
Albert Sieber

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The rapid onset of the digital age both tantalized and terrified industries whose chief assets are copyrighted works—movie studios, book publishers, record labels, and other so-called “content industries.” On the one hand, they saw enormously lucrative new markets for their products. Consumers might, for example, be tempted to replace their outdated, outmoded, inferior analog cassette tapes and vinyl records with superior-sounding CDs, or to buy movies on DVDs boasting better audio and video, and a host of other features not available on videotape. The increasing availability of powerful yet affordable home computers\(^1\) and high-speed Internet access in residential areas\(^2\) also provided the content with new avenues of distribution. The staggering popularity of peer-to-peer (P2P) file-sharing services such as Napster demonstrated consumers’ willingness to download their entertainment, if not necessarily pay for it.\(^3\)

Of course, the same technologies that enabled these new markets also enabled copyright infringement on an unprecedented scale. Content captured in digital format—essentially a string of 1’s and 0’s—may be easily copied with no (or minimal) loss of quality.\(^4\) Any such copies may then be disseminated over the Internet, most famously through P2P services—what many consumers called “sharing” and the content industries dubbed

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Although digital content may be encoded with technological measures to prevent unauthorized uses, including copying, it was recognized long ago that every new protection measure could eventually be overcome and defeated.\footnote{See Jessica Litman, Digital Copyright 85-86 (2001).}

To address these concerns, the content industries—aided by key Clinton Administration officials and with the eventual acquiescence of other major stakeholders, particularly Internet Service Providers (ISPs)—lobbied Congress for major changes to the Copyright Act to protect their interests.\footnote{See, e.g., Intellectual Property and the National Information Infrastructure: A Report of the Working Group on Intellectual Property Rights 230 (Bruce A. Lehman chair, 1995) ("[I]t is clear that technology can be used to defeat any protection that technology may provide . . . . [T]echnological protection will not be effective unless the law also provides some protection . . . ."), available at http://www.uspto.gov/web/offices/com/doc/ipnii.}

The result was the Digital Millennium Copyright Act ("DMCA," or "the Act"), enacted in late 1998.\footnote{See infra Part III.B.1; see generally Litman, supra note 5, at 122-50 (describing the bargaining process leading to the Act's passage).} Among the most important of the Act's provisions were the legal sanctions it created for the use of and traffic in technology designed to circumvent piracy protections in copyrighted digital works—the so-called anti-circumvention provisions.\footnote{Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified in scattered sections of 5, 17, 28, and 35 U.S.C.).}

This Note discusses two of the earliest cases brought under these provisions: Universal City Studios, Inc. v. Corley\footnote{17 U.S.C. § 1201 (2000).} and United States v. Elcom Ltd.\footnote{273 F.3d 429 (2d Cir. 2001).} In each case, defendants unsuccessfully raised several statutory defenses provided for in the Act, and also challenged the anti-circumvention provisions as unconstitutional under a variety of theories. This Note begins by reviewing the DMCA itself before discussing its application to these cases. Finally, this Note examines one suggested refinement of the courts' analyses in order to prevent a result inconsistent with the terms of the Act, and discusses the fate of the fair use doctrine under the DMCA.

I. LEGAL BACKGROUND

Prior to the DMCA, courts analyzing a claim brought under the Copyright Act considered first whether there had been infringement of a valid copyright: that is, whether there had been a violation of one of the five ex-
exclusive rights granted to copyright owners in the Copyright Act. A claim of contributory or vicarious infringement, the two forms of secondary liability under traditional copyright law, tended to require proof of direct infringement by a third party. At the same time, the manufacturers and distributors of a technology that may facilitate direct infringement (such as VCRs) were protected from secondary liability so long as the technology was "capable of substantial noninfringing uses"—the so-called "staple article of commerce" doctrine announced by the Supreme Court in Sony Corp. of America v. Universal City Studios, Inc.

A. The Digital Millennium Copyright Act

The DMCA, however, creates a new class of liability under American copyright law. In certain circumstances, courts may impose liability on parties who use or disseminate tools to circumvent technological measures designed to protect copyrighted works, regardless of whether such actions ultimately lead to an act of infringement by that person or another. Traditional infringement analysis, therefore, becomes largely irrelevant in actions brought under the anti-circumvention provisions, leading some commentators to describe the law as "paracopyright." Additionally, the dissemination of circumvention tools implicated by the DMCA does not enjoy the same protection previously offered under the Sony doctrine.

At least one previous application of the Sony doctrine had upheld a defendant's right to sell a software program that disabled copy controls, citing

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12. 17 U.S.C. § 106 (2000). The five exclusive rights are (1) the right to reproduce the copyrighted work, (2) the right to prepare derivative works based on the copyrighted work, (3) the right to distribute copies of the copyrighted work to the public, (4) the right to perform the copyrighted work publicly, and (5) the right to display the work publicly. Id.

13. 3 NIMMER ON COPYRIGHT § 12.04[A][3][a], at 12-90 (2002).


15. See, e.g., Elcom, 203 F. Supp. 2d. at 1123.

16. See, e.g., 3 NIMMER ON COPYRIGHT § 12A.18[B], at 12A-186 (2002) ("Chapter 12 enshrines legal doctrine that 'more closely resembles historic protection under the telecommunications law, or even more pointedly, the "Jesse James Act" forbidding armed postal robbery, than it does the balance of Title 17.' The interests that it vindicates may therefore be dubbed 'paracopyright,' as contrasted with traditional copyright protection.") (internal citations omitted).

17. See HOUSE COMM. ON THE JUDICIARY, SECTION-BY-SECTION ANALYSIS OF H.R. 2281 AS PASSED BY THE UNITED STATES HOUSE OF REPRESENTATIVES ON AUGUST 4, 1998, at 10 (Comm. Print 1998) ("The Sony test of 'capability of substantial noninfringing uses, while still operative in cases claiming contributory infringement of copyright, is not part of this legislation . . . ."); see also Universal City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294, 323-24 (S.D.N.Y. 2000) (holding that the Sony decision has no application in cases under the anti-circumvention provisions).
end users’ right to make backup copies of software they had lawfully purchased and holding that the Supreme Court’s decision in Sony controlled. Post-DMCA, that a circumvention tool may be capable of a substantial noninfringing use is no longer relevant.

By its terms, the DMCA’s anti-circumvention provisions apply whenever access to, or use of, a copyrighted work is restricted by a “technological measure.” For the purposes of the Act, a technological measure is a measure that “in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work,” or “in the ordinary course of its operation, prevents, restricts, or otherwise limits the exercise of a right of a copyright owner under this title.” Probably the most commonly known “technological measure” implicated under the Act is Content Scramble System (CSS), an encryption system that allows the contents of DVDs to be viewed only on CSS-compliant DVD players.

The Act implicates “circumvention” of such technological measures, although it does not ban circumvention of all types. Under the DMCA, circumvention includes efforts “to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner,” or to “avoid[], bypass[], remov[e], deactivat[e], or otherwise impair[] a technological measure.” To continue with the previous example, software known as DeCSS has been developed that allows own-

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19. See supra note 17.
22. Id. § 1201(b)(2)(B).
23. For a more detailed explanation of DVD and CSS technologies, see infra Part II.B.1; Universal City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294, 307-08 (S.D.N.Y. 2000). For an even more technical explanation, see generally Jeffrey A. Bloom et al., Copy Protection for DVD Video, 87 PROC. OF THE IEEE 7, 1267 (1999). Technological measures potentially implicated by the DMCA are quite common; they include, for example, password-protection schemes used by many website operators to control access to their content. See David A. Petteys, Note, The Freedom to Link?: The Digital Millennium Copyright Act Implicates the First Amendment in Universal City Studios, Inc. v. Reimerdes, 25 SEATTLE U. L. REV. 287, 317 (2001).
26. Id. § 1201(b)(2)(A).
ers of a DVD disk to circumvent CSS in order to play the DVD on a non-
compliant DVD player.\textsuperscript{27}

The DMCA distinguishes between technology designed to control \textit{ac-
cess} to a work and technology that controls \textit{use} of a work once the work
has been accessed. In addition, the Act distinguishes between specific acts
of circumvention and dissemination of tools that enable such circumven-
tion.\textsuperscript{28}

\textit{I. Access vs. Use}

Section 1201(a), governing technological measures designed to limit
\textit{access} to a copyrighted work, prohibits both specific acts of circumven-
tion\textsuperscript{29} and trafficking in tools that enable such circumvention.\textsuperscript{30} Section
1201(b), governing technological measures designed to limit the \textit{use} of a
copyrighted work, prohibits only trafficking in circumvention-enabling
tools.\textsuperscript{31} In both cases, it is a violation of the DMCA to “manufacture, im-
port, offer to the public, provide, or otherwise traffic in any technology,
product, service, device, component, or part thereof” that is primarily de-
signed for the purpose of circumventing protections, has “limited com-
mercially significant purpose” other than such circumvention, or is mar-
keted for such use.\textsuperscript{32} Penalties for violation of any of these provisions are
substantial and include injunctive relief and actual and statutory dam-
ages.\textsuperscript{33} Criminal penalties may be imposed where unlawful acts are com-
mitt ed with the purpose of “commercial advantage or private financial

Significantly, the DMCA does not prohibit the act of circumventing a
\textit{use} control, even though it does prohibit the dissemination of tools that
enable such circumvention.\textsuperscript{35} Presumably, then, parties who circumvent
\textit{use} controls are subject only to penalties under traditional, infringement-

\begin{itemize}
  \item \textsuperscript{27} The legality of posting DeCSS on an Internet website was litigated in Universal City Studios, Inc. v. Corley, 273 F.3d 429 (2d Cir. 2001). See infra Part II.A.
  \item \textsuperscript{28} 17 U.S.C. § 1201(a)-(b).
  \item \textsuperscript{29} \textit{Id.} § 1201(a)(1)(A) (“No person shall circumvent a technological measure that
effectively controls access to a work protected under this title.”).
  \item \textsuperscript{30} \textit{Id.} § 1201(a)(2).
  \item \textsuperscript{31} \textit{Id.} § 1201(b)(1).
  \item \textsuperscript{32} \textit{Id.} § 1201(a)(2)-(b)(1).
  \item \textsuperscript{33} \textit{Id.} § 1203.
  \item \textsuperscript{34} \textit{Id.} § 1204(a).
  \item \textsuperscript{35} See United States v. Elcom Ltd., 203 F. Supp. 2d 1111, 1120 (N.D. Cal. 2002).
\end{itemize}
oriented copyright law, and may make use of any of the defenses available therein, including the fair use defense.  

Although the distinction between a technological measure that controls access and one that controls use is crucial for determining whether liability attaches to an act of circumvention, the Act itself does not explain the difference. The legislative history of the Act is itself confused, at one point defining both access and use controls with two identically worded definitions. Elsewhere, a report by the House Judiciary Committee explains that the access control provisions in § 1201(a) apply "when a person has not obtained authorized access to a copy . . . of a work," but do not apply to "the subsequent actions of a person once he or she has obtained authorized access to a copy of a work." This limited guidance still leaves courts to grapple with a question that in many instances may have far-reaching consequences: does "access" refer only to initial access, or to each individual act of accessing a protected work?

2. Exceptions to the Rule and Other Provisions

Having established the extent of liability under the anti-circumvention provisions, more or less, Congress then peppered the Act with numerous narrowly tailored exceptions. Three protect scientific endeavors: the exceptions for encryption research, security testing, and reverse engineer-

36. See id. at 1120-21 (citing H.R. REP. 105-551, pt. 1, at 18 (1998)). Cf. 17 U.S.C. § 1201(c)(1) ("Nothing in this section shall affect rights, remedies, limitations, or defenses to copyright infringement, including fair use, under this title.").


38. H.R. REP. NO. 105-551, pt. 1, at 17 (1998). More colloquially, circumvention of access control was compared to breaking and entering a locked room. Id.

39. Id. at 18.

40. See Litman, supra note 5, at 153.

41. 17 U.S.C. § 1201(g) (subject to certain restrictions, this subsection exempts from liability those engaged in “activities necessary to identify and analyze flaws and vulnerabilities of encryption technologies applied to copyrighted works, if these activities are conducted to advance the state of knowledge in the field of encryption technology or to assist in the development of encryption products”).

42. Id. § 1201(j) (exempting from liability those who circumvent an access control measure in order to access “a computer, computer system, or computer network, solely for the purpose of good faith testing, investigating, or correcting, a security flaw or vulnerability, with the authorization of the owner or operator of such computer, computer system, or computer network”).
ing to achieve interoperability of computer hardware and software.\textsuperscript{43} Two others might be labeled consumer protection exceptions: circumvention for the sole purpose of protecting minors from questionable material on the Internet\textsuperscript{44} and circumvention for the sole purpose of preventing the collection or dissemination of personally identifying information.\textsuperscript{45} There are further exceptions for libraries\textsuperscript{46} and acts of circumvention done in the course of law enforcement activities.\textsuperscript{47} Finally, the Act directs the Library of Congress to conduct periodic rulemaking proceedings to address the adverse effects on users of the anti-circumvention provision contained in § 1201(a)(1)(A), but not on either of the anti-trafficking provisions.\textsuperscript{48}

II. THE CASES

These myriad provisions were the subject of two recent decisions by federal courts, \textit{Universal City Studios, Inc. v. Corley}\textsuperscript{49} and \textit{United States v. Elcom Ltd.}\textsuperscript{50} This Note first explains the facts and particular holdings of each case before discussing the more general issues raised in each, particularly the courts' rejection of defendants' claimed fair use defense and First Amendment challenge to the DMCA.

\textsuperscript{43} Id. § 1201(f). Reverse engineering, broadly defined as "the process of extracting know-how and knowledge from a human-made artifact," has long been an accepted practice. Pamela Samuelson & Suzanne Scotchmer, \textit{The Law and Economics of Reverse Engineering}, 111 \textit{YALE L.J.} 1575, 1577 (2002). Its use in the computer software industry, through decompilation or disassembly of object code, in order to achieve interoperability was found to be a fair use in \textit{Sega Enters. Ltd. v. Accolade, Inc.}, 977 F.2d 1510 (9th Cir. 1992).

\textsuperscript{44} 17 U.S.C. § 1201(h).

\textsuperscript{45} Id. § 1201(i).

\textsuperscript{46} Id. § 1201(d).

\textsuperscript{47} Id. § 1201(e).

\textsuperscript{48} Id. § 1201(a)(1)(C). Following notice and a period for public comment, the Library of Congress announced the results of the first such rulemaking procedure on October 27, 2000. Exemptions were created for circumvention of access controls to two classes of works: "(1) Compilations consisting of lists of websites blocked by filtering software applications; and (2) Literary works, including computer programs and databases, protected by access control mechanisms that fail to permit access because of malfunction, damage or obsolescence." See Rulemaking on Exemptions from Prohibition on Circumvention of Technological Measures that Control Access to Copyrighted Works, at http://www.copyright.gov/1201/anticirc.html (last visited Feb. 23, 2003).

\textsuperscript{49} 273 F.3d 429 (2d Cir. 2001).

\textsuperscript{50} 203 F. Supp. 2d 1111 (N.D. Cal. 2002)
A. Universal City Studios, Inc. v. Corley

In Corley, the Second Circuit affirmed a District Court opinion enjoining defendant Eric Corley and others from posting a decryption program known as DeCSS on any Internet website, and from knowingly linking to other websites on which DeCSS is posted. The court agreed that such conduct violated § 1201(a)(2) of the DMCA, which prohibits trafficking in tools that enable circumvention of access controls.

1. Background

In the early 1990s, the major motion picture studios began development of a new technology to allow distribution of movies and other video content to the home market in digital format. The result—the “digital versatile disc,” or DVD—allowed for higher quality audio and video, greater longevity, and other special features not available on the old analog VCR tapes. At the same time, the movie studios worried that the release of the movies in digital format would spur heretofore unseen piracy of motion pictures, because digital files, unlike their analog counterparts, could be copied repeatedly without degradation of quality.

In response, the studios adopted a technological protection standard called Content Scramble System (“CSS”) to protect the contents of DVDs from unauthorized copying. CSS uses an encryption algorithm that scrambles the sound and graphics files contained on DVDs, and thus renders DVDs unwatchable unless played on CSS-compliant DVD players that have the necessary “keys” to decrypt the files. The studios then licensed the technology necessary to make CSS-compliant DVD players to consumer electronics manufacturers on the condition that the players they produce not allow users to copy DVDs or supply the digital output that could be used to copy their content.

In September 1999, a Norwegian teenager named Jon Johansen and two unknown individuals jointly developed a software program called

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52. Corley, 273 F.3d at 440 (“Subsection 1201(a)(2) [is] the provision at issue in this case.”).
53. See id. at 436.
54. Id.
55. Id.
56. Id.
58. Id. at 437. But see Corley, id. at 438 n.5 (examining defendants’ contention that DVDs may be copied without DeCSS).
DeCSS. The program is capable of decrypting encrypted DVDs, allowing the sound and video files to be played on non-compliant players or copied to a computer hard drive. Johansen posted the code on his personal website and announced its development on an Internet mailing list. Johansen allowed and encouraged dissemination of the program over the Internet and it soon became available on hundreds of websites.

2. Procedural History

In January 2000, eight major United States motion picture studios brought suit against Eric Corley and two other website operators for posting the DeCSS program. Corley is the publisher of 2600, a print magazine delivering news of interest to "hackers," as well as an affiliated website on which he had posted the DeCSS code and links to other websites that did so. Following a brief initial hearing, the district court granted plaintiff's request for a preliminary injunction barring defendants from posting the DeCSS code. A subsequent motion to expand the scope of the preliminary injunction to bar defendants from linking to the program was consolidated into the trial on the merits.

At trial, the court found that the defendants' posting of DeCSS on their website was a prima facie violation of § 1201(a)(2), the anti-trafficking

59. Reimerdes, 111 F. Supp. 2d at 311. The process of decrypting DVDs using DeCSS is not simple; it requires some time and technical acumen. The result of the process is a large, cumbersome computer file that may be compressed with little loss of quality using a compression utility; this second step takes several hours. Id.

60. Id. Johansen developed the program by reverse engineering a licensed DVD player and discovering the encryption algorithm and the keys needed to unlock it. Id.

61. Id. Notwithstanding the Second Circuit's decision in Corley, DeCSS and other next-generation descramblers can still be found, quite easily, by using an Internet search engine. See, e.g., http://www.google.com/search?hl=en&ie=UTF8&oe=UTF8&q=DeCSS+download (last visited Feb. 23, 2003).

62. See Corley, 273 F.3d at 435 (defining hacker as "a digital-era term often applied to those interested in techniques for circumventing protections of computers and computer data from unauthorized access"). Despite the term's somewhat negative connotations, the Second Circuit recognized that the "hacker community includes serious computer-science scholars conducting research on protection techniques [and] computer buffs intrigued by the challenge of trying to circumvent access-limiting devices or perhaps hoping to promote security by exposing flaws in protection techniques," in addition to "mischief-makers" and "thieves ... who want to acquire copyrighted material ... without paying for it." Id.


provision relating to access-circumvention tools.\textsuperscript{66} It held that CSS, despite its relative technological weakness, "effectively controls access" to plaintiffs' copyrighted works within the meaning of § 1201(a)(2)(A), and that DeCSS was "created solely for the purpose of decrypting CSS.\textsuperscript{67} The court then rejected out of hand defendants' contention that their conduct falls under one of three statutory exceptions in the DMCA—circumvention for purposes of reverse engineering,\textsuperscript{68} encryption research,\textsuperscript{69} and security testing.\textsuperscript{70}

Similarly unpersuasive to the court was the defendants' contention that their conduct be protected under the fair use doctrine\textsuperscript{71} or under the First Amendment.\textsuperscript{72} Defendants pressed two theories under the First Amendment: either that the DMCA effected an unconstitutional restraint on speech, or that the DMCA is overbroad in denying third parties the circumvention tools they need to make fair use of plaintiffs' encrypted works.\textsuperscript{73} After rejecting defendants' myriad objections, the district court found that the DMCA as applied to posting and linking did not contravene the First Amendment and issued a permanent injunction barring defendants from posting the DeCSS code on their website and from linking to other websites that do so.\textsuperscript{74}

3. The Second Circuit Opinion

At that point, two of the three defendants dropped out of the litigation, leaving only Eric Corley (and his company, 2600 Enterprises, Inc.) to ap-
peal his case to the Second Circuit. His appeal relied on two constitutional theories: (1) as applied, the DMCA violates the First Amendment because computer code is speech entitled to First Amendment protection and the DMCA fails to survive the appropriate level of scrutiny, and (2) the DMCA violates both the First Amendment and the Copyright Clause by unduly restricting fair use of copyrighted works. This Note will address each of these theories in turn.

a) Claimed Violation of the First Amendment

The First Amendment provides that "Congress shall make no law . . . abridging the freedom of speech . . ." Corley argued that the DMCA violates this provision by unduly restricting protected speech—in this case, both the computer program he offered directly through his website and the hyperlinks he offered to other websites that offered DeCSS. Such a constitutional claim requires a multi-step analysis: (1) whether computer programs, in object code or source code, are protected speech under the First Amendment; (2) what level of protection such code enjoys if it does in fact qualify as protected speech; and (3) whether the challenged law is sufficiently narrow to meet the corresponding level of judicial scrutiny.

Despite its seemingly absolute language, the First Amendment has never been interpreted to disallow any restriction on any speech. Certain types of speech—such as speech found to be obscene—are afforded no First Amendment protection whatsoever. Other types of speech may be subject to time, place, or manner restrictions, so long as their regulation is

75. Universal City Studios, Inc. v. Corley, 273 F.3d 429, 434 (2d Cir. 2001).
76. Id. at 436. The Second Circuit declined to address a third constitutional challenge: that the DMCA violates the Copyright Clause by empowering copyright owners to use technological measures to "lock up" copyrighted materials in perpetuity, beyond the "limited time" allowed by the Constitution for copyright protection. Id. at 445 (citing Brief for Appellants at 42 n.30, Universal City Studios, Inc. v. Corley, 273 F.3d 429 (2d Cir. 2001) (No. 00-9185) [hereinafter Brief for Appellants], available at http://www.eff.org/IP/Video/MPAA_DVD_cases/20010119_ny_eff_appeal_brief.html (last visited Feb. 23, 2003)). It did so for two reasons: the claim appeared in only a footnote in appellant's brief, and the claim was at that point entirely speculative, although both the Circuit Court and the district court acknowledged that it may emerge as a problem in the future. Id.
77. U.S. CONST. amend. I.
78. Corley, 273 F.3d at 436.
79. See id. at 445-58.
80. See, e.g., R.A.V. v. City of St. Paul, Minn., 505 U.S. 377, 399 (1992) (White, J., concurring) ("[T]his Court has long held certain discrete categories of expression to be proscribable on the basis of their content.").
81. Id.
content-neutral. Content-based regulation of speech—that which "distinguish[es] favored speech from disfavored speech on the basis of the ideas or views expressed"—is presumptively invalid. In order to be upheld, such laws must be enacted to effect a compelling state government interest and do so by "the least restrictive means." On the other hand, regulations deemed content-neutral, with only an incidental effect on speech, are judged under a less exacting standard. Such regulations must serve an "important or substantial government interest" unrelated to the suppression of free expression and must not burden substantially more speech than necessary to further that interest. In light of the markedly different standards applied to different types of regulations, how a court conceives of a particular restriction has a tremendous effect on whether it is upheld.

Following the lead of many other jurisdictions, the court in Corley held that computer code and the resultant software programs merit First Amendment protection so long as they convey information. In doing so, the Second Circuit distinguished its previous decision in Commodity Futures Trading Commission v. Vartuli. Defendants there sold software that told users when to buy or sell currency futures contracts. The court held that such activities did not merit First Amendment protection because "as marketed, i.e., as an automatic trading system," the cues generated by the program did not convey information but rather were intended "to be used in an entirely mechanical way." DeCSS, on the other hand, serves a potentially valuable communicative function: high-level computer programmers may read and understand object code. The source code of

82. Id. at 386.
84. R.A.V., 505 U.S. at 382.
86. Turner, 512 U.S. at 642 ("[R]egulations that are unrelated to the content of speech are subject to an intermediate level of scrutiny because in most cases they pose a less substantial risk of excising certain ideas or viewpoints from the public dialogue.") (internal citations omitted).
87. Id. at 662 (citing United States v. O'Brien, 391 U.S. 367, 377 (1968); Ward v. Rock Against Racism, 491 U.S. 781, 799 (1989)).
90. Id. at 448-49. 228 F.3d 94 (2d Cir. 2000); see Corley, 273 F.3d at 448-49.
91. Corley, 273 F.3d at 448.
92. Id. at 449 (internal quotation marks omitted).
93. Vartuli, 228 F.3d at 111.
94. Corley, 273 F.3d at 446.
computer programs (whether written in C, Perl, or other programming languages) may be understood readily by a much larger population.\textsuperscript{95} As noted by the court in Corley, such an exchange is valuable and not uncommon: "A programmer reading a program learns information about instructing a computer, and might use this information to improve personal programming skills and perhaps the craft of programming. Moreover, programmers communicating ideas to one another almost inevitably communicate in code."\textsuperscript{96} In this way, computer programs and code serve the goal of scientific progress, a goal at the heart of the First Amendment. That computer code to the layman is indecipherable and conveys nothing does not create a serious obstacle to First Amendment protection.\textsuperscript{97}

Such an inclusive approach is entirely consistent with First Amendment jurisprudence. Though minimalists may make the case for a more narrow definition of "speech,"\textsuperscript{98} the court noted that the historical approach has been much more generous in defining the limits of protected speech.\textsuperscript{99} "Even dry information, devoid of advocacy, political relevance, or artistic expression, has been accorded First Amendment protection."\textsuperscript{100} The Supreme Court itself has interpreted the First Amendment to encompass "[a]ll ideas having the slightest redeeming social importance" and particularly those supporting the "advancement of truth, science, morality, and arts in general."\textsuperscript{101}

Having concluded that computer code merits at least some First Amendment protection, the Second Circuit asked whether the DMCA is a content-specific regulation of speech and thus subject to strict judicial scrutiny, or a content-neutral regulation subject to the lesser standard of intermediate scrutiny. The court's analysis was guided by recent Supreme Court decisions outlining the distinction: "[G]overnment regulation of expressive activity is 'content neutral' if it is justified without reference to the content of regulated speech....The government's purpose is the controlling consideration. A regulation that serves purposes unrelated to the

\textsuperscript{95} Id.
\textsuperscript{96} Id. at 448.
\textsuperscript{97} See id. at 445-46.
\textsuperscript{98} See, e.g., Robert Bork, Neutral Principles and Some First Amendment Problems, 47 IND. L.J. 1 (1971) (arguing that First Amendment protection should be limited to political speech).
\textsuperscript{99} Corley, 273 F.3d at 446.
\textsuperscript{100} Id.
\textsuperscript{101} Roth v. United States, 354 U.S. 476, 484 (1957) (internal quotation marks omitted). See also Miller v. California, 413 U.S. 15, 34 (1973) (including within the scope of the First Amendment "works which, taken as a whole, have serious literary, artistic, political or scientific value").
content of the expression is deemed neutral, even if it has an incidental effect on some speakers."

The Second Circuit then noted that computer code such as DeCSS has both a speech element (conveying information and expression to other computer programmers) and a non-speech, functional element (in this case, allowing circumvention of CSS). It is the latter element that the government sought to regulate; the DMCA is not interested in the particular ways software developers choose to express themselves in developing circumvention tools. The court in Corley compared DeCSS to a skeleton key bearing a legend or slogan and able to unlock jail cells; a restriction on the dissemination of such a tool would be content-neutral because the intent is not to suppress the content of the expression but rather to safeguard a legitimate government interest. The incidental effect on speech in such situations is tolerable if the regulation "furthers an important or substantial government interest; if the governmental interest is unrelated to the suppression of free expression; and if the incidental restriction on alleged First Amendment freedoms is no greater than is essential to the furtherance of that interest." Of course, code by itself is just a series of characters; without human intervention, it can achieve no function. On those grounds, defendants urged that code—a series of instructions to a computer—should be treated no differently than a recipe or a set of blueprints, which merit full First Amendment protection. In responding to this argument, the Second Circuit took its cue from a Supreme Court decision suggesting that "differences in the characteristics of new media justify differences in the First Amendment standards applied to them." Quoting at length Judge Kaplan's decision in the district court, the Second Circuit held that in an interconnected digital world "the causal link between the dissemination of circumvention computer programs and their improper use is more than suffi-

103. Corley, 273 F.3d at 454.
104. Id.
106. Reimerdes, 111 F. Supp. 2d at 329-30 (internal quotations and citations omitted).
107. Corley, 273 F.3d at 451 (citing Brief for Appellants, supra note 76, at 2, 3).
108. Corley, 273 F.3d at 453 (citing Red Lion Broadcasting Co. v. FCC, 395 U.S. 367, 386 (1969) (internal quotation marks omitted)).
ciently close to warrant...scrutiny based on the programs’ functionality.”

In other words, the relationship between computer code and the function to which it may be put to use are so closely related as to be indistinguishable.

Regulations on speech subject to intermediate scrutiny must serve a substantial government interest, that interest must be unrelated to the suppression of free expression, and the incidental regulation on speech must be no more than necessary to further that interest (the “narrowly tailored” requirement). The Second Circuit found that the DMCA met these conditions and thus survives any First Amendment challenge, at least as applied to the posting of DeCSS.

First, the court affirmed in conclusory fashion the district court’s determination that the DMCA served a substantial government interest—“preventing unauthorized access to encrypted copyrighted material.”

Next the court held, in an equally conclusory manner, that the government interest was unrelated to the suppression of free expression. Revisiting its content-neutral/content-specific analysis, the court noted that “[t]he injunction regulates the posting of DeCSS, regardless of whether DeCSS code contains any information comprehensible by human beings that would qualify as speech.” Finally, the court addressed whether the DMCA burdens substantially more speech than is necessary to further the government’s interest. Defendants had suggested two alternative means by which Congress could have served its interest in preventing unauthorized access to copyrighted material without prohibiting the dissemination of circumvention tools like DeCSS: requiring more technical protections against serial copying like those mandated for digital audio tape (DAT) recorders in the Audio Home Recording Act of 1992 (AHRA), or simply creating civil and criminal liability for acts of unauthorized access (as it did). The court rejected the former by noting that defendants had


110. Id. at 454.

111. Id. at 454-55.

112. Id at 454; see also Reimerdes, 111 F. Supp. 2d at 330.

113. Corley, 273 F.3d at 454.

114. Id.


116. Corley, 273 F.3d at 455.
failed to produce evidence that a technological measure to prevent serial copying of DVDs over the Internet was feasible and rejected the latter by noting that a content-neutral regulation need not employ the least restrictive means of furthering the government's legitimate interest.\textsuperscript{117}

In addition to enjoining defendants from posting the DeCSS program on their website directly, the injunction issued by the district court also prohibited defendants from knowingly providing hyperlinks to other websites that posted the program.\textsuperscript{118} Such a restriction creates special First Amendment problems, as both the district court and Second Circuit acknowledged.\textsuperscript{119} Like computer code, hyperlinks both convey information (the Internet address of the linked website) and serve a function (to allow the user to access the content of the linked website).\textsuperscript{120} Application of the DMCA to hyperlinks in this case targets only their function—facilitating the dissemination of DeCSS—and thus is content-neutral under the analyses of both courts.\textsuperscript{121} Under this framework, the substantial government interest at stake and its unrelatedness to the suppression of free expression remain the same as for hyperlinking as for posting DeCSS.\textsuperscript{122}

What proved more troubling to both courts, however, was whether the prohibition on linking is sufficiently narrowly tailored to withstand intermediate scrutiny.\textsuperscript{123} The district court had noted that strict liability for linking might be unconstitutionally overbroad.\textsuperscript{124} Website operators might be less willing to provide links to other sites out of concern that a linked

\textsuperscript{117} Id.
\textsuperscript{118} Reimerdes, 111 F. Supp. 2d at 339-41; see Corley, 273 F.3d at 455 (“A hyperlink is a cross-reference . . . appearing on one web page that, when activated by the point-and-click of a mouse, brings onto the computer screen another web page . . . . With a hyperlink on a web page, the linked web site is just one click away.”). For a more detailed explanation of hyperlinking, see Eugene R. Quinn, Jr., Web Surfing 101: The Evolving Law of Hyperlinking, 2 BARRY L. REV. 37, 43-47 (2001). Curiously, Judge Newman’s opinion for the Second Circuit suggests that the injunction on linking does not enjoin defendants from providing an “indirect link”—simply posting the Internet address (URL) of other websites that contain DeCSS and forcing web users who wish to access this content to copy and paste this address in the URL locator. “[I]t is evident from the District Court’s opinion that it is concerned with ‘hyperlinks[]’ . . . . ‘Linking’ not accomplished by a hyperlink would simply involve the posting of the Internet address . . . . of another web page.” Corley, 273 F.3d at 455, 455 n.31 (emphasis added).
\textsuperscript{119} Corley, 273 F.3d at 456; Reimerdes, 111 F. Supp. 2d at 340 (“The possible chilling effect of a rule permitting liability for or injunctions against Internet hyperlinks is a genuine concern.”).
\textsuperscript{120} Corley, 273 F.3d at 456.
\textsuperscript{121} Id. at 455-56; Reimerdes, 111 F. Supp. 2d at 339.
\textsuperscript{122} Corley, 273 F.3d at 456.
\textsuperscript{123} Id.; Reimerdes, 111 F. Supp. 2d at 340-41.
\textsuperscript{124} Reimerdes, 111 F. Supp. 2d at 341.
Furthermore, a prohibition on linking would "curtail access to whatever other information was contained at the accessed site."126 In response to these concerns, Judge Kaplan crafted a three-part test to determine liability for linking under the DMCA: plaintiffs must prove by clear and convincing evidence that those responsible for the link "(a) know at the relevant time that the offending material is on the linked site, (b) know that the circumvention technology may not lawfully be offered, and (c) create or maintain the link for the purpose of disseminating that technology."127 The court then held that defendants’ behavior satisfied these requirements.128

The Second Circuit approved of Kaplan’s test, though with some trepidation.129 The court rejected defendants’ arguments that the test should include an “intent to cause, or aid or abet, harm” requirement, and that the rules generally applicable to print media should apply to hyperlinks as well, citing again the functional capability of the DeCSS code and the instantaneous worldwide access to online materials.130 In the opinion of the Second Circuit, courts in this situation are forced “to choose between two unattractive alternatives: either tolerate some impairment of communication in order to permit Congress to prohibit decryption that may lawfully be prevented, or tolerate some decryption in order to avoid some impairment of communication.”131 Satisfied that the “impairment of communication” in this case was not unconstitutionally overbroad, the court left the public policy implications of this choice for Congress to address.132

b) Restrictions on Fair Use as a Basis for Constitutional Challenge

The Second Circuit also ruled against Corley on his second constitutional challenge: that the DMCA, by prohibiting the dissemination of circumvention tools, unduly restricts fair use of encrypted copyrighted

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125. Id.
129. Corley, 273 F.3d at 456-58.
130. Id. at 456.
131. Id. at 457-58.
132. Id. at 458.
works, in violation of both the Copyright Clause and the First Amendment.\textsuperscript{133}

Citing mixed precedent, the Second Circuit began its analysis by noting that the Supreme Court has never held that fair use is a constitutional requirement.\textsuperscript{134} The court declined, however, to explore fully the issue in this case for three reasons: (1) defendants in this case do not claim to be making fair use of any copyrighted material and are not in a position to challenge the DMCA on behalf of would-be fair users stymied by the Act, (2) the record contained insufficient evidence to gauge the impact of the DMCA on people wishing to make fair use of copyrighted material on DVDs, and (3) defendants failed to provide any authority for their contention that the fair use doctrine required users to be able to make copies of works in an identical (i.e., digital) format.\textsuperscript{135} The court notes that many traditional fair uses, such as commenting on the copyrighted works or quoting excerpts, are in no way affected by the DMCA; where users wish to make fair use of the audio or video contained on a DVD, they may still “point[] a camera, a camcorder, or a microphone at a monitor as it displays the DVD movie.”\textsuperscript{136} This is not necessarily inconsistent with fair use, which “has never been held to be a guarantee of access...by the fair user’s preferred technique or in the format of the original.”\textsuperscript{137} With that statement, the Second Circuit concluded its analysis, saving a more in-depth discussion for a later day.\textsuperscript{138}

B. \textit{United States v. Elcom Ltd.}

The content industries and other proponents of the DMCA scored a major victory when the Second Circuit rejected Corley’s constitutional challenges to the Act.\textsuperscript{139} A second victory soon followed in \textit{United States
v. Elcom Ltd., when a district court denied a software company's motion to dismiss on constitutional and due process grounds the criminal indictments brought against it under the DMCA's anti-trafficking provisions.

1. Background

Adobe Systems is a software company that developed the Acrobat eBook Reader, the now-standard technology for reading books in digital format ("electronic books," or "ebooks"). Adobe's technology allows publishers of electronic books to impose a variety of limitations on the use of their product by consumers, including restrictions on copying, printing to paper, moving the ebook file to multiple computers, and inputting the file into a speech synthesizer program.

Defendant Elcom Ltd. ("Elcomsoft"), a privately owned software company headquartered in Moscow, develops and distributes various utility applications internationally. One of its products is the Advanced eBook Processor ("AEBPR"), a software program that allows users to remove the use restrictions on Adobe Acrobat PDF and ebook-formatted files. The resulting file—in so-called "naked PDF" format—may then be copied, printed, distributed electronically, and generally used at will. As the court noted, this enables both various fair uses of the ebooks, such as allowing the lawful owner to make a backup copy, and potentially massive copyright infringement. At Adobe's urging, the United States issued a criminal indictment against Elcomsoft and one of its employees, Dmitry Sklyarov, on July 7, 2001. In relevant part, the complaint al-

140. 203 F. Supp. 2d 1111 (N.D. Cal. 2002).
142. Elcom, F. Supp. 2d at 1118.
143. Id. A speech synthesizer program, which "translates" written words into voice, allows the visually handicapped to "read" digital text. See http://polio.dyndns.org/chip/vss.html for a list of currently available speech synthesizer programs (last visited Feb. 23, 2003).
147. Id. at 1118-19.
leged that the company's conduct violated the DMCA's anti-trafficking provisions pertaining to tools "primarily designed" or "marketed" to circumvent use controls. On January 29, 2002, defendant moved to dismiss the charges on constitutional grounds.

2. Claimed Violation of Due Process

Elcomsoft first alleged that § 1201(b) violates the Due Process Clause of the Fifth Amendment because the conduct it prohibits is not clearly defined. Specifically, Elcomsoft argued that despite the broad language of § 1201(b)(1) ("any technology, product, service, device, component, or part thereof"), Congress intended only to ban dissemination of tools "that are intended to circumvent usage control technologies for the purpose of copyright infringement." Such an interpretation, if accurate, would lead to "inherent vagueness . . . [T]he language of the statute renders it impossible to determine which tools it in fact bans." To support its interpretation of the statute, Elcomsoft cited legislative history and statutory language evincing Congressional intent to allow users to circumvent use controls in order to make fair use of the copyrighted material contained therein. By its terms, the DMCA did not prohibit circumvention of use controls, ostensibly to allow fair use. Therefore, Elcomsoft ar-

Sklyarov was arrested when he entered the United States to present a talk on ebook encryption methods and jailed for three weeks before his release on $500,000 bail. Charges against him were dropped in December 2001 on condition that he testify against his employer Elcomsoft in the ongoing case against the company. See Robyn Weisman, U.S. Frees Russian Programmer, NEWSFACTOR NETWORK (Dec. 14, 2001), at http://www.newsfactor.com/perl/story/15322.html.

151. Elcom, 203 F. Supp. 2d at 1122. See also U.S. CONST. amend. V ("No person shall be ... deprived of life, liberty, or property without due process of law."). A statute may be invalidated for vagueness under either one of two conditions: (1) it fails to provide adequate notice of prohibited conduct to people of ordinary intelligence, or (2) it authorizes or encourages "arbitrary and discriminatory enforcement." Elcom, 203 F. Supp. 2d at 1122 (citations omitted).
154. Elcom, 203 F. Supp. 2d at 1123 (citing Due Process Motion at 15).
155. Elcom, 203 F. Supp. 2d at 1122 (citing Due Process Motion at 14).
156. Elcom, 203 F. Supp. 2d at 1122; see also supra Part I.A.1.
argued, it did not prohibit dissemination of tools that circumvent use controls and enable fair use.\textsuperscript{157}

The district court agreed with the first premise but disagreed with the second: the statute had in fact banned the dissemination of all circumvention tools, whether or not they enabled fair use.\textsuperscript{158} The court began with the proposition that where the language of the statute is clear, courts need not consider legislative history to ascertain its meaning.\textsuperscript{159} The court found no ambiguity in any of the various phrases and subsections of \textsection 1201(b) and nothing within the express language to suggest that some use control circumvention tools might be exempted from its prohibition.\textsuperscript{160} "The statute does not distinguish between devices based on the uses to which the device will be put. Instead, all tools that enable circumvention of use restrictions are banned."\textsuperscript{161} Even though its statutory analysis did not require it, the court also pointed to statements within the legislative history to support its position that Congress intended to ban all circumvention technologies while still preserving the right of fair use.\textsuperscript{162} The court's rejection of Elcomsoft's interpretation of the statute led directly to rejection of its Due Process claim: a blanket ban on dissemination of tools expressed in unambiguous language cannot be struck down for vagueness.\textsuperscript{163}

3. Claimed Violation of the First Amendment

As in Corley, defendant Elcom claimed its conduct was protected under the First Amendment and that as applied the DMCA was unconstitutional.\textsuperscript{164} Elcom, however, raised a different threshold question: while the

\textsuperscript{157} Elcom, 203 F. Supp. 2d at 1122.

\textsuperscript{158} Id. at 1120, 1123-24. The court noted that "[n]othing 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." Id. at 1124.

\textsuperscript{159} Id. at 1123 (citing Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1076 (9th Cir. 1999). See also United States v. Gonzalez, 520 U.S. 1, 6 (1997) ("Given [a] straightforward statutory command, there is no reason to resort to legislative history."). For a thoughtful discussion of various approaches to statutory interpretation, see William N. Eskridge, Jr. & Philip P. Frickey, \textit{Statutory Interpretation as Practical Reasoning}, 42 STAN. L. REV. 321 (1990).

\textsuperscript{160} Elcom, 203 F. Supp. 2d at 1124.

\textsuperscript{161} Id.

\textsuperscript{162} Id. at 1124-25 (citing S. REP. 105-190, at 8 (1998)). The court recognized, but was unswayed by, the fact that its interpretation means "engaging in certain fair uses of digital works may be made more difficult if tools to circumvent use restrictions cannot be readily obtained." Id. at 1125.

\textsuperscript{163} Id. at 1125 ("The law, as written, allows a person to conform his or her conduct to a comprehensible standard and is thus not unconstitutionally vague.").

\textsuperscript{164} Elcom, 203 F. Supp. 2d at 1125.
defendants in Corley freely distributed the DeCSS code, Elcomsoft sold its software through its website. The government argued that Elcomsoft’s conduct—sale of AEBPR—was not speech. The district court, however, held that the First Amendment applied in this case: “scrutiny is triggered because the statute bans the sale of something that at some level contains protected expression.”

Quoting Judge Kaplan’s decision in Reimerdes at length, the district court next held that computer code does indeed contain protected expression for First Amendment purposes. In only slightly different terms, the Elcom court also agreed with Judge Kaplan in Reimerdes and the Second Circuit in Corley that the DMCA is a content-neutral regulation. The court reasoned that neither the express language nor the legislative history of the Act evince any intent by Congress to regulate speech. Rather, Congress sought to ban technologies, including computer code, that may impinge on the rights of copyright holders—in short, only the functional capabilities of such technologies. The court also noted the dangers of applying a greater level of scrutiny to computer code: continuing development of computer technologies may allow software and other forms of code to enable acts Congress should be free to regulate or prohibit. “[M]ore and more conduct occurs through ‘speech’...implemented through the use of computer code when the object code commands computers to perform certain functions . . . . The mere fact that this conduct occurs at some level through expression does not elevate all such conduct to the highest levels of First Amendment protection.”

Applying intermediate scrutiny, the district court noted that the claimed government interests—preventing the unauthorized copying of copyrighted works and promotion of electronic commerce—were both legitimate and substantial. As in Corley, the defendants argued that the DMCA burdens substantially more speech than is necessary to effect the
government's interests, and suggest two more narrowly tailored approaches to reach the same outcome: increasing the penalties for direct infringement or criminalizing the use of the Internet to distribute infringing copies.\textsuperscript{175} Further, Elcomsoft argued that by "effectively eliminat[ing] fair use, limit[ing] noninfringing uses and prevent[ing] access to material in the public domain," the DMCA's prohibitions are not narrowly tailored at all, but rather implicate a broad range of noninfringing uses, many of which would qualify as speech themselves.\textsuperscript{176}

Neither argument persuaded the court. In rejecting Elcomsoft's suggested alternatives, the court noted that neither would likely be as effective in combating piracy of "epidemic proportions" as the path Congress ultimately chose: to target those who traffic in the tools that enable such infringement in the first place.\textsuperscript{177} Intermediate scrutiny does not require Congress to choose the least restrictive means of achieving its purpose.\textsuperscript{178} The court also disagreed with Elcomsoft's overbreadth claims. First, it found Elcomsoft's claim that the DMCA "effectively eliminates" fair use to be grossly exaggerated; no fair use had in fact been eliminated, although some fair uses might become more difficult.\textsuperscript{179} In the case of ebooks, for example, quoting for purposes of criticism or comparison "may have to occur in the old-fashioned way, by hand or by re-typing, rather than by 'cutting and pasting' from existing digital media."\textsuperscript{180} Neither Elcomsoft nor the court found authority for the proposition that fair users are entitled to use the most convenient means to their end.\textsuperscript{181} Second, the court rejected Elcomsoft's argument that the DMCA unduly restricted access to public domain works.\textsuperscript{182} As the court noted, public domain works in electronic format remain in the public domain even when subjected to use restrictions; publishers of electronic copies of public domain works can claim no intellectual property right in the content of the ebook, only control over that particular copy.\textsuperscript{183} Other book publishers, electronic

\begin{footnotes}
\footnotetext{175}{Id. at 1130 (quoting First Amendment Motion at 12).}
\footnotetext{176}{Elcom, 203 F. Supp. 2d at 1130 (quoting First Amendment Motion at 12).}
\footnotetext{177}{Elcom, 203 F. Supp. 2d at 1132.}
\footnotetext{178}{Id. (citing United States v. O'Brien, 391 U.S. 367 (1968)).}
\footnotetext{179}{Elcom, 203 F. Supp. 2d at 1130-31.}
\footnotetext{180}{Id. at 1131.}
\footnotetext{181}{Id. (citing Universal City Studios, Inc. v. Corley, 273 F.3d 429, 459 ("We know of no authority for the proposition that fair use . . . guarantees copying by the optimum method . . . "))).
\footnotetext{182}{Elcom, 203 F. Supp. 2d at 1131.}
\footnotetext{183}{Id. at 1131-32.}
\end{footnotes}
or traditional, may publish freely their own versions, with or without such protections.\textsuperscript{184}

4. Other First Amendment Challenges and Remaining Constitutional Claims

After concluding that the DMCA as applied to Elcom survived intermediate scrutiny, the court rejected the company’s remaining constitutional challenges: (1) that the DMCA substantially burdens the First Amendment rights of others and thus is unconstitutionally overbroad on its face, (2) that the DMCA is unconstitutionally vague under the First Amendment, and (3) that Congress lacked the authority to enact the DMCA.\textsuperscript{185} Each argument will be discussed in turn.

Elcomsoft argued that the DMCA compromises the First Amendment rights of third parties in two ways: (1) by limiting third parties’ rights to access public domain works, and (2) by limiting their right to make fair use of copyrighted works.\textsuperscript{186} In the first instance, the district court doubted that a facial challenge on overbreadth grounds could be applied in the present case.\textsuperscript{187} According to Ninth Circuit precedent, a facial challenge is only appropriate where the statute or regulation is directed “narrowly and specifically at expression or conduct commonly associated with expression.”\textsuperscript{188} The court held that the DMCA’s anti-trafficking provisions, which target hardware, software, or any other technologies or devices that enable circumvention, are not sufficiently directed at expression or expressive conduct to allow a facial overbreadth challenge.\textsuperscript{189} Regardless, the court found that the claimed harms to third parties were largely illusory. The DMCA did not limit fair use rights or extend intellectual property protection to public domain works.\textsuperscript{190} It was the court’s view that Elcomsoft’s reliance on two judicially accepted fair uses—the right to make an electronic copy of a work for personal use and the right to make an archival copy of electronic media—was misplaced; both rights stemmed from specific statutory sources, not from the First Amendment.\textsuperscript{191}

\textsuperscript{184} Id.
\textsuperscript{185} Elcom, 203 F. Supp. 2d at 1132-42.
\textsuperscript{186} Id. at 1132-33.
\textsuperscript{187} Id. at 1133.
\textsuperscript{188} Id. (citing Roulette v. City of Seattle, 97 F.3d 300, 303, 305 (9th Cir. 1996)) (internal quotation marks omitted).
\textsuperscript{189} Elcom, 203 F. Supp. 2d at 1133..
\textsuperscript{190} Id. at 1134.
\textsuperscript{191} Id. at 1135 (citing Recording Industry Association of America v. Diamond Multimedia Systems, 180 F.3d 1072 (9th Cir. 1999); Vault Corp. v. Quaid Software Ltd., 847 F.2d 255 (5th Cir. 1988)).
Elcomsoft next charged that the DMCA is unconstitutionally vague under the First Amendment in that "it provokes uncertainty among speakers about precisely what speech is prohibited." Elcomsoft points to two phrases in particular: its prohibition on devices that are "primarily designed" for the purpose of circumventing access controls or have only "a limited commercially significant purpose" other than such circumvention. Such language, Elcomsoft argued, forced sellers of circumvention tools to undergo a necessarily imprecise assessment of all possible uses of the technology and to determine its primary design and significant purpose. The court rejected this argument, citing adverse Supreme Court precedent upholding a similarly worded statute.

Finally, Elcomsoft claimed that the DMCA was unconstitutional because Congress exceeded its enumerated powers when it passed the DMCA. The two enumerated powers implicated in the present case are the Commerce Clause—a broad power enabling Congress to regulate interstate commerce—and the Intellectual Property Clause—a similarly broad power "to promote the Progress of Science and the useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." As the court noted, the DMCA prohibits conduct that has a substantial effect on commerce between the states and internationally and thus its enactment is entirely consistent with the Commerce Clause. A more difficult question is whether the DMCA exceeds Congress' power under the Intellectual Property Clause, and if so, whether that invalidates Congress' power under the Commerce Clause?

The district court, however, never reached the second question, holding instead that the DMCA is not inconsistent with the Intellectual Prop-

197. U.S. CONST. art. I, § 8 cl. 3.
property clause.\textsuperscript{200} Congress' intent, clear from the legislative history, was to promote the progress of the arts and sciences through greater protection of intellectual property rights.\textsuperscript{201} Without such protection, content providers would be hesitant to release works in digital formats.\textsuperscript{202} Nor does, in the court's opinion, the DMCA violate the limitation on this Congressional power ("for limited Times").\textsuperscript{203} In support of this proposition, Elcomsoft and various amici claimed the Act allowed publishers to "recapture" works from the public domain and effectively secure perpetual copyrights in new works. These arguments, however, had already been rejected by the district court elsewhere, and they were not persuasive in this context either.\textsuperscript{204}

III. ANALYSIS

\textit{Corley} and \textit{Elcom} represented major victories for the content industries and proponents of the DMCA by upholding the constitutionality of copyright protection measures that focused not on infringement, but on the circumvention of access and use controls and the dissemination of tools that enable such circumvention. This Part examines two significant issues implicated in the courts' decisions. First, this Note suggests that courts begin any future analysis of cases brought under the DMCA with due consideration for the nature of the anti-circumvention tool at issue (if any) as well as the nature of the protected content. Tools capable of circumvention may not be capable of infringing copyright or any other intellectual property rights. Without engaging in this sort of analysis, courts may create expansive new rights not previously envisioned and facilitate anti-competitive practices.

Second, this Note turns to the most problematic issue of all: the fate of the fair use doctrine under the DMCA. Directly or indirectly, fair use is implicated in many (if not most) of the major holdings in \textit{Corley} and \textit{Elcom}. Neither decision, however, was particularly sympathetic to fair use claims. This Note concludes by examining whether the shrunken scope of the fair use of digital works created by the courts' decision is consistent with congressional intent in passing the DMCA or with the First Amendment generally.

\textsuperscript{200} Id. at 1140-42.
\textsuperscript{201} Id. at 1140.
\textsuperscript{202} Id.
\textsuperscript{203} Id. at 1141.
\textsuperscript{204} Id. at 1141-42.
A. Limiting the Application of the DMCA’s Anti-Circumvention Provisions

Fundamentally, the anti-circumvention provisions of the DMCA are intended to apply to “work[s] protected under this title” and to technologies or devices that “protect[] a right of a copyright owner under this title.” 205 “This title” refers to the Copyright Act, codified in Title 17 of the United States Code. These provisions, in short, were designed to protect the exclusive rights of copyright owners who release copyrighted works in digital format.

The courts in Corley and Elcom hardly considered the limitation, nor did they need to: it was evident that both DeCSS and AEBPR enabled acts of infringement of copyrighted works.206 However, some of the courts’ blunter statements leave little room for consideration of the purpose for which technological protection measures were employed or the capabilities of a particular circumvention tool—see, for example, the statement in Elcom that “all tools that enable circumvention of use restrictions are banned, not merely those use restrictions that prohibit infringement.”207 The court in Elcom also appeared to discard the DMCA’s requirement that a copyrighted work be implicated by suggesting that the DMCA would apply in cases where public domain works were re-released in digital format.208 But any suggestion that the scope of the anti-circumvention provisions goes beyond protecting copyrighted material from infringement opens the door for companies or individuals to shield from scrutiny material that cannot be copyrighted, or to use technological protection measures for an anti-competitive purpose unrelated to their rights as copyright owners.

This point is not entirely academic. The case of Sony Computer Entertainment Am., Inc. v. GameMasters209 is a good example. Defendant Ga-


206. For example, both technologies allow users to make unauthorized copies of the protected work, as well as distribute these copies, functions that are not otherwise permitted.

207. Elcom, 203 F. Supp. 2d at 1124 (emphasis added).

208. See id. at 1131-32. I make this point only to show the court’s seeming willingness at times to extend the scope of DMCA’s protections beyond copyright, and not to suggest that public domain works re-released in digital format should not be protected by the DMCA. Without such protection, there would be little incentive for anyone to re-release works in the public domain in digital format. Regardless, this problem could be avoided by including additional content (bonus features, etc.) that is copyrighted within the digital file.

209. 87 F. Supp. 2d 976 (N.D. Cal. 1999).
meMasters, Inc. sold a product (the “Game Enhancer”) that allows video games for the PlayStation 2 console produced in Japan to be played on American machines.\textsuperscript{210} It does not, however, allow users to copy the games or otherwise infringe any of Sony’s exclusive rights as copyright owners.\textsuperscript{211} The court noted that “the Game Enhancer’s distinguishing feature appears to be its ability to allow consumers to play import or nonterritorial SCEA video games.”\textsuperscript{212} Nevertheless, the court found the Game Enhancer to be a device “whose primary function is to circumvent a technological measure...that effectively controls access to a system” within the meaning of § 1201(a)(2)(A) and issued a preliminary injunction enjoining defendants from continuing to sell the product.\textsuperscript{213}

Such results—uses of the DMCA to create rights far beyond those enumerated in the Copyright Act—have led one commentator to suggest that courts develop an “anticircumvention misuse” doctrine modeled after the current patent and copyright misuse doctrines.\textsuperscript{214} A recent Australian case, brought under similarly worded anti-circumvention laws, took such an approach in rejecting Sony Australia’s claim against a retailer of so-called “mod chips” that allowed users to play PlayStation games purchased abroad.\textsuperscript{215} The judge held that Sony failed to prove that the PlayStation’s technological protection measure had the effect of protecting Sony from infringement of any of its rights under Australian copyright law.\textsuperscript{216}

\subsection*{B. Fair Use under the DMCA}

The fate of the fair use doctrine underpins much of the analysis in both \textit{Corley} and \textit{Elcom}. Both courts agreed generally with the proposition that fair use is a defense only to an act of copyright infringement, not to the acts of circumvention or trafficking in circumvention tools.\textsuperscript{217} As several

\begin{enumerate}
\item \textit{Sony Computer}, 87 F. Supp. 2d at 981-82.
\item \textit{Id.} at 981-82, 987.
\item \textit{Id.} at 987.
\item \textit{Id.} at 990.
\item \textit{Id.} ¶ 92 (“Running the computer program on the console did not involve an infringement of copyright. Moreover, there was no evidence that the devices were ‘effective’ in indirectly inhibiting infringing conduct in the manner suggested by the applicants.”).
\item \textit{See Reimerdes}, 111 F. Supp. 2d at 320; \textit{Elcom}, 203 F. Supp. 2d at 1121. David Nimmer agrees. \textit{See} 3 NIMMER ON COPYRIGHT § 12A.06 (“On the one hand, the Act for-
commentators have suggested, the proper role of fair use under the DMCA is not entirely settled. Determining its status under the DMCA’s anticircumvention provisions requires a two-step analysis. First, this section discusses the legislative history of the Act in order to determine what role Congress actually intended for fair use. This analysis leads to a second discussion: to what extent is the First Amendment implicated under a law that restricts users’ ability to make fair use of digital copyrighted works?

1. Legislative Intent

Legislative analysis is often a difficult and imprecise art. As Eskridge and Frickey argue, each of the so-called “foundational theories” of statutory interpretation—“intentionalism,” “purposivism,” and “textualism”—present serious problems for ascertaining the “true” meaning of a piece of legislation.\footnote{Eskridge & Frickey, supra note 159.} Statements in the record reflect the speaker’s interpretation of the bill, as then written, and not necessarily the interpretation of all voting in favor of the final version of a particular bill.\footnote{Id. at 327; see also Nimmer, Appreciating Legislative History, supra note 37, at 933 (“If one draws at random any particular floor commentary concerning the copyright amendments passed in October 1998, the odds are high that it completely misstates the law as it actually appears on the books today.”).} Those voting for the bill may do so with imperfect information on the bill’s meaning and or for various unknown reasons.\footnote{Eskridge & Frickey, supra note 159, at 326.} There may be a further disconnect between the intent of the Senate and that of the House that is not adequately addressed in hammering out textual differences at conference.\footnote{Id. at 327.} Statutory language is often the result of endless compromise and suffers from an inherent inability to reflect properly the meaning of a diverse body of legislators.\footnote{Id. at 341-43.}

When it comes to copyright law, it becomes even more difficult to gauge the intent of legislators, who have long preferred to let special interests decide among themselves the content of revisions to the Copyright Act.\footnote{Litman, supra note 5, at 74.} Jessica Litman argues that Congress, lacking the necessary “interest, expertise, and institutional memory,”\footnote{Id.} has abdicated its role in representing the public interest in deliberations on amendments to the Copy-
right Act, preferring to allow interested parties to negotiate a compromise that would be enacted, wholesale, into law. The result, typically, is a law that bestows the broadest possible rights to copyright holders, subject only to the narrowly worded exceptions that protect the entrenched interests of current users. Not only does such an approach fail to consider the public interest in the terms of copyright law, but it may also ignore, or directly contravene, a host of other noncopyright concerns. “In addition to free speech concerns, information policy takes account of issues related to equity, competition, ensuring a diversity of viewpoints, securing ready and affordable access to important sources of information, privacy—all issues that are at best tangential to copyright law and in some cases wholly alien.”

If the DMCA’s anti-circumvention provisions as enacted by Congress reflect the position of their original proponents, it is clear that the DMCA creates a digital copyright scheme with a very limited fair use exception. The anti-circumvention provisions first made an appearance in a draft “Green Paper” report released in July 1994 by the Working Group on Intellectual Property. Without such protection, the argument went, copyright owners would be reluctant to make digital content available and the Internet would be unable to develop fully, ignoring the fact that the Internet was an already flourishing medium.

The group’s final draft, the so-called White Paper, did not retreat from its original recommendations but advocated that its conclusions could be reached through interpretation of existing law rather than through new legislation. All ambiguities in the current law would be resolved in favor of copyright holders, most notably by defining any temporary reproduction of a digital work in a computer’s memory as a statutory “reproduction” over which the copyright owner had exclusive control. Any user who wished to experience this digital work would need the owner’s permission

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225. See generally id. at 35-76.
226. Id. at 55-56.
227. Id. at 30.
228. Id. at 90-93. The Working Group, headed by Patent Commissioner Bruce Lehman and itself a division of the Information Infrastructure Task Force, was appointed by President Bill Clinton to formulate policy related to the development of the so-called Information Superhighway. Id.
229. Id. at 93-94.
230. Id. at 94.
231. Id. at 95.
or be liable for infringement, each time she wished to see, hear, read, or reread a work.  

This position is consistent with the increased propertization of intellectual property over time. Litman notes that the dominant metaphor for copyright has changed over the last one hundred years, from a quid pro quo exchange between authors and the public to an "economic analysis" model that seeks to maximize incentives for creation and exploitation of new works by maximizing copyright protection. Originally, copyright was conceived as a bargain between authors and the public. In exchange for limited exclusive rights that would provide enough economic incentive for authors to create and distribute their works, the public was free to "enjoy, consume, learn from, and reuse the works" in any way outside of copyright owner's enumerated rights. The last thirty years, however, have seen the propertization of copyright, resulting in "broader, longer, or stronger copyright protection" and greater control over the use of copyrighted materials. "We now talk of copyright as property that the owner is entitled to control—to sell to the public (or refuse to sell) on whatever terms the owner chooses."

The applicability and availability of the fair use doctrine under this conception of copyright is sharply curtailed. Under one theory, fair use was traditionally applied where the public interest was advanced by the use without harming copyright owners too badly. It arose under two conditions: (1) "implied consent," where the owner would be likely to authorize the use but getting permission would be too difficult (such as use of a few selections in a subsequent scholarly article), or (2) what Professor

232. Id. This, Litman argues, is an interpretation of statutory language that could not mean what the Working Group insisted it did, because reproduction of this sort could not have been envisioned when the 1976 Copyright Act was passed. "From the public's vantage point, the fact that copyright owners are now in a position to claim exclusive 'reading,' 'listening,' and 'viewing' rights is an accident of drafting: when Congress awarded authors an exclusive reproduction right, it did not then mean what it may mean today."

233. Id. at 77-88.
234. Id. at 78-79.
235. Id.
236. Id. at 81-86.
237. Id. at 81. Copyright holders have tried to restrict use of their products in other ways, such as the use of shrinkwrap licenses to prohibit otherwise lawful uses of copyrighted material. See Bowers v. Baystate Technologies, Inc., 302 F.3d 1334 (Fed. Cir. 2002) (enforcing contract provision that prohibited reverse engineering of plaintiff's software product); Mark A. Lemley, Intellectual Property and Shrinkwrap Licenses, 68 S. CAL. L. REV. 1239 (1995).
238. LITMAN, supra note 5, at 84.
Alan Latman described as "enforced consent," wherein the author was unlikely to authorize the use but the social utility of the use outweighed this reluctance (such as use of quotations in an unflattering book review). Under the White Paper's rationale, neither justification for fair use makes sense. In the digital world, the difficulty in getting actual permission for a particular use is minimized. If one ascribes the "economic analysis" model of copyright law, enforced uses are a violation of one's in violate property rights.

Congress did not, however, accept the proposals of the White Paper wholesale. In at least one significant way, they allowed for fair use of digital content, by allowing users to circumvent use controls, presumably in materials they had already lawfully acquired and to which they had gained lawful access. This gap in the DMCA's coverage, as the court in Elcom noted, provided an opportunity for users to make fair use of materials, even if the means to do this might be hard to come by. More generally, various congressional committees evinced concern for consumers' rights in a post-DMCA world. In their Report, members of the House Commerce Committee rejected the "property-maximizing" approach to copyright protection urged by Lehman and to which other committees had acquiesced. "Copyrights traditionally have permitted public access while protecting intellectual property. The U.S. approach—known as 'fair use'—benefits consumers and creators....The Committee considers it particularly important to ensure that the concept of fair use remains firmly entrenched in the law." At the bill's final enactment, dozens of lawmakers rose in support of the continued vitality of the fair use defense.

Although the Committee rejected the proposals of two of its members to specifically include a general fair use defense to the circumvention of

239. See id.
240. Id.
243. Id.
244. See Nimmer, A Riff on Fair Use, supra note 241, at 718-20 ("The Commerce Committee views public access to works of authorship as an independent good deserving of recognition.").
246. See Nimmer, A Riff on Fair Use, supra note 241, at 725 n.280 (listing the statements of several congresspeople in the Congressional Record supporting fair use).
access, it has been suggested that the language of the Act does in fact leave room for such a defense. Section 1201(c) reads: "Nothing in this section shall affect rights, remedies, limitations, or defenses to copyright infringement, including fair use, under this title." Although courts interpreting this section have understood this section to mean only that the fair use defense continues to apply in cases alleging copyright infringement, commentator Jane C. Ginsburg interprets the text differently. In her view, the syntax of this provision suggests the phrase "including fair use" modifies not "defenses available to copyright infringement" but the phrase "limitations...under this title"—this title referring to all of the Copyright Act, not just the portions relating to infringement. Others have advanced this broad interpretation of § 1201(c) as well, and at least one Congresswoman who voted for the Act, Zoe Lofgren, believed the DMCA was intended to allow consumers to circumvent any technological measure in order to make fair use of the material.

This is not the approach taken by either the Corley or the Elcom court, which held that both the language and history of the DMCA support a nar-

247. Id. at 721.
row interpretation of § 1201(c). In his analysis of the Act’s legislative history, David Nimmer concurred. Under this approach, “balance” between consumers and copyright holders apparently intended by the Commerce Committee and various other legislators was accomplished by the inclusion of the various exceptions included in the Act, as well as the Library of Congress’ rule-making procedure to exempt certain classes of works from the reach of the prohibition on circumvention of access controls. So, for example, the Elcom court found clear from the language of § 1201(b) that Congress has banned the dissemination of all tools that circumvent use controls, even though AEBPR was capable of allowing fair uses of digital books.

2. Fair Use under the First Amendment

Without any clear-cut legislative intent to allow fair use as a defense to the three classes of liability under the DMCA, the Corley and Elcom courts understandably followed the seemingly absolute language of the Act to disallow defendants any fair use defense. In doing so, however, they failed to confront adequately whether the expansion of the rights of copyright owners (in the DMCA and elsewhere) is consistent with the First Amendment, particularly in cases where they agree protected speech is implicated.

Judges and commentators have long noted a tension between the First Amendment, which outside of narrow exceptions protects the dissemination of all manners of “speech,” and copyright law, which cloaks certain types of speech behind a host of exclusive rights. At the same time, courts were generally satisfied that the “safety valves” within copyright—such as the fair use doctrine, the idea-expression dichotomy, and the “limited Times” provision—effectively resolved this tension. At least one commentator has suggested, however, that these limitations on copyright

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254. See Corley, 273 F.3d at 443-44; Elcom, 203 F. Supp. 2d at 1125.
256. See supra Part I.A.
257. See supra Part II.B.2.
258. Corley, 273 F.3d at 459; Elcom, 203 F. Supp. 2d at 1124.
259. See supra Part II.A.3.
261. Netanel, supra note 260, at 7-12.
are no longer robust enough to satisfy the demands of the First Amendment, which itself has been interpreted more expansively over the last 20 years to include protection for a much wider variety of speech.\(^{262}\)

Many of the so-called safety valves within copyright law are not what they once were: Congress has repeatedly extended the duration of copyright protection, the DMCA (interpreted correctly or not) has made fair use of digital copyrighted works more difficult, and technology generally has made the control over copyrighted materials much tighter. In light of these developments, it may no longer be the case—as was argued by Melville Nimmer in a seminal article in 1970—that copyright poses no First Amendment concerns except in the rarest cases.\(^{263}\) Legal developments of the last three decades may require courts to reconsider this proposition, which was based in part on the robustness of the fair use doctrine,\(^{264}\) and test anew whether the principles underlying the First Amendment are sufficiently served under the new, broad copyright scheme. No court has yet answered directly the question of whether the availability of fair use is required to satisfy the demands of the First Amendment, or whether it has become so in light of recent developments. An answer in the affirmative would suggest that the DMCA need be interpreted in a way to allow greater fair use by consumers and thus avoid the constitutional issue, perhaps by interpreting § 1201(c) as Ginsburg would—to allow fair use as a defense under the DMCA.\(^{265}\) An intermediate approach would be to reconsider the meaning of what the term “access control” means, and whether a technology like CSS should be more appropriately categorized as a “use control.” The lawful owner of a DVD presumably has the right to access its contents; CSS then acts to restrict the range of uses available to the owner.\(^{266}\) There is support for this approach in the Act’s legislative history. “[A]n individual would not be able to circumvent in order to gain

\(^{262}\) Id.

\(^{263}\) Id. at 8 (citing M. Nimmer, First Amendment Guarantees, supra note 260, at 1193-200 (1970)).

\(^{264}\) See, e.g., Harper & Row, 471 U.S. at 560 (rejecting respondent’s argument for a “public figure exception to copyright . . . in view of the First Amendment protections already embodied in the . . . distinction between copyrightable expression and uncopyrightable facts and ideas, and the latitude for scholarship and comment traditionally afforded by fair use”).

\(^{265}\) See supra Part C.1; Ginsburg, Copyright Use, supra note 248, at 8-9.

\(^{266}\) At the preliminary injunction stage, the court in Reimerdes held that CSS was an access control within the meaning of the DMCA, Universal City Studios, Inc. v. Reimerdes, 82 F. Supp. 2d 211, 216-17 (S.D.N.Y. 2000), but this issue may have been underlitigated because defendants in that case were charged with trafficking in a circumvention tool and would therefore be liable whether CSS was adjudged an access or a use control.
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." 267 Either of these alternatives would expand fair use of digital works and help restore the now shaky balance between First Amendment principles and copyright law.

IV. CONCLUSION

Two courts asked to explore the issue have upheld the constitutionality of the DMCA while holding that by its terms the Act does not allow fair use as a defense to the trafficking in circumvention-enabling tools. The matter has not been entirely resolved, however, as neither court had occasion to consider the application of the DMCA to individuals seeking to make fair use of copyrighted materials. When that time comes, it may be entirely appropriate to reconsider the role of fair use, both as Congress originally intended and as the First Amendment demands.