise v. Fahrenheit Entm't. Inc.*, Cal. Super. Ct., Marin County, No. CV 01-4297); *Suit Alleges New Copy-Protected CDs Are Defective and Infringe on Fair Use Rights*, PAT. TRADEMARK & COPYRIGHT L. DAILY (BNA), June 19, 2002 (describing *Dickey v. Universal Music Group*, Cal. Super. Ct., L.A. County, No. 02-0264, a class action against five record companies). Later releases of copy-protected CDs in the U.S. have included labels warning of "copy management" software. See Fritz, *supra* note 51.

67. In the case of a monopolist, its profit-maximizing price might not change, but it will sell less than it did before at that price, and hence its total revenue and profits will be reduced. See, e.g., RICHARD POSNER, *ECONOMIC ANALYSIS OF LAW* § 9.2 (3d ed. 1986).

68. Chris Marlow, *Study: Burnable Discs Worth More: Online Consumers Willing to Pay for Unrestricted Copying*, HOLLYWOOD REP. March 31, 2003, at 8 (reporting on a survey conducted by Jupiter Research).

multiple computers.⁶⁹ A vice-president of Tivo Inc., the digital video recorder company, predicts that overly restrictive video systems will simply be rejected by consumers.⁷⁰

The on-line music business offers a glimpse into the dynamics of a market for copy-protected works. In an attempt to divert users from “pirate” music sharing networks like the original Napster⁷¹, the record companies began experimenting with licensed online services in 2001. Since the services were trying to sell a new kind of product, they could not avoid describing the details of the product to potential customers, including the technological restrictions demanded by the record companies. The early versions of music services like Rhapsody and Pressplay limited users to online streaming of songs and attempted to prevent the copying of music files onto CDs. By 2002, market forces had compelled the services to permit some CD burning, although often with technological restrictions such as limits on the number of tracks from a single artist.⁷² The next breakthrough came in 2003 with the launch of Apple’s iTunes online service, which eliminated most of the restrictions on CD burning, allowed music files to be copied onto multiple computers, and made it easy to transfer files to portable music players.⁷³ By 2004, most online services had at least matched iTunes’ relatively limited protection.⁷⁴ Step by step, the record companies had surrendered technological protection to increase their online customer base and revenues. One story on the industry summed up the trend: “Prodded by flagging sales and a surge in illegal downloading, the music industry has become much less restrictive in licensing its tunes to legal download services.”⁷⁵

69. *Intuit Apologizes for Restricting Use of Tax Program*, N.Y. TIMES, Oct. 10, 2003, at C4.

70. Mark Cutler, *Markeplace Will Dictate to Content Owners What Content, Rights to Provide Consumers*, PAT. TRADEMARK & COPYRIGHT L. DAILY (BNA), March 11, 2003, (statement of Tivo Inc. Vice President Matthew Zinn).

71. Napster was eventually liquidated in the aftermath of litigation with the record companies. See *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001); Saul Hansell, *AOL Reaches to Create Its Own Big Music Scene on the Internet*, N.Y. TIMES, Sept. 2, 2002, at C1. It has since been reborn as a licensed online service. David Pogue, *Paying the Piper, Round 2: The Repertory Grows*, N.Y. TIMES, Oct. 30, 2003, at G1.

72. See, e.g., Tom Di Nome, *You Listen, You Pay: Post-Napster Music Services*, N.Y. TIMES, March 7, 2002, at G9; Jon Healey, *Online Music Catalogs Lacking*, L.A. TIMES, Aug. 1, 2002, at C3.

73. See, e.g., David Pogue, *Online Piper, Payable by the Tune*, N.Y. TIMES, May 1, 2003, at G1 (“[I]t’s the first music service that doesn’t view every customer as a criminal-in-waiting.”).

74. See J. D. Biersdorfer, *A Crowded Bandwagon Yields Music Without Worries*, N.Y. TIMES, Jan. 1, 2004, at G6.

75. Clint Swett, *Legal Online Music Sales on the Upswing*, Seattle Post-Intelligencer, Feb. 17, 2004, at D2.

In the record industry, and probably in other industries as well, different copyright owners may place different values on technological protection. Small record labels, for example, may value the publicity that comes with broader distribution more highly than a major label with well-known performers, and hence feel less threatened by file-sharing. The increased exposure generated through looser control is seen by some small record labels as a way to compete with the advertising and radio access available to the major companies.⁷⁶ Some small labels even give away some songs to promote an artist;⁷⁷ others have sold CDs that contain unprotected MP3 music files along with the conventional audio tracks in a gesture of good will toward their customers.⁷⁸ Lower overhead may also give the smaller companies a different perspective. Records from small labels often earn a profit after sales of ten to twenty-five thousand copies; releases from major labels can require sales of half a million records to break even.⁷⁹ All this could mean that in many markets consumers might see a variety of different levels of technological protection—at least if they have sufficient information about the protective measures to use their purchasing power to force the owners to bear the cost of protection. This diversity in protection levels would be useful in itself to remind consumers that highly restrictive protection measures are not inevitable.

IV. A PROPOSAL

A bill to amend the Copyright Act to provide that the failure to disclose the presence and principal effects of technological measures used to control access to a copyrighted work or to protect a right of the copyright owner bars the owner from any relief against the circumvention of such technological measures or the manufacture or distribution of devices produced for the purpose of circumventing such measures.

76. “Our music, by and large, when kids listen to it, they share it with their friends. Then they go buy the record; they take ownership of it.” Chris Nelson, *Upstart Labels See File Sharing as Ally, Not Foe*, N. Y. TIMES, Sept. 22, 2003, at C1 (quoting Rich Egan, president of Vagrant Records).

77. One small record company gave away four million mini CDs by a new pop singer embedded in the lids of soft drinks sold at movie theaters and theme parks. The straw fit through the hole in the center of the CD. Brian Garrity, *Farris Pops Up On Soda Lids: Music Sampler Distributed at Theaters, Parks*, BILLBOARD, June 28, 2003, at 56.

78. Bill Werde, *Two Labels Warm Up to MP3's*, N. Y. TIMES, May 29, 2003, at G7. The move is merely symbolic since it takes users only a few moments to convert a conventional CD track into the MP3 format.

79. Nelson, *supra* note 76.

SEC. 1. Section 1201 of title 17 of the United States Code is amended—

(a) by redesignating sections 1201(c) through 1201(k) as 1201(d) through 1201(l);

(b) by adding a new section 1201(c) as follows:

“(c)(1) Notwithstanding the provisions of subsection (a)(1)(A), it is not a violation of that subsection for a person to circumvent a technological measure applied to a copy or phonorecord of a published United States work (as defined in section 101) that has been lawfully obtained by that person if the copy or phonorecord is not accompanied by a disclosure of the presence and principal effects of the technological measure that was reasonably available to the person prior to the sale or other distribution of the work to that person.

“(2) Notwithstanding the provisions of subsections (a)(2) and (b), a person who manufactures, imports, offers to the public, provides, or otherwise traffics in a circumvention technology, product, service, device, component, or part thereof, shall not be liable in an action under section 1203 that is brought by a person who has distributed to the public in the United States more than a relatively small number of copies or phonorecords of works protected under this title that incorporate a technological measure that can be circumvented by that technology, product, service, device, component, or part thereof, and that are not accompanied by the disclosure described in subsection (c)(1).”

SEC. 2. Section 506(d) of title 17 of the United States Code is amended to read as follows:

“Any person who, with fraudulent intent, removes or alters any notice of copyright appearing on a copy of a copyrighted work, *or a disclosure relating to a technological measure as described in section 1201(c)(1)*, shall be fined not more than \$2,500.”

SEC. 3. The provisions of this Act shall not apply to copies or phonorecords first distributed to the public prior to the effective date of the Act.

The proposed amendments to § 1201 would condition protection against both circumvention and the distribution of circumvention devices on adequate disclosure by the copyright owner. Under section (c)(1), an

owner who fails to provide information about its technological protection measures to a buyer prior to sale would have no legal recourse against the circumvention of those measures by the buyer.⁸⁰ The restriction would apply whether the transaction involves a distribution in the form of hard copies such as DVDs, CDs, or other media, or is instead accomplished by means of a digital transmission.⁸¹ Under section (c)(2), an owner who fails to provide the required disclosure in connection with the distribution of “more than a relatively small number”⁸² of copies or phonorecords containing technological protection measures would also lose the ability to maintain an action against a person who manufactures or distributes a device capable of circumventing those measures.⁸³ Owners will undoubtedly object that an obligation to disclose “the presence and principal effects” of their protective technologies is unfairly vague. The uncertainty, however, at least pushes in the right direction, encouraging owners to disclose more rather than less.

The exclusion from liability for circumventing protective measures proposed under (c)(1) is limited to measures applied to a “United States work (as defined in section 101).” The limitation is intended to insure compliance with our treaty obligations. The United States is a party to

80. If the buyer’s use of the copyrighted work violates an exclusive right of the copyright owner under § 106, the owner could of course maintain an action for copyright infringement.

81. *See, e.g.*, § 115(c)(3), 17 U.S.C. § 115(c)(3) (2000) (applying the compulsory license to make and distribute phonorecords of nondramatic musical works to both physical and digital distributions).

82. The quoted standard is taken from § 405(a)(1), 17 U.S.C. § 405(a)(1) (2000), where it is used to determine whether an omission of copyright notice on copies distributed prior to the 1988 elimination of the notice requirement caused the work to enter the public domain. In that context, the standard has generally been interpreted to mean more than a small number relative to the total number distributed. *See* 2 MELVILLE B. & DAVID NIMMER, NIMMER ON COPYRIGHT § 7.13[A](2004).

83. There is at least tangential evidence that some owners think the ability to maintain protection against circumvention devices is worth the cost of disclosing potentially unfavorable information to prospective consumers. In *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 292 F.Supp. 2d 1040 (N.D. Ill. 2003), *aff’d*, 381 F.3d 1178 (Fed. Cir. 2004), a seller of garage door openers argued that sales of a replacement remote control device by a competitor violated § 1201 because the remote control circumvented protection technology that the plaintiff had included in the garage door opener’s computer system. The plaintiff lost on summary judgment when the trial court held that the circumvention was authorized by the plaintiff since consumers had a reasonable expectation that they could use replacement remote controllers and plaintiff’s packaging did not inform buyers of any restrictions on their ability to use replacement devices. By the time a related complaint involving the same two parties was resolved by the U.S. International Trade Commission a few months later, the plaintiff had rewritten its materials to warn consumers that use of replacement devices like the defendant’s was not authorized. *See In re Certain Universal Transmitters for Garage Door Openers*, USITC Pub. 3670, Inv. No. 337-TA-497, 2004 WL 73233 (Jan. 14, 2004), *aff’d*, 69 Fed. Reg. 7980 (USITC, Feb. 20, 2004). (The plaintiff still lost before the Commission on grounds of *res judicata*.)

the World Intellectual Property Organization's Copyright Treaty, which in article 11 obligates contracting countries to "provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures" used by authors to protect their rights under the Copyright Treaty or the Berne Convention.⁸⁴ Article 3 of the Copyright Treaty also requires countries to "apply *mutatis mutandis* the provisions of Articles 2 to 6 of the Berne Convention in respect of the protection provided for in this Treaty."⁸⁵ Article 5(2) of the Berne Convention, in turn, insists that the rights granted to authors "shall not be subject to any formality."⁸⁶ The disclosure requirement proposed here as a prerequisite to protection against circumvention might well constitute a prohibited formality. However, the Berne Convention rule against formalities does not apply to protection in a work's country of origin.⁸⁷ The definition of "United States work" in § 101 of the Copyright Act is specifically designed to cover only works whose country of origin for purposes of the Berne Convention is the United States.⁸⁸ Thus, although we might violate our obligations under the Copyright Treaty if we conditioned circumvention protection for foreign works on disclosure, the Treaty does not limit our ability to impose formalities on circumvention protection for United States works. Similar reasoning justifies the current rule in § 411 of the Copyright Act that requires the formality of copyright registration as a prerequisite to instituting an infringement action, but only when the work is a "United States work."⁸⁹

The proposal in (c)(2) that precludes owners who have distributed too many protected copies of works without the required disclosure from seeking relief against circumvention devices has not been similarly limited to "United States works." Article 11 of the Copyright Treaty literally requires only protection and remedies against "the circumvention of effective technological measures"; it does not specifically demand that

84. WIPO Copyright Treaty, *supra* note 42, art. 11. *See also* WIPO Performances and Phonograms Treaty, *supra* note 42, art. 18.

85. WIPO Copyright Treaty, *supra* note 42, art. 3.

86. It is this requirement of the Berne Convention that prompted the United States in 1988 to abandon its 200-year old requirement of a notice of copyright as a prerequisite to protection. Berne Convention Implementation Act of 1988, Pub. L. 100-569, 102 Stat. 2853.

87. Article 5(3) of the Berne Convention provides that "[p]rotection in the country of origin is governed by domestic law." Berne Convention for the Protection of Literary and Artistic Works, July 24, 1971, art. 5(3) Hein's No. KAV 2245.

88. 17 U.S.C. § 101 (definition of "United States work"); *see also* the definition of "country of origin" in art. 5(4) of the Berne Convention. Berne Convention for the Protection of Literary and Artistic Works, *supra* note 87, art. 5(4).

89. 17 U.S.C. § 411(a) (2000). *See also* 17 U.S.C. § 104A(h)(3),(6) (2000) (restoring copyright in works that had entered the public domain due to noncompliance with U.S. formalities, but only if the work was authored by a national or domiciliary of a Berne, WTO, or WIPO treaty country other than the United States).

countries also extend protection against circumvention devices as the United States has done in §§ 1201(a)(2) and 1201(b). Thus, it is at least arguable that the prohibition on formalities is not applicable to device protection.⁹⁰

There have been previous proposals to compel the disclosure of technological protection measures. A narrowly drawn bill introduced by Representatives Boucher and Doolittle would have given the Federal Trade Commission the authority to enforce disclosure requirements on “digital music discs” by making it an unfair or deceptive practice under § 45(a)(1) of the Federal Trade Commission Act⁹¹ to sell music discs that failed to inform consumers about restrictions on their ability to play or copy the discs.⁹² A broader proposal by Senator Wyden similarly sought to rely on the enforcement powers of the Federal Trade Commission through a rulemaking proceeding aimed at requiring distributors of “copyrighted digital content” to disclose limitations on a purchaser’s ability “to play, copy, transmit, or transfer such content.”⁹³ The proposals made no headway, despite the support of a coalition of electronic equipment manufacturers.⁹⁴ Neither proposal would have placed a copyright owner’s protection against circumvention and circumvention devices at risk, and only the Federal Trade Commission could have pursued violations under the FTC Act.⁹⁵ The proposal made here at least avoids the burdens of administrative enforcement—indeed, it requires no independent enforcement from any quarter.

An attempt to tie circumvention protection to disclosure may have some prospect of surmounting the practical and political obstacles that confound more direct challenges to the anti-circumvention provisions.⁹⁶

90. Like the United States, however, the European Union’s implementation of the WIPO Copyright Treaty includes protection against both circumvention and circumvention devices. *See* Council Directive 2001/29/EC, art. 6(2), 2001 O.J. (L 167) 10. A more conservative approach to the formalities issue would limit the proposed restriction on device protection in (c)(2) to persons who have distributed “more than a relatively small number of copies or phonorecords of *United States works* (as defined in section 101).” Neither the circumvention nor the device proposal raises issues with respect to our obligations under the World Trade Organization’s Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs). That treaty, written prior to the WIPO Copyright Treaty, does not mention circumvention and requires general adherence only to the Berne Convention, which also does not cover circumvention. *See also* WIPO Copyright Treaty, *supra* note 42, art. 1(1) (“This Treaty shall not have any connection with treaties other than the Berne Convention.”); WIPO Performances and Phonograms Treaty, *supra* note 42, art 1(3).

91. 15 U.S.C. § 45(a)(1) (2000).

92. H.R. 107, 108th Cong. § 3 (2003).

93. S. 692, 108th Cong. § 3(b)(1) (2003).

94. *See Boucher Reintroduces Legislation To Allow Fair use of Digital Material*, 65 Pat. Trademark & Copyright J. (BNA) No. 1605, at 232 (Jan. 17, 2003).

95. 1 STEPHANIE W. KANWIT, FEDERAL TRADE COMMISSION § 1:7 (2003).

96. *See supra* text accompanying notes 30–50.

Most importantly, it does not seek to deprive copyright owners of the protection that they—and Congress—believe is necessary to facilitate the development of digital markets. It is one thing for owners to assert with some sincerity that as a matter of economics and fairness they need and deserve protection against circumvention and circumvention devices; it is quite another to make a credible assertion that their customers have no right to know about the technological restrictions contained in the products that they buy. Also, unlike proposals to scale back or eliminate circumvention protection, an approach based on disclosure can be implemented in a manner consistent with our treaty obligations.⁹⁷ It is also consistent with, in fact supportive of, the market-oriented perspective that dominates the current Congress.

V. CONCLUSION

Copyright owners have used technology to maintain control over their works since the beginnings of the digital age. In 1998, they succeeded in enlisting the law as an ally in their efforts. The Digital Millennium Copyright Act makes it illegal to circumvent their protective technologies or to distribute devices designed for that purpose. Many observers believe, however, that the anti-circumvention rules disrupt the traditional balance that has secured the public interest in the face of copyright's exclusive rights. Judicial challenges are unlikely to cure any overbreadth. Poor policy is not beyond the constitutional authority of Congress. The practical difficulties of fine-tuning the device restrictions and the political power of copyright owners make significant legislative adjustments unlikely. Besides, the owners may have a point. Perhaps in a digital environment they do need and deserve the ability to protect their works through technology. But owners should be forced to internalize more of the costs associated with that protection. Making protection against circumvention and circumvention devices contingent on disclosing the presence and effect of protective measures will produce more informed choices by consumers. That in turn could force owners to be more pragmatic in their approach to technological protection. A disclosure requirement is consistent with our treaty obligations and with the prevailing politics of the times. It preserves the protection that copyright owners may need, but it also creates practical constraints on their ability to stray too far from the balance of protection and access that has traditionally defined the reach of copyright.

97. See *supra* text accompanying notes 84–90.