

University of Washington School of Law UW Law Digital Commons

Articles

Faculty Publications

2008

The Dangers of the Digital Millennium Copyright Act: Much Ado about Nothing?

Steve P. Calandrillo

University of Washington School of Law

Ewa A. Davison

Follow this and additional works at: <https://digitalcommons.law.uw.edu/faculty-articles>



Part of the [Computer Law Commons](#), and the [Intellectual Property Law Commons](#)

Recommended Citation

Steve P. Calandrillo and Ewa A. Davison, *The Dangers of the Digital Millennium Copyright Act: Much Ado about Nothing?*, 50 WM. & MARY L. REV. 349 (2008), <https://digitalcommons.law.uw.edu/faculty-articles/133>

This Article is brought to you for free and open access by the Faculty Publications at UW Law Digital Commons. It has been accepted for inclusion in Articles by an authorized administrator of UW Law Digital Commons. For more information, please contact cnyberg@uw.edu.

William and Mary Law Review

VOLUME 50

No. 2, 2008

THE DANGERS OF THE DIGITAL MILLENNIUM COPYRIGHT ACT: MUCH ADO ABOUT NOTHING?

STEVE P. CALANDRILLO* & EWA M. DAVISON**

ABSTRACT

In 1998, Congress passed the Digital Millennium Copyright Act (DMCA), a landmark piece of legislation aimed at protecting copyright holders from those who might manufacture or traffic technology capable of allowing users to evade piracy protections on the underlying work. At its core, the DMCA flatly prohibits the circumvention of “technological protection measures” in order to gain access to copyrighted works, but provides no safety valve for any traditionally protected uses. While hailed as a victory by the software and entertainment industries, the academic and scientific communi-

* Professor of Law and Washington Law School Foundation Scholar, University of Washington School of Law; stevecal@u.washington.edu. J.D. Harvard Law School, B.A. University of California at Berkeley. My thanks to intellectual property scholars Lloyd Weinreb, David Nimmer, Bob Gomulkiewicz, Sean O'Connor, Bob Carlson, and Chryssa Deliganis for their comments and inspiration, as well as to Lindsay Halm, Ashley Evans, and Zach Hiatt for their excellent research assistance. My sincere gratitude as well to the Washington Law Foundation and to the Shidler Center for Law, Commerce and Technology for their generous financial support on this project.

** Law Clerk to Judge Richard C. Tallman, U.S. Court of Appeals for the Ninth Circuit, 2008-09; Former Associate, Darby & Darby, P.C., 2007-08. A.B. Princeton University, Ph.D. Massachusetts Institute of Technology, J.D. University of Washington School of Law. The opinions expressed in this Article do not reflect those of my employers.

ties have been far less enthusiastic. The DMCA's goal of combating piracy is a noble one, but lurking is the danger that it comes at the expense of public access to protected works and future innovation. Despite America's long history of "fair use" protections in copyright law, commentators have warned that consumers now find themselves unable to do many of the same things with copyrighted works that they previously could—anyone who might sell them the technology to access a protected work and enable fair use would find themselves in violation of the DMCA. Worse, early litigation dramatically expanded the definition of what constitutes a "technological protection measure" deserving of the law's respect. As the definition broadened, scholars feared that even modest innovations—ones that would never qualify for a patent under existing law—could wind up receiving perpetual patent-like protection through the backdoor of the DMCA. Despite the experts' dire predictions, however, subsequent common law interpretation of the DMCA has reined in many of its potential dangers. The judiciary's focus has rightly shifted to the need to balance innovators' interests with the equally important goals of public access and enhancing overall social welfare. Nonetheless, coherent and uniform protection of fair use under the DMCA is likely best achieved through congressional action.

TABLE OF CONTENTS

INTRODUCTION 353

I. THE GOLDEN ROAD TO THE DIGITAL MILLENNIUM
 COPYRIGHT ACT 355

II. INTERPRETING THE DMCA 361

 A. *The DMCA’s Key Provision: An Anticircumvention Rule* 361

 B. *The Judiciary’s Treatment of Fair Use, Liability, and Emerging Technologies Prior to the DMCA* 364

 C. *The Post-DMCA Landscape: The Death of Sony, the Failure of Constitutional Challenges, and the Dangerously Expanding Definition of TPMs* 369

 1. *The DMCA’s Anticircumvention Rule Meets Sony and the Fair Use Doctrine* 370

 2. *The DMCA Meets (and Defeats) Constitutional Challenges* 376

 3. *The Scope of the DMCA Today: How Broad is a TPM?* 379

III. PROPOSED LEGISLATION ATTEMPTING TO REIN IN THE DANGERS OF THE DMCA 382

 A. *Protecting the Fair Use Rights of Consumers and the Manufacturers Who Make Possible the Exercise of Consumers’ Fair Use Rights* 383

 1. *The Digital Media Consumers’ Rights Act* 383

 2. *The BALANCE Act of 2003* 385

 B. *Clarifying Consumers’ Fair Use Rights in the Digital World* 386

 1. *The FAIR USE Act of 2007* 386

 2. *The Consumer Technology Bill of Rights* 388

 C. *Mandatory Disclosure of TPMs: The Digital Consumer Right to Know Act of 2003* 388

IV. JUDICIAL RE-INTERPRETATION OF THE DMCA 389

 A. *Narrowing the Scope of the DMCA: Neither Consumers nor Manufacturers Violate the DMCA if the Challenged Circumvention Does Not Threaten Rights Protected Under the Copyright Act* 390

<i>B. Narrowing the Scope of TPMs: Effective Restriction of All Access to the Underlying Copyrighted Work Predicates DMCA Protection</i>	395
<i>C. Narrowing the Scope of Circumvention: Mere Unauthorized Access Does Not Establish Circumvention of a TPM</i>	397
V. REINING IN THE DANGERS OF THE DMCA:	
MUCH ADO ABOUT NOTHING?	399
<i>A. Balancing the Societal Benefits and Costs of Fair Use</i>	400
<i>B. Love's Labours Lost</i>	404
<i>C. Judicial Awakening: Inching Back Toward an Understanding of the DMCA Congruent with Congressional Intent</i>	407
1. <i>The Federal Circuit's Approach Likely Establishes Fair Use as a Defense to a Section 1201(a)(1) Violation</i>	408
2. <i>The Federal Circuit's Approach Falls Short of Establishing Fair Use as a Defense to a Section 1201(a)(2) Violation</i>	410
3. <i>Limiting the DMCA to the Digital World</i>	412
4. <i>A Weak TPM Does Not Outweigh the Public Interest in Information Access</i>	413
CONCLUSION	414

INTRODUCTION

Sony Corporation discontinued production of Aibo in 2006,¹ but not before this small robotic dog became a vivid illustration of the controversy surrounding the Digital Millennium Copyright Act (DMCA).² A hacker known only as AiboPet reverse-engineered Sony's source code and generated tools allowing Aibos to, among other things, dance, respond to wireless commands, and share what they see.³ AiboPet then shared those tools with other Aibo owners over the Internet.⁴ Aibo owners responded enthusiastically; as one such Sony customer commented:

Aibo is an exciting toy, but Aibopet's enhancements kept the excitement going.... He's made tools to see what mood Aibo was in, or set it in different life stages, or have better wireless communications. There are tools to see in real time what Aibo sees, and vital signs, emotions, mood, voice recognition. Those were enhancements riding on top of Sony's Aibo that Aibopet created.⁵

AiboPet never revealed Sony's encryption code.⁶ Moreover AiboPet earned no money from distributing his programs, and in fact, likely enhanced Sony's product sales.⁷ As another Aibo owner noted:

If it had not been for AiboPet's information, his invaluable knowledge and his generosity in sharing it with the Aibo community, I would not have purchased an Aibo, all the various

1. John Borland, *Sony Puts Aibo to Sleep*, CNET NEWS.COM, Jan. 26, 2006, http://www.news.com/sony-puts-aibo-to-sleep/2100-1041_3-6031649.html.

2. See generally David Labrador, *Teaching Robot Dogs New Tricks*, SCI. AM., Jan. 21, 2002, available at <http://www.sciam.com/article.cfm?id=teaching-robot-dogs-new-t>; Farhad Manjoo, *Aibo Owners Biting Mad at Sony*, WIRED, Nov. 2, 2001, available at <http://www.wired.com/techbiz/media/news/2001/11/48088>.

3. See Labrador, *supra* note 2.

4. See *id.*

5. See Manjoo, *supra* note 2 (quoting Richard Walkus, an Aibo owner).

6. See Labrador, *supra* note 2.

7. See Manjoo, *supra* note 2.

software, [memory] sticks and yes, even my computer, a Sony VAIO, which I only purchased because of its stick reader.⁸

Nonetheless, on October 26, 2001, Sony Entertainment Robots America informed AiboPet that he was violating the DMCA and demanded that he remove from the Internet all programs based on Sony's Aibo software.⁹ Within a month, however, Sony retreated from this position in response to customer outrage and a threatened boycott of Sony products.¹⁰

What spawned this unfortunate tale? The Digital Millennium Copyright Act (DMCA)¹¹—controversial legislation passed by the U.S. Congress on October 12, 1998,¹² and signed into law two weeks later by President Clinton.¹³ The enactment marked the culmination of months of heated debate over the purpose and particulars of the DMCA¹⁴ and coincided with the implementation of two international treaties signed in December 1996, at the World Intellectual Property Organization (WIPO) Geneva conference. At that momentous meeting, the United States signed onto the WIPO Copyright Treaty¹⁵ and the WIPO Performances and Phonograms Treaty.¹⁶ Both were designed to offer protections to the signatory countries' international copyright holders in light of fears surrounding emerging technologies in a global digital age.¹⁷

Within American borders, the DMCA was supported by the software and entertainment industries, and generally opposed by scientists, librarians, and academics.¹⁸ Controversy surrounding the

8. See Labrador, *supra* note 2.

9. See *id.*

10. See *id.*

11. Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified in scattered sections of 17 U.S.C.).

12. 144 CONG. REC. S12375 (daily ed. Oct. 12, 1998) (statement of Sen. Hatch).

13. Statement on Signing the Digital Millennium Copyright Act, 2 PUB. PAPERS 1902-03 (Oct. 29, 1998).

14. 5 WILLIAM H. MANZ, FEDERAL COPYRIGHT LAW: THE LEGISLATIVE HISTORIES OF THE MAJOR ENACTMENTS OF THE 105TH CONGRESS (1999) (compendium of legislative histories spanning over one year relating to the Digital Millennium Copyright Act).

15. Dec. 20, 1996, 36 I.L.M. 65 [hereinafter WCT].

16. Dec. 20, 1996, 36 I.L.M. 76 [hereinafter WPPT].

17. WCT, *supra* note 15, at 68 pmb.; WPPT, *supra* note 16, at 79 pmb.

18. See ROBERT BURNETT & P. DAVID MARSHALL, WEB THEORY 144 (2003). See generally Mauricio España, *The Fallacy That Fair Use and Information Should Be Provided for Free: An Analysis of the Responses to the DMCA's Section 1201*, 31 FORDHAM URB. L.J. 135, 170 (2003).

implications of the DMCA, however, has not been confined to these interest groups.¹⁹ Since the DMCA's reach extends to millions of everyday technology consumers, the public at large has been brought into the debate on new technologies that offer seemingly unbounded access to information and creative works.²⁰

This Article serves as an overview of the judicial and legislative copyright environment following enactment of the DMCA. Part I introduces the legislative history and public policy purposes behind Congress's passage of the DMCA. Part II examines the language of the DMCA and maps pertinent case law as DMCA jurisprudence began to emerge in the United States. Next, Part III reviews pending legislation proposed in response to some of the unintended dangers posed by the DMCA. Part IV analyzes the current judicial trend toward narrowing the DMCA. Finally, Part V concludes that this recent case law has brought application of the DMCA more closely—although not fully—in line with congressional intent, as well as with sound public policy and traditionally accepted intellectual property principles.

I. THE GOLDEN ROAD TO THE DIGITAL MILLENNIUM COPYRIGHT ACT

In implementing the DMCA, Congress expressly rejected absolute liability for circumvention of technological protection measures shielding copyrighted works, as well as for the enablement of such circumvention. Rather, Congress sought to carefully balance the needs of copyright owners threatened by the ease of piracy in a digital era with the needs of the public for access to information and creative content. As revealed by the legislative history of the DMCA, Congress—envisioning a statutory scheme aimed at so-called “black boxes” and not at devices with substantial noninfringing uses—intended the doctrine of fair use to limit the DMCA's scope.²¹

The signatory parties to the two 1996 WIPO treaties declared a noble desire to protect the rights of literary and artistic authors in

19. For example, the Electronic Frontier Foundation has become an outspoken opponent of the DMCA. *See generally* Electronic Frontier Foundation, DMCA, <http://www.eff.org/issues/dmca> (last visited Oct. 15, 2008).

20. *See, e.g.*, Amy Harmon, *Technology; Efforts to Stop Music Swapping Draw More Fire*, N.Y. TIMES, Aug. 1, 2003, at C1; Labrador, *supra* note 2.

21. H.R. REP. NO. 105-551, pt.1, at 18 (1998).

a uniform manner, recognizing the profound impact of recent developments in communication technologies on the creation, use, and exploitation of such works.²² At the same time, the WIPO treaties stressed the need to protect the larger public interest in access, research, and education.²³ As originally proposed for ratification by the Clinton Administration,²⁴ congressional leaders feared that the WIPO-related legislation would shift this private/public balance, making illegal what had previously been in the public interest as “perfectly lawful.”²⁵ The Administration’s proposed language was also interpreted to overrule the Supreme Court’s landmark decision in *Sony Corp. of America v. Universal City Studios, Inc.*,²⁶ which had held that VCR manufacturers could legitimately make devices that allowed taping of copyrighted programs without fear of prosecution for contributory infringement of the underlying copyright.²⁷

In response to the Clinton Administration’s proposal for ratifying the WIPO treaties, Representative Tom Bliley, Chairman of the Committee on Commerce, highlighted the flexibility in the WIPO treaties negotiated by the delegates.²⁸ The texts of the treaties, Bliley noted, called for fashioning new solutions consistent with the Berne Convention while accommodating relevant national legal frameworks.²⁹ Indeed, Representative Boucher championed the

22. WCT, *supra* note 15, at 68 pmbl.; WPPT, *supra* note 16, at 79 pmbl.

23. WCT, *supra* note 15, at 68 pmbl.; WPPT, *supra* note 16, at 79 pmbl.

24. H.R. 2281, 105th Cong. (1997). Although the circumvention prohibitions contained in H.R. 2281 and in the DMCA are almost identical, the former excepted only law enforcement and intelligence activities from liability. *Id.* § 1201(e).

25. 144 CONG. REC. E2136, E2136-37 (daily ed. Oct. 13, 1998) (statement of Rep. Bliley) (“As proposed by the Clinton Administration, however, the anti-circumvention provisions to implement the WIPO treaties would have represented a radical departure from this [balance between the public interest and those of copyright owners] tradition. In a September 16, 1997 letter to Congress, 62 distinguished law professors expressed their concern about the implications of regulating devices through proposed section 1201. They said in relevant part: ‘[E]nactment of Section 1201 would represent an unprecedented departure into the zone of what might be called paracopyright—an uncharted new domain of legislative provisions designed to strengthen copyright protection by regulating conduct which traditionally has fallen outside the regulatory sphere of intellectual property law.’”).

26. 464 U.S. 417 (1984).

27. See 144 CONG. REC. at E2136, E2137 (statement of Rep. Bliley); see also *infra* notes 89-109 and accompanying text (discussing *Sony*).

28. 144 CONG. REC. at E2136, E2137 (statement of Rep. Bliley).

29. *Id.* at E2136 (“The WIPO treaties permit considerable flexibility in the means by which they may be implemented. The texts agreed upon by the delegates to the December

retention of the fair use doctrine as consistent with the text of the WIPO treaties.³⁰ Thus, quite significantly, Congress rejected a blanket implementation of the Clinton Administration's proffered text as wholly unnecessary to ratification of the WIPO treaties.³¹

Still, piracy concerns permeated the debates leading up to the signing of the DMCA.³² Congressmembers feared the collapse of the entertainment industry at the hands of anyone with a mouse, zipping off near-perfect duplicated files at little expense or effort of their own.³³ The Commerce Committee summarized the concern starkly:

[T]he digital environment poses a unique threat to the rights of copyright owners, and as such, necessitates protection against devices that undermine copyright interests. In contrast to the analog experience, digital technology enables pirates to reproduce and distribute perfect copies of works—at virtually no cost at all to the pirate. As technology advances, so must our laws.³⁴

On the opposite side of the controversy, educational institutions and libraries sounded warning that a restrictive “pay-per-use society” would result under the Senate's version of the Act, because it erred heavily on the side of preventing piracy—and forsaking public access.³⁵ The Senate's language contained a flat prohibition

1996 WIPO Diplomatic Conference specifically allow contracting states to ‘carry forward and appropriately extend into the digital environment limitation and exceptions in their national laws which have been considered acceptable under the Berne Convention’ and to ‘devise new exceptions and limitations that are appropriate in the digital network environment.’”). The Berne Convention, first formed in 1886 but subsequently revised and amended, established not only certain minimum standards of copyright protection but also the principle of national treatment. Berne Convention for the Protection of Literary and Artistic Works art. 1, 5, Sept. 9, 1886, 25 U.S.T. 1341, 828 U.N.T.S. 221. Specifically, signatory states must afford the same protections to foreign as to domestic authors. *Id.* at art. 5(1). The United States did not become a signatory until 1988. Berne Convention Implementation Act of 1988, Pub. L. No. 100-568, 102 Stat. 2853 (1988).

30. *See, e.g.*, Press Release, Congressman Rick Boucher, Boucher and Campbell Introduce Comprehensive Copyright Legislation (Nov. 14, 1997), *available at* <http://www.ninch.org/news/currentannounce/boucher.html>.

31. 144 CONG. REC. E2136, E2137 (daily ed. Oct. 13, 1998) (statement of Rep. Bliley).

32. *See, e.g.*, H.R. REP. NO. 105-551, pt.2, at 86 (1998).

33. *Id.* at 25.

34. *Id.*

35. *See* 144 CONG. REC. S9935, S9935 (daily ed. Sept. 3, 1998) (statement of Sen. Ashcroft) (citing educational institutions' rejections of Senate language).

on the circumvention of technological protection measures (TPMs)³⁶ in order to gain access to copyrighted works, with no safety valve for any traditionally protected uses.³⁷ For example, the fair use doctrine has long afforded access to copyrighted works for purposes such as “criticism, comment, news reporting, teaching ... scholarship or research.”³⁸

Summarizing the challenge, Representative Klug noted that Congress was faced with “a very difficult balancing act.”³⁹ On the one hand, it was “essentially trying to protect the American creative community across the world.”⁴⁰ On the other, Klug warned:

[I]n an era of exploding information, we also have to guarantee access to libraries and also university researchers, to make sure we do not enter a new era of pay per view, where the use of a library card always carries a fee and where the flow of information comes with a meter that rings up a charge every time the Internet is accessed.⁴¹

The tension between these two objectives was unmistakable as Congress attempted to strike a compromise reflecting the legitimate concerns of both creators and the consuming public. Ultimately, legislators retained the strong anticircumvention language originally proposed, but qualified it in two important respects. First, the DMCA exempts from circumvention liability persons who make noninfringing use of copyrighted works, where such works fall into a class identified by the Librarian of Congress.⁴² In this manner, the DMCA allows the Librarian of Congress to take into account the potentially negative impact of the DMCA on education, research, and the like.⁴³ Second, the DMCA also contains several exemptions

36. The TPM acronym is borrowed from España, *supra* note 18, at 148 n.91; TPM is an expansive term that includes what is also referred to as “protective technology,” “anti-piracy measures,” “copy-control technologies,” etc. For consistency, TPM is used throughout this paper.

37. 144 CONG. REC. at S9935 (statement of Sen. Ashcroft).

38. 17 U.S.C. § 107 (2000).

39. 144 CONG. REC. H7074, H7100 (daily ed. Aug. 4, 1998) (statement of Rep. Klug).

40. *Id.*

41. *Id.*

42. 17 U.S.C. § 1201(a)(1)(B)-(D) (2000).

43. *Id.*; see also 144 CONG. REC. E2136, E2137 (daily ed. Oct. 13, 1998) (statement of Rep. Bliley) (noting his belief that this provision “establishe[s] an appropriate environment in

to circumvention liability in addition to the original legislation's exemption for law enforcement and intelligence activities.⁴⁴

In the final Commerce Committee report, Representative Bliley clarified the legislative intent of section 1201 of the DMCA as follows: he noted that § 1201 was designed to sustain the *Sony* rationale (thus allowing manufacture of devices that might potentially infringe anticircumvention technology, so long as those devices were capable of substantial noninfringing uses),⁴⁵ enable the fair use defense, and allow "consumer electronics, telecommunications, computer, and other legitimate device manufacturers ... the freedom to design new products without being subjected to the threat of litigation for making design decisions."⁴⁶ Congressmembers believed that the additional exemptions qualifying the DMCA's anticircumvention language scaled back any anticircumvention "right," thus preventing a copyright owner from obstructing the manufacture and sale of devices that allow users to make fair-use copies of copyrighted works.⁴⁷ Moreover, the Committee on the Judiciary opined that the traditional defenses to copyright infringement, which include an individual's fair use, would still apply even where circumvention technology is used, so long as the access to the copyrighted work was authorized in the first instance.⁴⁸ As enacted, Congress expressly intended the circumvention section of the Act to allow for the continued vitality of the centuries-old fair use defense to copyright infringement.⁴⁹

which the fair use interests of society at large can be properly addressed").

44. See 17 U.S.C. § 1201(d)-(j) (2000).

45. One should note that this expressed intent reinforces the notion that subsequent judicial interpretation of § 1201 has departed from congressional intent. See *infra* Part II.C.

46. 144 CONG. REC. at E2137 (statement of Rep. Bliley).

47. *Id.*

48. H.R. REP. NO. 105-551, pt.1, at 18 (1998) ("Paragraph (a)(1) does not apply to the subsequent actions of a person once he or she has obtained authorized access to a copy of a work protected under Title 17, even if such actions involve circumvention of additional forms of technological protection measures. In a fact situation where the access is authorized, the traditional defenses to copyright infringement, including fair use, would be fully applicable. So, an individual would not be able to circumvent in order to gain unauthorized access to a work, but would be able to do so in order to make fair use of a work which he or she has acquired lawfully.").

49. 17 U.S.C. § 1201(c)(1) (2000) ("Nothing in this section shall affect rights, remedies, limitations, or defenses to copyright infringement, including fair use, under this Title."); 144 CONG. REC. E2144, E2144 (daily ed. Oct. 13, 1998) (statement of Rep. Tauzin) ("We also sought to ensure that consumers could apply their centuries-old fair use rights in the digital

Representative Tom Bliley reaffirmed the legislative intent behind the revised provisions contained in the final Conference Report as a limitation on the DMCA's scope.⁵⁰ That is, legislators perceived the revised legislation as *maintaining* the delicate balance struck between content creators and information users.⁵¹ Indeed, Representative White characterized the DMCA as "a big win for our country, because ... in essence ... it implements a treaty under which the rest of the world finally adopts *our view of intellectual property*. That is a big win for the United States."⁵²

The DMCA legislative history also contemplates continuing innovation and competition for noninfringing devices.⁵³ In the final Commerce Committee Report to the House, for example, Representatives Klug and Boucher highlighted their intent that innovation not be impeded: "Whatever protections Congress grants should not be wielded as a club to thwart consumer demand for innovative products, consumer demand for access to information, consumer demand for tools to exercise their lawful rights, and consumer expectations that the people and expertise will exist to service these products."⁵⁴ Senator Ashcroft also observed that the DMCA was "aimed fundamentally at so-called 'black-boxes' and not at legitimate products that have substantial noninfringing uses."⁵⁵ In fact,

age.").

50. 144 CONG. REC. at E2136 (statement of Rep. Bliley) ("I don't want there to be any misunderstanding about the scope of this legislation, especially the very limited scope of the device provisions in Title I and the very broad scope of the exceptions to section 1201(a)(1).").

51. *Id.* at E2137 ("[T]he Committee endeavored to specify ... how the anti-circumvention right ... would be qualified to maintain balance between the interests of content creators and information users."); 144 CONG. REC. H7074, H7100 (daily ed. Aug. 4, 1998) (statement of Rep. Klug) (referring to the DMCA as a "very difficult balancing act"); *see also* 144 CONG. REC. H10615, H10621 (daily ed. Oct. 12, 1998) (statement of Rep. Klug) ("I'm very pleased that the conferees have meaningfully clarified that the *Sony* decision remains valid law.").

52. 144 CONG. REC. at H7100 (statement of Rep. White) (emphasis added). Notably, "our view" of intellectual property has encompassed the fair use doctrine for centuries. *See, e.g.,* Olufunmilayo B. Arewa, *The Freedom to Copy: Copyright, Creation and Context*, 41 U.C. DAVIS. L. REV. 447, 547 (2007).

53. 144 CONG. REC. S11887, S11888 (daily ed. Oct. 8, 1998) (statement of Sen. Ashcroft); 144 CONG. REC. S9935, S9936 (daily ed. Sept. 3, 1998) (statement of Sen. Ashcroft).

54. H.R. REP. NO. 105-551, pt.2, at 87 (1998).

55. 144 CONG. REC. at S9936 (statement of Sen. Ashcroft); *see also* 144 CONG. REC. at H7094 (statement of Rep. Bliley) (noting that § 1201(a)(2) is "aimed fundamentally at outla[w]ing so-called 'black boxes' that are expressly intended to facilitate circumvention of protection measures for purposes of gaining access to a work ... not ... at products that are capable of commercially significant noninfringing uses").

in explaining provisions that leave intact preexisting incentives to innovate, Ashcroft clarified that “[t]echnology and engineers—not lawyers—should dictate product design.”⁵⁶ Notably, the term “substantial non-infringing uses” used by Ashcroft mirrors the language used in the Patent Code and applied to copyright law by the Supreme Court in *Sony*, which by analogizing copyrights and patents established “capab[ility] of substantial noninfringing uses” as a defense to contributory copyright infringement.⁵⁷

II. INTERPRETING THE DMCA

In an effort to examine and make sense of the DMCA, Part II of this paper analyzes: a) the language of the statute itself, b) the relevant case law existing prior to its enactment, and c) the common law that first emerged in the post-DMCA world. Unfortunately, early judicial interpretation undermined Congress’s noble intent in passing the DMCA by frustrating the protections that were built into the Act (and which were embodied in well-settled intellectual property law).

A. *The DMCA’s Key Provision: An Anticircumvention Rule*

To understand the DMCA, we must first examine the language of this groundbreaking statute. First, the DMCA establishes a general “anticircumvention” prohibition in § 1201(a)(1)(A): “[n]o person shall circumvent a technological measure that effectively controls access to a work protected under [the Copyright] title.”⁵⁸ In plain English, this provision makes it illegal to evade antipiracy measures or technological protection measures (TPMs) that police access to a protected work. Intellectual property law heavyweight David Nimmer puts it simply: section 1201 mandates respect for copyright owners’ use of TPMs to control access to their work.⁵⁹ The

56. 144 CONG. REC. at S9936 (statement of Sen. Ashcroft).

57. *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 440 (1984) (citing the exception for “substantial non-infringing use[s]” in the Patent Code, 35 U.S.C. § 271(e)). For example, permissible fair uses would include criticism, comment, news reporting, teaching, scholarship, or research. For more on the *Sony* decision, see *infra* notes 89-109 and accompanying text.

58. 17 U.S.C. § 1201(a)(1)(A) (2000).

59. 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 12A.02[B][2], at

statute thus bars “breaking into” any copyrighted work that the copyright owner has purposefully locked up using technology.⁶⁰

The real muscle behind the anticircumvention rule lies in the two DMCA “antitrafficking” provisions that target hacker-devices at their source, outlawing their manufacture and sale. First, § 1201(a)(2) places an outright ban on “traffic[king]” in any “technology, product, service, device, component, or part thereof” that can be used to gain access to TPM-entombed works.⁶¹ The provision of a decryption technology device or component is only unlawful, however, if that device or component is either primarily designed for the purpose of overcoming TPMs, has limited commercial significance other than circumvention, or is marketed for use in circumventing TPMs.⁶² For the purposes of § 1201(a)(2), to circumvent a TPM means: “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.”⁶³ Second, § 1201(b)(1) provides an antitrafficking provision nearly identical to that in § 1201(a)(2), but addresses trafficking as it relates to TPMs that control specific *uses* of a work, as compared to *access*.⁶⁴ For the purposes of § 1201(b)(1), therefore, to circumvent a TPM means: “avoiding, bypassing, removing, deactivating, or otherwise impairing a technological measure” that limits the exercise of a copyright privilege.⁶⁵ For instance, it would be unlawful under this subsection to provide the means for end-users to manipulate a copyrighted “read-only” file that was policed by a TPM that shielded against such alterations.⁶⁶

12A-13 (2007).

60. *Id.* § 12A.03[A][1][a], at 12A-16.

61. 17 U.S.C. § 1201(a)(2) (2000).

62. *Id.* § 1201(a)(2)(A)-(C). Where a third party markets the device or component, however, the provider must “act[] in concert” with the third party and have “knowledge” of the marketing to be liable. *Id.* § 1201(a)(2)(C).

63. *Id.* § 1201(a)(3)(A).

64. *Id.* § 1201(b)(1); see JAY DRATLER, JR. & STEPHEN M. MCJOHN, *CYBERLAW: INTELLECTUAL PROPERTY IN THE DIGITAL MILLENNIUM* § 1.02 (2000, updated 2007) (comparing the § 1201 rules).

65. 17 U.S.C. § 1201(b)(2)(A) (2000).

66. See *United States v. Elcom*, 203 F. Supp. 2d 1111, 1118-19 (N.D. Cal. 2002). The court explained the trafficking of a software product that can alter a “read-only” restriction contained in Adobe Acrobat files. The technology in question enabled a purchaser of an eBook to engage in “fair use” without infringing the copyright laws—for example, by allowing the

The anticircumvention provisions are enforced through § 1203, which provides an express cause of action in federal court for any person “injured by a violation” of § 1201.⁶⁷ The complaining party may elect to receive either the sum of the actual damages it suffered and the additional profits earned by the violator, or statutory damages.⁶⁸ Furthermore, § 1204 imposes *criminal* sanctions up to a maximum \$500,000 fine and five-year imprisonment for any § 1201 violation; the penalty is doubled for a second violation.⁶⁹

Copyright scholars characterize the anticircumvention rule,⁷⁰ detailed in § 1201, as a “paradigm shift” away from a three-century-old focus on the activities of individuals who make unauthorized copies.⁷¹ Replacing this tradition is a new emphasis on liability for those who provide the technology for overcoming TPMs and thus make possible unauthorized copying by individuals.⁷² A few exceptions persist: hacking into TPMs is permitted for conducting encryption research,⁷³ assessing product interoperability,⁷⁴ and testing computer security systems.⁷⁵ In addition, the DMCA provides nonprofit libraries, archives, and educational institutions with exemptions from anticircumvention provisions under narrow circumstances akin to a short-lived “shopping privilege.”⁷⁶

lawful owner of the eBook to read it on another computer, to make a back-up copy, or to print the eBook in paper form. The same technology, however, could also allow a user to engage in copyright infringement by making and distributing unlawful copies of the eBook. *Id.*

67. 17 U.S.C. § 1203(a) (2000) (providing civil remedies for violation of §§ 1201 and 1202).

68. *Id.* § 1203(c).

69. *Id.* § 1204(a).

70. Although § 1201 contains three anticircumvention-related rules, this paper uses the term in singular form to stand for all three rules of § 1201, unless specially discussed.

71. See DRATLER & MCJOHN, *supra* note 64, at 1-8.

72. See *id.* at 1-9; NIMMER, *supra* note 59, § 12A-15.

73. 17 U.S.C. § 1201(g) (2000).

74. *Id.* § 1201(f). The Act defines interoperability as “the ability of computer programs to exchange information.” *Id.* § 1201(f)(4). Assessment of interoperability, or “reverse engineering,” occurs where an individual lawfully obtains the right to use a computer program and analyzes the elements of the program (and the accompanying TPMs) in order to enable compatibility with other, independently created computer programs. *Id.* § 1201(f)(1), (4).

75. *Id.* § 1201(j).

76. *Id.* § 1201(d) (specifying that education-related organizations can use circumvention measures to gain access to copyrighted works “solely in order to make a good faith determination of whether to acquire a copy of that work,” but that access to the work is temporally limited); see NIMMER, *supra* note 59, § 12A-43 n.4 (borrowing the term “shopping privilege” from Representative Boucher, 144 CONG. REC. 7097 (daily ed. Aug. 4, 1998)).

After laying out the anticircumvention rule, the DMCA states in just one sentence that “[n]othing in this section shall affect rights, remedies, limitations, or defenses to copyright infringement, including fair use”⁷⁷ Nevertheless, in response to the question of how § 1201’s anticircumvention rule has practically impacted the traditional fair use defense and other public interest “safety valves” of copyright law, intellectual property scholar Jay Dratler summarily responds: “The answer is simple: it obliterates them all.”⁷⁸ Although this is perhaps a somewhat extreme interpretation, many copyright gurus consider Dratler’s response to be an accurate reading of the anticircumvention rule. David Nimmer, for example, has similarly concluded that “there is no such thing as a section 107 fair use defense to a charge of a section 1201 violation.”⁷⁹ According to this view, because the fair use doctrine is a defense only to a claim of *infringement*, a defendant is liable for any violation of the anticircumvention or antitrafficking rules of the DMCA *regardless of whether there is any infringement at all*. If so interpreted by the courts, the DMCA indeed obliterates the fair use defense.

B. The Judiciary’s Treatment of Fair Use, Liability, and Emerging Technologies Prior to the DMCA

Because much of the concern regarding the dangers of the DMCA involves its impact on the fair use defense to copyright liability, a brief overview of the doctrine is in order. Fair use serves as an affirmative defense to a copyright infringement action and embodies the notion that the public should be allowed access to protected materials for purposes such as “criticism, comment, news reporting, teaching ... scholarship, or research” without risk of liability.⁸⁰ For example, when a professor photocopies part of a copyrighted law review article for one-time distribution to her class without seeking the permission of the author, her “infringement” is protected because courts and public policy decision makers have long recog-

77. 17 U.S.C. § 1201(c) (2000).

78. DRATLER & MCJOHN, *supra* note 64, at 2-87.

79. David Nimmer, *A Riff on Fair Use in the Digital Millennium Copyright Act*, 148 U. PA. L. REV. 673, 723 (2000).

80. 17 U.S.C. § 107 (2000).

nized the educational importance of such uses.⁸¹ Further, her use is not likely to come at the financial expense of the author—i.e., it is probably not the case that students would have purchased the article on their own had the professor not handed out the excerpt for free because they would not have known of the article’s existence otherwise. Similarly, a journalist who quotes portions of a book or movie in writing a review for her newspaper is held to have a fair use defense against copyright infringement.⁸² Her review provides valuable information about the copyrighted work without depriving the copyright holder of the financial gain associated with the sale of her product.⁸³ In fact, the journalist’s fair use often positively *contributes* to the financial value of the underlying work, making it counterproductive for the author to pursue an infringement action at all.

Although a judicially created doctrine,⁸⁴ Congress codified the fair use defense in § 107 of the 1976 Copyright Act.⁸⁵ Section 107 enunciates four factors to aid courts in determining whether the use of a protected work constitutes fair use.⁸⁶ The court’s inquiry must include, but is not limited to:

- (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (2) the nature of the copyrighted work;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.⁸⁷

81. See STEVEN SHAVELL, FOUNDATIONS OF ECONOMIC ANALYSIS OF LAW 158-59 (2004).

82. See *id.*

83. See *id.*

84. See *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 575-76 (1994) (noting that “fair use remained exclusively judge-made doctrine until the passage of the 1976 Copyright Act”).

85. See NIMMER, *supra* note 59, §§ 13-155 to 13-156 (“The Copyright Act of 1976 was ... ‘intended to restate the present [*i.e.*, pre-1978] judicial doctrine of fair use, not to change, narrow, or enlarge it in any way.’” (quoting H.R. REP. NO. 94-1476, at 66 (1976))); see also *id.* § 13-156 n.7 (“The statutory formulation of the defense of fair use in the Copyright Act of 1976 reflects the intent of Congress to codify the common-law doctrine.” (quoting *Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 549 (1985))).

86. 17 U.S.C. § 107 (2000).

87. *Id.*; see also *Harper & Row*, 471 U.S. at 560 (“The factors enumerated in the section are not meant to be exclusive”); *Acuff-Rose*, 510 U.S. at 578 (“Nor may the four statutory

In short, the fair use defense “permits courts to avoid rigid application of the copyright statute when, on occasion, it would stifle the very creativity which that law is designed to foster.”⁸⁸

The fair use defense set the backdrop for the landmark 1984 intellectual property case, *Sony Corp. of America v. Universal City Studios, Inc.*⁸⁹ In *Sony*, the Supreme Court laid the groundwork for whether parties would be found contributorily liable when they furnished the means or machinery capable of allowing copyright infringement. The technology at issue in *Sony* was the now infamous Betamax video tape recorder,⁹⁰ which made it possible for members of the general public to copy a protected work in order to “time shift”—i.e., record a copyrighted television show during the day and watch it at a later time, when more convenient to the user.⁹¹ Rather than pursuing actions against individual Betamax users, copyright holders Universal Studios and Walt Disney sued Betamax manufacturer Sony directly, arguing that Sony should be liable under a theory of contributory infringement under the federal Copyright Act of 1976.⁹²

Although the Copyright Act did not provide express guidance for liability of one party for another’s infringing action, the Supreme Court had no difficulty considering the potential for such claims.⁹³ Thus, if Universal and Disney could prove that the consumer’s Betamax use fell outside the fair use defense⁹⁴ and that Sony had constructive knowledge that its product would induce its customers to infringe on other innovators’ copyrights, Sony would be vicari-

factors be treated in isolation, one from another. All are to be explored, and the results weighed together, in light of the purposes of copyright.”).

88. *Stewart v. Abend*, 495 U.S. 207, 236 (1990) (quoting *Iowa State Univ. Research Found., Inc. v. Am. Broad. Cos.*, 621 F.2d 57, 60 (2d Cir. 1980)).

89. 464 U.S. 417 (1984).

90. The Betamax technology is nearly identical to the familiar Video Cassette Recorder (VCR) technology, the longer-lived market competitor.

91. *Sony*, 464 U.S. at 421.

92. *Id.* at 420, 434. Contributory infringement was premised on the notion that without Sony’s product, individual users would not have been able to infringe on Universal’s and Disney’s copyright. *Id.* Sony’s product made their allegedly unlawful actions possible.

93. *Id.* at 435 (“For vicarious liability is imposed in virtually all areas of the law, and the concept of contributory infringement is merely a species of the broader problem of identifying the circumstances in which it is just to hold one individual accountable for the actions of another.”).

94. *Id.* at 433-34.

ously liable.⁹⁵ Borrowing from patent law, the Court reasoned, however, that in those instances in which a charge of contributory infringement rests entirely on the sale of a commercial good, the public interest in access to such a product is “necessarily implicated.”⁹⁶ Accordingly, the Court articulated a balancing test to weigh the copyright owner’s “legitimate demand for effective—not merely symbolic—protection of the statutory [copyright] monopoly” with the rights of the public to “engage in substantially unrelated areas of commerce.”⁹⁷ As with patented works, the Court reasoned that if a product is used for other “legitimate, unobjectionable purposes,” the manufacturer is *not* liable for another’s infringement.⁹⁸ Because the private, home use of Betamax recorders fell well within such “substantial noninfringing uses,” the Court held that Sony was not liable for contributory infringement.⁹⁹

To be sure, the Court declined to say *how much* use was required to constitute a commercially significant noninfringing use.¹⁰⁰ Regardless, consumers’ private noncommercial time-shifting in their own homes “plainly satisfie[d] this standard.”¹⁰¹ The Court supported its conclusion on two grounds.¹⁰² First, a finding of contributory liability against Sony would “frustrate the interests of broadcasters” who *wanted* to reach time-shifting audiences.¹⁰³ The Court noted the relatively small percentage of the market represented by the copyright owners Universal and Disney compared to the potentially large number of copyright holders who welcomed audiences’ time-shifting practice.¹⁰⁴ In fact, no less of a venerable child-icon (and valuable copyright holder) than Mr. Rogers himself offered testimony in support of Sony.¹⁰⁵ Hence, it was patently

95. *Id.* at 439.

96. *Id.* at 440.

97. *Id.* at 442.

98. *Id.*

99. *Id.* at 456.

100. See NIMMER, *supra* note 59, at 12A-10 to §§ 12A-11 (noting that this open-ended question of what is commercially significant led to the DMCA amendments targeting manufacturers of products that could be used for copyright infringement purposes).

101. *Sony*, 464 U.S. at 442.

102. *Id.*

103. *Id.* at 446.

104. *Id.* at 445-48.

105. *Id.* at 445 n.27. Mr. Rogers’s testimony was recounted by the Court at great length: “I am opposed to people being programmed by others. My whole approach in broadcasting has

evident that Universal and Disney did not represent the entire class of copyright owners.¹⁰⁶ Second, when up against the doctrine of fair use, copyright owners must show some “likelihood of harm” before a private act is condemned.¹⁰⁷ The Court reasoned that Universal and Disney failed to demonstrate more than a de minimus harm to their potential market—whether measured by the alleged loss of accounting in real-time ratings or reduced re-run viewership.¹⁰⁸ Thus, the act of time-shifting was perfectly lawful and squarely within the public interest and fair use defense.¹⁰⁹

The *Sony* Court’s “substantial noninfringing use test” provided needed flexibility in assessing new technologies in light of fair use concerns and contributory infringement claims. The doctrine was put to the test a few years later in the video game context in the case of *Lewis Galoob Toys, Inc. v. Nintendo of America, Inc.*¹¹⁰ Galoob marketed a new technology, known as the “Game Genie,” which allowed home-users to temporarily alter aspects of copyrighted videogames—for example, by increasing the number of “lives” of the game’s protagonist.¹¹¹ Copyright owner Nintendo sued Galoob on the basis of contributory infringement and on the theory that the Genie constituted a “derivative work” under the Copyright Act.¹¹² The Ninth Circuit affirmed the district court’s rejection of the

always been “You are an important person just the way you are.” *Id.*

106. *Id.* at 445-46.

107. *Id.* at 454.

108. *Id.* at 454-55.

109. *Id.* Of course, one could imagine that the practice of time-shifting might potentially reduce the revenues of copyright holders like Universal and Disney. If television and movie studios’ income is dependent on commercial advertising, and Sony’s Betamax users record shows in order to fast forward through the commercials while viewing them later, then advertising revenues could indeed decline. Without evidence in support of this theory, however, this potential harm is speculative and does not justify overriding critical fair use principles aimed at effectuating the public interest. *Cf.* Louise Story, *Viewers Fast-Forwarding Past Ads? Not Always* [sic], N.Y. TIMES, Feb. 16, 2007, at A1 (observing that users of digital video recorders do not skip through as many advertisements as advertisers fear). Moreover, it is quite possible that Universal and Sony knew that they were not suffering substantial pecuniary harm from the practice of time-shifting, but filed the suit in order to extract a settlement from Sony.

110. (*Galoob II*), 964 F.2d 965 (9th Cir. 1992).

111. *Id.* at 967.

112. *Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc. (Galoob I)*, 780 F. Supp. 1283, 1286 (N.D. Cal. 1991). Galoob Toys filed the original complaint seeking declaratory judgment that the Genie did not violate Nintendo’s copyrights; Nintendo subsequently sued for injunctive relief. The case name reflects this sequence. *Id.*

derivative work claim, finding that the Game Genie's enhancement of Nintendo's audiovisual displays "do[es] not incorporate a portion of a copyrighted work in some concrete or permanent *form*."¹¹³ More importantly, the Ninth Circuit also affirmed the district court's conclusion that even if the Game Genie was a derivative work, the fair use defense exempted Galoob from liability.¹¹⁴ Just as the *Sony* Court examined the fair use of Betamax customers, the district court in *Galoob* focused on the "fairness of the *family's* use of its video game, not some evaluation of the commercial 'fairness' of Galoob's product."¹¹⁵ Because home users of the Game Genie would not be directly liable for using the accessory under the fair use defense, Galoob could not be held contributorily liable.¹¹⁶ The Ninth Circuit expressly validated the district court's focus "on whether *consumers* who purchase and use the Game Genie would be infringing Nintendo's copyrights" and affirmed its finding of no contributory liability.¹¹⁷

Thus, after *Sony* and *Galoob*, the fair use doctrine had become a strong and vibrant defense protecting the public's interest against the competing claims of copyright owners.

C. The Post-DMCA Landscape: The Death of Sony, the Failure of Constitutional Challenges, and the Dangerously Expanding Definition of TPMs

While the pre-DMCA jurisprudence regarding fair use thus seemed well-settled in intellectual property and judicial circles, early post-DMCA interpretation of § 1201 dramatically altered the playing field. To be sure, § 1201 expressly reassures the reader that the fair use defense to copyright infringement is still alive and well.¹¹⁸ Nevertheless, the new anticircumvention rule for some time seemed incompatible with the old fair use doctrine, as federal

113. *Galoob II*, 964 F.2d at 968.

114. *Id.* at 972.

115. *Galoob I*, 780 F. Supp. at 1292.

116. *Id.* at 1298.

117. *Galoob II*, 964 F.2d at 970, 972 (emphasis added).

118. 17 U.S.C. § 1201(c)(1) (2000) ("Nothing in this section shall affect ... defenses to copyright infringement, including fair use ..."). The "fair use" doctrine was codified as part of the Copyright Act of 1976. *Id.* § 107 ("Limitations on exclusive rights: Fair use"). See *supra* note 77 and accompanying text; see also *supra* Part II.B.

courts—contrary to congressional intent and prior common law—soundly rejected this defense when faced with new technologies designed to circumvent TPMs. In addition, the courts soundly defeated a variety of constitutional challenges to the DMCA, including those based on the First Amendment. Particularly alarming was the courts' substantial broadening of the definition of a TPM—so much so that the DMCA threatened to create perpetual patent-like protection at the expense of public access and innovation.

1. The DMCA's Anticircumvention Rule Meets Sony and the Fair Use Doctrine

In the first few years following enactment of the DMCA, defendant circumventors analogized their products and customers to Sony's Betamax and its users. Defendants and their attorneys eagerly offered up the *Sony* test and the related fair use defense to protect their new products and technologies, which had the potential to overcome TPMs and provide access to otherwise protected works.¹¹⁹ Yet, despite Congress's stated intent to leave the fair use doctrine intact and the *Sony* test for contributory infringement undisturbed, courts rejected their application in the circumvention context in the post-DMCA world. Instead, courts interpreted the new § 1201 liability regime as wholly distinct from infringement liability to which the fair use defense applied.¹²⁰ Given the independent cause of action written into § 1203 of the DMCA, courts bifurcated copyright infringement liability from § 1201 claims, granting injunctive relief for circumvention alone, regardless of whether direct or contributory infringement was even shown. Furthermore, courts have upheld the constitutionality of the DMCA, finding it consistent with the constraints of the Copyright Clause, the First Amendment, and Due Process.¹²¹

119. See *United States v. Elcom*, 203 F. Supp. 2d 1111, 1122-25 (N.D. Cal. 2002); *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 321-24 (S.D.N.Y. 2000); Robert P. Taylor & Ethan B. Andelman, *Anticircumvention Under the DMCA: Where Do We Stand After Five Years?*, 764 PLI/Pat. 101, 111, n.49 (2003) (citing *RealNetworks, Inc. v. Streambox, Inc.*, No. 2:99CV02070, 2000 WL 127311, at **7-8 (W.D. Wash. Jan. 18, 2000)).

120. *Elcom*, 203 F. Supp. 2d at 1124; *Reimerdes*, 111 F. Supp. 2d at 323; *RealNetworks*, 2000 WL 127311, at *6.

121. See, e.g., *Reimerdes*, 111 F. Supp. 2d at 330, 339.

The first chink in the *Sony* and fair use armor came at the hands of the U.S. District Court for the Northern District of California in *Sony Computer Entertainment America, Inc. v. Gamemasters*.¹²² The court was tasked with interpreting the one-year-old DMCA under a set of facts strikingly similar to those that the court faced in *Galoob*. The technology at issue, known as the “Game Enhancer,” enabled players to modify the rules of Sony’s PlayStation.¹²³ For example, one might give extra lives to the main character, just like the Game Genie allowed in *Galoob*.¹²⁴ Gamemasters’ Enhancer also enabled users to play games in any location regardless of the game’s territory code—e.g., allowing users to play Japanese games on a U.S. console.¹²⁵ Contrary to the overwhelming weight of pre-DMCA case law, the district court awarded a preliminary injunction to the plaintiff, Sony.¹²⁶ Specifically, the court found that Gamemasters violated § 1201 of the DMCA because it sold—and thus, trafficked—the Enhancer, a technology whose primary function, the court reasoned, was to circumvent the console’s territory code mechanism, which was presumed to be a TPM.¹²⁷ Despite the fact that the Enhancer did not permanently alter copyrighted works nor allow for the operation of counterfeit games, and regardless of the other legitimate uses of the product, the court found that liability existed separately under the new § 1201 anticircumvention rule.¹²⁸ Gamemasters, then, was liable under § 1201 for the naked act of selling the Enhancer product—irrespective of whether plaintiffs could show actual copyright infringement.¹²⁹ A paradigm shift had indeed occurred.¹³⁰

122. 87 F. Supp. 2d 976 (N.D. Cal. 1999).

123. *Id.* at 981.

124. *Id.*

125. *Id.*

126. *Id.* at 988.

127. *Id.* at 987-88.

128. While we believe this to be a fair reading of the case, the court did not *directly* address *Sony* or fair use as a defense to a § 1201 violation. Rather, what is notable is the way that the court *approached* the case. The fact that it treated § 1201 separately from the infringement claim sets the stage for the analysis offered in *RealNetworks* and *Reimerdes*, *infra* notes 131-55 and accompanying text.

129. *Gamemasters*, 87 F. Supp. 2d at 986-87. Indeed, the court found insufficient evidence on which to grant an injunction for contributory infringement liability. *Id.* at 989.

130. An unpublished decision shortly thereafter similarly upheld injunctive relief based in part on § 1201. *CSC Holdings Inc. v. Greenleaf Elecs.*, No. 99C7249, 2000 WL 715601, *6, *9

Following *Gamemasters*, three district courts had the occasion to directly consider whether the fair use defense held any relevance in the anticircumvention context—and all three answered in the negative. In the unpublished decision of *RealNetworks, Inc. v. Streambox, Inc.*,¹³¹ the District Court for the Western District of Washington granted injunctive relief under the DMCA to plaintiff RealNetworks.¹³² Defendant Streambox distributed and marketed a device that allowed consumers to manipulate the security measures protecting RealNetworks' "streaming" software.¹³³ Specifically, RealNetworks employed two TPMs—the "Secret Handshake," an access control, and the "Copy Switch," a copy protection measure—to ensure that media files being streamed to the user would "evaporate" once played.¹³⁴ By using the Streambox device, however, consumers were able to bypass the TPMs and thus to download and save the streamed media files.¹³⁵ Emphasizing the possible financial loss to RealNetworks if current and potential client copyright holders lost faith in the company's TPMs, the court easily held that the plaintiff was likely to suffer irreparable harm.¹³⁶ In contrast to copyright holders like Mr. Rogers in *Sony*, the court found that the copyright owners that employ streaming technology make clear that they do not want their works copied.¹³⁷ The court therefore concluded that even though a consumer's use of the Streambox device enabled noninfringing uses—e.g., downloading files for subsequent, private "fair use" of the work—the fair use exception provided no shield for defendants, as it arguably would have under the contributory liability scheme of *Sony*.¹³⁸ Thus, the court summarized: "Equipment manufacturers in the twenty-first century will need to vet their products for compliance with section 1201 in order to avoid

(N.D. Ill. June 1, 2000) (holding that the use of a black box designed to decode scrambled cable television signals violated § 1201 of the DMCA in addition to other federal laws applicable to cable television).

131. No. 2:99CV02070, 2000 WL 127311 (W.D. Wash. Jan. 18, 2000).

132. *Id.* at *1.

133. *Id.* at *4.

134. *Id.* at **2-3.

135. *Id.* at *4.

136. *Id.* at *10.

137. *Id.* at *8.

138. *Id.*

a circumvention claim, rather than under *Sony* to negate a copyright claim.”¹³⁹

Next, DVD-copying programs, perhaps the Betamax recorders of today, also failed to withstand early DMCA challenges, with courts acknowledging the legitimate and lawful end-uses of such products, but nevertheless enjoining their manufacture and sale.¹⁴⁰ In 2001, notorious hacker Eric Corley raised the *Sony* test and fair use defense before the U.S. District Court of the Southern District of New York with no success in the case of *Universal City Studios, Inc. v. Reimerdes*.¹⁴¹ Corley, who goes by the name of George Orwell’s 1984 underground leader, Emmanuel Goldstein, had posted on his company’s website the source and object code for decryption software in order to aid viewers in copying DVDs.¹⁴² That software, known as DeCSS, allowed users to overcome a TPM, known as the “Content Scramble System” (CSS), encoded on DVDs.¹⁴³ DVDs are otherwise viewed only on players and computers equipped with technology that permits decryption of the CSS but does not allow users to copy the movie.¹⁴⁴ DeCSS was originally created by a Norwegian teen who reverse engineered a licensed DVD player and cracked the CSS algorithm.¹⁴⁵

Finding that DeCSS was designed for the purpose of circumventing a TPM and that defendants provided DeCSS links and instructions on their website, the court determined that plaintiffs made a prima facie showing of a § 1201(a)(2) antitrafficking violation and were entitled to injunctive relief.¹⁴⁶ That DeCSS decrypted the files with such high quality and convenience made the injury to plaintiffs

139. *Id.* (quoting NIMMER, *supra* note 59, § 12A.18[B]).

140. *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294 (S.D.N.Y. 2000), *aff’d sub nom.* *Universal City Studios, Inc. v. Corley*, 273 F.3d 429 (2d Cir. 2001) (affirming the constitutionality of the DMCA on challenge by defendant Corley from the district court); *321 Studios v. Metro Goldwyn Mayer Studios, Inc.*, 307 F. Supp. 2d 1085, 1089-90 (N.D. Cal. 2004). Indeed, 321 Studios has ceased its business operations as a result of injunctions issued under the DMCA. See John Borland, *DVD-Copying Trailblazer Shuts its Doors*, CNET NEWS.COM, Aug. 3, 2004, http://www.news.com/dvd-copying-trailblazer-shuts-its-doors/2100-1025_3-5295913.html.

141. *Reimerdes*, 111 F. Supp. 2d at 323.

142. *Id.* at 308-09.

143. *Id.* at 303, 308.

144. *Id.* at 303.

145. *Id.* at 311.

146. *Id.* at 316-17.

that much more compelling.¹⁴⁷ Additionally, even though DeCSS was created through reverse engineering, an activity for which the DMCA provides an exemption, the court rejected the argument as applicable to the Norwegian teen, not Corley and his company.¹⁴⁸ Even if Corley himself had performed the reverse engineering, however, to fit within the exemption he would have had to develop DeCSS with the “sole” purpose of achieving interoperability; the fact that one of the DeCSS uses was for such an end did not merit an exemption.¹⁴⁹

In response to Corley’s assertion that the *Sony* test for determining liability applied, the district court responded that “to the extent of any inconsistency between *Sony* and the new [DMCA] statute,” *Sony* is overruled.¹⁵⁰ The court reasoned that while some technology could pass the *Sony* test, that same technology could now be suppressed independently under § 1201 *regardless of whether infringement had occurred*.¹⁵¹ Corley also argued, and the court agreed, that CSS blocked “fair uses of copyrighted works as well as foul.”¹⁵² Nevertheless, the court recognized this argument as the precise contention that surfaced and failed in debates leading up to enactment of the DMCA; the tension produced, the court reasoned, was Congress’s compromise, even if not ideal.¹⁵³ For example, the court noted that a film studies professor would be unable, without decrypting the CSS, to make fair use of DVDs by copying and splicing together segments of DVD movie scenes to show to her class.¹⁵⁴ Still, “[t]he fact that Congress elected to leave technologi-

147. *Id.* at 313-14. The court here also considers that DeCSS could be used in tandem with “DivX” to compress the file, allowing it to be burned to a CD. The court also notes the increased speed of downloading: “Student rooms in many universities are equipped with network connections rated at 10 megabits per second.” *Id.* at 314.

148. *Id.* at 320.

149. *Id.* DeCSS also enabled users of Linux systems (as opposed to Windows systems) to access CSS-encrypted DVDs where such access had been previously unavailable. See Amy Harmon, *Judges Weigh Copyright Suit on Unlocking DVD Shield*, N.Y. TIMES, May 2, 2001, at C4.

150. *Reimerdes*, 111 F. Supp. 2d at 323.

151. *Id.* at 314 (“At trial defendants repeated, as if it were a mantra, the refrain that plaintiffs ... have no direct evidence of a specific occasion on which any person decrypted a copyrighted motion picture with DeCSS But that is unpersuasive.”).

152. *Id.* at 304.

153. *Id.*

154. *Id.* at 322.

cally unsophisticated persons who wish to make fair use of encrypted copyrighted works without the technical means of doing so is a matter for Congress.”¹⁵⁵ That is, while the same film studies professor would be protected from infringement liability as an exercise of fair use, under the DMCA no one can legally sell her the technology to do so, save for a home video recorder or other rudimentary copying device.

321 Studios, another maker of DVD copying software like that of Corley’s company, went on the offensive and filed a complaint for declaratory relief.¹⁵⁶ Specifically, 321 sought a declaration that its products did not violate § 1201 of the DMCA or, alternatively, that the DMCA violates the U.S. Constitution under the First Amendment insofar as Congress overreached its Article I powers in enacting the anticircumvention rule.¹⁵⁷ Defendants included owners of motion picture copyrights and DVD producers and distributors as well as the United States, which intervened as to the claim challenging the constitutional validity of the DMCA.¹⁵⁸ Lifting paragraphs wholesale from the Southern District of New York opinion in *Reimerdes*,¹⁵⁹ the U.S. District Court of the Northern District of California held in *321 Studios* that 321’s copying software was primarily designed to circumvent CSS-protected DVDs, a violation of the anticircumvention rule, and thus granted defendants’ motion for summary judgment.¹⁶⁰

As in *Reimerdes*, 321 advanced the argument that consumers’ uses of its product triggered fair use rights and thus 321’s products did not violate the DMCA.¹⁶¹ Indeed, consumers employed the copying software on “*original* DVDs” that they had purchased in order to make personal backup copies of movies, whether encrypted with CSS or not.¹⁶² Rejecting the fair use argument, the court stated: “the downstream uses of the software by the customers of 321, whether legal or illegal, are not relevant to determining whether

155. *Id.* at 324.

156. *321 Studios v. Metro Goldwyn Mayer Studios, Inc.*, 307 F. Supp. 2d 1085, 1089-90 (N.D. Cal. 2004).

157. *Id.* See *infra* Part II.C.2 for discussion of constitutional claims.

158. *321 Studios*, 307 F. Supp. 2d at 1090.

159. *Id.* at 1095.

160. *Id.* at 1088, 1098.

161. *Id.* at 1096.

162. *Id.* at 1095.

321 itself is violating the statute.”¹⁶³ Likewise, the court rejected any consideration of other legitimate uses of the product and instead reasoned that 321’s admission that its software circumvents CSS is enough to render 321 liable.¹⁶⁴

2. *The DMCA Meets (and Defeats) Constitutional Challenges*

While the early post-DMCA case law detailed above signaled the death knell for *Sony’s* fair use doctrine in actions brought under the DMCA, opponents had not given up hope of challenge on constitutional grounds. Unfortunately, federal courts have now upheld the DMCA’s anticircumvention rule as constitutional multiple times, using several different lines of analysis.¹⁶⁵

The breadth of activities and products deemed illegal under the DMCA indicates an uphill battle in raising as-applied constitutional challenges. In *321 Studios*, for example, the district court easily rejected a First Amendment claim that the DMCA violated 321’s free speech by prohibiting the company from mere *marketing* of products boasting circumvention capability.¹⁶⁶ That is, once it determined that 321’s products violated the DMCA, the district court reasoned that 321’s commercial speech would constitute illegal activity and thus could not be afforded First Amendment protection.¹⁶⁷

Similarly, on appeal following the district court decision in *Reimerdes*, defendant Corley challenged the Act as an unlawful restriction of his company’s free speech in that it prohibited Corley from disseminating DeCSS.¹⁶⁸ The Second Circuit affirmed the lower court’s ruling, holding that although computer code qualified as “speech,” it nonetheless could be regulated under the content-neutral DMCA.¹⁶⁹ The court reasoned that the DMCA served a

163. *Id.* at 1097.

164. *Id.* at 1098.

165. *Universal City Studios, Inc. v. Corley*, 273 F.3d 429, 453-59 (2d Cir. 2001) (upholding the antitrafficking rules in § 1201(a) and (b)); *321 Studios*, 307 F. Supp. 2d at 1098-1104 (same); *United States v. Elcom*, 203 F. Supp. 2d 1111, 1122-42 (N.D. Cal. 2002) (upholding the antitrafficking rule in § 1201(b)).

166. *321 Studios*, 307 F. Supp. 2d at 1098.

167. *Id.*

168. *Corley*, 273 F.3d at 436.

169. *Id.* at 450-53.

substantial government interest in preventing unauthorized access to protected works.¹⁷⁰ Regardless of other less restrictive means of achieving such an end, the prohibition satisfied judicial scrutiny.¹⁷¹ 321 also failed under the intermediate scrutiny standard of review as the court found that any free speech restrictions were “incidental” and no greater than the substantial government interests related to protecting copyrights and intellectual property.¹⁷²

Likewise, defendant ElcomSoft—in the sole criminal case under the DMCA—challenged its indictment on as-applied First Amendment grounds in *United States v. Elcom*.¹⁷³ ElcomSoft’s employee Dmitry Skylarov had written a program that could unlock Adobe Acrobat’s eBooks and PDF files, turning the works into “naked” files to enable users to engage in fair use of the products, for example, by printing portions of the book or making a back-up copy.¹⁷⁴ Despite the fact that a third party end-user—just like the film professor exemplified in *Reimerdes*—could use the ElcomSoft product for a legal, noninfringing use, ElcomSoft was indicted for selling the product because it could be used to overcome Adobe’s use-restrictions (a TPM) in violation of § 1201(b).¹⁷⁵ Challenging its indictment, ElcomSoft argued that the DMCA’s antitrafficking measure, as applied, was not sufficiently tailored to meet the government’s interest.¹⁷⁶ The court rejected this claim, citing the government’s aim to preserve the rights of copyright holders, encourage e-commerce, and prevent piracy.¹⁷⁷

Facial challenges to the DMCA on the ground that it impermissibly burdens third-party speech have likewise failed. For example, the *Elcom* court rejected ElcomSoft’s facial challenge to the statute as overbroad in its restriction of third party speech, citing the defendant’s inability to establish a “realistic danger” that

170. *Id.* at 456.

171. *Id.* at 455.

172. *321 Studios*, 307 F. Supp. 2d at 1101.

173. 203 F. Supp. 2d 1111 (N.D. Cal. 2002).

174. *Id.* at 1118-19.

175. *Id.* at 1119. Employee Dmitry Skylarov was also indicted, but Adobe withdrew its support for criminal prosecution of Skylarov in response to public pressure, and prosecutors eventually dropped the charges against Skylarov in exchange for his testimony against ElcomSoft. See Lisa M. Bowman, *ElcomSoft Verdict: Not Guilty*, CNET NEWS.COM, Dec. 17, 2002, http://www.news.com/2100-1023_3-978176.html.

176. *Elcom*, 203 F. Supp. 2d at 1130.

177. *Id.* A jury later acquitted ElcomSoft of criminal activity. See Bowman, *supra* note 175.

speech would be significantly compromised.¹⁷⁸ The court reasoned that even though fair users might have more difficulty engaging in certain uses of electronic books, “[t]here has certainly been no generally recognized First Amendment right to make back-up copies.”¹⁷⁹ Using similar logic, the district court in *321 Studios*, responding to a facial challenge asserted by 321 that the DMCA burdened the fair use rights of users, stated that “although ... copying will not be as easy, as exact, or as digitally manipulable as plaintiff desires,” it is nonetheless a permissible burden on third party speech.¹⁸⁰

In *Elcom*, ElcomSoft also argued that the DMCA was void for vagueness under the Due Process Clause.¹⁸¹ Citing legislative history and the language of the DMCA, ElcomSoft argued that Congress intended only to prevent the act of circumventing use-control TPMs where infringement results—not to ban all tools that could be used to circumvent TPMs.¹⁸² From this premise, ElcomSoft argued that § 1201(b) was vague in that it did not clearly define which tools were banned.¹⁸³ The court, however, accepted the government’s response that Congress’s end result was clear in that it placed an across-the-board prohibition on any provision of circumvention tools, regardless of whether such tools facilitate infringement or enable fair use.¹⁸⁴ The court noted, “[d]efendant relies heavily on congressional intent to preserve fair use *but that congressional intent does not change the analysis.*”¹⁸⁵ The court concluded that no inconsistency existed between fair use and the trafficking ban.¹⁸⁶ Moreover, the ban was “part of the sacrifice Congress was willing to make” in enacting the DMCA.¹⁸⁷

178. *Elcom*, 203 F. Supp. 2d at 1132-33.

179. *Id.* at 1135. The court suggests that although users cannot copy and compile works, they can still read, quote, and compare texts. *Id.* at 1131.

180. *321 Studios v. Metro Goldwyn Mayer Studios, Inc.*, 307 F. Supp. 2d 1085, 1101-02 (N.D. Cal. 2004).

181. *Elcom*, 203 F. Supp. 2d at 1122.

182. *Id.*

183. *Id.* at 1122-23.

184. *Id.* at 1123-25.

185. *Id.* at 1125 (emphasis added).

186. *Id.*

187. *Id.*

Finally, parties have challenged the underlying constitutional authority under which Congress enacted the DMCA.¹⁸⁸ In *Elcom*, for example, ElcomSoft argued that in using its Commerce Clause authority to legislate the particulars of selling certain technologies, Congress ran afoul of the fair use protections afforded under the Intellectual Property (IP) Clause.¹⁸⁹ The court, however—without citation to authority—reasoned that the trafficking ban was consistent with the aim of the IP Clause to promote the useful arts and sciences.¹⁹⁰ As if good intentions carry the day legally, the court noted that Congress *sought* to preserve fair use and thus, the DMCA could not be fundamentally inconsistent with the IP Clause.¹⁹¹ Further, even for those works where the copyright has expired and a perpetual TPM continues to control a consumer's use of the work, the DMCA is not inconsistent with the IP Clause. The court reasoned as follows: "At best, the publisher has a technological measure embedded within the digital product precluding certain uses of that ... work and, in many cases, the user/purchaser has acquiesced in this restriction when purchasing/licensing the work."¹⁹² That is, consumers could simply pay extra for fair use rights guaranteed to them by common law. Hence, the DMCA was found to be both consistent with the IP Clause and with Congress's constitutional authority to legislate under the Commerce Clause.¹⁹³

3. *The Scope of the DMCA Today: How Broad is a TPM?*

Given the apparent obsolescence of the fair use defense and *Sony* rationale, the emphasis shifted in DMCA cases to the issue of what is included—and what might be perpetually protected—under the definition of TPMs.¹⁹⁴ Federal district courts again sided with

188. *Id.* at 1137; 321 Studios v. Metro Goldwyn Mayer Studios, Inc., 307 F. Supp. 2d 1085 (N.D. Cal. 2004).

189. *Elcom*, 203 F. Supp. 2d at 1137-38.

190. *Id.* at 1140; *see also* U.S. CONST. art. I, § 8 ("The Congress shall have Power ... To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries").

191. *Elcom*, 203 F. Supp. 2d at 1140-41.

192. *Id.* at 1141.

193. *Id.* at 1141-42.

194. Taylor & Andelman, *supra* note 119, at 111-15 (noting the change in legal strategy from arguing a fair use defense to responding to circumvention claims brought by plaintiffs for increasingly broad types of technologies) (citing Pearl Invs., LLC v. Standard I/O, Inc., 257

industries that use TPMs to control access and use of protected works, finding irreparable financial harm should those industries have to face diminished potency of TPMs and the corollary of that diminished potency: increased competition¹⁹⁵ and increased consumer access, whether “fair” or not.¹⁹⁶ To that end, courts deemed a seemingly broad category of products—from printer cartridge microchips¹⁹⁷ to password-protected networks¹⁹⁸—as constituting TPMs afforded perpetual protection by the anticircumvention rules.

The U.S. District Court for the District of Maine observed in *Pearl Investments, LLC v. Standard I/O, Inc.* that whether the DMCA protects password-protected networks constituted a question of first impression—but “not a difficult one.”¹⁹⁹ Pearl sued Jesse Chunn and his company, Standard, for the act of circumvention under § 1201(a)(1)(A).²⁰⁰ Chunn allegedly “tunneled” into Pearl’s virtual private network (VPN), where he was able to gain access to a copyrighted stock-trading computer system, among other programs.²⁰¹ Chunn himself had previously developed software for Pearl to enable the automated private stock-trading system, generating significant revenue independent of the public stock market.²⁰² Despite granting summary judgment to Chunn on the plaintiff’s copyright infringement claims,²⁰³ the court refused to

F. Supp. 2d 326 (D. Me. 2003); *Lexmark Int’l Inc. v. Static Control Components, Inc.* (*Lexmark I*), 253 F. Supp. 2d 943 (E.D. Ky. 2003)).

195. See *Lexmark I*, 253 F. Supp. 2d at 972.

196. Cf. *Elcom*, 203 F. Supp. 2d at 1132 (“Congress certainly could have approached the problem by targeting the infringers, rather than those who traffic in the tools that enable the infringement to occur. However, it is already unlawful to infringe, yet piracy of intellectual property has reached epidemic proportions... [B]ecause tools that circumvent copyright protection measures for the purpose of allowing fair use can also be used to enable infringement, it is reasonably necessary to ban the sale of all circumvention tools in order to achieve the objectives of preventing widespread copyright infringement and electronic piracy in digital media.”).

197. *Lexmark I*, 253 F. Supp. 2d 943.

198. *Pearl Investments*, 257 F. Supp. 2d 326.

199. *Id.* at 349-50.

200. *Id.* at 349.

201. *Id.*

202. *Id.* at 335.

203. *Id.* at 351. Chunn’s activity was first discovered when Pearl’s request to have the Linux operating system installed on its off-site server instead resulted in that software’s installation on Chunn’s server. *Id.* at 341-42. The installation overwrote the hard drive on Chunn’s server and thus destroyed any programming code stored therein. *Id.* at 343. The court granted summary judgment to Chunn on the copyright issue in part because “in the

grant Chunn summary judgment on the plaintiff's DMCA claim.²⁰⁴ Rather, the court found the mere act of accessing without permission a VPN that hosted a copyrighted stock-trading system to constitute "the electronic equivalent of breaking into a locked room in order to obtain a copy of a book."²⁰⁵ Applying that analogy, a password-protected network became a TPM under the DMCA.

The definition of a TPM as it relates to the antitrafficking rules likewise received liberal interpretation in *Lexmark International, Inc. v. Static Control Components, Inc.*²⁰⁶ There, printer manufacturing giant Lexmark sued Static Control Components (SCC) for trafficking in a component that could circumvent Lexmark's authentication sequence to allow a less-expensive SCC toner cartridge to operate with a Lexmark printer.²⁰⁷ Lexmark sold printer cartridges with an up-front discount by conditioning the savings on a user's future return of used cartridges to Lexmark.²⁰⁸ In addition to placing a "shrink-wrap" contract on the packaging of every such printer cartridge,²⁰⁹ Lexmark enforced this arrangement by developing an authentication sequence that made incompatible any use of a competitor's toner cartridge in a Lexmark machine.²¹⁰ The U.S. District Court of the Eastern District of Kentucky deemed the authentication sequence itself to be a TPM because it effectively controlled access to copyrighted printer programs required for various printer operations and for monitoring cartridge ink levels.²¹¹ Because SCC marketed and sold cartridges that could mimic the sequence and become operable in Lexmark printers,²¹² Lexmark was

absence of a copy of the Chunn [software] a fact-finder could not make the type of comparison between the original work and the allegedly infringing work necessary to analysis of whether a copyright has been infringed." *Id.* at 351.

204. *Id.* at 350. A jury later found for Chunn on the DMCA claim. See *Pearl Invs., LLC v. Standard I/O, Inc.*, 324 F. Supp. 2d 43, 45 (D. Me. 2004).

205. *Pearl Investments*, 257 F. Supp. 2d at 350 (citing *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 316 (S.D.N.Y. 2000)).

206. *Lexmark I*, 253 F. Supp. 2d 943 (E.D. Ky. 2003), *vacated*, 387 F.3d 522 (6th Cir. 2004). The Sixth Circuit's decision is discussed *infra* Part IV.B.

207. *Id.* at 956.

208. *Id.* at 947.

209. *Id.*

210. *Id.* at 952-53.

211. *Id.* at 967-68.

212. *Id.* at 968.

likely to prevail under the DMCA's antitrafficking provision.²¹³ Finding that SCC had failed to rebut the presumption of irreparable harm stemming from a DMCA violation, the court granted Lexmark injunctive relief.²¹⁴ In so doing, the court also noted that even in the absence of this presumption, Lexmark had established irreparable harm based on the time and money that Lexmark had invested developing the printer software programs and, more notably, the possibility of "a multitude of harms" related to customer goodwill.²¹⁵ In ruling for Lexmark, the court rejected SCC's public policy argument that its product—and, presumably, the products of other companies similarly situated—would increase competition and thus benefit consumers.²¹⁶ Unfortunately for SCC, the court held that any competition that violated the DMCA was per se illegitimate.²¹⁷

III. PROPOSED LEGISLATION ATTEMPTING TO REIN IN THE DANGERS OF THE DMCA

Concerned with the DMCA's impact on consumers, members of Congress have proposed various changes to the Act. These proposals focus particularly on alleviating the unintended liability of consumers under § 1201(a)(1), which outlaws the act of circumventing a TPM.²¹⁸ By comparison, congressional members have not been as ambitious in redrafting the antitrafficking provisions of the DMCA contained within § 1201(a)(2) and (b)(1), which make it unlawful for manufacturers to provide the *means* for consumers to access or make fair use of TPM-protected works.²¹⁹ Notably, proposals to change the circumvention and trafficking rules of the DMCA have yet to be considered for a vote on either floor of Congress.

213. *Id.* at 974.

214. *Id.*

215. *Id.* at 972.

216. *Id.* at 973.

217. *Id.*

218. *See supra* notes 58-60 and accompanying text.

219. *See supra* notes 61-66 and accompanying text.

A. Protecting the Fair Use Rights of Consumers and the Manufacturers Who Make Possible the Exercise of Consumers' Fair Use Rights

1. The Digital Media Consumers' Rights Act

In joint remarks, Representatives Rick Boucher and John Doolittle outlined their concern regarding the evolution of DMCA jurisprudence when they introduced the Digital Media Consumers' Rights Act (DMCRA)²²⁰ in 2002 and again upon reintroducing the bill in 2003.²²¹ Representatives Boucher and Doolittle characterized the DMCA as “tilt[ing] the balance in our copyright laws too heavily in favor of the interests of copyright owners and undermin[ing] the longstanding fair use rights of information consumers”²²² The remarks highlighted the essential nature of the fair use doctrine to the exercise of First Amendment rights: “the very vibrancy of our democracy is dependent on the information availability and use facilitated by the fair use doctrine.”²²³ Summarizing their concern, the Representatives stated:

[W]hat is now available for free on library shelves will only be available on a “pay per use” basis.... Even the student who wants the most basic access to only a portion of an electronic book to write a term paper would have to pay. The DMCA places the force of law behind these technical barriers by making it a crime to circumvent them even to exercise fair use rights. The day is already here in which copyright owners use “click on,” “click through,” and “shrink wrap” licenses to limit what purchasers of a copyrighted work may do with it. Some go so far as to make it a violation of the license to even criticize the contents of a work, let alone to make a copy of a paragraph or two.²²⁴

220. H.R. 5544, 107th Cong. (2d Sess. 2002); H.R. 107, 108th Cong. (1st Sess. 2003). The DMCRA was again reintroduced in 2005. H.R. 1201, 109th Cong. (1st Sess. 2005).

221. 148 CONG. REC. E1760-62 (daily ed. Oct. 4, 2002) (statement of Rep. Boucher); 149 CONG. REC. E19-21 (daily ed. Jan. 7, 2003) (statement of Rep. Boucher).

222. 149 CONG. REC. E19, E19 (daily ed. Jan. 8, 2003) (statement of Rep. Boucher).

223. *Id.* at E20.

224. *Id.*

To protect consumers seeking to make fair use of TPM-protected works, Representatives Boucher and Doolittle introduced the DMCRA with hopes of guaranteeing that “existing copy protection measures [would be] implemented in ways that respect consumers’ customary practices and ensur[e] that, as future technologies are developed, they incorporate means by which fair use of content can be made.”²²⁵

As reintroduced most recently in 2005, the DMCRA amends the “savings clause” of the DMCA, which specifies that the Act does not affect the fair use defense, to make clear that it is not a violation of § 1201(a)(1) to circumvent a TPM in order to gain access to or use a copyrighted work if the circumvention does not result in an infringement of that work.²²⁶ Recognizing that fair use of a TPM-protected work cannot be effected if a consumer lacks the technological means to bypass the TPM and thus access the work, the DMCRA also adds a new paragraph providing that: “Except in instances of direct infringement, it shall not be a violation of the Copyright Act to manufacture or distribute a hardware or software product capable of substantial noninfringing uses.”²²⁷ This amendment would, for example, allow a manufacturer to create software enabling a consumer to listen to an audio form of the electronic book that she has legitimately purchased.²²⁸ In short, the DMCRA’s amendment to § 1201(a)(2) would shepherd in a return to *Sony*, with its focus on the fair use rights of consumers and the noninfringing uses of useful, emerging technologies.²²⁹

Following its 2005 reintroduction to the House, the DMCRA was referred to the Committee on the Judiciary as well as to the Committee on Energy and Commerce. It was subsequently referred to the latter’s Subcommittee on Commerce, Trade and Consumer

225. *Id.* at E21.

226. Digital Media Consumers’ Rights Act of 2005, H.R. 1201, 109th Cong. § 5(b)(1) (2005). Specifically, the DMCRA would add to 17 U.S.C. § 1201(c)(1) the following text: “and it is not a violation of this section to circumvent a technological measure in order to obtain access to the work for purposes of making noninfringing use of the work.” *Id.*

227. *Id.* § 5(b)(2).

228. See Michael A. Einhorn, *Digitization and Its Discontents: Digital Rights Management, Access Protection, and Free Markets*, 51 J. COPYRIGHT SOC’Y U.S.A. 279, 312 (2004) (citing Boucher website, no longer in service).

229. *Id.*

Protection. In 2007, however, Representatives Boucher and Doolittle instead opted to cosponsor the FAIR USE Act.²³⁰

2. *The BALANCE Act of 2003*

The Benefit Authors without Limiting Advancement or Net Consumer Expectations (BALANCE) Act of 2003 was introduced by Representative Zoe Lofgren in 2003 and again in 2005.²³¹ At the time of its 2003 proposal, Representative Lofgren remarked that the DMCA was enacted in response to “a massive digital revolution” which “provoked deep concern and suspicion within the entertainment industry.”²³² Calling the law flawed, Representative Lofgren expressed fear that the DMCA now threatens fair use, the first sale doctrine, and the First Amendment.²³³ Moreover, pointing to the district court’s opinion in *Lexmark* as an example, Representative Lofgren argued that the DMCA has inadvertently chilled technological development, competition, and future innovation.²³⁴

The BALANCE Act attempted to restore the traditional give-and-take of copyright law by proposing changes aimed at respecting both developers’ and users’ rights. First, section 3 of the Act serves to protect fair use and consumer expectations in the digital world by amending the first sentence of section 107 of the Copyright Act to allow fair use through digital transmission.²³⁵ Further, new § 123 would be added, providing for limitations on exclusive rights and permissible uses of digital works.²³⁶ Next, section 4 of the BAL-

230. See Reps. Boucher and Doolittle Introduce the FAIR USE Act of 2007 (Feb. 27, 2007), http://www.boucher.house.gov/index.php?option=com_content&task=view&id=1011&Itemid=75. For more on the FAIR USE Act, see *infra* Part III.B.1 and accompanying notes.

231. H.R. 1066, 108th Cong. (1st Sess. 2003); H.R. 4536, 109th Cong. (1st Sess. 2005). This legislation was first introduced by Rep. Lofgren as the Digital Choice and Freedom Act of 2002, H.R. 5522, 107th Cong. (2d Sess. 2002).

232. 149 CONG. REC. H1490, H1490 (daily ed. Mar. 4, 2003) (statement of Rep. Lofgren).

233. *Id.* (“[The DMCA] threatens fair use and First Amendment rights by imposing strict liability on the circumvention of technical restrictions.”).

234. *Id.*

235. H.R. 4536, 109th Cong. § 3(a) (1st Sess. 2005).

236. *Id.* § 3(b)(1). Specifically, the BALANCE Act establishes that it is not copyright infringement to “reproduce, store, adapt, or access” a lawfully obtained digital work either: (1) “for archival purposes,” or (2) for nonpublic performance or display on a digital media device. *Id.* Moreover, any restriction of these limitations on exclusive rights via nonnegotiable license would be made unenforceable by the Act. *Id.*

ANCE Act extends the first sale doctrine, which traditionally terminates the right of a copyright owner to control further sale or disposition of a lawfully transferred copy of a copyrighted work, to certain digital works.²³⁷ Finally, in amending § 1201, section 5 of the BALANCE Act defines circumstances that if satisfied would render permissible not only circumvention that enables fair use, but also the “manufacture, import, offer[ing] to the public, provi[sion], or otherwise mak[ing] available [of] technological means to circumvent” an access-restricting TPM.²³⁸ In particular, the BALANCE Act predicates absence of liability for either act on: (1) its being “necessary to make a noninfringing use” of the work; and (2) “the copyright owner fail[ing] to make publicly available the necessary means to make such noninfringing use without additional cost or burden to” the legitimate user.²³⁹

No action on the BALANCE Act has been taken since its referral to the Committee on the Judiciary in 2005. Most recently, Representative Lofgren joined Representatives Boucher and Doolittle in co-sponsoring the FAIR USE Act of 2007.²⁴⁰

B. Clarifying Consumers’ Fair Use Rights in the Digital World

1. The FAIR USE Act of 2007

Apparently yielding to pressure from copyright holders, Representatives Boucher, Doolittle, and Lofgren recently retreated from creating a fair use defense to the DMCA’s anticircumvention and antitrafficking provisions. Upon introducing the Freedom and Innovation Revitalizing U.S. Entrepreneurship (FAIR USE) Act of 2007,²⁴¹ Representative Boucher pointedly noted: “I continue to believe that there should be [a fair use defense to the act of circumvention] in the law, but content owners have expressed concern that enactment of such a provision could lead to widespread

237. *Id.* § 4.

238. *Id.* § 5.

239. *Id.*

240. See Reprs. Boucher and Doolittle Introduce the FAIR USE Act of 2007, *supra* note 230. For more on the FAIR USE Act, see *infra* Part III.B.1.

241. H.R. 1201, 110th Cong. (1st Sess. 2007).

redistribution of audiovisual and other works.”²⁴² Accordingly, the FAIR USE Act protects consumers from § 1201(a)(1) liability only insofar as it exempts circumvention engaged in for the following purposes: (1) to compile excerpts of audiovisual works for libraries or educational use; (2) to avoid commercial or objectionable audiovisual content; (3) to transmit works over a personal network, so long as the circumvented TPM does not prevent “mass, indiscriminate redistribution” via uploading to the Internet; (4) to access a work in the public domain that is itself included in a compilation primarily of works in the public domain; (5) to access for criticism, comment, journalism, scholarship, or research a work that is of substantial public interest; and (6) to preserve or replace works in library and archival collections.²⁴³ Consumer circumvention of TPMs protecting certain types of works identified by the Librarian of Congress is also exempted from liability.²⁴⁴ By contrast, no exemptions would be created for those who make devices to circumvent TPMs available to consumers, even if used only for these enumerated purposes.

Although it does not provide relief from liability under § 1201(a)(2) and (b)(1), the FAIR USE Act does limit statutory damages for contributory infringement.²⁴⁵ In introducing the Act, Representative Boucher explained that under current law, “statutory damages can be so large and disproportionate that entrepreneurs and consumer electronics and information technology companies are declining to bring new technology to market out of fear that they could be bankrupted by an adverse finding of secondary liability.”²⁴⁶ The FAIR USE Act thus makes such damages unavailable unless the copyright holder proves that “no reasonable person could have believed [the] conduct [at issue] to be lawful.”²⁴⁷

The FAIR USE Act was referred to the House Committee on the Judiciary and subsequently to the Subcommittee on Courts, the Internet, and Intellectual Property.

242. 153 CONG. REC. E407, E407 (daily ed. Feb. 27, 2007) (statement of Rep. Boucher).

243. H.R. 1201 § 3(b).

244. *Id.* § 3(a).

245. *Id.* § 2.

246. 153 CONG. REC. at E408 (statement of Rep. Boucher).

247. H.R. 1201 § 2(a).

2. *The Consumer Technology Bill of Rights*

The Consumer Technology Bill of Rights, introduced in their respective chambers by Representative Christopher Cox of California and Senator Ron Wyden of Oregon, is based on the idea that consumers who legally acquire copyrighted and noncopyrighted works should be free to use these works in noncommercial ways.²⁴⁸ The Bill delineates the consumer rights in legally acquired copyrighted and noncopyrighted works as follows:

- (1) The right to record legally acquired video or audio for later viewing or listening (popularly referred to as “time-shifting”).
- (2) The right to use legally acquired content in different places (popularly referred to as “space-shifting”).
- (3) The right to archive or make backup copies of legally acquired content for use in the event that the original copies are destroyed.
- (4) The right to use legally acquired content on the electronic platform or device of the consumer's choice.
- (5) The right to translate legally acquired content into comparable formats.
- (6) The right to use technology in order to achieve the rights enumerated in paragraphs (1) through (5).²⁴⁹

No action on these resolutions has been taken since their 2002 referrals to the Subcommittee on Courts, the Internet, and Intellectual Property in the House, and to the Committee on the Judiciary in the Senate.

C. Mandatory Disclosure of TPMs: The Digital Consumer Right to Know Act of 2003

Upon introducing the Digital Consumer Right to Know Act in 2003,²⁵⁰ Senator Ron Wyden commented that a “not inconceivable” consequence of the battle against digital piracy is “that digital media could be more restricted and less flexible than other copyrighted items—an ironic result for a technology that was supposed

248. H.R.J. Res. 116, 107th Cong. (2d Sess. 2002); S.J. Res. 51, 107th Cong. (2d Sess. 2002).

249. S.J. Res. 51 § 3.

250. S. 692, 108th Cong. (1st Sess. 2003).

to represent a great step forward for consumers.”²⁵¹ In order to “strengthen the market-based incentive to avoid technologies that are too restrictive of consumer flexibility,”²⁵² the Act directs the Federal Trade Commission to issue rules requiring that “a producer or distributor of copyrighted digital content” disclose the nature of restrictions “limit[ing] the [purchaser’s] practical ability ... to play, copy, transmit, or transfer such content on, to, or between devices ... commonly use[d] with respect [thereto].”²⁵³ Moreover, the Act mandates such disclosure in the event that the copyright holder has placed limitations on: (1) “recording for later viewing or listening” of certain audio or video programming; (2) “reasonable and noncommercial use of legally acquired audio or video content”; (3) “making backup copies of legally acquired content ... subject to accidental erasure, damage, or destruction”; (4) “using limited excerpts of legally acquired content”; and (5) “engaging in the secondhand transfer or sale of legally acquired content.”²⁵⁴

No action on the Digital Consumer Right to Know Act has been taken since its 2003 referral to the Committee on Commerce, Science, and Transportation.

IV. JUDICIAL RE-INTERPRETATION OF THE DMCA

Despite the judiciary’s broad early interpretation of the DMCA and the accompanying fears raised in the academic community, courts have begun to turn back the tide by bringing their holdings more closely, although not completely, in line with congressional intent. Specifically, courts across the nation have: (a) refused to find a DMCA violation in the absence of copyright infringement;²⁵⁵ (b) required for DMCA protection of a TPM that the TPM restrict *all* forms of access to a copyrighted work;²⁵⁶ and (c) excluded from the definition of circumvention mere lack of authorization.²⁵⁷

251. 149 CONG. REC. S4326, S4327 (daily ed. Mar. 24, 2003) (statement of Sen. Wyden).

252. *Id.*

253. S. 692 § 3(b)(1).

254. *Id.* § 3(c).

255. *See infra* Part IV.A.

256. *See infra* Part IV.B.

257. *See infra* Part IV.C.

A. Narrowing the Scope of the DMCA: Neither Consumers nor Manufacturers Violate the DMCA if the Challenged Circumvention Does Not Threaten Rights Protected Under the Copyright Act

Although initial DMCA interpretation largely ignored whether an owner's copyright was actually infringed by an alleged violation of the Act, the Federal Circuit's recent approach explicitly predicates DMCA liability on such a showing.²⁵⁸ Specifically, the Federal Circuit held that where circumvention in no way infringes or facilitates infringing a copyright, the DMCA is not violated.²⁵⁹ In so interpreting the DMCA, the Federal Circuit attempted to remain true to the balance Congress intended to strike between the rights granted to the copyright owner and the rights granted to the public under the Copyright Act.

The Federal Circuit's first opportunity to interpret the DMCA arrived in the unlikely form of garage door openers in *Chamberlain Group, Inc. v. Skylink Technologies, Inc.*²⁶⁰ Chamberlain produced a garage door opener (GDO) system that continually changed the radio frequency signal needed to trigger opening of a homeowner's garage door.²⁶¹ The GDO system consisted of three components—a transmitter operated by the homeowner and a receiver connected to a motor mounted in the garage.²⁶² With each use, the Chamberlain transmitter increased a variable component of its radio frequency signal by a factor of three; software in the Chamberlain receiver verified this rolling code and, upon verification, activated the GDO motor.²⁶³ Skylink produced a transmitter that circumvented the Chamberlain receiver's requirement for a rolling code by in effect re-setting the receiver with each use.²⁶⁴ Chamberlain accused Skylink

258. Although in at least one case the Federal Circuit ostensibly applied the law of the circuit from which appeal was taken, relevant precedent had not been established. See *Chamberlain Group, Inc. v. Skylink Techs., Inc. (Chamberlain III)*, 381 F.3d 1178, 1191-92 (Fed. Cir. 2004).

259. *Id.* at 1194.

260. *Id.* at 1178.

261. *Id.* at 1183.

262. *Id.*

263. *Id.* at 1184.

264. *Id.* at 1185.

of violating § 1201(a)(2) of the DMCA.²⁶⁵ Specifically, Chamberlain alleged that the rolling code software embedded in its receiver was protected by copyright, that the rolling codes constituted a “technological measure,” and that the only way for Skylink’s transmitter to interoperate with the GDO was to “access” the copyrighted rolling code software.²⁶⁶ Notably, Chamberlain made no accusation that either Skylink or a third party infringed its software copyrights.²⁶⁷

The district court first denied Chamberlain’s motion for summary judgment on its DMCA claim²⁶⁸ and later granted Skylink’s motion for summary judgment.²⁶⁹ For purposes of the latter motion, the court assumed both that Chamberlain’s rolling code software was protected by copyright and that the rolling codes controlled access to that software.²⁷⁰ Nonetheless, the district court concluded that Chamberlain had failed to demonstrate that the access to Chamberlain’s copyrighted software enabled by Skylink’s transmitter was unauthorized, as required by the definition of circumvention in § 1201(a)(3)(A).²⁷¹ Although GDO consumers had long been able to purchase aftermarket universal transmitters,²⁷² Chamberlain imposed no explicit restrictions on the types of transmitters that purchasers of its GDO system could use.²⁷³

The Federal Circuit concurred that Chamberlain failed to show the lack of authorization required by § 1201(a)(3)(A),²⁷⁴ but more importantly also concluded that Skylink could not be liable under the DMCA for trafficking in the absence of either copyright infringement or circumvention of an access-restricting TPM.²⁷⁵ Looking to the text,²⁷⁶ structure,²⁷⁷ and legislative

265. *Id.*

266. *Id.* at 1185, 1197.

267. *Id.* at 1197.

268. Chamberlain Group, Inc. v. Skylink Techs., Inc. (*Chamberlain I*), 292 F. Supp. 2d 1023, 1040 (N.D. Ill. 2003).

269. Chamberlain Group, Inc. v. Skylink Techs., Inc. (*Chamberlain II*), 292 F. Supp. 2d 1040, 1046 (N.D. Ill. 2003), *aff’d*, 381 F.3d 1178 (Fed. Cir. 2004).

270. *Chamberlain III*, 381 F.3d at 1203-04.

271. *Chamberlain II*, 292 F. Supp. 2d at 1043-46.

272. *Id.* at 1045.

273. *Id.* at 1046.

274. *Chamberlain III*, 381 F.3d at 1204.

275. *Id.*

276. *Id.* at 1192-94 (“The DMCA’s text indicates that circumvention is not infringement.”).

277. *Id.* at 1194-96 (“Prior to the DMCA, a copyright owner would have had no cause of

history²⁷⁸ of the DMCA, the Federal Circuit first determined that § 1201 establishes only a new cause of action for liability—not a new property right.²⁷⁹ Furthermore, although Congress, in rebalancing the competing interests of copyright owners and information users, had rendered nonequivalent the scope of liability for circumvention and the scope of liability for infringement,²⁸⁰ the Federal Circuit emphasized the textual linkage of “access” and “protection” within the provisions of § 1201.²⁸¹ To ignore this linkage would be “both absurd and disastrous,” declared the court.²⁸² It would effectively give “the owners of a work protected by *both* copyright *and* a technological measure that effectively controls access ... *unlimited* rights to hold circumventors liable under § 1201(a) *merely for accessing that work*, even if that access enabled *only* rights that the Copyright Act grants to the public.”²⁸³ Such a result would not only render irrational Congress’s exercise of its powers under the Copyright Clause, but also vitiate § 1201(c) of the DMCA.²⁸⁴

The Federal Circuit concluded that § 1201 “prohibits only forms of access that bear a reasonable relationship to the protections that the Copyright Act otherwise affords copyright owners.”²⁸⁵ A plaintiff alleging violation of the DMCA must, therefore, establish the existence of a “nexus between access and protection”—specifically, “that the trafficker’s device enables either copyright infringement or a prohibited circumvention.”²⁸⁶ In establishing this test, the

action against anyone who circumvented any sort of technological control, but did not infringe. The DMCA rebalanced these interests to favor the copyright owner; the DMCA created circumvention liability for ‘digital trespass’ under § 1201(a)(1). It also created trafficking liability under § 1201(a)(2) for facilitating such circumvention and under § 1201(b) for facilitating infringement.”).

278. *Id.* at 1196-97 (“The most significant and consistent theme running through the entire legislative history of the anticircumvention and anti-trafficking provisions of the DMCA ... is that Congress attempted to balance competing interests, and ‘endeavored to specify, with as much clarity as possible, how the right against anti-circumvention would be qualified to maintain balance between the interests of content creators and information users.’” (quoting H.R. REP. NO. 105-551, at 26 (1998)) (citation omitted)).

279. *Id.* at 1192-93.

280. *Id.* at 1198.

281. *Id.* at 1197.

282. *Id.* at 1200-01.

283. *Id.* at 1200.

284. *Id.*

285. *Id.* at 1202.

286. *Id.* at 1204.

Federal Circuit differentiated under the DMCA “between defendants whose accused products enable copying and those ... whose accused products enable only legitimate uses of copyrighted software.”²⁸⁷ For example, in purchasing a Chamberlain GDO system, consumers gained the “inherent legal right” to use the copyrighted software embedded in the Chamberlain receiver.²⁸⁸ Accordingly, in the resultant absence of any allegation of copyright infringement or circumvention liability under § 1201(a)(1), Skylink could not be liable for trafficking under § 1201(a)(2).²⁸⁹

The Federal Circuit clarified this same point one year later, observing that “[t]o the extent that [the copyright owner]’s rights under copyright law are not at risk, the DMCA does not create a new source of liability.”²⁹⁰ The plaintiff in *Storage Technology Corp. v. Custom Hardware Engineering & Consulting, Inc.* manufactured automated tape cartridge libraries capable of storing large quantities of computer data.²⁹¹ To access its data, a user of Storage Technology’s system would send a request to the “Library Management Unit,” which then commanded the appropriate “Library Control Unit” to retrieve the relevant cartridge and send the requested data over a local area network connecting the two computers.²⁹² Upon startup, two software programs consisting of functional and maintenance code automatically loaded into the RAM of the Library Management and Control Units.²⁹³ Storage Technology’s customers purchased the physical components of this system but merely licensed the functional portion of the software; Storage Technology restricted access to the maintenance code using a password protection scheme.²⁹⁴ To repair data libraries, the defendant was thus forced to either “crack” or bypass this password

287. *Id.* at 1198.

288. *Id.* at 1202.

289. *Id.* at 1204. Note that the Federal Circuit did not reach the question of whether such a violation could be established if the consumer’s use of the purchased product were contractually restricted.

290. *Storage Tech. Corp. v. Custom Hardware Eng’g Consulting, Inc.*, 421 F.3d 1307, 1318 (Fed. Cir. 2005).

291. *Id.* at 1309.

292. *Id.*

293. *Id.* at 1309-10.

294. *Id.* at 1310.

in order to obtain access to the error messages generated by the maintenance code.²⁹⁵

Storage Technology sued, claiming that the defendant's actions violated § 1201(a)(1) of the DMCA.²⁹⁶ The procedures used by the defendant not only enabled access to the maintenance code, but also caused the Library Control and Management Units to reboot, thus triggering the automatic copying of Storage Technology's copyrighted software into RAM.²⁹⁷ The Federal Circuit vacated the preliminary injunction issued by the district court.²⁹⁸ In particular, the Federal Circuit found it unlikely that Storage Technology would be able to prove that the defendant's circumvention of its password either "infringes or facilitates infringing a right protected by the Copyright Act."²⁹⁹ First, it was likely that the defendant's activities fell within the § 117(c) safe harbor provision for repair and maintenance.³⁰⁰ And second, the software license granted by Storage Technology to its customers allowed the defendant as the customers' agent to copy the copyrighted software into RAM.³⁰¹

But the Federal Circuit further concluded that no DMCA violation would have existed even if the software copying triggered by the defendant's actions had constituted a copyright infringement.³⁰² In particular, the Federal Circuit observed that "[a] court must look at the threat that the unauthorized circumvention potentially poses in each case to determine if there is a connection between the circumvention and a right protected by the Copyright Act."³⁰³ Here, no such nexus existed between the alleged infringement—copying of software into RAM upon rebooting of the Library Control and Management Units—and the defendant's circumvention.³⁰⁴ Such copying occurred whenever the Library Control or Management Units were rebooted, regardless of the defendant's

295. *Id.*

296. *Id.* at 1310, 1318.

297. *Id.* at 1310.

298. *Id.* at 1321.

299. *Id.* at 1318 (quoting *Chamberlain III*, 381 F.3d 1178, 1203 (Fed. Cir. 2004)).

300. *Id.* at 1314-15.

301. *Id.* at 1315-17.

302. *Id.* at 1319.

303. *Id.*

304. *Id.*

actions.³⁰⁵ Password circumvention merely allowed the defendant to use portions of Storage Technology's copyrighted software³⁰⁶—a use that may have violated Storage Technology's customer license but did not violate copyright law.³⁰⁷

B. Narrowing the Scope of TPMs: Effective Restriction of All Access to the Underlying Copyrighted Work Predicates DMCA Protection

A second method used by courts to restrict the reach of the DMCA is to afford protection only to those copyrighted works guarded by robust TPMs. This interpretation finds its basis in the language of the DMCA itself, which requires that a TPM not only control access, but do so “effectively.”³⁰⁸ This approach was first taken by the Sixth Circuit in vacating the preliminary injunction granted by the district court in *Lexmark I*.³⁰⁹ Recall that Lexmark developed an authentication sequence that controlled toner-cartridge access to software embedded in its printers, thus rendering competitors' toner cartridges incompatible.³¹⁰ The district court concluded that Lexmark's authentication sequence constituted a TPM because it “effectively control[led] access to a work protected under [the copyright provisions]”³¹¹ and enjoined defendant SCC from selling cartridges that mimicked it.³¹² The Sixth Circuit arguably agreed with Lexmark that the authentication sequence controlled one form of access to its copyrighted printer programs—without it a consumer could not make use of the embedded software.³¹³ The Sixth Circuit also noted, however, that absence of the authentication sequence did not prevent any Lexmark printer owner from reading the software's binary code directly from the printer memory, translating that

305. *Id.*

306. *Id.*

307. *Id.*

308. 17 U.S.C. § 1201(a) (2000).

309. *Lexmark Int'l, Inc. v. Static Control Components, Inc. (Lexmark II)*, 387 F.3d 522, 551 (6th Cir. 2004), *vacating* 253 F. Supp. 2d 943 (E.D. Ky. 2003); *see also supra* notes 206-17 and accompanying text.

310. *Lexmark II*, 387 F.3d at 530; *see also supra* note 210 and accompanying text.

311. *Lexmark II*, 387 F.3d at 546.

312. *Id.* at 532; *see also supra* notes 211-14 and accompanying text.

313. *Lexmark II*, 387 F.3d at 547.

information into source code, and distributing it.³¹⁴ Access to Lexmark's copyrighted software was thus ultimately controlled not by the authentication sequence but by printer purchase.³¹⁵ Referring to the statutory text, the Sixth Circuit further observed that DMCA protection requires that the employed technological measure control access to the copyrighted material "effectively."³¹⁶ It accordingly concluded that § 1201(a)(2) "does not naturally extend to a technological measure that restricts one form of access but leaves another route wide open."³¹⁷ A TPM must restrict all forms of access for the protected work to fall within the scope of the DMCA.³¹⁸

The U.S. District Court for the Northern District of Illinois applied similar logic in *Agfa Monotype Corp. v. Adobe Systems, Inc.*³¹⁹ Agfa, the owner and distributor of copyrighted TrueType fonts, alleged that Adobe Acrobat 5.0 violated § 1201 of the DMCA.³²⁰ By embedding a copy of the font data in the transmitted document, Acrobat allowed a user to create and send PDF documents such that the recipient could view them in the same format as the user.³²¹ Where the document transmitted was a form, the recipient could also insert text into appropriate fields using the embedded font.³²² Agfa used embedding bits to signal to programs such as Acrobat the font licensing rights possessed by the PDF creator.³²³ Version 5.0 of Acrobat, however, for the first time allowed embedding of TrueType fonts not licensed for editing—such as that affected by a PDF recipient completing a form field.³²⁴ Agfa thus

314. *Id.* at 546.

315. *Id.*

316. *Id.* at 547. The Sixth Circuit notes that a TPM need not create an "impervious shield" protecting the copyrighted work, but that DMCA liability requires that "the challenged circumvention device ... circumvent *something*." *Id.* at 549.

317. *Id.* at 547.

318. *Id.* at 548 (observing that where copyright protection applies both to an underlying work and its audiovisual manifestation, "the DMCA applies ... when the product manufacturer prevents *all* access to the copyrightable material" (emphasis added)).

319. 404 F. Supp. 2d 1030 (N.D. Ill. 2005).

320. *Id.* at 1030-31.

321. *Id.* at 1031.

322. *Id.* at 1032.

323. *Id.* at 1031.

324. *Id.* at 1032.

contended that Acrobat 5.0 allowed PDF recipients to circumvent the embedding bits.³²⁵

The district court concluded that Agfa's embedding bits do not "effectively control access to a work protected under [the Copyright] title" as required by § 1201(a)(2)(A).³²⁶ The files encoding TrueType fonts can be accessed by software such as Acrobat regardless of the licensing restrictions indicated by the associated embedding bits.³²⁷ Furthermore, embedding bits do not encrypt, scramble, or authenticate TrueType fonts, nor require a program seeking to access, use, or copy the corresponding files to submit a password or enter an authentication sequence.³²⁸ In fact, the specifications for TrueType fonts had been available for free download for a decade at the time of the decision.³²⁹

Finally, the U.S. District Court for the District of Massachusetts similarly applied the Sixth Circuit's approach in *Storage Technology Corp. v. Custom Hardware Engineering & Consulting, Ltd.*³³⁰ On remand, Storage Technology now alleged that circumvention of a second piece of software was part of its DMCA claim.³³¹ In an unreported opinion, the court granted summary judgment to the defendant because Storage Technology's customers could always access the underlying code, regardless of TPM implementation.³³²

C. Narrowing the Scope of Circumvention: Mere Unauthorized Access Does Not Establish Circumvention of a TPM

Another method used by courts to restrict the reach of the DMCA is to narrowly interpret the definition of "circumvention." In *I.M.S. Inquiry Management Systems, Ltd. v. Berkshire Information Systems, Inc.*,³³³ the U.S. District Court for the Southern District of

325. *Id.* at 1031.

326. *Id.* at 1036 (quoting 17 U.S.C. § 1201(a)(2)(A)). The court also concluded on the same basis that the embedding bits do not "prevent[], restrict[], or otherwise limit[] the exercise of a right of copyright" under § 1201(b)(2)(B). *Id.* at 1040.

327. *Id.* at 1031.

328. *Id.* at 1031, 1036.

329. *Id.* at 1036.

330. No. 02-12102-RWZ, 2006 WL 1766434 (D. Mass. June 28, 2006).

331. *Id.* at *7.

332. *Id.* at *8.

333. 307 F. Supp. 2d 521 (S.D.N.Y. 2004).

New York concluded that unauthorized use of an otherwise valid, owner-issued password to access copyrighted material did not constitute circumvention for purposes of the DMCA.³³⁴ I.M.S., which provided an online service whereby clients could access advertising tracking information, sued new competitor Berkshire for an act of circumvention under § 1201(a).³³⁵ Specifically, I.M.S. claimed that unauthorized use of a legitimate password issued by I.M.S. to a third party had allowed Berkshire to access its proprietary service and copy report formats containing copyrightable elements.³³⁶ The district court agreed with I.M.S. that its password protection constituted a “technological measure that effectively controls access.”³³⁷ In applying a valid password issued by I.M.S. to a third party, however, Berkshire did not avoid or bypass this technological measure, as required by § 1201(a)(3).³³⁸ Rather, what Berkshire “avoided and bypassed was *permission* to engage and move through the technological measure from the measure’s author.”³³⁹ Concluding that mere unauthorized access—as opposed to circumvention—does not violate the DMCA, the court dismissed this claim.³⁴⁰

The U.S. District Court for the District of Columbia arguably further narrowed the definition of circumvention by excluding unauthorized use of an otherwise valid password regardless of the means by which that password was procured. In *Egilman v. Keller & Heckman, LLP*,³⁴¹ a medical doctor who frequently testified as an expert in toxic tort cases sued (for violation of the DMCA) a law firm that accessed his personal website.³⁴² A partner at the firm somehow procured the username/password combination protecting Dr. Egilman’s website,³⁴³ and used the information posted thereon to establish that Dr. Egilman had violated a court order prohibiting

334. *Id.* at 532-33.

335. *Id.* at 523.

336. *Id.* at 523, 531.

337. *Id.* at 531.

338. *Id.* at 532.

339. *Id.*

340. *Id.* at 532-33.

341. 401 F. Supp. 2d 105 (D.D.C. 2005).

342. *Id.* at 107-09.

343. *Id.* at 108. The court notes that Dr. Egilman’s website was protected by the password “brown” and the username “student.” *Id.* at 108 n.4. Given that Dr. Egilman was an associate professor at Brown University, the partner may have stumbled upon the correct combination through educated guesswork.

extrajudicial statements.³⁴⁴ Although no allegation was made that the law firm had obtained the username/password combination from a third party to whom it had been legitimately issued, the court found the case indistinguishable from *I.M.S. Inquiry*.³⁴⁵ The court concluded it was “irrelevant who provided the username/password combination to the defendant, or, given that the combination itself was legitimate, how it was obtained.”³⁴⁶ Given the resulting absence of circumvention, the court dismissed the DMCA claim.³⁴⁷

V. REINING IN THE DANGERS OF THE DMCA: MUCH ADO ABOUT NOTHING?

Although copyright protection promotes public welfare by encouraging creative expression, it simultaneously limits distribution of the resultant output.³⁴⁸ The affirmative defense of fair use balances the need of authors to reap economic benefit with society’s need to access information and creative content.³⁴⁹ Unfortunately, early judicial interpretation of the DMCA established a liability scheme wholly distinct from that of copyright infringement,³⁵⁰ recognizing neither a fair use defense to violation of § 1201(a)(1) nor a *Sony* defense to violation of § 1201(a)(2) and § 1201(b)(1).³⁵¹ Focused solely on the threat of piracy emerging from the digital revolution, courts lost sight of the public interest and in effect ceded all legal power to TPM-deploying copyright owners.³⁵² Even durable goods containing a modicum of original software benefited from DMCA protection.³⁵³ But in crafting the DMCA, Congress strove above all to maintain the previous balance between the rights of

344. *Id.* at 107-08.

345. *Id.* at 113.

346. *Id.*

347. *Id.* at 114.

348. See Steve P. Calandrillo, *An Economic Analysis of Property Rights in Information: Justification and Problems of Exclusive Rights, Incentives to Generate Information, and the Alternative of a Government-Run Reward System*, 9 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 301, 304 (1998).

349. See *supra* notes 80-88 and accompanying text.

350. See *supra* note 120 and accompanying text.

351. See *supra* Part II.C.1.

352. See discussion *supra* Part II.C.

353. See *supra* notes 206-14 and accompanying text.

authors and the rights of the public,³⁵⁴ as well as to stimulate competition and innovation.³⁵⁵ Recent jurisprudence better recognizes this congressional intent through narrower application of—and perhaps even recognition of a fair use defense to—§ 1201(a)(1) liability.³⁵⁶ Courts, however, continue to fall short in failing to recognize the *Sony* defense with respect to the DMCA’s antitrafficking provisions.³⁵⁷

A. Balancing the Societal Benefits and Costs of Fair Use

The U.S. Constitution provides for patents and copyrights as an incentive to inventors and authors, respectively, “[t]o promote the Progress of Science and useful Arts.”³⁵⁸ The exclusive rights granted to an author under copyright law are thus widely seen as promoting public welfare by rewarding the generation of creative content.³⁵⁹ In the absence of copyright, an author’s benefits would be reduced by rivals burdened solely with the costs of copying (as opposed to also creating) the original work.³⁶⁰ Where the costs of copying are significant or the copy quality inferior, the author may nonetheless proceed with the expectation that his work will reap sufficient reward to outweigh the costs of creation.³⁶¹ But where the costs of copying are minor and the copy quality good, the author might well in the absence of copyright decline to engage in the creative process at all, leaving society the poorer.³⁶²

The advent of digital technology resoundingly tipped the reward scales against authors.³⁶³ Whether engaged in by organized movie and software piracy rings or individuals using peer-to-peer file-sharing networks, the ability to quickly create and distribute innumerable, near-perfect copies of digitized works has become

354. *See supra* notes 39-41, 51 and accompanying text.

355. *See supra* notes 53-57 and accompanying text.

356. *See* discussion *supra* Part IV.

357. *See* discussion *supra* Part IV.

358. U.S. CONST. art. I, § 8.

359. *See* Calandrillo, *supra* note 348, at 304.

360. *See id.* at 303.

361. *See id.* at 318-20.

362. *See id.* at 303-04, 320.

363. *Cf.* LAWRENCE LESSIG, CODE VERSION 2.0, at 173 (2006).

commonplace.³⁶⁴ Moreover, it is generally impossible on the Internet to determine whether material is being distributed lawfully.³⁶⁵ This change in the copyright landscape in fact created the impetus behind enactment of the DMCA.³⁶⁶

Yet while rewarding authors with a copyright benefits society by increasing total creative output, it also works to society's detriment by limiting distribution of that output for the term of the copyright.³⁶⁷ The principle of fair use attempts to mitigate this harm to society by sometimes allowing what would otherwise be considered infringement.³⁶⁸ For example, this affirmative defense permits use of protected materials for purposes such as "criticism, comment, news reporting, teaching ... scholarship, or research" without risk of liability for copyright infringement.³⁶⁹ Fair use thus attempts to strike a balance between encouraging creative expression and allowing public access thereto.³⁷⁰

Ensuring public access to a new work is particularly critical because creative expression does not arise in a vacuum. To the contrary, as explained by Professor Landes and Judge Posner, "[c]reating a new work typically involves borrowing or building on material from a prior body of works, as well as adding original expression to it."³⁷¹ Thus, elimination of the fair use exception to the copyright regime would leave society with less creative output, just as would be expected in the absence of copyright law itself.³⁷²

For example, almost as startling as the technological advances of the digital revolution is the public's eagerness to post its own creative content on the Internet. In particular, from fan fiction to machinima to YouTube, individuals are choosing to engage with mass media content by creating unauthorized derivative works to

364. *Id.*

365. *Id.*

366. See *supra* notes 32-34 and accompanying text.

367. See Calandrillo, *supra* note 348, at 326-28.

368. See *supra* note 80 and accompanying text.

369. 17 U.S.C. § 107 (2000).

370. See *supra* note 88 and accompanying text.

371. William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 332 (1989); see also Calandrillo, *supra* note 348, at 341 (citing Stanley M. Besen & Leo J. Raskind, *An Introduction to the Law and Economics of Intellectual Property*, 5 J. ECON. PERSP. 3, 5 (1991); Fritz Machlup & Edith Penrose, *The Patent Controversy in the Nineteenth Century*, 10 J. ECON. HIST. 1, 24 (1950)).

372. Landes & Posner, *supra* note 371, at 332.

further explore characters and plot lines.³⁷³ In many cases, media companies have threatened legal action to shut down such sites;³⁷⁴ fans sometimes prevail via the publicity storm that may subsequently arise.³⁷⁵ Whether the fair use exception encompasses such fan fiction, however, remains unclear—leaving individuals largely at the mercy of Hollywood and no doubt discouraging creative expression that would otherwise occur.³⁷⁶

The DMCA places the force of law behind any TPM created by a copyright holder, thus shifting from the state to the copyright holder de facto control over who is permitted to access creative content.³⁷⁷ Yet the DMCA contains no requirement that any such TPM be designed to allow fair use; nor does any economic incentive exist for the copyright holder to design TPMs to enable such exceptions. The antitrafficking provisions of the DMCA further compound this problem—if a TPM does not allow fair use and the end user has no access to devices that enable circumvention of the TPM, then the end user will have no way to exercise fair use rights.

Analysis of legislative history reveals that Congress did not intend to overrule either fair use or the *Sony* defense when enacting the DMCA.³⁷⁸ Admittedly, the text of the DMCA does not *explicitly* establish either as an affirmative defense to a § 1201 violation. Moreover, the role ascribed to the Librarian of Congress in § 1201(a)(1)(C)—together with the additional exemptions to liability under the DMCA for activities such as reverse engineering—may be viewed as Congress’s attempt to protect consumer fair use rights.³⁷⁹

373. See generally HENRY JENKINS, CONVERGENCE CULTURE: WHERE OLD AND NEW MEDIA COLLIDE 2-4, 21 (2006).

374. See, e.g., *id.* at 186.

375. *Id.* at 186-87. In 2001, for example, Warner Bros. sent cease-and-desist letters demanding that various unauthorized Harry Potter fan sites be removed. Many of these sites were run by teenagers. Warner Bros. backed down after the teens gained media attention through their “Defense Against the Dark Arts” organization. *Id.*; see Tim Wu, *American Lawbreaking Tolerated Use: The Copyright Problem*, SLATE, Oct. 16, 2007, <http://www.slate.com/id/2175730/entry/2175731/>. See generally JENKINS, *supra* note 373, at 185-88.

376. See JENKINS, *supra* note 373, at 189-91 (suggesting fan-studio collaboration as a solution until the scope of the fair use exception is clarified).

377. Dan L. Burk & Julie E. Cohen, *Fair Use Infrastructure for Rights Management Systems*, 15 HARV. J.L. & TECH. 41, 51 (2001).

378. See *supra* Part II.A.

379. Some members of Congress appear to have adopted this interpretation. See, e.g., 144 CONG. REC. E2136, E2137 (daily ed. Oct. 13, 1998) (statement of Rep. Bliley) (observing with respect to § 1201(a)(1)(C), “it will be particularly important for this provision to be interpreted

But as specifically indicated in the House Report from the Committee on the Judiciary:

[Section 1201](a)(1) does not apply to the subsequent actions of a person once he or she has obtained authorized access to a copy of a work protected under Title 17, even if such actions involve circumvention of additional forms of technological protection measures. In a fact situation where the access is authorized, the traditional defenses to copyright infringement, including fair use, would be fully applicable. So, an individual would not be able to circumvent in order to gain unauthorized access to a work, but would be able to do so in order to make fair use of a work which he or she has acquired lawfully.³⁸⁰

Similarly, § 1201(a)(2)—and by analogy the parallel § 1201(b)(1)—“is drafted carefully to target ‘black boxes,’ and to ensure that legitimate multipurpose devices can continue to be made and sold.”³⁸¹ Nor does the text of the DMCA *explicitly* expand copyright protection in such a way as to lessen fair use rights—to the contrary, § 1201(c)(1) “instructs the courts explicitly *not* to construe the anticircumvention provisions in ways that would effectively repeal longstanding principles of copyright law.”³⁸²

The *Sony* Court itself relied on the words (and wisdom) of Justice Stewart, which bear repeating as we continue our journey through a fair use landscape shaped by the DMCA. In considering how to approach ambiguities in the law of copyright, Justice Stewart observed:

The limited scope of the copyright holder’s statutory monopoly, like the limited copyright duration required by the Constitution, reflects a balance of competing claims upon the public interest: Creative work is to be encouraged and rewarded, but private

to allow individuals and institutions the greatest access to the greatest number of works, so that they will be able to continue exercising their traditional fair use and other rights to information”); 144 CONG. REC. E2144, E2144 (daily ed. Oct. 13, 1998) (statement of Rep. Tauzin) (“I trust the Librarian, in consultation with the Assistant Secretary of Commerce for Communications and Information, will ensure that information consumers may continue to exercise their centuries-old fair use privilege.”).

380. H.R. REP. NO. 105-551, pt.1, at 18 (1998).

381. *Id.*

382. *Chamberlain III*, 381 F.3d 1178, 1203 (Fed. Cir. 2004).

motivation *must ultimately serve the cause of promoting broad public availability* of literature, music, and the other arts. The immediate effect of our copyright law is to secure a fair return for an “author’s” creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity *for the general public good*. “The sole interest of the United States and *the primary object in conferring the monopoly*,” this Court has said, “*lie in the general benefits derived by the public from the labors of authors.*”³⁸³

Accordingly, Justice Stewart concluded that “[w]hen technological change has rendered its literal terms ambiguous, the Copyright Act must be construed in light of this basic purpose.”³⁸⁴ Just as the *Sony* Court kept its eye on the basic purpose of the Copyright Act, so should today’s judiciary in interpreting the DMCA.

Thus, while Congress sought to encourage authors and innovators to continue creating socially valuable works when it enacted the DMCA, we must never lose sight of the fact that an equally compelling goal is to see those works publicly disseminated to as broad an audience as possible. After all, the best incentives to create are of no benefit whatsoever if the resulting creations never reach their audience.³⁸⁵

B. Love’s Labours Lost

In the first years following enactment of the DMCA, courts intently focused on preventing piracy and protecting copyright owners.³⁸⁶ In particular, by interpreting § 1201 as establishing a liability regime wholly distinct from that of infringement, the judiciary caused fair use and the *Sony* defense to fall by the wayside.³⁸⁷ As the Federal Circuit later explained, such an interpretation seemed plausible because:

383. *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151, 156 (1975) (quoting *Fox Film Corp. v. Doyal*, 286 U.S. 123, 127 (1932)), *quoted in Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 431-32 (1984) (emphasis added) (footnotes omitted); *see also Kendall v. Winsor*, 62 U.S. (21 How.) 322, 327-28 (1859); *Grant v. Raymond*, 31 U.S. (6 Pet.) 218, 241-42 (1832).

384. *Twentieth Century*, 422 U.S. at 156.

385. *See generally* Calandrillo, *supra* note 348, at 326-28.

386. *See supra* Part II.C.1.

387. *See supra* Part II.C.1.

[T]he statute's structure could be seen to suggest that § 1201(b) strengthens a copyright owner's abilities to protect its recognized *rights*, while § 1201(a) strengthens a copyright owner's abilities to protect *access* to its work without regard to the legitimacy (or illegitimacy) of the actions that the accused access enables.³⁸⁸

Sadly, this interpretation came at the expense of congressional intent and overall societal welfare.

As enacted, the DMCA embodies a carefully crafted compromise between the concerns of content creators and the concerns of the consuming public. The Federal Circuit has observed that “[t]he most significant and consistent theme running through the entire legislative history of the anticircumvention and anti-trafficking provisions of the DMCA ... is that Congress attempted to balance competing interests”³⁸⁹ Time and again the legislative history refers to the need for balance between copyright protection and the public's access to information.³⁹⁰

Rather than weigh the potential injury to the public resulting from strict DMCA application, courts nonetheless appeared unable to move beyond the harm that might be caused to the TPM-deploying copyright owner. The fact that a consumer's use of the Streambox device or of DVD decryption-and-copying software enabled noninfringing uses (e.g., downloading or decrypting files for subsequent, private fair use of the work) thus provided no shield for the defendants,³⁹¹ even though it would have under the contributory liability scheme of *Sony*. As one court summarized: “Equipment

388. *Chamberlain III*, 381 F.3d 1178, 1199 (Fed. Cir. 2004).

389. *Id.* at 1196 (citation omitted).

390. *See, e.g.*, H.R. REP. NO. 105-551, pt.2, at 26 (2d Sess. 1998) (observing that the proposed legislation “fully respects and extends into the digital environment the bedrock principle of ‘balance’ in American intellectual property law for the benefit of both copyright owners and users”); 144 CONG. REC. E2144, E2144 (daily ed. Oct. 13, 1998) (statement of Rep. Tauzin) (noting that in its final form the DMCA preserved “balance between copyright protection and the exchange of ideas in the free-market—two of the fundamental pillars upon which this nation was built”).

391. *321 Studios v. Metro Goldwyn Mayer Studios, Inc.*, 307 F. Supp. 2d 1085, 1097-98 (N.D. Cal. 2004); *RealNetworks, Inc. v. Streambox, Inc.*, No. 2:99CV02070, 2000 WL 127211, at *8 (W.D. Wash. Jan. 18, 2000); *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 323 (S.D.N.Y. 2000).

manufacturers in the twenty-first century will need to vet their products for compliance with Section 1201 in order to avoid a circumvention claim, rather than under *Sony* to negate a copyright claim.”³⁹²

Moreover, courts became so preoccupied with the threat of piracy that they neglected the public interest in harnessing the amazing technologies emerging from the digital revolution. To the contrary, the greater the ease, convenience, and quality of the circumvention, the more compelling the courts perceived the injury to the copyright owner to be.³⁹³ The courts thus failed to imagine a future where most, if not all, information is distributed digitally, and where unbending enforcement of TPMs not only interferes with an individual’s enjoyment of his music collection but also generally impedes economic and cultural progress. Today, for example, almost any action involving a computer or the Internet requires the making of a copy.³⁹⁴

The dramatic broadening of the definition of a TPM effected by *Lexmark I* raised an additional specter: perpetual patent-like protection for durable goods under copyright law. Where use of a product in which TPM-protected software is embedded necessarily requires “access” of that software, the manufacturer theoretically has the ability to restrict consumer use of the product under the DMCA, and thus to control the aftermarket uses of the product.³⁹⁵ This came in direct contravention of congressional intent and allowed potentially endless protection of works that would have never satisfied traditional requirements for patentability: (1) novelty,³⁹⁶ (2) nonobviousness,³⁹⁷ and (3) utility.³⁹⁸ These three criteria for obtaining patent protection serve a vital purpose—ensuring that innovations increase social welfare, and further

392. *RealNetworks*, 2000 WL 127211, at *8 (quoting *NIMMER*, *supra* note 59, § 12A.19[B]).

393. *See Reimerdes*, 111 F. Supp. 2d at 313-14.

394. *See* LESSIG, *supra* note 363, at 192-93; *Fair Use: Its Effects on Consumers and Industry Before the Subcomm. on Commerce, Trade, and Consumer Protection of the H. Comm. on Energy and Commerce*, 109th Cong. 2-3, 7 (2005) (statement of Jonathan Band on behalf of NetCoalition), available at <http://www.policybandwidth.com/doc/jbfairuse2.pdf>.

395. *Chamberlain III*, 381 F.3d 1178, 1201 (Fed. Cir. 2004). Perhaps because of its patent law expertise, the Federal Circuit made this risk explicit.

396. 35 U.S.C. § 102 (2000).

397. *Id.* § 103(a).

398. *Id.* § 101.

guaranteeing that they eventually reach the public domain after the patent term has expired (currently twenty years from the date of patent application filing).³⁹⁹ In so doing, society strikes a balance between providing innovators necessary incentives to create socially valuable works on the one hand, and allowing consumers and the public access to those works on the other. This latter point regarding public access is especially crucial given the fact that the vast majority of innovations are not “pioneering” ones, but rather, ones which gradually build off of other works that previously have been patented, and which have now reached the end of their monopoly protection period.⁴⁰⁰ Once inventions reach the public domain, there is often a flurry of new innovation and competition, which invariably inures to the benefit of the consuming public.⁴⁰¹

Nevertheless, early DMCA jurisprudence threatened to undo that delicate balance by providing near-perpetual protection to works that would have never qualified for such rights previously.⁴⁰² It is absolutely essential then that future DMCA interpretation be cognizant of this insidious risk, and return to a serious consideration of the public rights and interests at stake. Narrow focus on protection of copyright holders to the detriment of free competition and innovation was certainly not what Congress envisioned.⁴⁰³

C. Judicial Awakening: Inching Back Toward an Understanding of the DMCA Congruent with Congressional Intent

More recent jurisprudence is bringing interpretation and application of the DMCA better in line with congressional intent—both as expressed during enactment of the DMCA and as indicated by legislation proposed thereafter.⁴⁰⁴ Specifically, the Federal Circuit appears well on its way to recognizing fair use as an affirmative defense to § 1201(a)(1), the Sixth Circuit’s approach

399. *Id.* § 154(a)(2).

400. See Calandrillo, *supra* note 348, at 341 (citing Stanley M. Besen & Leo J. Raskind, *An Introduction to the Law and Economics of Intellectual Property*, 5 J. ECON. PERSP. 3, 5 (1991); Fritz Machlup & Edith Penrose, *The Patent Controversy in the Nineteenth Century*, 10 J. ECON. HIST. 1, 24 (1950)).

401. *Id.*

402. See *supra* Part II.C.

403. See *supra* Parts I, II.A.

404. See *supra* Part IV.

places durable goods beyond the scope of the DMCA (at least for now), and courts generally are less likely to find weak TPMs deserving of DMCA recognition.⁴⁰⁵ Nonetheless, the *Sony* defense continues to lie fallow with respect to the § 1201(a)(2) and § 1201(b)(1) antitrafficking provisions.

1. The Federal Circuit's Approach Likely Establishes Fair Use as a Defense to a Section 1201(a)(1) Violation

In enacting the DMCA, Congress intended fair use to constitute a defense to an alleged violation of § 1201(a)(1).⁴⁰⁶ In light of the courts' initial interpretation of § 1201 as creating a liability regime distinct from copyright infringement and thus not limited by fair use,⁴⁰⁷ multiple amendments to the DMCA were proposed.⁴⁰⁸ For example, the DMCRA would modify § 1201(c)(1) to make explicit that "it is not a violation of [§ 1201] to circumvent a technological measure in order to obtain access to the work for purposes of making noninfringing use of the work."⁴⁰⁹ Similarly, the Consumer Technology Bill of Rights would specify that the owners of legally acquired copyrighted works possess "the right to use technology in order to achieve ... enumerated [rights]" such as time-shifting and creation of backup copies.⁴¹⁰ More stringently, the BALANCE Act would allow circumvention of a TPM by the lawful owner of a protected work, but only where: (1) "necessary to make a noninfringing use" thereof, and (2) the copyright owner has failed to

405. See *supra* notes 308-47 and accompanying text.

406. See H.R. REP. NO. 105-551, pt. 1, at 18 (2d Sess. 1998) (observing that under § 1201(a)(1), "an individual would not be able to circumvent [a TPM] in order to gain unauthorized access to a work, but would be able to do so in order to make fair use of a work which he or she has acquired lawfully"); 144 CONG. REC. E2144, E2144 (daily ed. Oct. 13, 1998) (statement of Rep. Tauzin) ("We also sought to ensure that consumers could apply their centuries-old fair use rights in the digital age."); 144 CONG. REC. H10615, H10621 (daily ed. Oct. 12, 1998) (statement of Rep. Klug) (observing that "information users will continue to utilize information on a 'fair use' basis, notwithstanding the prohibition on circumvention"); 144 CONG. REC. H7074, H7094 (daily ed. Aug. 4, 1998) (statement of Rep. Bliley) (observing that § 1201(a)(1) "was crafted by the Commerce Committee to protect 'fair use'").

407. See *supra* Part II.C.1.

408. See *supra* Part III.

409. Digital Media Consumers' Rights Act of 2005, H.R. 1201, 109th Cong. § 5(b)(1) (2005); see *supra* Part III.A.1.

410. The Consumer Technology Bill of Rights, S.J. Res. 51, 107th Cong. § 3 (2d Sess. 2002); see *supra* Part III.B.1.

make available, without additional cost or burden, the means to make the noninfringing use.⁴¹¹

The Federal Circuit's approach appears to be in accord with that of the DMCRA, suggesting that it may recognize fair use as an affirmative defense to a § 1201(a)(1) violation. In both *Chamberlain* and *Storage Technology*, the Federal Circuit explicitly recognized that a § 1201(a) violation requires proof "that the circumvention of the technological measure either 'infringes or facilitates infringing a right protected by the Copyright Act.'"⁴¹² A violation of § 1201(a)(1) necessarily focuses on the person committing the challenged circumvention, as opposed to the person manufacturing or distributing the means of circumvention.⁴¹³ Under the Federal Circuit's standard, therefore, no § 1201(a)(1) violation occurs if the person committing the challenged circumvention has not infringed—or facilitated infringing—the TPM-protected work. In *Storage Technology*, for example, the Federal Circuit foreclosed a § 1201(a)(1) claim to the extent that the defendant's activities fell within the § 117(c) safe harbor for computer maintenance and repair, and thus did not constitute copyright infringement.⁴¹⁴ Like § 117(c), § 107 establishes a safe harbor from copyright infringement—but for fair use rather than maintenance and repair activities.⁴¹⁵ Although the Federal Circuit expressly declined to consider the defendant's § 107 fair use defense in *Storage Technology*,⁴¹⁶ applying the court's logic nonetheless indicates that a person who circumvents a TPM in order to effect a fair use does not violate § 1201(a)(1) of the DMCA.

411. BALANCE ACT, H.R. 4536, 109th Cong. § 5 (1st Sess. 2005); see *supra* Parts III.A.2.

412. *Storage Tech. Corp. v. Custom Hardware Eng'g & Consulting, Inc.*, 421 F.3d 1307, 1318 (Fed. Cir. 2005) (quoting *Chamberlain III*, 381 F.3d 1178, 1203 (Fed. Cir. 2004)).

413. 17 U.S.C. § 1201(a)(1) (2000) ("No person shall circumvent a technological measure that effectively controls access to a work protected under this title.")

414. *Storage Tech.*, 421 F.3d at 1317.

415. Compare 17 U.S.C. § 117(c) (2000) ("[I]t is not an infringement for the owner or lessee of a machine to make or authorize the making of a copy of a computer program if such copy is made solely by virtue of the activation of a machine that lawfully contains an authorized copy of the computer program, for purposes only of maintenance or repair of that machine") with 17 U.S.C. § 107 (2000) ("[T]he fair use of a copyrighted work ... is not an infringement of copyright.")

416. 421 F.3d at 1318. Similarly, the Federal Circuit in *Chamberlain III* did not reach the relationship between § 1201 and fair use. *Chamberlain III*, 381 F.3d at 1200 n.14.

2. *The Federal Circuit's Approach Falls Short of Establishing Fair Use as a Defense to a Section 1201(a)(2) Violation*

Just as it did not intend to eliminate fair use as a defense to circumvention, so Congress did not intend to make the *Sony* defense inapplicable to § 1201(a)(2) and § 1201(b)(1) of the DMCA.⁴¹⁷ For example, after first observing that the language initially proposed by the Clinton administration would have overruled *Sony*,⁴¹⁸ Representative Bliley, in the final Commerce Committee report, described the intended effect of the revised antitrafficking provisions as follows:

Sections 1201(a)(2) and (b)(1) make it illegal to manufacture, import, offer to the public, provide, or otherwise traffic in so-called "black boxes"—devices with *no substantial non-infringing uses* that are expressly intended to facilitate circumvention of technological measures for purposes of gaining access to or making a copy of a work. These provisions are not aimed at widely used staple articles of commerce, such as the consumer electronics, telecommunications, and computer products ... used by businesses and consumers everyday for perfectly legitimate purposes.⁴¹⁹

Circumvention devices with substantial noninfringing uses were thus envisioned by Congress as being beyond the scope of the DMCA.⁴²⁰ Nonetheless, in the years immediately following its enactment, courts held *Sony* overruled "to the extent of any inconsistency between *Sony* and the [DMCA]."⁴²¹

In response to the judicial interpretation of § 1201 as prohibiting "fair uses ... as well as foul,"⁴²² legislators again proposed amend-

417. See *supra* Part I.

418. 144 CONG. REC. E2136-37 (daily ed. Oct. 13, 1998) (statement of Rep. Bliley).

419. *Id.* at E2137 (emphasis added); see also 144 CONG. REC. H10615, H10621 (daily ed. Oct. 12, 1998) (statement of Rep. Klug) ("I'm very pleased that the conferees have meaningfully clarified that the *Sony* decision remains valid law.")

420. 144 CONG. REC. S9935, S9936 (daily ed. Sept. 3, 1998) (statement of Sen. Ashcroft) ("[T]his bill is aimed fundamentally at so-called 'black boxes' and not at legitimate products that have substantial non-infringing uses.")

421. *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 323 (S.D.N.Y. 2000), *aff'd sub nom. Universal City Studios, Inc. v. Corley*, 273 F.3d 429 (2d Cir. 2001).

422. *Id.* at 304.

ments to the text of the DMCA. The DMCRA, for example, would create a new § 1201(c)(5), specifying that “[e]xcept in instances of direct infringement, it shall not be a violation of the Copyright Act to manufacture or distribute a hardware or software product capable of substantial noninfringing uses.”⁴²³ More stringently, the BALANCE Act would not impose liability for the manufacture and distribution of circumvention devices so long as: (1) the device is “necessary to make a noninfringing use” of a TPM-protected work; (2) the device is designed, produced, and marketed for noninfringing use; and (3) the copyright owner has failed to make available, without additional cost or burden, the means to make the noninfringing use.⁴²⁴

Although the Federal Circuit in *Chamberlain* took steps toward recognizing a fair use defense to § 1201(a)(2), it stopped far short of that goal. Admittedly, the Federal Circuit did establish as an express element of a § 1201(a)(2) allegation that the circumvention means allow access that “infringes or facilitates infringing a right *protected* by the Copyright Act.”⁴²⁵ Nonetheless, the court seemed to imply throughout its opinion that the only instance in which § 1201(a)(2) liability is inapposite is where the circumvention means would allow *only* noninfringing uses of the TPM-protected work.⁴²⁶ In other words, so long as the plaintiff can point to one infringing use that the circumvention means would enable, a § 1201(a)(2) violation can be found.⁴²⁷ That the circumvention means may be capable of substantial noninfringing uses thus appears irrelevant under the Federal Circuit’s approach.

423. Digital Media Consumers’ Rights Act of 2005, H.R. 1201, 109th Cong. § 5(b)(3) (1st Sess. 2005); *see supra* Part III.A.1.

424. H.R. 4536, 109th Cong. § 5 (1st Sess. 2005); *see supra* Part III.A.2.

425. *Chamberlain III*, 381 F.3d 1178, 1203 (Fed. Cir. 2004).

426. *See id.* at 1198 (observing “the significant differences between defendants whose accused products enable copying and those ... whose accused products enable *only legitimate uses* of copyrighted software” (emphasis added)); *id.* at 1202 (“[Plaintiff]’s proposed construction would allow copyright owners to prohibit *exclusively fair* uses even in the absence of any feared foul use.”); *id.* at 1203 (“[Plaintiff] can point to no protected property right that [defendant] imperils.”).

427. *Cf. id.* at 1203 (“[Plaintiff] can point to no protected property right that [defendant] imperils.”).

3. *Limiting the DMCA to the Digital World*

The entertainment industry's fears that the digital revolution would gravely weaken copyright protection in large part drove enactment of the DMCA. References to the need to protect authors from the new ability to quickly create and transmit perfect digital copies of copyrighted works permeate the legislative history.⁴²⁸ Yet the district court's liberal interpretation of TPMs in *Lexmark I* appeared to expand DMCA protection beyond the digital environment to durable goods.⁴²⁹ As later recognized by the Federal Circuit in a different context, such a broad statutory interpretation "would allow any manufacturer of any product to add a single copyrighted sentence or software fragment to its product, wrap the copyrighted material in a trivial 'encryption scheme,' and thereby gain the right to restrict consumers' rights to use its products in conjunction with competing products."⁴³⁰ Surprisingly, legislation to exclude durable goods from DMCA protection has not been enacted.

Nonetheless, the Sixth Circuit appears to envision application of the DMCA as limited primarily to the type of multimedia works that the entertainment industry initially sought to protect. In settling on a standard for DMCA applicability, the Sixth Circuit explicitly observed that "[i]n the essential setting where the DMCA applies, the copyright protection operates on two planes: in the literal code

428. See, e.g., H.R. REP. NO. 105-551, pt.2, at 25 (2d Sess. 1998) ("[T]he digital environment poses a unique threat to the rights of copyright owners, and as such, necessitates protection against devices that undermine copyright interests. In contrast to the analog experience, digital technology enables pirates to reproduce and distribute perfect copies of works—at virtually no cost at all to the pirate. As technology advances, so must our laws. The Committee thus seeks to protect the interests of copyright owners in the digital environment, while ensuring that copyright law remain technology neutral."); 144 CONG. REC. E2144, E2144 (daily ed. Oct. 13, 1998) (statement of Rep. Tauzin) (observing that in enacting the DMCA, "we ensure that authors and their works will be protected from pirates who pillage their way through cyberspace"); 144 CONG. REC. H7074, H7092 (daily ed. Aug. 4, 1998) (statement of Rep. Coble) ("While digital dissemination of copies will benefit owners and consumers, it will unfortunately also facilitate pirates who aim to destroy the value of American intellectual property."); *id.* at H7096 (statement of Rep. Boucher) (noting that "new protections are needed due to the ease with which flawless copies of copyrighted materials can both be made and transmitted in the digital network environment"); *id.* at H7099 (statement of Rep. Oxley) ("The digital revolution presents special opportunities and special challenges for copyright holders and users of copyrighted works.").

429. See *supra* text accompanying notes 206-17.

430. *Chamberlain III*, 381 F.3d at 1201.

governing the work and in the visual or audio manifestation generated by the code's execution."⁴³¹ Where software is "purely functional" and does not further generate copyrightable expression—such as the audiovisual display of a video game—its manufacturer might use a TPM to restrict the software's use, but is unlikely to use a second TPM to protect the code itself.⁴³² Thus, by requiring that a TPM restrict all forms of access to a protected work,⁴³³ the Sixth Circuit arguably narrowed the scope of the DMCA to more closely match what Congress originally intended. Whether the Sixth Circuit's presumption regarding TPMs guarding purely functional software proves correct, however, remains to be seen.

4. A Weak TPM Does Not Outweigh the Public Interest in Information Access

The outcomes in *Lexmark II*, *Agfa Monotype*, *I.M.S. Inquiry*, and *Egilman* also suggest that courts are increasingly unwilling to curtail the rights of the content-consuming public when copyright owners fail to use robust TPMs.⁴³⁴ *Lexmark* restricted use of its proprietary software—but neglected to protect the code itself.⁴³⁵ *Agfa* passively shared information about the limits of its font users' license rights—but employed no measure that would actually prohibit a user from exceeding the scope of its copyright license.⁴³⁶ And both *I.M.S.* and *Dr. Egilman* protected their copyrighted work using only a username and password⁴³⁷—information that can be easily shared or even, as seems likely in the latter case, guessed.⁴³⁸ Together, these decisions sensibly suggest decreased judicial tolerance for an expansive reading of the DMCA.

431. *Lexmark II*, 387 F.3d 522, 548 (6th Cir. 2004).

432. *Id.*

433. *Id.* (observing that where copyright protection applies both to an underlying work and its audiovisual manifestation, "the DMCA applies ... when the product manufacturer prevents all access to the copyrightable material") (emphasis added).

434. See generally *supra* Parts IV.B-C.

435. See *Lexmark II*, 387 F.3d at 547.

436. *Agfa Monotype Corp. v. Adobe Systems, Inc.*, 404 F. Supp. 2d 1030, 1031 (N.D. Ill. 2005).

437. *Egilman v. Keller & Heckman, LLP*, 401 F. Supp. 2d 105, 108 & n.4 (D.D.C. 2005); *I.M.S. Inquiry Mgmt. Sys., Ltd. v. Berkshire Info. Sys., Inc.*, 307 F. Supp. 2d 521, 523 (S.D.N.Y. 2004).

438. See *supra* note 343.

CONCLUSION

In sum, early DMCA jurisprudence found courts blindly intent on preventing piracy and protecting copyright holders.⁴³⁹ Sadly, such holdings came at the expense of fair use, public access, competition, innovation, and overall social welfare. As a result, manufacturers and distributors of enabling technology were intimidated by the threat of civil and even criminal liability for a violation of the DMCA's anticircumvention provisions, no exceptions granted. Hence, consumers found themselves unable to use much of the amazing technology emerging from the digital revolution, even in those instances in which such uses would have constituted fair uses under *Sony*. Thus, a film professor who simply wanted to excerpt movie clips to teach his students about the tools of the trade would no longer be able to find the necessary technology to carry out his calling, all in the name of allegedly protecting copyright holders against piracy. Creative works would be locked out of the public domain, stifling the innovation and competition that the DMCA was supposed to promote, not deter.

In the next round of DMCA litigation, the fate of fair use went from bad to worse.⁴⁴⁰ As defendants abandoned attempts to rely on the *Sony*/fair use defense, courts turned instead toward the question of how broadly the term "technology protection measure" could be interpreted. Simply put, the answer was extremely broad—consider, for example, the Lexmark printer microchip.⁴⁴¹ This expansive interpretation threatened to result in near-perpetual, patent-like protection for durable goods that lacked even a remote chance of receiving patent protection under existing law.

Thankfully, more recent DMCA jurisprudence has begun to rein in the dangers of this legislation.⁴⁴² Courts are awakening from industry's spell, with the Federal Circuit's approach likely to

439. See generally *supra* Part II.C.1.

440. See generally *supra* Part II.C.3.

441. See generally *Lexmark I*, 253 F. Supp. 2d 943 (E.D. Ky. 2003), *vacated*, 387 F.3d 522 (6th Cir. 2004) (where an elementary code system preventing Lexmark printers from working with competitors' ink cartridges was held to constitute a technology protection measure worthy of DMCA protection).

442. See generally *supra* Part V.C.

establish a fair use defense to at least a § 1201(a)(1) DMCA violation.⁴⁴³ Some courts also appear willing to limit DMCA protection to the digital world, rather than allow its reach to encompass all durable goods.⁴⁴⁴ Finally, courts have begun to balance the interests of innovators with that of the public, recognizing that a weak TPM does not outweigh the substantial public interest in information access.⁴⁴⁵

In the final analysis, it is crucial for overall social welfare that courts continue to rein in early DMCA jurisprudence to bring practice in line with principles: to foster creation and innovation without unduly harming public access. Thus far, the courts have fallen short of fully enforcing congressional intent, as no court has yet explicitly recognized fair use as a defense to violation of the DMCA's anticircumvention provisions.⁴⁴⁶ The years ahead will reveal if the judiciary is able to realize the ideals embodied within the principles of copyright protection.

443. *See supra* Part V.C.1.

444. *See supra* Part V.C.3.

445. *See supra* Part V.C.4

446. *See supra* Part V.C.2.