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COPYRIGHT, CONGRESS, AND CONSTITUTIONALITY: HOW THE DIGITAL MILLENNIUM COPYRIGHT ACT GOES TOO FAR

Thomas A. Mitchell*

While the need for some sort of meaningful protection scheme aimed at protecting works that can be digitized can hardly be questioned, no matter how laudable, legislation that violates the United States Constitution must be declared invalid.¹

INTRODUCTION

Over the last decade, advances in technology have been staggering. The most notable changes have been the advancements in digital technology and the rise of the Internet.² These two developments have profoundly impacted copyright law, by allowing copyrighted

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¹ Eugene R. Quinn, Jr., An Unconstitutional Patent in Disguise: Did Congress Overstep Its Constitutional Authority in Adopting the Circumvention Prevention Provisions of the Digital Millennium Copyright Act?, 41 BRANDEIS L.J. 33, 36 (2002); see also Marbury v. Madison, 5 U.S. (1 Cranch) 137, 177 (1803) ("[A]n act of the legislature, repugnant to the constitution, is void.").

materials to be disseminated to anyone with access to the Internet, instantaneously and without loss of quality in the work.\textsuperscript{3} The speed at which technology changes far surpasses the ability of the slow-changing legal system to keep up.\textsuperscript{4} This creates a problem for copyright holders,\textsuperscript{5} who face decreasing protection of their works by the legal system. This problem is somewhat alleviated by technological changes that help protect copyrighted work, such as encryption. However, "for every technology that can be created to protect information, there is a

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\textsuperscript{3} See, e.g., Universal City Studios, Inc. v. Corley, 273 F.3d 429, 452 (2d Cir. 2001) (discussing the ability of the Internet to disseminate information instantaneously and globally, while retaining the quality of the original); Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1075-74 (9th Cir. 1999) (discussing the increasing ability of the Internet to be used for copyright violations, due to lack of degradation in quality of copies and improvements in speed of dissemination over the Internet); In re Verizon Internet Servs., 240 F. Supp. 2d 24, 38 (D.D.C. 2003) (noting Congress's concern over copyright protection "in light of rapid technological innovations on the Internet that make copyright theft easy, virtually instantaneous, and undetectable"); Patricia L. Bellia et al., CYBERLAW: PROBLEMS OF POLICY AND JURISPRUDENCE IN THE INFORMATION AGE 495 (2003) ("One who wishes to copy and circulate copyrighted material in digital form can do so quickly, inexpensively, and without any degradation in quality.").

\textsuperscript{4} See Brian M. Werst, A Survey of the First Amendment "Indecency" Legal Doctrine and Its Inapplicability to Internet Regulation: A Guide for Protecting Children from Internet Decency After Reno v. ACLU, 33 GONZ. L. REV. 207, 224 (1997) ("Furthermore, there is an increasing misfit between law and technology; technology can move with stunning speed while the law moves slowly and is hard-pressed to catch up with technological changes."); see also Kris Gautier, Electronic Commerce: Confronting the Legal Challenge of Building E-Dentities in Cyberspace, 20 MISS. C. L. REV. 117, 140 (1999) ("Another problem with relying on patent law to resolve disputes in connection with e-commerce is the speed at which technology practices change."); Irwin R. Kramer, The Birth of Privacy Law: A Century Since Warren and Brandeis, 39 CATH. U. L. REV. 703, 720 (1990) ("Because this technology has grown with incredible speed, privacy law has had difficulty keeping pace with these changes, and many commentators have complained that the law no longer provides adequate protection against the intrusions of the Computer Age."); Maureen A. O'Rourke, Shaping Competition on the Internet: Who Owns Product and Pricing Information?, 53 VAND. L. REV. 1965, 1993 (2000) (noting congres- sional inability to keep pace with the speed of technological change); Robert Pitofsky, Antitrust and Intellectual Property: Unresolved Issues at the Heart of the New Economy, 16 BERKELEY TECH. L.J. 535, 557 (2001) ("On the other hand, law enforcement can rarely equal the speed of economic change in high-technology sectors.").

\textsuperscript{5} This problem is demonstrated by the series of lawsuits commenced by the music industry in an effort to prevent digital distribution of music. See, e.g., In re Aimster Copyright Litig., 334 F.3d 643 (7th Cir. 2003); A&M Records, Inc. v. Napster, Inc., 284 F.3d 1091 (9th Cir. 2002); Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd., 245 F. Supp. 2d 1073 (C.D. Cal. 2003); In re Verizon Internet Servs., Inc., 240 F. Supp. 2d 24 (D.D.C. 2003).
technology waiting to be created, and which will be created, to counteract the protection provided."

Congress responded to this problem in 1998, by passing the Digital Millennium Copyright Act (DMCA or "the Act"). The Act was purportedly designed to increase the protection afforded to copyright holders and their works. The Act, however, goes too far in its protections. By extending the author's or creator's control beyond control of his own work, it allows him to prevent others from creating works of their own. This problem results from the fact that "the protection afforded is not for the invention or technology created or used by the copyright owner, but rather the right to exclude others from creating the inverse invention or technology." Section 1201 prohibits circumvention of, and trafficking in devices designed to circumvent, technological measures that control access to a protected work. This aspect of the DMCA is constitutionally problematic because Congress's powers are limited to those enumerated in the Constitution as supplemented by the Necessary and Proper Clause. Congress's authority for the DMCA must come from either the Copyright Clause, the Commerce Clause, or the treaty power. However, as the Act is not restricted to the actual protection of copyrighted material, Congress overstepped the bounds of these clauses when it enacted such sweeping legislation. This problem is demonstrated in the Act's effect of

6 Quinn, supra note 1, at 51-52; see also BELLIA ET AL., supra note 3, at 270 (noting that it is unclear whether technological changes expand or contract control over content).
9 Quinn, supra note 1, at 65.
11 See United States v. Lopez, 514 U.S. 549, 552 (1995) ("The Constitution creates a Federal Government of enumerated powers."); McCulloch v. Maryland, 17 U.S. (4 Wheat.) 316, 405 (1819) ("This government is acknowledged by all, to be one of enumerated powers."); Marbury v. Madison, 5 U.S. (1 Cranch) 137, 176 (1803) ("The powers of the legislature are defined and limited; and that those limits may not be mistaken or forgotten, the constitution is written."); The Federalist No. 45, at 328 (James Madison) (Benjamin Fletcher Wright ed., 1961) ("The powers delegated by the proposed Constitution to the federal government are few and defined.").
12 See U.S. CONST. art. I, § 8, cl. 18.
13 See Vanhorne v. Dorrance, 28 F. Cas. 1012, 1014 (C.C.D. Pa. 1795) (No. 16,857) ("The constitution fixes limits to the exercise of legislative authority, and prescribes the orbit within which it must move.").
14 U.S. CONST. art. I, § 8, cl. 8.
15 Id. art. I, § 8, cl. 3.
16 See id. art I, § 8, cl. 18; id., art. II, § 2, cl. 2; id., art. VI, § 1, cl. 2; Missouri v. Holland, 252 U.S. 416, 433-35 (1920).
discouraging research, which runs contrary to the purpose of the Copyright Clause.\textsuperscript{17}

This Note will describe how Congress exceeded its powers by enacting § 1201 of the DMCA.\textsuperscript{18} Although courts and commentators have considered this argument previously, the reasoning behind the unconstitutionality of the DMCA has never been fully analyzed. This Note, therefore, attempts to fill this gap by providing a thorough examination of all of the factors that contribute to the unconstitutionality of the DMCA. The first part will provide the background of the Copyright Clause and will discuss the purpose of its inclusion in the Constitution. The second part will discuss the Digital Millennium Copyright Act, its purpose (as shown by its legislative history), and its effects. The next three parts will show that none of the three possible sources of power under which Congress could have enacted these provisions actually gives it the authority to do so.\textsuperscript{19} The sixth part will analyze the four cases\textsuperscript{20} in which the constitutional authority of Congress to enact these provisions has been questioned.\textsuperscript{21} Part VII will discuss two bills that have been proposed in the last year, both of which are efforts to modify the DMCA due to recognition of deficiencies in the statute. Finally, in Part VIII, this Note will provide some examples of the effects of the Act.


\textsuperscript{18} See U.S. CONST. art. I, § 8, cl. 8.

\textsuperscript{19} For simplicity, the terms DMCA and Digital Millennium Copyright Act will be used to refer to § 1201 of the DMCA for the remainder of this Note.

\textsuperscript{20} The possible sources of power are the Copyright Clause, the Commerce Clause, and the treaty power. See supra notes 14–16 and accompanying text.


\textsuperscript{22} The constitutionality of these sections has been called into question in a number of cases; the majority of these cases, however, are based on alleged restrictions on First Amendment freedom of speech. See, e.g., Universal City Studios, Inc. v. Corley, 273 F.3d 429 (2d Cir. 2001) (holding that the DMCA does not violate the First Amendment). This Note focuses instead on whether Congress had the power to enact the DMCA in the first place, as opposed to whether the effect of the DMCA is to violate the First Amendment.

Congress's authority to regulate intellectual property emanates from Article I, Section 8, Clause 8 of the United States Constitution (the Copyright Clause). The Copyright Clause states: "The Congress shall have the power . . . [t]o promote the Progress of Science and the useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries . . ."23 Several issues arise merely from a facial reading of the text of the clause. First, "[u]nlike the other enumerated powers, which denominate a sphere of authority and leave the details to Congress, the Copyright Clause includes specific parameters for the content of copyright law."24 This shows that the ability of Congress to regulate intellectual property matters is more restricted than Congress's power in the other enumerated areas. The parameters by which the clause limits Congress's power include: (1) rights were to be given to "Authors," (2) rights were only to be given for "limited Times," and (3) rights were designed "to promote the Progress of Science and the useful Arts."25 These limits restrict both Congress's ability to act and the rights it may confer to protect intellectual property. Thus, the facial purpose of the clause is to protect intellectual property, but only for the purpose of promoting progress. Further, even for this purpose, the monopoly granted for protection is limited: it can only be provided to authors, not publishers, and not permanently. This means that the purpose, as derived from the text of the clause, is to promote progress and learning by providing incentives to conduct research, but only to provide sufficient incentives for research to be conducted.

The purpose of the clause can be extrapolated in more detail from the records of the Constitution and the communications amongst the Framers. Statements by George Washington indicate that the intention of the Founders in drafting the clause was "to engender a marketplace in writings."26 This suggests that George Washington did not believe the clause to give copyright protections because

23 U.S. Const. art. I, § 8, cl. 8.
26 Hamilton, supra note 24, at 10 (citing George Washington, Address to Congress (Jan. 8, 1790), reprinted in COPYRIGHT OFFICE, COPYRIGHT IN PROGRESS, 1780-1904, at 115-16 (1976)).
of any intention to protect authors, but only for the purpose of promoting learning.

The Records of the Federal Convention also show that the Founders were primarily concerned with promoting progress, not with protecting authors. Intellectual property protection was first proposed by Charles Pinckney on May 28, 1787. 27 In this proposal, the language chosen provided that the "National Legislature" would have authority "to secure to Authors the exclusive right to their Performances and Discoveries." 28 "No action was taken on the Pinckney proposal, nor was reference made to the subject of copyright in the August 6, 1787, draft of the Constitution reported out by the Committee on Detail." 29 This shows that the protection of intellectual property was not one of the more pressing issues. When intellectual property proposals were next made, on August 18, there were competing proposals by Madison and Pinckney on the subject. 30 Madison made two proposals: "[t]o secure to literary authors their copyrights for a limited time" and "[t]o encourage by premiums & provisions, the advancement of useful knowledge and discoveries." 31 Pinckney made a competing proposal: "[t]o secure to Authors exclusive rights for a certain time." 32 All three of these proposals demonstrate a more restricted approach to the grant of copyright protection than Pinckney's original proposal. Madison restricted his proposed grant of protection by limiting the length of protection in the first proposal and by merely allowing for incentives for learning in his second proposal. Pinckney also limited his proposal by only providing copyright protection for a certain time. The more limited proposals made at this time, coupled with the rejection and complete lack of discussion of the original proposal, demonstrate a hesitance on the part of the Convention to adopt plenary rights for authors and inventors. Limiting these rights also shows that the rights were not intended solely to protect the works, but, at least partially, to provide incentives to create the work in the first place. If the intention was merely to protect copyright holders and their works, there would be no reason to limit the rights conferred upon authors. This conclusion is supported by the final version of the clause adopted by the Convention on September 5, 1787, "[t]o promote the progress of Science and useful arts by securing for limited times to authors &

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27 See 3 THE RECORDS OF THE FEDERAL CONVENTION OF 1787, at 122 (Max Farrand ed., 1911) [hereinafter FARRAND].
28 3 id.
29 1 WILLIAM F. PATRY, COPYRIGHT LAW AND PRACTICE 22-23 (1994).
30 2 FARRAND, supra note 27, at 325.
31 2 id.
32 2 id.
inventors, the exclusive right to their respective writings and discoveries.”

This clause, which was unanimously accepted without comment or debate, is a composition of Madison’s second and Pinckney’s later proposals. This compromise includes both limitations in the later proposals: it includes the concept of promotion of research and limits the time for which rights are granted. Again, this indicates that the Framers intended to promote learning when they enacted the Copyright Clause.

Despite this, however, the purpose behind the Copyright Clause has been debated since the time of the Constitution. Four theories have been proposed: “that copyright is to protect the author’s rights; that copyright is to promote learning; that copyright is to provide order in the book trade as a government grant; and that copyright is to prevent harmful monopoly.” All of these theories find some support in scholarly literature. However, as the analysis above shows, the proposal with the strongest protections for authors’ rights was rejected in favor of a learning-based proposal, indicating that the primary purpose of copyright protections is to promote learning. Furthermore, the rejection of the language used in state copyright statutes, which relied on author’s rights as the primary purpose of copyright, lends further credence to the idea that the Copyright Clause was primarily intended to promote learning. Therefore, in the words of Professor Patterson, “[t]he dominant idea in the minds of the framers of the Constitution appears to have been the promotion of learning.”

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33 2 id. at 509.
34 2 id. at 510.
35 See, e.g., LYMAN RAY PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE 181 (1968).
36 Id.
37 See, e.g., Stephanie L. Brauner, High-Tech Boxing Match: A Discussion of Copyright Theory Underlying the Heated Battle Between the RIAA and MP3ers, 4 VA. J.L. & TECH. 5, 17 (1999) (noting the theory that copyright orders the book trade); Nicole B. Cásarez, Deconstructing the Fair Use Doctrine: The Cost of Personal and Workplace Copying After American Geophysical Union v. Texaco, Inc., 6 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 641, 650 (1996) (noting that the “Supreme Court has held that the ultimate goal of copyright law is . . . to advance learning”); Jessica Litman, Copyright Legislation and Technological Change, 68 OR. L. REV. 275, 322 (1989) (noting that copyright was to broadly encompass the notion of author’s rights); Beth F. Dumas, Note, The Functionality Doctrine in Trade Dress and Copyright Infringement Actions: A Call for Clarification, 12 HASTINGS COMM. & ENT. L.J. 471, 493 (1990) (asserting copyright ensures that “competition is free and fair”).
38 See Patterson, supra note 35, at 183–88.
39 Id. at 193. More recently, Professor Patterson has stated that “[w]hat is protected is not so much the right of the copyright holder to exploit the work as the right
The attitudes of the Framers also support this purpose of the clause. The debate amongst the Framers about the grant of a monopoly to authors can best be seen by two letters between James Madison and Thomas Jefferson. The first letter, dated July 31, 1788, is from Jefferson to Madison. In it, Jefferson displayed his doubt as to the wisdom of granting even limited monopolies. "The saying there shall be no monopolies lessens the incitements to ingenuity, which is spurred on by the hope of a monopoly for a limited time, as of 14 years; but the benefit even of limited monopolies is too doubtful to be opposed to that of their general suppression." Thus, Jefferson did not support granting limited monopolies to encourage research, let alone have any intention to provide plenary power to authors to protect their works. Madison argued the countervailing viewpoint in his response letter, dated October 17, 1788. Madison's viewpoint was that monopolies were acceptable, insofar as they would encourage research and creation:

With regard to Monopolies they are justly classed among the greatest nuisances [sic] in Government. But is it clear that as encouragements to literary works and ingenious discoveries, they are not too valuable to be wholly renounced? Would it not suffice to reserve in all cases a right to the public to abolish the privilege at a price to be specified in the grant of it? Is there not also infinitely less danger of this abuse in our Governments than in most others? Monopolies are sacrifices of the many to the few. Where the power is in the few it is natural for them to sacrifice the many to their own partialities and corruptions. Where the power, as with us, is in the many not in the few, the danger can not be very great that the few will be thus

of the people of the United States to learn from it." L. Ray Patterson & Craig Joyce, Copyright in 1791: An Essay Concerning the Founders' View of the Copyright Power Granted to Congress in Article I, Section 8, Clause 8 of the U.S. Constitution, 52 EMORY L.J. 909, 940 (2003). He proceeds to list "the three constitutional copyright policies: (1) to promote learning . . .; (2) to provide public access . . .; and (3) to protect the public domain . . ." Id. at 946. By leaving out author's rights from this list, Professor Patterson reaffirms and strengthens his contention that the purpose of the Copyright Clause is to promote learning, rather than to protect authors' rights. See id. at 936-50.

40 1 PATRY, supra note 29, at 23 ("[S]ome delegates opposed the statutory establishment of monopolies.").


42 Id. at 443.

favored. It is much more to be dreaded that the few will be unnec-
essarily sacrificed to the many.  

Madison, therefore, felt that the grant of a monopoly was acceptable, but he couched this opinion in terms of cultivating more knowledge and creativity. Thus, the more favorable perspective on copyright protection lies with Madison, who merely argues for encouragements, not for a total grant of rights to authors or inventors.

Additionally, the purpose of the clause can be gleaned from other writings of James Madison. In *The Federalist*, Madison, referring to the power provided in the clause, stated that the “utility of this power will scarcely be questioned.” He continued, “The copyright of authors has been solemnly adjudged, in Great Britain, to be a right of common law. . . . The public good fully coincides . . . with the claims of individuals.” “[This] document[ ] prove[s] that Madison accepted traditional English ideas of copyright. That is, he understood copyright as a monopoly granted for only a limited term.”

Therefore, even though, in presenting the Copyright Clause to the people of New York in *The Federalist*, he explained it in terms of a natural right, he merely did this to persuade the people to accept copyright despite their antipathy toward monopolies and Great Britain.

Madison’s purpose in the clause, then, was to provide incentives to authors to continue to promulgate their work and to continue to research, not to provide authors with plenary rights to their works. Thus, the “Founding Fathers understood the nature of copyright as a monopoly that was granted for administrative purposes to promote the sciences, and they adopted copyright law after modifying its doctrine to suit American taste.”

Finally, the purpose of the clause can be found in the first Copyright Law and in early case law regarding copyrights. The first Copyright Law, the Copyright Act of 1790, was entitled “An act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned.” Although the text of the statute itself does not mention learning, the subsequent case law affirms the suggestion
found in the title—that the act was intended to promote learning. This conclusion is demonstrated by two common occurrences in early case law. First, the Copyright Clause and Copyright Act were not referred to as such, but as “that provision of the constitution which gives Congress power to promote the progress of science and the useful arts” and “the act for the promotion of useful arts.” By referring to the Copyright Clause and the Copyright Act in this manner, the Court demonstrated that the Clause and the Act were not referred to as methods of providing copyrights, but as methods of promoting the useful arts. Thus, these references in early cases demonstrate that the purpose of the Copyright Clause and the Copyright Act was to promote the useful arts.

Second, the cases interpreted the three requirements for receiving a copyright, established in the Act of 1790, as necessary prerequisites to obtaining the copyright. This means that the author received no benefit unless he complied with all of the requirements. If the author did not automatically receive the benefit, then it seems that copyright was not considered an author’s right, but merely a privilege afforded to authors. Further, all three of the original requirements, prior to the creation of a fourth in the Act of 1802, promote learning. These three requirements were to deposit a copy of the title in the clerk’s office, publish a record in the newspapers for four weeks, and have a copy sent to the secretary of state. At a time when information traveled slowly and it was difficult to gain access to new information and literature, these requirements provided for a method of informing the public of the creation of new works and the dissemination of new information. Thus, these early cases show that the purpose of the Copyright Clause, as well as the first Copyright Act, was to promote learning.

This is not to say that the Copyright Clause does not offer protection to authors—it does. However, the protection afforded to authors was “not for their personal characteristics, their labor, or their relationship to the work, but rather because, out of the available choices, they are the least likely to wield tyrannical power.” “The Framers were willing to condone the suppression of copying, even if it was the copying of expression, for limited times so that the market would pro-

52 Gibbons v. Ogden, 22 U.S. (9 Wheat.) 1, 221 (1824).
56 Copyright Act of 1790, 1 Stat. 124 (1790).
57 Hamilton, supra note 24, at 11.
Therefore, the ultimate purpose of the Copyright Clause was to promote learning.

II. THE DIGITAL MILLENNIUM COPYRIGHT ACT: THE LAW, THE PURPOSE, AND THE EFFECTS

A. The Law of the DMCA

Section 1201 falls within Title I of the DMCA. "Title I implements the two WIPO [World Intellectual Property Organization] treaties." The two original bills proposed in the House and in the Senate "were premised on the assumption that existing United States copyright law was largely consistent with the treaty obligations." Although this suggests that few changes would need to be made to the copyright law, "alternative implementation bills were introduced . . . that addressed Internet copyright policy issues as well as WIPO Treaties implementation." These changes were incorporated into the bill that finally passed both houses, to become the DMCA. Subsection 1201(a)(1)(A) provides: "No person shall circumvent a technological measure that effectively controls access to a work protected under this title." Subsection 1201(a)(2) provides:

No person shall manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof, that—(A) is primarily designed or produced for the purpose of circumventing a technological measure that effectively controls access to a work protected under this title; (B) has only limited commercially significant purpose or use other than to circumvent a technological measure that effectively controls access to a work protected under this title; or (C) is marketed by that person or another acting in concert with that person with that person's knowledge for use in circumventing a technological measure that effectively controls access to a work protected under this title.

58 Id. at 12.
59 Dorothy Schrader, Digital Millennium Copyright Act, P.L. 105-304: Summary and Analysis, in COPYRIGHT: CURRENT ISSUES AND LAWS 131, at 134 (John V. Martin ed., 2002) (referring to the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty); see also BELLIA ET AL., supra note 3, at 285 (asserting that the DMCA’s anti-circumvention provisions were “ostensibly intended to bring the United States into compliance with the 1996 [WIPO] Treaty”).
60 Schrader, supra note 59, at 132.
61 Id.
62 Id. at 133.
64 Id. § 1201(a)(2).
Finally, § 1201(b) provides:

No person shall manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof, that—(A) is primarily designed or produced for the purpose of circumventing protection afforded by a technological measure that effectively protects a right of a copyright owner under this title in a work or a portion thereof; (B) has only limited commercially significant purpose or use other than to circumvent protection afforded by a technological measure that effectively protects a right of a copyright owner under this title in a work or a portion thereof; or (C) is marketed by that person or another acting in concert with that person with that person’s knowledge for use in circumventing protection afforded by a technological measure that effectively protects a right of a copyright owner under this title in a work or a portion thereof.65

These provisions, collectively, are known as the anticircumvention and antitrafficking provisions.66

B. The History and Purpose of the DMCA

Ostensibly, the purpose of the DMCA was to implement the two WIPO treaties.67 The events that culminated in the Act began when the “Working Group on Intellectual Property of the White House National Information Infrastructure (NII) Task Force convened a series of conferences exploring the copyright policy issues related to the NII... and to international development of two new intellectual property treaties.”68 These conferences culminated in a report in September 1995, commonly referred to as the “White Paper.”69 Bills were then introduced in both houses that would have implemented the group’s recommendation, but these bills were not enacted.70 Then, in 1996, the two WIPO treaties were created.71 Subsequent to the creation of these treaties, bills were introduced in both houses, in order to implement the treaties; these bills “embodied the Administration’s recom-

65 Id. § 1201(b)(1).
67 See BELLIA ET AL., supra note 3, at 285; Schrader, supra note 59, at 134.
68 Schrader, supra note 59, at 131.
69 See id.; see also BELLIA ET AL., supra note 3, at 270 (discussing how the “White Paper” recognized that digital copies can be perfect and that the Internet makes distribution of those copies less costly).
70 See Schrader, supra note 59, at 131.
71 See id. at 131–32.
mended 'minimalist approach' to implementing legislation." 72 These bills were not enacted as originally proposed, however, and the final legislation included provisions that were not required to comply with the WIPO treaties. 73

According to the report from the Committee on Commerce, the "purpose of H.R. 2281, the Digital Millennium Copyright Act of 1998, is to implement two international treaties (i.e., the 'Copyright Treaty' and the 'Performances and Phonograms Treaty') signed by the United States and more than 125 other countries before the World Intellectual Property Organization (WIPO)." 74 The report also states that the committee sought "to protect the interests of copyright owners in the digital environment, while ensuring that copyright law remain [sic] technology neutral." 75 In this regard, the "DMCA criminalizes the dissemination of the information it encompasses on the premise that it can be used to facilitate copyright infringement. It is a pure 'burglar's tools' statute." 76 Thus, the purpose of the Act was not merely to implement the treaties, as Congress contends. It was less altruistic than that. The purpose, in reality, was dual: to implement the treaties and to protect copyright holders. 77 This purpose is problematic, however, in that it conflicts with the primary theory of the Copyright Clause: the clause is designed to promote learning, but the Act promotes authors' interests at the expense of the dissemination of knowledge. 78

72 See id. at 132.
73 See id. at 132–33.
75 Id. at 25.
77 This is actually somewhat overstating the purpose, because the treaties were designed to protect authors, who are the copyright holders. See World Intellectual Property Organization Copyright Treaty, Dec. 20, 1996, S. TREATY DOC. No. 105-17, 36 I.L.M. 65, 68 (1997), available at http://www.wipo.org/eng/diplconf/distrib/94dc.htm [hereinafter Copyright Treaty] (expressing the contracting parties' desire "to develop and maintain the protection of the rights of authors in their literary and artistic works in a manner as effective and uniform as possible"); World Intellectual Property Organization Performances and Phonograms Treaty, Dec. 20, 1996, S. TREATY DOC. No. 105-17, 36 I.L.M. 76, 81 (1997), available at http://www.loc.gov/copyright/wipo/treaty2.html [hereinafter Performances Treaty] ("Contracting Parties shall accord the protection provided under this Treaty to the performers and producers of phonograms who are nationals of other Contracting Parties."). Thus, the "dual" purposes of the DMCA are really the same thing: to protect copyright holders and to protect copyright holders.
78 See infra Part III.
C. The Effects of the DMCA

The effect of these provisions of the DMCA has been in accord with the efforts of Congress: it prohibits both circumvention of technological locks on copyrighted materials and trafficking in any device that allows circumvention.79 “The DMCA is clear that the right to protect against unauthorized access is a right separate and distinct from the right to protect against violations of exclusive copyright rights such as reproduction and distribution.”80 This newly-created right does cover the intended conduct, by banning devices that facilitate copyright infringement.81 The right does not stop there, however; it also proscribes apparatuses that are not used for piracy, so long as they can be used to circumvent some access control imposed by the author.82 Moreover, the DMCA also creates incentives which operate in opposition to the purpose of the Copyright Clause, by deterring potential authors from either researching in the first place or disseminating their research after it has been conducted.83 This topic will be explored in more detail in Part VIII.

III. THE COPYRIGHT CLAUSE AND THE DMCA: A LACK OF CONGRESSIONAL AUTHORITY

The growth and development of the Internet has already had a significant positive impact on the access of American students, researchers, consumers, and the public at large to informational resources that help them in their efforts to learn, acquire new skills,

79 See generally Universal City Studios, Inc. v. Corley, 273 F.3d 429 (2d Cir. 2001) (prohibiting defendant from publishing, or providing links to sites that published, code that allowed users to bypass encryption on DVDs, as it was a violation of the DMCA); Lexmark Int'l, Inc. v. Static Control Components, Inc., 253 F. Supp. 2d 943 (E.D. Ky. 2003) (granting plaintiff's request for a preliminary injunction against defendant to stop production of microchips which bypassed plaintiff's authentication sequence on toner cartridges); RealNetworks, Inc. v. Streambox, Inc., No. C99-2070P, 2000 WL 127311 (W.D. Wash. Jan. 18, 2000) (enjoining defendants from producing the Streambox VCR, a product that violated the DMCA by enabling users to bypass access and copy controls in plaintiff's product); Sony Computer Entm't Am., Inc. v. GameMasters, 87 F. Supp. 2d 976 (N.D. Cal. 1999) (enjoining defendant from manufacturing or selling a product which violated the DMCA by permitting users to play unauthorized video games on plaintiff's console).

80 Lexmark, 253 F. Supp. 2d at 969.

81 See, e.g., id.

82 See, e.g., GameMasters, 87 F. Supp. 2d at 987.

broaden their perspectives, entertain themselves, and become more active and informed citizens.84

These effects of the Internet, while not precisely achieving the purpose of the Copyright Clause, do indirectly provide that outcome. This result is realized through learning that is made possible by the dissemination of information provided for by the Internet.85 The clause's goal is to promote learning. Therefore, the Internet, and the digital technology and dissemination of information that make the Internet function, promote the aims of the clause.86 The DMCA, however, prevents the free dissemination of information, both on the Internet and in the physical world.87

A. The Current Copyright Clause Jurisprudence

Interpretations of the Copyright Clause by courts have varied since the time of the Constitution, but not significantly. A few examples will demonstrate how the acknowledged primary purpose of the Copyright Clause, to promote learning, has not materially changed. First, in 1879, approximately one hundred years after the drafting of the Constitution, the Supreme Court restated the purpose of the clause and the intention of the Copyright Act in Baker v. Selden.88 At that time, the Court recognized that "[t]he very object of publishing a book on science or the useful arts is to communicate to the world the useful knowledge which it contains."89 The Court also stated that the Copyright Act "was not intended for the encouragement of mere in-

85 See Eldred v. Ashcroft, 537 U.S. 186, 226 (2003) (Stevens, J., dissenting) (stating that one of the two purposes of the Copyright Clause is the "overriding interest in advancing progress by adding knowledge to the public domain").
86 See L. Ray Patterson, The DMCA: A Modern Version of the Licensing Act of 1662, 10 J. Intell. Prop. L. 33, 51 (2002) (arguing that the goal of the Copyright Clause is the promotion of learning, and that "the public domain is more important for the promotion of learning than the protection of original works").
87 See id. at 52 (stating that the DMCA is constitutionally deficient because "it is anti-learning, anti-public domain, and anti-access"); Jason Sheets, Copyright Misused: The Impact of the DMCA Anti-Circumvention Measures on Fair & Innovative Markets, 23 Hastings Comm. & Ent. L.J. 1, 20-21 (2000) ("Innovation is further damaged because of the direct reduction in access that results from the DMCA. Knowledge is cumulative; creative works build on previous creative works. However, the DMCA protects mechanisms that are designed to prevent access to knowledge.") (footnotes omitted).
88 101 U.S. 99, 103, 105-06 (1879).
89 Id. at 103.
industry, unconnected with learning and the sciences." 90 Thus, the purpose of copyright was still acknowledged to be promotion of learning. The Supreme Court again reaffirmed this purpose in 1932: "The sole interest of the United States and the primary object in conferring the monopoly lie in the general benefits derived by the public from the labors of authors." 91 This shows that the purpose is not to reward authors, but to promote learning, which is the benefit provided to the public by copyright law.

In 1979, the Fifth Circuit slightly altered the formulation given to the purpose of the clause: "The words of the copyright clause of the constitution do not require that writings shall promote science or useful arts: they require that Congress shall promote those ends." 92 This expression does not require an act of Congress to force each individual grant of a copyright to promote learning, but merely requires that the overall effect of any act of Congress be to promote learning. This means that acts of Congress pursuant to the Copyright Clause must be analyzed based on the total effect generated by the act, and whether or not the act violates the purpose of the clause depends on whether the act creates more impediments or benefits to the promotion of learning. 93 Thus, although the Fifth Circuit changed the expression of the test, it only clarified the purpose of the clause: to have an overall effect which promotes learning.

Finally, this purpose has been reconfirmed in the mid-1980s. The Supreme Court stated that "[t]he 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." 94 This statement maintains that copyright law is intended to promote learning. Thus, the purpose of the Copyright Clause, according to current jurisprudence, is perceived to be the same as the purpose at the time of the Founders. To sum up: "[T]here is abundant authority that the primary purpose of the clause is to promote the arts and sciences for the public good, not to grant an economic benefit to authors and inventors." 95

90 Id. at 105 (quoting Clayton v. Stone, 5 F. Cas. 999, 1003 (C.C.S.D.N.Y. 1829) (No. 2872)).
91 Fox Film Corp. v. Doyal, 286 U.S. 123, 127 (1932).
92 Mitchell Bros. Film Group v. Cinema Adult Theater, 604 F.2d 852, 859–60 (5th Cir. 1979).
93 See id. at 860.
94 Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 432 (1984) (quoting Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975)).
95 Ladd v. Law & Tech. Press, 762 F.2d 809, 812 (9th Cir. 1985).
B. Congress's Underlying Purpose in Enacting the DMCA Is Unconstitutional

The inclusion of the DMCA in Title 17 of the United States Code, home to the Copyright Act, and portions of the House Report on the DMCA seem to suggest that Congress based its power for enacting the DMCA on the Copyright Clause.96 According to the House Report on the DMCA, "Article 1, Section 8, Clause 8 of the United States Constitution authorizes the Congress to promulgate laws governing the scope of proprietary rights in, and use privileges with respect to, intangible 'works of authorship.'"97 The Committee on Commerce then recognized that "the fundamental goal is '[t]o promote the Progress of Science and useful Arts.'"98 These two statements, when combined, show that Congress is authorized, by the Constitution, to grant rights to copyright holders for the purpose of promoting learning.99 According to the House Committee on Commerce, "Congress has historically advanced this constitutional objective by regulating the use of information—not the devices or means by which the information is delivered or used by information consumers—and by ensuring an appropriate balance between the interests of copyright owners and information users."100

Congress, in enacting the DMCA, did not feel constrained to limit itself to this constitutionally acceptable method of achieving the Copyright Clause's purpose, however. Congress claimed that the "DMCA had as its primary purpose the goal of updating United States copyright laws with an eye toward making them more relevant and flexible given the ever changing digital information climate."101 The seemingly benign motivation of this assertion is belied, however, by two statements in the House Report. First, "the Committee . . . recognize[d] that the digital environment poses a unique threat to the rights of copyright owners, and as such, necessitates protection against devices that undermine copyright interests."102 Second, and worse,

98 Id.
99 For a more thorough discussion of the purpose of the Copyright Clause, see supra Part I.
101 Quinn, supra note 1, at 53.
the "Committee thus [sought] to protect the interests of copyright owners in the digital environment, while ensuring that copyright law remain [sic] technology neutral."103 Although authors may benefit from copyright laws, "the public is the intended beneficiary."104 When considered in the context of who is to benefit from the DMCA, these statements show that the purpose of the DMCA, protecting copyright holders, while a laudable goal, is not in accord with the powers granted to Congress by the Copyright Clause.105 Although this goal is an objective that the Copyright Clause achieves, it is not the intention of the clause, it is merely a collateral effect. Therefore, although copyright holders may be accorded some protections, the purpose of any act promulgated pursuant to the Copyright Clause must be to promote learning. This conclusion is bolstered by the recognition of Justice Stevens in Eldred v. Ashcroft,106 when, after noting that the purposes of the Copyright Clause are "encouraging new inventions"107 and "advancing progress by adding knowledge to the public domain,"108 he asserted that "[b]ecause those twin purposes provide the only avenue for congressional action under the Copyright/Patent Clause of the Constitution, any other action is manifestly unconstitutional."109

103 Id.
107 Id. at 226 (Stevens, J., dissenting).
108 Id. (Stevens, J., dissenting).
109 Id. at 227 (Stevens, J., dissenting). This point, though made by the dissent, is not really contradicted by the majority. The majority recognized that the Copyright Clause is both a grant and a limitation of power and that the primary purpose of copyright is to promote progress. Id. at 212. However, the court found that they were "not at liberty to second-guess congressional determinations and policy judgments of this order, however debatable or arguably unwise they may be." Id. at 208. Therefore, without actually saying that it was constitutional, the court held that they could not conclude that the Copyright Term Extension Act was impermissible. Id.
C. The DMCA's Protection Is Over-Inclusive, and Thus Is Unconstitutional\textsuperscript{110}

As discussed above,\textsuperscript{111} the powers conferred on Congress by the Copyright Clause are limited in scope. In order for an act of Congress to be based on the authority of this clause, then, it too must be limited, and it must be limited to activity that may permissibly be regulated under the clause. This scope is limited to protection of original expression, and does not include ideas or processes.\textsuperscript{112} Nor does it encompass facts or unoriginal compilations.\textsuperscript{113} Finally, any protection must be limited in duration, as it may only extend for “limited Times.”\textsuperscript{114} “A law that protects informational goods without regard for these limitations cannot claim the Intellectual Property Clause as its authority.”\textsuperscript{115}

The protections the DMCA affords to copyright holders are not appropriately limited in scope, however.\textsuperscript{116} They are not restricted by time.\textsuperscript{117} Further, “both copyrightable and uncopyrightable materials will be covered by the anticircumvention right.”\textsuperscript{118} Thus, unoriginal works, facts, unoriginal compilations, and ideas are all protected, solely on the basis of being bundled under a technological “lock” with a work that may be copyrighted. This means that the rights authorized to be provided by the Copyright Clause are being extended, by the DMCA, to works outside of the clause’s coverage. Moreover, devices are prohibited by the DMCA before being put to any use at all.\textsuperscript{119}

\textsuperscript{110} Some of the arguments presented in this section have been argued before the Second Circuit. \textit{See} Universal City Studios, Inc. v. Corley, 273 F.3d 429 (2d Cir. 2001). The issues were not resolved in that case, however, as the court refrained from considering them. \textit{Id.} at 444-45 (refusing to consider whether the DMCA “exceeds the constitutional authority of Congress to grant authors copyrights for a 'limited time,'” because the arguments were improperly presented and were not ripe). Further, other cases involving the constitutionality of the DMCA, for example, \textit{United States v. Elcom, Ltd.}, 203 F. Supp. 2d 1111 (N.D. Cal. 2002), are discussed below. \textit{See infra} Part VI.

\textsuperscript{111} \textit{See supra} Part I.

\textsuperscript{112} \textit{See} 17 \textit{U.S.C.} § 102(b) (2000); \textit{see also} IP Law Professors' Brief, \textit{supra} note 96; Burk, \textit{supra} note 104, at 1099.


\textsuperscript{114} \textit{See U.S. CONST.} art. I, § 8, cl. 8.

\textsuperscript{115} IP Law Professors' Brief, \textit{supra} note 96 (citing The Trade-Mark Cases, 100 U.S. 82, 93-94 (1879)).

\textsuperscript{116} \textit{See} IP Law Professors' Brief, \textit{supra} note 96; Burk, \textit{supra} note 104, at 1107-08.

\textsuperscript{117} \textit{See} 17 \textit{U.S.C.} § 1201; Burk, \textit{supra} note 104, at 1108.

\textsuperscript{118} Burk, \textit{supra} note 104, at 1108.

\textsuperscript{119} \textit{See} IP Law Professors' Brief, \textit{supra} note 96.
Prior to a device actually being put to use, it is hard to see how it could violate any valid copyright concern. These effects show that copyright protection has been expanded far beyond any scope permitted by the Copyright Clause. The House Commerce Committee effectively summed up the meaning of these effects: "these regulatory provisions have little, if anything, to do with copyright law." This leads to the conclusion that the ability of Congress to enact the DMCA cannot stem from the Copyright Clause, as the DMCA fails to restrict the protections granted to authors to the sphere of authority of the clause.

D. The Strictures of the DMCA Are Neither Necessary nor Proper to the Copyright Clause

The Necessary and Proper Clause provides Congress with the power to make any law which is necessary to carry out one of its other enumerated powers. Chief Justice Marshall interpreted the scope of the power conferred by this clause in McCulloch v. Maryland: "Let the end be legitimate, let it be within the scope of the constitution, and all means which are appropriate, which are plainly adapted to that end, which are not prohibited, but consist with the letter and spirit of the constitution, are constitutional." Limits contained within one enumerated power prohibit Congress from acting beyond those limits under the authority of another power. Thus, the Necessary and Proper Clause may not be employed to bypass the limits contained in the other enumerated powers.

The Copyright Clause contains limits on the authority it grants to Congress. Therefore, although the Necessary and Proper Clause grants Congress the power to enact regulations designed to implement the purpose of the clause, these regulations must be restricted to encompass only works covered by the clause. Congress, in enacting

120 See Burk, supra note 104, at 1107-08 (suggesting that the anticircumvention provisions extend protection beyond the constitutional bounds permissible under the Copyright Clause).
122 See U.S. CONST. art. I, § 8, cl. 18 ("The Congress shall have Power . . . To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof.").
124 Id. at 421 (emphasis added).
125 See IP Law Professors' Brief, supra note 96 ("Congress may not use the necessary and proper power to avoid clear limits on its other enumerated powers under the pretext of advancing them.").
126 See supra Part I.
the DMCA, did not abide by these restrictions. Due to the DMCA’s extension of protection beyond the bounds authorized by the Copyright Clause, Congress could not have enacted the DMCA under the Necessary and Proper Clause in conjunction with the Copyright Clause.

Furthermore, even if the Necessary and Proper Clause did permit Congress to legislate beyond the strictures of the Copyright Clause, the DMCA would still not actually be necessary or proper. It would not be necessary because, as recent cases involving the music industry have demonstrated, the copyright holder may still vindicate his rights through copyright law other than the DMCA. Without the DMCA, discovery of copyright law violators may require more effort by the copyright holder, but vindication of these rights is still possible. Moreover, the DMCA would not be proper because it allows copyright holders to establish control over devices not included in the grant of copyright. An example of this control is DVD regional encoding, wherein a copyright holder for a movie may require the DVD purchaser to also purchase a DVD player from a particular geographical region. This control extends beyond the grant of the copyright over the movie and other work on the DVD to control over the DVD player purchased by the consumer. The DMCA facilitates this control by preventing circumvention of this regional encoding, which would otherwise be possible. Therefore, the DMCA cannot be justified as necessary and proper to effectuate the grant of authority in the Copyright Clause.

Protecting copyrighted works is an enumerated power of Congress. This power, however, is not plenary—it is limited by the purpose of the Copyright Clause as well as restrictions contained within the clause. Thus, Congress may only justify regulations designed to protect authors and/or their works based on this clause if the regulations comport with these limitations. The DMCA, however, extends beyond these restrictions to protect works outside the scope of the clause. The House Committee’s motive for enacting the DMCA, that “marketplace realities may someday dictate a different outcome, resulting in less access, rather than more, to copyrighted materials that are important to education, scholarship, and other socially vital en-

127 See supra Part III.B.
128 See, e.g., A&M Records, Inc. v. Napster, Inc., 284 F.3d 1091 (9th Cir. 2002) (upholding a shut-down order against Napster based on the likelihood of findings of contributory and vicarious copyright infringement by Napster).
deavors," indicates a valid goal (the protection of access to copyrighted materials) of the clause. However, the DMCA, the statute enacted to effectuate this goal, falls outside the bounds of Congress's authority under the Copyright Clause and is therefore unconstitutional.

IV. THE COMMERCE CLAUSE AND THE DMCA: STILL NO AUTHORITY

The report of the House Committee on Commerce suggests that Congress may not have relied on the Copyright Clause, but rather the Commerce Clause, to enact the DMCA. "The Committee has a long-standing interest in addressing all issues relating to interstate and foreign commerce, including commerce transacted over all electronic mediums, such as the Internet, and regulation of interstate and foreign communications. This legislation implicates each of those interests in numerous ways." The belief of Congress evidenced by this statement, that the Commerce Clause provided it with authority to enact the DMCA, is erroneous. First, the Commerce Clause cannot be utilized to circumvent the limitations contained within the Copyright Clause. Second, assuming that the Copyright Clause did not prohibit the regulations contained in the DMCA, they still could not be enacted pursuant to the Commerce Clause, because the regulated activity is not "commerce." Finally, the failure of the DMCA to meet the standards of the current test of constitutionality under the Commerce Clause further demonstrates that the Act could not be promulgated under that clause.

A. The Commerce Clause Cannot Save a Regulation Prohibited by the Copyright Clause

The Constitution creates a federal government of limited and enumerated powers. This enumeration presupposes that there are powers not granted to the national government. It also presupposes that none of the powers may be utilized in a manner that would cause
another power to become superfluous. The Framers enumerated powers for a reason; there was a purpose behind each power granted to Congress in Article I. Moreover, no power conferred to Congress grants it a plenary right to regulate. Each power contains limitations on the authority of Congress to use that power to regulate. Therefore, since none of the powers are superfluous, no power has the ability to confer authority to Congress that is prohibited by another power. The Framers understood these principles, and consciously exploited them when drafting the Constitution. James Madison confirmed the Framers' understanding of these principles when refuting the argument that "the power 'to lay and collect taxes . . .' amounts to an unlimited commission to exercise every power."

But what color can the objection have, when a specification of the objects alluded to by these general terms immediately follows, and is not even separated by a longer pause than a semi-colon? If the different parts of the same instrument ought to be so expounded, as to give meaning to every part which will bear it, shall one part of the same sentence be excluded altogether from a share in the meaning; and shall the more doubtful and indefinite terms be retained in their full extent, and the clear and precise expressions be denied any signification whatsoever? For what purpose could the enumeration of particular powers be inserted, if these and all others were meant to be included in the preceding general power? Nothing is more natural nor common than first to use a

138 See Marbury v. Madison, 5 U.S. (1 Cranch) 137, 174 (1803):
If congress remains at liberty to give this court appellate jurisdiction, where the constitution has declared their jurisdiction shall be original; and original jurisdiction where the constitution has declared it shall be appellate; the distribution of jurisdiction, made in the constitution, is form without substance.

. . .

It cannot be presumed that any clause in the constitution is intended to be without effect; and, therefore, such a construction is inadmissible, unless the words require it.

Id.; Cf. Dastar Corp. v. Twentieth Century Fox Film Corp., 539 U.S. 23, 35 (2003) ("A statutory interpretation that renders another statute superfluous is of course to be avoided."); Pa. Dep't of Pub. Welfare v. Davenport, 495 U.S. 552, 562 (1990) ("Our cases express a deep reluctance to interpret a statutory provision so as to render superfluous other provisions in the same enactment."); Mackey v. Lanier Collection Agency & Serv., Inc., 486 U.S. 825, 837 & n.11 (1988) (noting that Supreme Court jurisprudence is hesitant to interpret a congressional enactment so that it renders another part of the same law superfluous and providing citations to previous cases).


140 See The Federalist No. 41, supra note 11, at 300 (James Madison).
general phrase, and then to explain and qualify it by a recital of particulars. But the idea of an enumeration of particulars which neither explain nor qualify the general meaning, and can have no other effect than to confound and mislead, is an absurdity, which, as we are reduced to the dilemma of charging either on the authors of the objection or on the authors of the Constitution, we must take the liberty of supposing, had not its origin with the latter.\textsuperscript{141}

In the context of the DMCA, the Copyright Clause prohibits Congress from enacting legislation to protect copyrights and copyright holders unless it promotes science and the useful arts.\textsuperscript{142} Exploitation of the Commerce Clause to achieve such legislation would negate the restriction embodied in the Copyright Clause, rendering it superfluous, which may not be done.\textsuperscript{143} Thus, the Commerce Clause cannot provide Congress with the authority to enact the DMCA.

The Supreme Court, in Railway Labor Executives' Ass'n v. Gibbons,\textsuperscript{144} acknowledged that Congress may not employ one power to eliminate a restriction on its authority under another power. In that case, the Chicago, Rock Island and Pacific Railroad Co. had been ordered to discontinue its service and abandon its system, due to insufficient funds.\textsuperscript{145} The railroad was not required to pay out for employee labor protection.\textsuperscript{146} Congress responded by enacting the Rock Island Railroad Transition and Employee Assistance Act (RITA), which required payment by the Rock Island Trustee to employees not hired by other carriers.\textsuperscript{147} The Court held the statute unconstitutional, because it was not uniform, as required by the Bankruptcy Clause of the Constitution.\textsuperscript{148} The Court also held that the statute could not be

\begin{itemize}
  \item \textsuperscript{141} Id. at 301.
  \item \textsuperscript{142} See supra Part III.A.
  \item \textsuperscript{144} 455 U.S. 457 (1982).
  \item \textsuperscript{145} See id. at 459–60.
  \item \textsuperscript{146} See id. at 460.
  \item \textsuperscript{147} See id. at 461–62.
  \item \textsuperscript{148} See id. at 471.
\end{itemize}
enacted pursuant to the Commerce Clause. This holding was based on the reasoning that “if we were to hold that Congress had the power to enact nonuniform bankruptcy laws pursuant to the Commerce Clause, we would eradicate from the Constitution a limitation on the power of Congress to enact bankruptcy laws.” The reasoning of this Court shows that Congress may not circumvent an affirmative restriction on its power by resorting to use of a power that lacks the limitation.

The question of “whether Congress can use its Commerce Clause power to avoid the limitations that might prevent it from passing the same legislation under the Copyright Clause” was addressed by the Eleventh Circuit in *United States v. Moghadam*. That court stated, “legislation which would not be permitted under the Copyright Clause could nonetheless be permitted under the Commerce Clause, provided that the independent requirements of the latter are met.” The court took as a given, however, “that there are some circumstances . . . in which the Commerce Clause cannot be used by Congress to eradicate a limitation placed upon Congress in another grant of power.” The court then concluded that the statute at issue in the case was not fundamentally inconsistent with the Copyright Clause, and, further, that “[e]xtending quasi-copyright protection also furthers the purpose of the Copyright Clause to promote the progress of the useful arts by securing some exclusive rights to the creative author.” The court, by specifically discussing how the issue was not “fundamentally inconsistent” with the Copyright Clause, created a presumption that a statute would not be valid under the Commerce Clause if it was “fundamentally inconsistent” with the Copyright Clause.

Applying the rationale of these cases to the DMCA, it would be reasonable to conclude that Congress could not employ the Commerce Clause as authority to enact the DMCA. The Copyright Clause prohibitions on Congress include an affirmative limitation: copyright laws must “promote the Progress of Science and useful Arts.”

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149 See *id.* at 468–69, 473 (“To hold otherwise would allow Congress to repeal the uniformity requirement from Art. I, § 8, cl. 4, of the Constitution.”).

150 *Id.* at 468–69.

151 *United States v. Moghadam*, 175 F.3d 1269, 1277 (11th Cir. 1999).

152 *Id.* at 1278.

153 *Id.* at 1280.

154 *Id.*

155 See IP Law Professors’ Brief, *supra* note 96 (citing *Moghadam*, 175 F.3d at 1280–82).

156 See U.S. Const. art. I, § 8, cl. 8.
DMCA does promote progress, in an indirect manner. This occurs by way of increasing the incentives of authors to create, by giving them more authority over their creations. It also impedes progress, however, by inhibiting the dissemination of information. This effect accrues in two ways. First, authors would not have access to as much information, because previous authors can prevent access by using access controls, which cannot be circumvented, and can also prevent copying with copy controls, which cannot be circumvented except by those few who know how to circumvent them on their own. This means that there is less knowledge in the public domain from which to work. Thus, even if this knowledge can be paid for, it will be more difficult to find, since it is not in the public domain, and it will not be accessible to those who cannot afford it. Second, authors would be afraid to publish many works, for fear of prosecution under the DMCA. Although most authors would not be subject to the DMCA any more than they would be to ordinary copyright law, it creates an additional risk that a previous author will claim that the new author's work violates copyright law, based on material that is protected in the first author's work by a copy or access control. Thus, the total effect is to impede progress, because, although the first generation of authors would produce more, this material would then be unavailable for subsequent generations, thereby reducing overall progress and overall learning.\footnote{157 See infra Part VII.} Therefore, allowing Congress to employ its Commerce Clause power to enact the DMCA would eliminate a restriction on the power of Congress from the Constitution. Because this may not be done, Congress could not enact the DMCA pursuant to the Commerce Clause.

\textbf{B. The Activity Regulated by the DMCA Is Not Within the Definition of “Commerce”}\footnote{158 This section considers the intention of the Framers in the creation and understanding of the Commerce Clause. Recognizing the nuance of recent Supreme Court jurisprudence in this area, this section limits its analysis to the understanding of “commerce” at the time of the Framing, prior to the development of the current, more intricate jurisprudence.}

Congress's power to regulate commerce arises from the Commerce Clause.\footnote{159 See U.S. Const. art. I, § 8, cl. 3 ("The Congress shall have Power . . . To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes.").} The requirements of this clause can be divided into two elements: (1) there must be "commerce," and (2) it must be amongst the States or with a foreign nation. If either of these two
elements is not met, the Commerce Clause does not provide authority for the regulation in question, which is thereby unconstitutional.

The first element requires the activity being regulated to involve "commerce." Black's Law Dictionary defines commerce as "[t]he exchange of goods and services." Substituting this definition for commerce in the language of the clause shows that it grants Congress the power to regulate the exchange of goods and services. It follows that there must be an exchange in order for Congress to regulate pursuant to the Commerce Clause, and it is this requirement that prohibits Congress from claiming authority to enact the DMCA pursuant to the clause.

The DMCA prohibits both circumvention of technological measures that control access to an author's work and trafficking in or manufacturing devices designed to circumvent a technological measure created to protect an author's work. One element is conspicuous-

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160 Black's Law Dictionary 263 (7th ed. 1999). For purposes of this analysis, the current definition of "commerce" has been employed. This definition is similar, but not exactly equivalent to, the definition of commerce as of the drafting of the Constitution. At that time, "'commerce' consisted of selling, buying, and bartering, as well as transporting for these purposes." United States v. Lopez, 514 U.S. 549, 585-86 (1995) (Thomas, J., concurring) (including citations to three dictionaries from the late 1700s).

161 See Lopez, 514 U.S. at 584-93 (Thomas, J., concurring). In his opinion, Justice Thomas presents an analysis of the original understanding of the Commerce Clause, whereby the modern meaning of the word "commerce" is shown to be inconsistent with the Founders' intention in choosing that term. See id. (Thomas, J., concurring). This is demonstrated by the use of the term "commerce" at the time of the drafting, and also by the fact that "interjecting a modern sense of commerce into the Constitution generates significant textual and structural problems." Id. at 586-87 (Thomas, J., concurring). The conclusion of this argument is that congressional power pursuant to the Commerce Clause should be limited to authority to enact regulations which are consistent with the original meaning of that clause. See id. at 584 (Thomas, J., concurring). This meaning would require an exchange between two persons and would not permit regulation based on manufacture. Cf. id. at 586 (Thomas, J., concurring) ("[T]he term 'commerce' was used in contradistinction to productive activities such as manufacturing and agriculture."). Whether this distinction still makes sense or not, the scope of congressional authority is limited to that which is granted by the Constitution, and that grant, if not evident from the text, is determined by the drafters' intent. See NLRB v. United Food & Commercial Workers Union Local 23, 484 U.S. 112, 123 (1987) ("On a pure question of statutory construction, our first job is to try to determine congressional intent, using 'traditional tools of statutory construction.' If we can do so, then that interpretation must be given effect, and the regulations at issue must be fully consistent with it."); Chevron USA Inc. v. Natural Res. Defense Council, Inc., 467 U.S. 837, 842-43, 843 n.9 (1984) (requiring courts to give effect to congressional intent in statutory construction).

ously absent from the statute: any requirement of two parties. The statute imposes liability merely when an individual person either circumvents a technological restraint or manufactures a device capable of this circumvention. Yet a single person cannot "exchange" an article of commerce with himself; an "exchange" requires at least two people. This means that the DMCA does not require an exchange. From this, it follows that the DMCA does not implicate commerce, and that the DMCA does not fall within the purview of the Commerce Clause.

Moreover, even those portions of the DMCA that do apply to exchanges are outside the bounds of the Commerce Clause. This result flows from another provision of the exchange requirement. Exchange is defined as "[t]he act of transferring interests, each in consideration for the other."\textsuperscript{163} Further, a legal interest is a "legal share in something; all or part of a legal or equitable claim to or right in property."\textsuperscript{164} Combining these definitions to create an intelligible standard results in the conclusion that there must be a transfer, between two or more people, of legal shares, claims, or rights in property for activity to be classified as commerce. Evaluated under this criterion, the provisions of the DMCA that necessitate more than one person still fall outside the ambit of the Commerce Clause, because these provisions do not involve any transferral of interest. For example, one person can distribute works, after removal of the digital management system, without receiving anything in return, and one person can provide or offer to the public any device which is designed primarily for circumvention without receiving anything in return. In neither situation is there a transference of interests by a party in consideration for the transference from the other party. Therefore, there is no exchange, no implication of commerce, and no authority for the DMCA pursuant to the Commerce Clause.

C. The DMCA Is Beyond Congress's Authority Under the Lopez/Morrison Test

The inconsistent judicial determinations of, and tests for, the scope of the Commerce Clause since its inception have been the subject of vast discussion.\textsuperscript{165} The current test was formulated in \textit{United States v. Lopez}\textsuperscript{166} and clarified in \textit{United States v. Morrison}.\textsuperscript{167} An analy-

\textsuperscript{163} Black's Law Dictionary, \textit{supra} note 160, at 585 (omitting additional definitions that are irrelevant in the current context).

\textsuperscript{164} \textit{Id.} at 816.

\textsuperscript{165} See, e.g., \textit{Lopez}, 514 U.S. at 552–61.

\textsuperscript{166} \textit{Id.} at 558–59.
sis of both the history of the scope of the Commerce Clause power and the current test reveals that the DMCA is not a valid regulation pursuant to the clause.

1. Implications of Commerce Clause History for the DMCA

Over the past two centuries, the Court's view of the Commerce Clause power has drifted away from its original understanding.\(^{168}\) This expansion of the authority granted to Congress can be seen from a brief overview of the case law. Originally, the commerce power did not include the ability to regulate in the fields of agriculture or manufacturing.\(^{169}\) Commerce was strictly limited to exchange or trade.\(^{170}\) This view was adopted by the Supreme Court over a century after the Founding, in *United States v. E.C. Knight Co.*\(^{171}\) In that case, the Court formulated a test for whether an activity implicates commerce. First, the Court distinguished manufacture from commerce:

> Doubtless the power to control the manufacture of a given thing involves in a certain sense the control of its disposition, but this is a secondary and not the primary sense; and although the exercise of that power may result in bringing the operation of commerce into play, it does not control it, and affects it only incidentally and indirectly. Commerce succeeds to manufacture, and is not a part of it.\(^{172}\)

The Court continued on to declare that manufacturing does not necessarily implicate commerce: "[t]he fact that an article is manufactured for export to another State does not of itself make it an article of interstate commerce, and the intent of the manufacturer does not determine the time when the article... passes from the control of the State and belongs to commerce."\(^{173}\) Finally, the Court suggested a test, not actually accepted for another forty years,\(^{174}\) for determining

\(^{167}\) 529 U.S. 598, 611-12 (2000).

\(^{168}\) See *Lopez*, 514 U.S. at 584 (Thomas, J., concurring).

\(^{169}\) See *The Federalist No. 34*, *supra* note 11, at 251 (Alexander Hamilton) (proving that agriculture and manufacture were to remain within the province of State regulation by referring to these subjects as areas in which the states, and not the federal government, would incur expenses).

\(^{170}\) See *1 Samuel Johnson, A Dictionary of the English Language* 361 (4th ed. 1773) (defining commerce as "Intercourse; exchange of one thing for another; interchange of any thing; trade; traffick").


\(^{172}\) *Id.* at 12.

\(^{173}\) *Id.* at 13.

whether an activity could be classified as commerce: any activity that resulted in a direct interference with interstate or foreign commerce was within the bounds of the Commerce Clause, and any activity which indirectly interfered was not.175

Another seminal case in the Court's explication of the limits of the federal power under the Commerce Clause is *Hammer v. Dagenhart*.176 In that case, the Court provided two governing principles for Commerce Clause jurisprudence. First, the Court analyzed the ability of the commerce power to be used to prohibit activity. This analysis began with the premise that "the power is one to control the means by which commerce is carried on, which is directly the contrary of the assumed right to forbid commerce from moving and thus destroy it as to particular commodities."177 The Court then recognized the argument that prohibition was a corollary power of regulation, but it rejected this assertion: "the authority to prohibit is . . . but the exertion of the power to regulate."178 Finally, after assessing the existing case law, the Court held that the commerce power could only be used to prohibit an activity if the activity required use of interstate transportation and regulation of this transportation could only be achieved by prohibiting the harmful conduct.179 Second, the Court declared that "the production of articles, intended for interstate commerce, is a matter of local regulation."180 In making this declaration, the Court stated that manufacturing and mining are not commerce, even if the items produced are to be shipped or used in interstate commerce.181

This line of cases was continued in *A.L.A. Schechter Poultry Corp. v. United States*.182 In that case, the direct/indirect test suggested in *E.C. Knight* was adopted. The Court found that "there is a necessary and well-established distinction between direct and indirect effects."183 The significance of this distinction was then revealed: "[b]ut where the effect of intrastate transactions upon interstate commerce is merely indirect, such transactions remain within the domain of state power."184 Thus, the commerce power had been extended to cover

175  See *E.C. Knight*, 156 U.S. at 16.
177  *Id.* at 269–70.
178  *Id.* at 270.
179  See *id.* at 271.
180  *Id.* at 272.
181  See *id.* (citing Del., Lackawanna & W. R.R. Co. v. Yurkonis, 238 U.S. 439, 444–45 (1915)).
183  *Id.* at 546.
184  *Id.*
purely intrastate activity, but only if it directly affected interstate commerce.

To this point, the jurisprudence of Commerce Clause power had not been significantly changed since the time of the Founding. This trend was altered dramatically, however, by *NLRB v. Jones & Laughlin Steel Corp.* The case marked the beginning of a series of decisions by the Court that involved a more expansive reading of the Commerce Clause. In *Jones & Laughlin*, the Court rejected a Commerce Clause challenge to the National Labor Relations Act, holding that "the act [was] valid as here applied." In coming to this conclusion, the Court diverged from the direct/indirect test, finding that the "question is necessarily one of degree." The Court also stated that if activities "have such a close and substantial relation to interstate commerce that their control is essential or appropriate to protect that commerce from burdens and obstructions, Congress cannot be denied the power to exercise that control." This precedent granted a virtually plenary power to Congress under the Commerce Clause for almost sixty years, as no other statute or regulation was deemed to violate the Commerce Clause until *United States v. Lopez* in 1995. Thus, the first dramatic departure from the original meaning of the Commerce Clause bestowed upon Congress a level of power, virtually plenary, that would have been unheard of to the Founders.

This historical analysis of the development of Commerce Clause jurisprudence implies that, whether or not the DMCA is valid under the current interpretation of the Commerce Clause, it does not comport with the meaning of that clause over the first 150 years. The clause was understood by the Framers to be limited in scope, only

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185 301 U.S. 1 (1937).
187 301 U.S. at 49.
188 Id. at 37.
189 Id.
191 Cf. *Lopez*, 514 U.S. at 584 (Thomas, J., concurring) (recognizing that Supreme Court case law no longer conforms to "the original understanding of the Commerce Clause").
permitting regulation of exchanges between parties in different states; for example, it was recognized that this authority did not extend to manufacturing or agriculture, and did not permit prohibitions on intrastate activity unless prohibiting the activity, which must require use of interstate commerce, was the only feasible regulatory method. This meaning remained relatively stable for the following 150 years.

The DMCA both regulates manufacturing and prohibits intrastate activity that does not require use of interstate commerce. Thus, the historical jurisprudence of the Commerce Clause suggests that the DMCA is not within the permissible sphere of Commerce Clause authority, because its operation is antagonistic to the purpose of the clause. The purpose of the clause remains constant, even if the test for comporting with that purpose changes; as articulated by Justice Thomas, "[e]ven though the boundary between commerce and other matters may ignore 'economic reality' and thus seem arbitrary or artificial to some, we must nevertheless respect a constitutional line that does not grant Congress power over all that substantially affects interstate commerce."  

2. The DMCA and the Current Test for Constitutionality Under the Commerce Clause

a. *Lopez* and *Morrison*: The Test

The current formula for determining whether a statute is validly enacted pursuant to the Commerce Clause was established in *Lopez*, where the Court "identified three broad categories of activity that Congress may regulate under its commerce power."  Congress may regulate: (1) "the use of the channels of interstate commerce," (2) "the instrumentalities of interstate commerce, or persons or things in interstate commerce, even though the threat may come only from intrastate activity," and (3) "activities having a substantial relation to interstate commerce . . . i.e., those activities that substantially affect interstate commerce." The Court also suggested that the inclusion in a statute of a jurisdictional element could assist the Court in finding that the regulation involved the requisite effect on interstate commerce.

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192 *Id.* at 593 (Thomas, J., concurring).
193 *Id.* at 558.
194 *Id.*
195 *Id.*
196 *Id.* at 558–59 (citations omitted).
197 See *id.* at 561–62.
Five years later, the Court clarified the third prong of this formula in *United States v. Morrison*. First, the Court reaffirmed the activity in question must be economic in nature. Second, the Court provided a stronger incentive to include a jurisdictional element in statutes: "[s]uch a jurisdictional element may establish that the enactment is in pursuance of Congress’ regulation of interstate commerce." With the inclusion of these two clarifications, the current test is complete.

Depicted as a formula, the test looks like this:

The statute in question is valid if:

1. it regulates a channel of commerce, or
2. it regulates the instrumentalities of commerce, or
3. it regulates intrastate commerce, and
   a. the regulated activity is
      i. economic in nature, or
      ii. essential to a larger regulation of economic activity, and
   b. the regulated activity substantially affects interstate commerce.

Note: A jurisdictional element may prove the existence of (a) or (b) in a situation where the existence of one of these two elements is difficult to ascertain.

Therefore, for the DMCA to be constitutional under the Commerce Clause, it must pass one of the three prongs of this test.

b. The DMCA Fails the First Two Prongs

The DMCA does not involve either a “channel” or an “instrumentality” of commerce. A “channel” is “a mode of transmitting something.” None of the actions enumerated in the DMCA, including circumventing, manufacturing, importing, offering to the public, providing, and trafficking, are prohibitions on channels of commerce. These are all actions which potentially utilize the channels of commerce, but are not themselves the channels of commerce. Further, an

199 See id. at 611 ("[I]n those cases where we have sustained federal regulation of intrastate activity based upon the activity's substantial effects on interstate commerce, the activity in question has been some sort of economic behavior.").
200 Id. at 612.
201 BLACK'S LAW DICTIONARY, supra note 160, at 226.
"instrumentality" is a "thing used to achieve an end or purpose." Again, the prohibited actions are not instrumentalities of commerce. These actions may occasionally use instrumentalities, but are not instrumentalities themselves, as they are actions, not things used for a purpose. Therefore, because the prohibitions are all actions, they are neither channels nor instrumentalities of commerce, and the DMCA fails the first two prongs.

Furthermore, the first provision, prohibiting circumvention of access controls, does not necessarily involve interstate activity. Circumvention of technological protections does not require action by more than one person or movement across a state boundary by an individual working alone. Without multiple actors, or an individual actor who crosses the border between states, there can be no interstate activity. As the first two prongs—regulation of channels of commerce and regulation of the instrumentalities of commerce—necessitate interstate activity, the DMCA fails both prongs.

c. The DMCA Fails the Third Prong

Because the DMCA failed the first two prongs of the Lopez/Morrison test, it falls under the category of the third prong: regulation of intrastate commerce. To pass the third test, the DMCA must regulate economic activity which substantially affects interstate commerce. This requires proof (1) that the regulated activity is either economic in nature or is essential to a larger regulation of economic activity, and (2) that it substantially affects interstate commerce.

The DMCA does not regulate economic activity. The DMCA regulates the circumvention of technological protections, the manufac-

202 Id. at 802.
203 See infra Part IV.B.
204 The idea here is that an individual actor, working alone, can stay in one location while circumventing a protection or creating a device or method that is capable of circumvention.
205 "Interstate" is defined as "[b]etween two or more states or residents of different states." BLACK'S LAW DICTIONARY, supra note 160, at 826. For conduct to constitute "interstate" activity, it must involve more than one state.
206 "Commerce" in this context refers to interstate commerce, and thus requires interstate activity.
207 Technically, this is incorrect. The regulated activity must be proven to be commerce prior to any other analysis under this part of Lopez/Morrison. However, because this Note has already advanced the proposition that the DMCA does not regulate commerce, see infra Part IV.B, the analysis in this subsection assumes that the activity regulated is commerce. Further, as demonstrated earlier, see supra Part IV.C.2.b, the regulated activity does not fall under interstate commerce and it must be intrastate commerce, thereby invoking the third prong of the test.
turer of devices to circumvent technological protections, and distribution of/trafficking in such devices. To be economic in nature, the activities would have to be such that there was no purpose for the activity that was not economic. However, § 1201(a)(1)(A), § 1201(a)(2)(A), and § 1201(b)(1) all prohibit non-economic activity. One effect of prohibiting circumvention of access controls is to forbid an individual from developing her own methods of accessing her programs or security systems. Security systems, such as password protection on computers and computer programs or security codes to home alarms or garage doors, are copyrighted materials that control access to the protected computer, program, or house. Therefore, bypassing these controls would violate the DMCA, because it would entail a circumvention of an access control. However, creating one's own method of access to one's own belongings, when the method was not provided by the manufacturer, does not implicate any economic activity. For example, if a person develops his own garage-door opener, he thereby circumvents the access controls present in the opener provided by the manufacturer. The owner already owns the garage door and opener, and he has the right to be able to enter his own garage. Therefore, unless he paid for use of that specific opener, as opposed to paying for the garage door system, developing his own opener would not implicate any economic concerns. This same analysis would apply for any security system, such as home security systems or password protections for computers and computer programs. All security systems involve access controls (as their purpose is to restrict access), and owners of these systems do not implicate anything economic in nature if they bypass these controls to access their own possessions.

Furthermore, creating or distributing devices that enable circumvention of access controls or circumvention of copy controls, under § 1201(a)(2) and § 1201(b), is not necessarily economic in nature. As seen above, an individual can circumvent an access control without

208 "Nature" is defined, in relevant part, as "[a] fundamental quality that distinguishes one thing from another; the essence of something." BLACK'S LAW DICTIONARY, supra note 160, at 1050. This means that, to be economic in nature, the essence of the thing described would have to be economic; its fundamental quality must be economic.

209 This example is based on an actual case, wherein the defendant company developed a universal opener that could operate the plaintiff's garage door system, despite the access control system included in the plaintiff's opener. See Chamberlain Group, Inc. v. Skylink Techs., Inc., 292 F. Supp. 2d 1040 (N.D. Ill. 2003). In that case, the court granted the defendant's motion for partial summary judgment, thereby dismissing the DMCA claims. Id. at 1046.
implicating economic concerns. Further, circumvention of a copy control, which is not a violation of the DMCA, is also not economic. An individual can circumvent a copy control on a CD to make an MP3, and, unless the person purchased the actual plastic of the CD, this act is not economic in nature, as the person has paid for rights to the music. Accordingly, if an individual's act is not economic in nature, then manufacturing, offering to the public, importing, and providing a device that enables an individual to accomplish that act also is not economic in nature. Unless the person offering, importing, manufacturing, or providing the device is receiving something in return for the device, there is nothing economic about the transaction, and there is nothing economic about an individual using the device.

There is one portion of § 1201(a)(2) and § 1201(b) that is economic in nature: trafficking in devices capable of circumventing access controls or copy controls. By definition, trafficking must be economic, because it involves an exchange of goods for goods or money. Therefore, this portion of each of these provisions passes the third prong of the test for Commerce Clause power. This one constitutional component of the statute cannot save the rest of the statute, however. Therefore, § 1201, as a whole, still fails a constitutional analysis.

The above examples demonstrate that the regulated activities are not economic in nature, but are they essential to a larger regulation of economic activity? No, because the larger regulation—protection of copyrights and copyright holders—can be accomplished without them. These regulations were enacted to make copyright enforcement easier, but they are not essential. The same purpose could be achieved by stricter enforcement of copyright laws, or by requiring any device that enables the circumvention of technological protections to log when it is used and what the purpose of that use was. Therefore, since the DMCA does not regulate activity that is economic in nature or essential to a larger regulation of economic activity, it does not satisfy the first requirement of the third prong.

As for the second requirement, the DMCA does have a substantial effect on interstate commerce. Although this effect is attenuated, the DMCA passes the substantial effects test. However, this is a moot point, as it must pass both elements of the third prong in order to be a valid statute pursuant to the Commerce Clause, and it has already failed the first element.

There is one final consideration. The presence of a jurisdictional element could provide the requisite connection to economic activ-

210 See BLACK'S LAW DICTIONARY, supra note 160, at 1502.
This possibility does not, however, help the DMCA, because the Act has no such element. Therefore, the DMCA fails the third prong of the test for constitutionality under the Commerce Clause. This failure means that the DMCA fails the overall test and cannot be enacted under the Commerce Clause.

V. THE TREATY POWER AND THE DMCA: THE LAST HOPE FAILS

The final possible source of congressional authority for enacting the DMCA is the treaty power. Congress purportedly created the DMCA to implement two treaties of the World Intellectual Property Organization, the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty. Neither treaty required the enactment of the DMCA. Although the purpose was legitimate, the resultant statute was not.

A. The Source and Scope of the Treaty Power

The treaty power of Congress is a derivative power, which comes from three clauses in the Constitution: the Treaty Clause, the Necessary and Proper Clause, and the Supremacy Clause. The Treaty Clause grants authority to the president: "[The President] shall have power, by and with the Advice and Consent of the Senate, to make Treaties." Thus, Congress is granted no authority to create or enter into treaties, merely to offer advice and consent to the Executive. Congress is, however, granted the power to effectuate treaties entered into by the President. Congress has the authority "[t]o make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or

212 See U.S. Const. art. I, § 8, cl. 18; id. art. II, § 2, cl. 2.
213 H.R. Rep. No. 105-551, pt. 2, at 20 (1998). The House Committee on Commerce stated that, "[t]he purpose of H.R. 2281, the Digital Millennium Copyright Act of 1998, is to implement two international treaties (i.e., the "Copyright Treaty," and the "Performances and Phonograms Treaty") signed by the United States and more than 125 other countries before the World Intellectual Property Organization (WIPO)." Id.
214 Copyright Treaty, supra note 77.
215 Performances Treaty, supra note 77.
216 U.S. Const. art. II, § 2, cl. 2.
217 Id. art. I, § 1, cl. 18.
218 Id. art. VI, § 1, cl. 2.
219 Id. art. II, § 2, cl. 2.
Officer thereof."\textsuperscript{220} Thus, the application of the Necessary and Proper Clause to the Treaty Clause allows Congress to promulgate any law necessary to execute the terms of the treaties entered into by the President and ratified by the Senate. Finally, these laws, once passed, are the supreme law of the land: "This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the Supreme Law of the Land . . . ."\textsuperscript{221}

This, however, still leaves one question unanswered: what is the scope of Congress's treaty power? May Congress assume power, in order to effectuate a treaty, which it does not otherwise possess? Or that would otherwise be prohibited? The answers to these questions, as seen below, are yes, Congress has more power under the treaty power than it would otherwise possess, but no, it may not exercise the treaty power in order to lay claim to authority that is specifically prohibited to it by the Constitution.

The scope of the treaty power has been determined in a series of cases by the Supreme Court. An overview of a few of these cases, followed by the seminal case of \textit{Missouri v. Holland},\textsuperscript{222} demonstrates how much additional authority the treaty power confers on Congress. In \textit{Ware v. Hylton},\textsuperscript{223} the Court determined that a statute enacted by Congress, pursuant to the treaty of peace signed with Great Britain, invalidated a Virginia statute which confiscated the debt owed to British citizens.\textsuperscript{224} In reaching this conclusion, Justice Chase stated that "[i]t seems to me that treaties made by Congress, according to the Confederation, were superior to the laws of the states."\textsuperscript{225} He continued, "[a] treaty cannot be the supreme law of the land, that is of all the United States, if any act of a State Legislature can stand in its way."\textsuperscript{226} Thus, after \textit{Ware}, it was clear that there was a treaty power vested in Congress to promulgate legislation to give effect to treaties, and that any law enacted pursuant to this power was superior to any state law.

\textsuperscript{220} \textit{Id.} art. I, § 8, cl. 18 (emphasis added).

\textsuperscript{221} \textit{Id.} art. VI, § 1, cl. 2; \textit{see also} \textit{Ware v. Hylton}, 3 U.S. (3 Dall.) 199, 236 (1796) (declaring all laws made pursuant to a treaty are the supreme law of the land, and are thereby superior to any state law, even state laws enacted prior to creation of the treaty).

\textsuperscript{222} 252 U.S. 416 (1920).

\textsuperscript{223} 3 U.S. (3 Dall.) at 199.

\textsuperscript{224} \textit{See id.} at 245.

\textsuperscript{225} \textit{Id.} at 236.

\textsuperscript{226} \textit{Id.} (emphasis omitted).
The next case, *Geofroy v. Riggs*, discussed some limits on the treaty power. Although the Court, on its way to holding that the French nephews of a deceased American were entitled to the uncle's real property, found the treaty in issue, which allowed for inheritance of property in the United States by aliens where they were permitted to hold real estate, to be valid, it did provide a limit to the power:

The treaty power, as expressed in the Constitution, is in terms unlimited except by those restraints which are found in that instrument against the action of the government or of its departments, and those arising from the nature of the government itself and of that of the States. It would not be contended that it extends so far as to authorize what the Constitution forbids, or a change in the character of government or in that of one of the States, or a cession of any portion of the territory of the latter, without its consent.

This means that the treaty power is limited, not to the powers expressly granted to the federal government by the Constitution, but to those powers which are not affirmatively prohibited to the federal government. Thus, Congress may enact laws under the treaty power that it would otherwise not have the authority to enact, but only if they do not conflict with a prohibition on congressional authority contained elsewhere in the Constitution.

The scope of the treaty power, and the limitation articulated in *Geofroy v. Riggs*, was clarified in *Missouri v. Holland*, where the Court

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227 133 U.S. 258 (1890).
228 See id. at 272–73.
229 See id. at 267.
230 Id. (citation omitted) (emphasis added).
231 See also Holden v. Joy, 84 U.S. (10 Wall.) 211, 243 (1872). In referring to the treaty power, the Court stated:

[I]t must be assumed that the framers of the Constitution intended that it should extend to all those objects which in the intercourse of nations had usually been regarded as the proper subjects of negotiation and treaty, if not inconsistent with the nature of our government and the relation between the States and the United States.

Id.; cf. *In re Ross*, 140 U.S. 453, 463 (1891) (“The treaty-making power vested in our government extends to all proper subjects of negotiation with foreign governments.”).

232 252 U.S. 416 (1920). It has been suggested that this case is no longer good law. See Curtis A. Bradley, *The Treaty Power and American Federalism*, 97 MICH. L. REV. 390 (1998); Thomas Healy, Note, *Is Missouri v. Holland Still Good Law? Federalism and the Treaty Power*, 98 COLUM. L. REV. 1726 (1998). This possibility does not negatively affect the analysis presented in this Note, however, as the claim is that the treaty power is less plenary than previously believed.
upheld a treaty protecting migratory birds and its implementing legislation.\textsuperscript{233} The Court began by noting that it was

said that a treaty cannot be valid if it infringes the Constitution, that there are limits, therefore, to the treaty-making power, and that one such limit is that what an act of Congress could not do unaided, in derogation of the powers reserved to the States, a treaty cannot do.\textsuperscript{234}

However, the court then reasoned that there are matters over which Congress has authority pursuant to a treaty which it would not have in the absence of a treaty.\textsuperscript{235} The Court then upheld the treaty in question because it did "not contravene any prohibitory words to be found in the Constitution."\textsuperscript{236} Finally, the Court laid out a sort of test for whether the treaty power extends additional authority to Congress: "the question is whether the United States is forbidden to act."\textsuperscript{237} This means that so long as the Constitution does not affirmatively restrict Congress from enacting legislation, any legislation is permissible under the treaty power if enacted to effectuate a valid treaty.\textsuperscript{238}

\textbf{B. The DMCA, the WIPO Treaties, and the Treaty Power}

The DMCA purports to implement the requirements of two WIPO treaties:\textsuperscript{239} the Copyright Treaty\textsuperscript{240} and the Performances and Phonograms Treaty.\textsuperscript{241} The most innovative requirements of the treaties are contained in two articles, which appear in both treaties with

\begin{itemize}
\item \textsuperscript{233} Holland, 252 U.S. at 435.
\item \textsuperscript{234} Id. at 432.
\item \textsuperscript{235} Id. at 433.
\item \textsuperscript{236} Id.
\item \textsuperscript{237} Id. at 435.
\item \textsuperscript{238} See also Zechariah Chafee, Jr., \textit{Federal and State Powers Under the UN Covenant on Human Rights}, 1951 Wis. L. Rev. 389, 430 ("What Missouri v. Holland did was to establish the validity of Acts of Congress which were called for by a valid treaty or helped carry it out, even though the power of Congress to enact domestic legislation about the same matters was absent or doubtful.").
\item \textsuperscript{239} See H.R. Rep. No. 105-551, pt. 2, at 20 (1998); see also Bellia et al., \textit{supra} note 3, at 285 ("The DMCA's anti-circumvention and anti-trafficking provisions were ostensibly intended to bring the United States into compliance with the 1996 World Intellectual Property Organization ("WIPO") Copyright Treaty . . . "); John V. Martin, \textit{Copyright: Current Issues and Laws} 134, 135, 137 (2002) (stating that "Title I implements the two WIPO treaties," and then discussing how this was accomplished); William F. Patry, \textit{Copyright Law and Practice} (Supp. 2000), available at http://digital-law-online.info/patry/patry11.html#sec2 ("Title I of the DMCA implements the WIPO treaties.").
\item \textsuperscript{240} See Copyright Treaty, \textit{supra} note 77.
\item \textsuperscript{241} See Performances Treaty, \textit{supra} note 77.
\end{itemize}
the same titles and almost identical language. The first relevant article in each treaty is entitled "Obligations concerning Technological Measures."242 The language employed in the Copyright Treaty, which is almost identical to the Performances and Phonograms Treaty, is:

Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.243

The second article presenting innovative material is "Obligations concerning Rights Management Information."244 The language of this article in the two treaties differs by only the inclusion of the phrase "or the Berne Convention" in the Copyright Treaty.245 This language, in relevant part, states: "Contracting Parties shall provide adequate and effective legal remedies against any person knowingly performing any of the following acts knowing, or with respect to civil remedies having reasonable grounds to know, that it will induce, enable, facilitate or conceal an infringement of any right covered by this Treaty."246

The DMCA is Congress's effort to implement these treaties. "These provisions [§ 1201 of the DMCA] require contracting parties to provide 'adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors . . . and that restrict acts . . . which are not authorized by the authors concerned or permitted by law.'"247 Thus, the DMCA endeavors to implement the two innovative articles of both treaties in one statute.

242 Copyright Treaty, supra note 77, art. XI, 36 I.L.M. at 71; Performances Treaty, supra note 77, art. XVIII, 36 I.L.M. at 86.
243 Copyright Treaty, supra note 77, art. XI, 36 I.L.M. at 71. This same provision appears in the Performances and Phonograms Treaty, but with "performers or producers of phonograms" in place of "authors," without "or the Berne Convention," and with "performances or phonograms" substituted for "works." Performances Treaty, supra note 77, art. XVIII, 36 I.L.M. at 86.
244 Copyright Treaty, supra note 77, art. XII, 36 I.L.M. at 71; Performances Treaty, supra note 77, art. XIX, 36 I.L.M. at 86.
245 Copyright Treaty, supra note 77, art. XII, 36 I.L.M. at 71.
246 Performances Treaty, supra note 77, art. XIX, 36 I.L.M. at 86.
C. Unnecessary Legislation: U.S. Copyright Law Already Effectuated the Treaties

Any legislation enacted by Congress pursuant to the treaty power must be targeted at implementing a valid treaty. Any legislation enacted by Congress pursuant to the treaty power must be targeted at implementing a valid treaty. This means that, in order for the treaty power to authorize Congress to pass legislation, the provisions of the treaty in question must necessitate implementing legislation. Under the treaty power, Congress only has the power to promulgate laws which are "necessary and proper" to effectuate a valid treaty. The treaty power is not a blank check given to Congress to pass any statute which it desires to pass, but is a limited grant of additional authority to promote international agreements. Therefore, the DMCA is only a valid application of the treaty power if it is necessary to carry out the obligations imposed by the WIPO treaties.

To determine if the DMCA is required to implement the WIPO treaties, it is necessary to compare the obligations under the treaty to the pre-DMCA state of the copyright law:

The WIPO Copyright Treaty articulates two specific subject matters to be protected by copyright: computer programs in any mode or form, and compilations of data or material in any form which constitutes an intellectual creation. It also recognizes three explicit rights of authors: the right of distribution, the right of rental, and the right of communication to the public. The treaty clarifies the scope and duration of protection of works and allows contracting nations the liberty to enact some exceptions to its protection. The WIPO treaty also details its obligations concerning rights management information and administrative particulars concerning the treaty's ratification and enforcement. While the above portions of the treaty enhance copyright law, they are not gross variations from the traditional standards of copyright protection.

This synopsis of the WIPO treaty displays how U.S. copyright law prior to the DMCA was sufficient to implement the requirements of the treaty. U.S. copyright law clearly complied with all articles except Articles XI and XII of the Copyright Treaty and Articles XVIII and XIX of the Performances and Phonograms Treaty.

Articles XI and XII of the Copyright Treaty and Articles XVIII and XIX of the Performances and Phonograms Treaty require some-

248 See U.S. Const. art. I, § 8, cl. 8; supra text accompanying notes 219-24.
249 Id. art. I, § 8, cl. 18 (emphasis added).
what more analysis. These articles require protection of technological measures and rights management information systems.\textsuperscript{252} Thus, they effectively require signatory countries to prevent circumvention of technological protections imposed by authors. However, "[t]he U.S. could have asserted that its law already complied with the WIPO treaty's anti-circumvention norm."\textsuperscript{253} Anticircumvention was already established by a number of statutes and judicial decisions.\textsuperscript{254} This leads to the conclusion that copyright law already provided adequate protection to copyright holders.\textsuperscript{255} Thus, "[t]o comply with the WIPO treaties, the U.S. did not need to make any substantive changes to the U.S. Copyright Act."\textsuperscript{256}

The extent to which the provisions of the DMCA exceed the requirements of the WIPO treaties provides another reason why the DMCA is not necessary for the treaties' implementation. The obligations imposed on signatory nations by Articles XI and XII of the WIPO Copyright Treaty, and Articles XVIII and XIX of the Performances and Phonograms Treaty, are limited in scope. Requirements for protection of technological measures are limited to measures used by authors (or performers) "in connection with the exercise of their rights under"\textsuperscript{257} the treaties and "which are not . . . permitted by law."\textsuperscript{258} This makes it unnecessary for the United States to enact any laws protecting copyright holders beyond the rights provided in the treaties or to prevent circumvention of technological measures which restrict acts permitted by law. The rights afforded to copyright holders by the treaties are virtually equivalent to the rights contained in the pre-DMCA copyright laws. Extra protection, afforded by measures which exceed the scope of copyright protection, is therefore unnecessary for implementation of the treaties. Moreover, there are acts which are permitted by law, such as fair uses, that do not need to be prevented in order to satisfy treaty obligations. The DMCA protects measures which cannot be validly protected under copyright law\textsuperscript{259} and does

\textsuperscript{252} See Copyright Treaty, supra note 77, arts. XI–XII, 36 I.L.M. at 71; Performances Treaty, supra note 77, arts. XVIII–XIX, 36 I.L.M. at 86.

\textsuperscript{253} Samuelson, supra note 251, at 531.

\textsuperscript{254} See id. at 532.

\textsuperscript{255} See id.

\textsuperscript{256} Quinn, supra note 1, at 53; see also Samuelson, supra note 251, at 521 ("[T]he DMCA was largely unnecessary to implement the WIPO Copyright Treaty because U.S. law already complied with all but one minor provision of that treaty.").

\textsuperscript{257} Copyright Treaty, supra note 77, art. XI, 36 I.L.M. at 71 (emphasis added); Performances Treaty, supra note 77, art. XVIII, 36 I.L.M. at 86 (emphasis added).

\textsuperscript{258} Copyright Treaty, supra note 77, art. XI, 36 I.L.M. at 71 (emphasis added); Performances Treaty, supra note 77, art. XVIII, 36 I.L.M. at 86 (emphasis added).

\textsuperscript{259} See infra Part III.B.
not allow for fair uses or other legitimate circumventions.\textsuperscript{260} Therefore, the DMCA was not "necessary and proper" to implement any obligations that may have arisen from Article XI of the Copyright Treaty or Article XVIII of the Performances and Phonograms Treaty, as it is overly broad in scope.

Justification for the DMCA under Article XII of the Copyright Treaty (Article XIX of Performances and Phonograms Treaty) falters under a similar analysis. The articles require prevention of enumerated acts, related to the circumvention of electronic rights management information, which "induce, enable, facilitate or conceal an infringement of any right covered by this Treaty."\textsuperscript{261} This means that implementing legislation need only protect the rights granted by the treaties. This language also implies that protection must only be extended to preclude circumvention of electronic rights management information systems that protect copyrightable works. In addition, it is not necessary to provide remedies for circumvention of these systems which merely allowed for fair uses, as the copyright holder is not granted a right by the treaties to prevent fair uses. The DMCA protects management information systems that protect uncopyrightable work, provides remedies for circumvention of these systems for fair uses, and protects against non-electronic management information systems, when the treaty clearly demands only protection of electronic systems.\textsuperscript{262} Thus, the DMCA is also not necessary and proper for implementation of this article in the treaties.

"[T]he DMCA went far beyond treaty requirements in broadly outlawing acts of circumvention of access controls and technologies that have circumvention-enabling uses."\textsuperscript{263} Congress could have enacted legislation that was more restricted, to better align with the obligations of the treaties. An alternative bill offered by Representative Tom Campbell provides an example, in that Congress might have "proposed to make it illegal to circumvent a technical protection system for purposes of engaging in or enabling copyright infringe-

\textsuperscript{260} See Patry, supra note 239 ("[I]n some instances the public will be justified in circumventing copy protection schemes in order to make fair use copies of a work."); Samuelson, supra note 251, at 524 ("[T]here are far more legitimate reasons to circumvent a technical protection system than the DMCA's act-of-circumvention provision expressly recognizes.").

\textsuperscript{261} Copyright Treaty, supra note 77, art. XII, 36 I.L.M. at 71 (emphasis added); Performances Treaty, supra note 77, art. XIX, 36 I.L.M. at 86 (emphasis added).

\textsuperscript{262} See Copyright Treaty, supra note 77, art. XII, 36 I.L.M. at 71; Performances Treaty, supra note 77, art. XIX, 36 I.L.M. at 86.

\textsuperscript{263} Samuelson, supra note 251, at 521; see also Martin, supra note 239, at 137 ("[T]he DMCA exceeds the minimum treaty obligations since the WIPO Treaties require protection only for electronic rights management information.").
ment."264 This proposal demonstrates both the overbreadth of the DMCA and the recognition of this overbreadth by at least some members of Congress.

That the DMCA was not necessary for implementing the WIPO treaties was also recognized by the Clinton Administration. "Because of the substantial accord between the WIPO treaty norms and existing U.S. law, the Clinton Administration initially considered whether the WIPO Copyright Treaty might even be sent to the Senate for ratification ‘clean’ of implementing legislation."265 However, "[b]oth Congress and the Clinton Administration used these international treaties as an excuse for passing broad, sweeping changes to U.S. copyright laws that were urged by the entertainment industry, despite the fact that such changes to U.S. copyright law were not required by the treaties themselves."266 This is problematic when the source of Congress’s treaty power is considered, however. Because Congress derives its power to enact implementing legislation from the Necessary and Proper Clause, it is restricted to enacting laws that are actually necessary and proper to effectuate the treaties in question. In the case of the DMCA, this means that Congress had no authority under the treaty power to enact these provisions, because the DMCA was neither necessary nor proper to effectuate the obligations of the WIPO treaties.

D. The Treaty Power Cannot Circumvent the Limits in the Copyright Clause

Using the treaty power as the source of authority for enacting the DMCA also runs into the same problem as using the Commerce Clause.267 No clause may be used to circumvent the limitations on congressional power imposed by another clause.268 Thus, the treaty power, which is derived from the Necessary and Proper Clause, cannot be employed to achieve an end prohibited by the Copyright Clause.269 Because the DMCA is prohibited by the Copyright Clause,270 Congress cannot enact it pursuant to the Necessary and

264 Samuelson, supra note 251, at 533.
265 Id. at 530 (footnote omitted).
266 Quinn, supra note 1, at 52 (footnote omitted).
267 See Part IV.A.
268 See supra note 112 and accompanying text.
269 Cf. IP Law Professors' Brief, supra note 96 ("[W]ith or without the treaty power as a backstop, the Necessary and Proper Clause does not empower Congress to redefine its own authority to avoid specific, affirmative limits on that authority.").
270 See supra Part III.
Proper Clause, and, therefore, the DMCA is not constitutional pursuant to the treaty power.

VI. CAORLEY, FELTEN, ELCOMSOFT, AND 321 STUDIOS: CONSTITUTIONALITY CONSIDERED?

A. The First Opportunity: Universal City Studios, Inc. v. Corley

Congress's constitutional authority to enact the DMCA was first challenged in the case of Universal City Studios, Inc. v. Corley. The appellants argued that the DMCA violated the stipulation that copyrights be granted for "limited times," and that Congress thereby exceeded its authority in enacting the statute. The court dismissed this argument without considering it, however, reasoning that, because the argument was presented in a footnote, it was not entitled to appellate consideration. The fact that it was additionally argued in an amicus brief did not help, because that "is normally not a method for injecting new issues into an appeal." Additionally, the court stated that the argument was not yet ripe for review. For these reasons, the court did not take advantage of this opportunity to resolve the constitutional issues.

B. A Second Chance: Felten v. Recording Industry Ass'n of America, Inc.

The question of whether Congress had authority to enact the DMCA was next raised in the case of Felten v. Recording Industry Ass'n of America, Inc. The case resulted from a challenge issued by the Strategic Digital Music Initiative (SDMI), an organization funded by the recording industry, to computer scientists, inviting them to crack the prototypes of SDMI technologies. Edward Felten, a professor of

271 273 F.3d 429 (2d Cir. 2001).
272 Id.
273 Id. at 444–45.
274 Id.
275 Id.
276 Id.
277 Id.
279 Id.
280 See JUILLIE E. COHEN ET AL., COPYRIGHT IN A GLOBAL INFORMATION ECONOMY 593 (2002); see also Prof. Felton [sic] Challenges Constitutionality of DMCA Anticircumvention, TECH LAW JOURNAL DAILY E-MAIL ALERT (June 7, 2001), at http://www.techlawjournal.com/alert/2001/06/07.asp [hereinafter Prof. Felton] ("[T]he SDMI issued a 'Public Challenge' to help choose among four proposed watermarking technologies.").
computer science at Princeton University, accepted the challenge and defeated the SDMI system. Professor Felten and his team refused the cash reward, because it would have required them to agree that their research was the property of SDMI. Professor Felten decided instead to present his paper at a conference on computer science. However, the recording industry contacted the conference organizers and Princeton’s legal counsel and warned that publication of the paper would violate the DMCA. "The RIAA charged that if Felten presented his research, he would violate the DMCA’s anti-circumvention trafficking provision, which prohibits the dissemination of information on how to circumvent encrypted devices." This warning led Professor Felten to state: "On behalf of the authors of the paper ‘Reading Between the Lines: Lessons from the SDMI Challenge,’ I am disappointed to tell you that we will not be presenting our paper today.

Professor Felten further responded to this incident by filing suit against the recording industry. Scholars theorized that this case would present a “vehicle for constitutional challenges to the DMCA.” In their complaint, the researchers outlined the events that had transpired leading to the creation of the research paper, described how the threat of suit under the DMCA would impede their research, and requested declaratory and injunctive relief, so that they could publish their paper.

281 COHEN ET AL., supra note 280, at 593; see also Prof. Felten, supra note 280 (“Felten [sic] responded, and successfully defeated all four technologies.”).

282 COHEN ET AL., supra note 280, at 593.

283 Id.

284 Id.; see also Prof. Felton, supra note 280 (describing how the SDMI sent a letter to Felten, warning him that publication could subject the researchers to actions under the DMCA).


286 E-mail from Edward W. Felten, Professor, Princeton University, to sdmi-paper-info@cs.princeton.edu (Apr. 26, 2001), available at http://cyber.law.harvard.edu/archive/dwd-discuss/msg12192.html. This statement also shows that even the threat of suit under the DMCA can stifle dissemination of research. See infra Part VIII.

287 See First Amended Complaint, Felten v. Recording Indus. Ass’n of Am. (D.N.J. 2001) (No. CV-01-2669 (GEB)), available at http://www.law.duke.edu/curriculum/courseHomepages/spring2002/724_02/FeltenComplaint.pdf; see also Prof. Felton, supra note 280 (noting that Professor Felten filed a complaint against the RIAA).


289 See First Amended Complaint, Felten, CV-01-2669; see also Burk & Cohen, supra note 288, at 81 n.125 (“Felten and his co-plaintiffs . . . seek declaratory and injunctive
searchers specifically alleged that the "DMCA [exceeds Congress'] enumerated [p]owers."\textsuperscript{290} The allegation also asserted a lack of power under the Copyright Clause (referred to in the complaint as the intellectual property power), the Necessary and Proper Clause, and the Commerce Clause.\textsuperscript{291} These claims, however, were never argued before the court, because the case was dismissed prior to adjudication.

The case was dismissed after the RIAA and the Department of Justice persuaded the court that the case was not ripe.\textsuperscript{292} This decision resulted from a combination of factors. First, after the researchers decided to withdraw their papers, the "RIAA immediately issued a press release stating that it had never seriously intended to sue."\textsuperscript{293} Second, the "government stated in documents filed with the court in November 2001 that 'scientists attempting to study access control technologies' are not subject to the Digital Millennium Copyright Act (DMCA)."

Finally, the recording industry claimed to agree with this sentiment, noting they had "unequivocally and repeatedly stated that we have no intention of bringing a lawsuit against Professor Felten or his colleagues."\textsuperscript{295} These arguments, along with the lack of "evidence that the scientific speech of Professor Felten and his colleagues had been chilled,"\textsuperscript{296} convinced the court to dismiss the case. This dismissal, coupled with the researchers' decision not to appeal,\textsuperscript{297} prevented the issues from being litigated in the court. There-

relief prohibiting enforcement of the DMCA's anti-device provisions to prevent them from discussing and publishing their research findings on the efficacy of certain anti-circumvention technologies.").

\textsuperscript{290} First Amended Complaint, \textit{Felten,} CV-01-2669.
\textsuperscript{291} Id.
\textsuperscript{292} \textit{See Cohen et al., supra} note 280, at 593.
\textsuperscript{293} Id.
\textsuperscript{294} Electronic Frontier Foundation, \textit{Security Researchers Drop Scientific Censorship Case: Government, Industry Claim DMCA Not a Threat to Science} (Feb. 6, 2002), \texttt{at} \url{http://www.eff.org/IP/DMCA/Felten_v_RIAA/20020206_eff_felten_pr.html}.
\textsuperscript{295} \textit{Prof. Felton, supra} note 280.
\textsuperscript{296} \textit{Cohen et al., supra} note 280, at 593. One reason behind the determination that the researchers had not been chilled was the fact that they had already secured another forum for publication of their paper. \textit{See First Amended Complaint, Felten,} CV-01-2669 (averring that USENIX Association had agreed to include the research in its Security Symposium); \textit{see also Cohen et al., supra} note 280, at 593 ("Professor Felten also arranged to present his paper at a different research conference, the Tenth USENIX Security Conference, and did so in August 2001.").
\textsuperscript{297} \textit{See Cohen et al., supra} note 280, at 593 ("Professor Felten and his counsel elected not to appeal the dismissal."); Electronic Frontier Foundation, \textit{supra} note 294 ("Professor Edward Felten and his research team decided not to appeal the November dismissal of their case by a New Jersey Federal Court."); Weil, Gotshal & Manges
fore, although this case articulated many of the constitutional issues underlying the DMCA, it did not resolve any problems.

C. Another Missed Opportunity: United States v. Elcom Ltd.298

The courts were presented with a third chance to resolve the question of whether Congress had constitutional authority to enact the DMCA in another district court case, United States v. Elcom Ltd.299 This time, the court did address the issue of congressional authority and the constitutionality of the DMCA.300 The court concluded that "Congress did not exceed its constitutional authority in enacting the law."301 Unfortunately, the district court only provided a cursory analysis of the question, thereby missing many of the issues and extending its conclusion beyond the scope of its own analysis. Thus, "[w]ith all due respect to the Elcom court, it was wrong."302

The district court began its analysis with its conclusion: "Congress plainly has the power to enact the DMCA under the Commerce Clause."303 The court then proceeded to provide a perfunctory analysis in which it made assertions that proved its conclusion.304 However, prior to getting into any level of actual analysis, the court made the conclusory assertion that "[t]he DMCA prohibits conduct that has a substantial effect on commerce between the states and commerce with foreign nations."305 This statement presupposes the assertion it is attempting to prove, by merely restating the test for constitutionality under Lopez. To provide support for this theory, the court discussed § 1201(b) and § 1204.306 However, whether or not these sections could be enacted does not determine Congress's authority for the entirety of the DMCA. To hold otherwise would be to grant Congress a plenary power to legislate on any topic, so long as it addressed one minor provision to interstate commerce. But this cannot be the case,

LLP, Litigation, WGM INTERNET LAW BULLETIN (Feb. 20, 2002), available at http://www.weil.com ("Professor Felten and the Electronic Frontier Foundation decide not to appeal the District Court of New Jersey's dismissal of their declaratory action seeking a finding that publication of research studying access control technologies was not in violation of the Digital Millennium Copyright Act.").

298 203 F. Supp. 2d 1111 (N.D. Cal. 2002).
299 Id.
300 Id. at 1137-42.
301 Id. at 1141-42.
303 Elcom, 203 F. Supp. 2d at 1138.
304 See id.
305 Id.
306 Id.
as the Constitution grants only limited and enumerated powers. The assertion that these provisions in the DMCA legitimize the entire statute cannot withstand scrutiny.

The court also attempted to provide another basis for its conclusion:

To the extent that circumvention devices enable wrongdoers to engage in on-line piracy by unlawfully copying and distributing copyrighted works of authorship, the sale of such devices has a direct effect on suppressing the market for legitimate copies of the works. Accordingly, there is a rational basis for concluding that the regulated activity sufficiently affects interstate commerce to establish that Congress had authority under the Commerce Clause to enact the legislation.

This argument contains two fundamental flaws, both of which stem from a misapplication of the Lopez test. First, the court used the phrase "to the extent" in referring to the effect that circumvention devices have on the market for copyrighted works. This phrase necessarily implies the possibility that there are other uses which do not effect the market for legitimate copies. The court, however, provided no indication of the required extent to which devices must enable piracy, because it provided no analysis of the uses of circumvention devices or the frequency with which they are used for infringing activity or legitimate activity. Further, the DMCA does not restrict its prohibitions to circumvention devices actually used to make copies that are impermissible infringements of a copyrighted work. It merely provides a blanket prohibition on devices, without asking what they are actually used for (regardless of the purpose for which they are created). Second, the court completed its analysis of the Commerce Clause by holding that it provides Congress with authority to enact the DMCA, because there is "a rational basis for concluding" that there is a substantial effect on interstate commerce. This conclusion rests on a misunderstanding. The Lopez test requires an actual showing of substantial effects on interstate commerce, not merely a rational basis for concluding that there is an effect. This can be seen by the holding in Lopez itself, where, despite the acknowledged rational basis for the conclusion that the gun control act at issue effected interstate commerce, the Court determined that the rational basis was too attenuated. The effect necessitated too many intermediate steps for Con-

307 See supra note 11.
308 Elcom, 203 F. Supp. 2d at 1138 (citations omitted) (emphasis added).
gress to derive authority for the statute from the Commerce Clause.\textsuperscript{310} Therefore, the rational basis relied upon by the \textit{Elcom} court, and the analysis based on it, fails to provide an adequate basis for the conclusion of the court.

The court continued in its analysis by addressing the issue of "whether the DMCA is 'not fundamentally inconsistent' with the purpose of the Intellectual Property Clause."\textsuperscript{311} On this issue, the court began by accepting the reasoning of the government.\textsuperscript{312} This reasoning provided that the purpose of the Copyright Clause is to promote arts and science, and protecting authors encourages them to create and invent, so the protection of authors will promote arts and sciences.\textsuperscript{313} However, this is a logical fallacy; the second step—that protecting authors encourages them to create and invent—does not necessitate the conclusion. Just because authors are encouraged to create and invent does not mean that the overall effect will be to promote arts and sciences. The problem with this analysis is that it disregards important variables. No matter how many creations and inventions are being produced, if they are not available to the public or the information in them is not available for any type of use, the progress of arts and sciences will be impeded. In this situation, although the first generation of authors or inventors will produce more, subsequent generations will be stifled by their inability to use any current works to further their own research or creations. In other words, the court did not follow the current "test" for whether an act of Congress follows the purpose of the Copyright Clause, which requires the court to look at the net results on promotion of learning by the act.\textsuperscript{314} Because the court did not follow the \textit{Lopez} test, its decision appears to lack legitimacy.

The court concluded its analysis of the constitutionality of the DMCA by considering "whether the DMCA is nevertheless 'irreconcilably inconsistent' with a limitation contained within the Intellectual Property Clause."\textsuperscript{315} The court held that it was not.\textsuperscript{316} This holding, although technically correct, is cast into doubt upon investigation of the practical effects of the DMCA. The problem arises in the effect of preventing the creation and distribution of technological circumvention measures. The court stated that "[u]pon the expiration of the

\textsuperscript{310} \textit{Id.} at 563–64.
\textsuperscript{311} \textit{Elcom}, 203 F. Supp. 2d at 1140.
\textsuperscript{312} \textit{Id.} at 1140.
\textsuperscript{313} \textit{Id.} at 1140–41.
\textsuperscript{314} \textit{See supra} Part III.A.
\textsuperscript{315} \textit{Elcom}, 203 F. Supp. 2d at 1141.
\textsuperscript{316} \textit{Id.} at 1141–42.
copyright, there is no longer any protectable intellectual property right in the work’s expression.” \textsuperscript{317} This is correct. The court continues, “[t]he publisher/copyright owner has no right to prevent any user from using the work any way the user prefers. At best, the publisher has a technological measure embedded within the digital product precluding certain uses of that particular copy of the work . . . .” \textsuperscript{318} This statement is also correct. However, the reality reflected in the combination of these statements and the DMCA’s provisions is that any use of this copy not permitted by the copyright owner, even after the copyright expires, will still be impossible for the majority of people. Once the copyright expires, it is true that it is legal to circumvent the technological protections to make fair use of the work. \textsuperscript{319} However, if no one has access to a device that is capable of doing this circumvention, because they are all banned by the DMCA, how is someone supposed to effectuate this right? This shows that, practically, if not theoretically, the DMCA effectively provides copyright holders with a considerable amount of protection that is prohibited under the Copyright Clause. \textsuperscript{320} Therefore, the court, although seemingly correct, erred by missing the effect of the DMCA.

Therefore, the district court failed to adequately analyze the issue of whether Congress possessed constitutional authority for enacting the DMCA. This failure resulted from the court’s omitting an analysis of a set of factors that influence the determination of the DMCA’s constitutionality, as demonstrated by the perfunctory and cursory analysis employed by the court. Thus, the question of the congressional authority for enactment of the DMCA was still not satisfactorily answered after the courts’ third opportunity to address the problem.

\textbf{D. The Recent Case: 321 Studios v. Metro-Goldwyn-Mayer Studios, Inc.} \textsuperscript{321}

Another recent opportunity to determine the constitutionality of the DMCA, presented to U.S. District Court Judge Susan Illston of the

\textsuperscript{317} Id. at 1141.
\textsuperscript{318} Id.
\textsuperscript{319} See id.
\textsuperscript{320} See Sheets, \textit{supra} note 87, at 17. Protection is afforded because, while it is true that an individual is not prohibited from circumventing technical measures that control copying, an individual doing so must first gain access to the work. The act of circumventing a measure that controls access to a work for the sake of engaging in a fair use is still prohibited.
\textsuperscript{321} Order Granting Defendants’ Motion for Partial Summary Judgment and Resolving Related Motions, 321 Studios v. Metro-Goldwyn-Mayer Studios, Inc. (N.D.
Northern District of California, concluded in February. In the case, plaintiff 321 Studios sought a declaratory judgment that the program it sold, which bundled an instruction manual with computer software capable of copying DVDs, did not violate the DMCA. The plaintiff allegedly brought suit because of threatened litigation by the defendants and the Motion Picture Association of America (MPAA). The plaintiff claimed that its product allowed legal owners of DVDs to make backup copies for their own personal use. The company supported this claim by alleging that the "plastic disc is very sensitive to scratches and cracks on the playing surface." Further support, such as the damaging effects of exposure to heat or light, was also provided. The complaint continued by reiterating that the purpose of the product was to provide DVD owners with the ability to make archival copies of their DVDs. Moreover, the product was allegedly only capable of making lower quality copies of the actual film (not the entire DVD), required use of a computer containing a legal and authorized DVD player, and was impractical to use to mass produce bootleg copies of DVDs. In addition, the company informed users that the software must not be used for improper purposes. Finally, the complaint asserted that the provisions of the DMCA "are invalid because Congress exceeded its enumerated powers under Article I, Section 8, of the U.S. Constitution."

In response to the allegations of 321 Studios, the defendants, consisting of a number of motion picture companies, claimed that 321 Studio's products were "illegal under the DMCA." They also sought "through this litigation to enjoin trafficking in those prod-

322 See id.
324 Id. at 2.
325 See id. at 1.
326 Id. at 5.
327 Id.
328 Id. at 7–8.
329 Id. at 8.
330 Id. at 10. This claim also alleged that the product did not violate the DMCA, that the DMCA provisions are unconstitutionally vague, and/or that the DMCA violates the First Amendment. Id.
332 Id.
The defendants filed a counterclaim, alleging violations of the DMCA and seeking a denial of 321 Studios’ requested declaratory judgment, a permanent injunction against 321 Studios for violating the provisions of the DMCA, all profits received from the products sold by 321 Studios, and their attorneys’ fees, full costs, and disbursements.

This suit presented the district court with a fourth opportunity to determine whether Congress had the authority to enact the DMCA. However, Judge Illston, in her order of February 19, 2004, concluded that the DMCA is within the scope of congressional authority. This result is not surprising. First, the failure to provide an adequate resolution to this question was foreshadowed by Judge Illston’s statement that “she [was] ‘substantially persuaded’ by previous cases that the software violates the US Digital Millennium Copyright Act.” Judge Illston also “said she aim[ed] to make her ruling quickly,” which suggested this result was imminent. Additionally, the method in which 321 Studios introduced the congressional authority argument provided little chance that it would be strongly considered by the court. Presenting the argument in one phrase, buried in the middle of several other claims, in one paragraph of the first claim for relief, 321 Studios did not appear to rely very heavily on this point. Therefore, it never had a high probability of being fully considered by the court, which was necessary in order to adequately resolve the constitutional question. These foreshadowed events were played out in the ruling by the court, in which Judge Illston relied on the previous

333 Id. at 2–3, 9.
334 See id. at 20–22.
337 Id.
339 There was a slim chance, however, that the question would be resolved by Judge Illston. “In a possible glimmer of hope for 321, Judge Illston [sic] was clearly troubled by one legal point. If the DCMA [sic] stops people circumventing all copy protection, what will happen in the future when copyright on a movie expires, but the discs are still protected?” Fox & Carrington, supra note 336. Obviously enough, however, this slim chance did not pan out.
cases, in particular *Elcom*, in coming to her conclusion.\textsuperscript{340} The court granted summary judgment for the defendants that the plaintiff had violated the DMCA, and the court denied the plaintiff's request for a declaratory judgment that its products were permissible under § 1201 of the DMCA.\textsuperscript{341} Thus, even though the court was presented with a fourth opportunity to answer the question of whether Congress had the authority to enact the DMCA, the question was again inadequately considered.

VII. **CONGRESSIONAL RECOGNITION OF THE DMCA’S UNCONSTITUTIONALITY: TWO BILLS**

In the past year, two bills have been introduced in the House of Representatives that display congressional recognition of the problems inherent in § 1201 of the DMCA.\textsuperscript{342} Both of these bills attempt to correct these problems by altering the DMCA to provide exceptions for circumvention and trafficking that would enable noninfringing uses:

To correct § 1201 of the DMCA and protect consumers' fair use rights in the digital age, Representatives Rick Boucher (D-VA), John Doolittle (R-CA) and Spencer Bachus (R-AL) have introduced H.R. 107, the Digital Media Consumers' Rights Act (DMCRA). . . . The DMCRA protects the balance between the rights of copyright holders to protect their work and those of citizens who legally purchase copyrighted works to enjoy them. Representative Zoe Lofgren (D-CA) introduced similar legislation, H.R. 1066—the Benefit Authors without Limiting Advancement or Net Consumer Expectations (BALANCE) Act, on March 4, 2003.\textsuperscript{343}

These bills both demonstrate that at least some member of Congress recognize there are problems with the DMCA. Both bills are a step in the right direction. Neither bill solves the problems, however, although they would alleviate some of the problems that make the DMCA unconstitutional. Neither could provide Congress with authority to enact the DMCA in the first place; neither completely alleviates


\textsuperscript{341} See id.


the constitutional problems of the DMCA; and both, in practical effect, would deprive the DMCA of any realistic meaning.

The first bill was introduced on January 7, 2003. Entitled the "Digital Media Consumers' Rights Act of 2003," the bill includes a section on fair use amendments and contains three provisions that amend the DMCA. First, the bill exempts any person "acting solely in furtherance of scientific research into technological protection measures" from the restrictions of § 1201 of the DMCA. Second, it removes circumvention that does not result in copyright infringement from the activity covered by the DMCA. Finally, it absolves activities that involve trafficking in products "capable of enabling significant noninfringing use of a copyrighted work."

The second bill was presented on March 4, 2003. This bill, entitled "Benefit Authors without Limiting Advancement or Net Consumer Expectations (BALANCE) Act of 2003," was created more specifically to fix the DMCA, "to amend title 17, United States Code, to safeguard the rights and expectations of consumers who lawfully obtain digital entertainment." The bill first reports the findings of Congress: (1) to fulfill the purpose of the Copyright Clause, there must be an opportunity for fair use; (2) the DMCA endangers the rights of legitimate consumers and prevents circumvention even for fair uses; and (3) the balance between authors' and society's interests in freedom of information was shifted too far and needs to be restored. The bill then proposes several changes to the DMCA that would correct this imbalance. The bill first allows for reproducing or accessing digital works for archival purposes. It also allows for circumvention of technological measures if the circumvention is necessary to make a noninfringing use and the copyright owner does not make a method available in order to make such use. Finally, it permits trafficking in and manufacturing of products that enable circumvention if the means provided are necessary to enable noninfringing use, the means are designed, produced, and marketed for the pur-

345 Id. § 1.
346 Id. § 5.
347 Id.
348 See id.
349 Id.
351 Id. § 1.
352 Id.
353 Id. § 2.
354 See id. § 3.
355 See id. § 5.
pose of enabling noninfringing uses, and the copyright owner does not provide the means to make such use.\textsuperscript{356}

The effect of either of these bills would be to partially remedy the constitutional problems of the DMCA, at least regarding the conflict with the Copyright Clause.\textsuperscript{357} This still is not enough to save the DMCA, however, as the Copyright Clause only provides Congress with authority to regulate copyrights, not the power to regulate the circumvention of technological measures. Even if the anticircumvention provision is designed to enforce copyrights, regulation of circumvention of technological measures is not actually regulation of copyrights, and therefore is still not authorized by the Copyright Clause. Further, these modifications \textit{cannot} make the DMCA constitutionally valid. Even if the changes would fix the constitutional deficiencies, Congress must pass a new bill that includes the changes, not attempt to mend the old statute. The old statute is not valid, and it cannot be repaired without a valid statute, therefore, there is nothing to repair; Congress must pass a new statute.

Requiring Congress to create an entirely new bill would also provide a positive collateral benefit: it would force Congress to analyze the new bill in its entirety, thereby providing an opportunity to see the remaining constitutional infirmities in the bill. These infirmities can be observed by the fact that the bill would still not actually be authorized by the Copyright Clause, as it does not purport to regulate copyrights, but merely regulates technological measures. The new bills would merely relieve the inherent conflict between the DMCA and the Copyright Clause, without bringing the statute within the clause's scope. The new bills would also not be authorized by the Commerce Clause or the treaty power, for the reasons discussed above.\textsuperscript{358} Therefore, neither bill would resolve the problem of Congress's lack of authority to enact the DMCA.

Worse than this, there is a deeper problem with these bills. Whether or not they fix the constitutional issues, they remove all meaning from the DMCA. The two bills both allow for circumvention and trafficking, so long as a substantial noninfringing use is enabled or the act does not result in infringement. Theoretically, the allowances made for activity that is not infringing or enables noninfringing use would fix the statute. The problem, however, is that it makes it too easy to bypass the statute. There is little difficulty in finding a substantial noninfringing use for a device that allows circumvention,

\textsuperscript{356} See id.
\textsuperscript{357} See supra Part III.
\textsuperscript{358} See supra Parts IV–V.
or in finding someone who could circumvent the technology and then distribute it after the circumvention. In fact, it would make bypassing the statute so easy as to make the statute moot. It would "take the teeth out of the tiger." The DMCA would retain either little or no prohibition against circumvention and circumvention-enabling devices. In sum, the bills would destroy the purpose of the DMCA.

Both bills do display congressional recognition of this problem, however. They allow for circumvention, and trafficking in circumvention devices, if the purpose is for a noninfringing use. This displays Congress's knowledge that fair uses must be allowed. It also shows that at least some members of Congress have realized that the DMCA, as enacted, is illegitimate, and that the balance between authors' rights and the dissemination of information has been tipped too far in favor of the authors. Thus, both of these bills support the conclusion that the DMCA is not constitutional, and that Congress lacked authority for its enactment.

VIII. THE DMCA IN ACTION: IMPEDING THE PROGRESS OF ARTS AND SCIENCES

"Eliciting publication is not an end in itself. Publication without easy access to the product would defeat the social purpose of copyright already mentioned as primary."359 This statement articulates the most fundamental problem with the DMCA, and a major reason why Congress had no authority to enact it: the DMCA promotes publication and protection of publishers and copyright holders, while inhibiting access to their works. The chilling effects created by the DMCA not only fail to promote the progress of science and the arts, but actively obstruct this progress.360

A. The DMCA Hinders the Promulgation of Research

The most significant adverse effect of the DMCA is that it actively encourages researchers to either stop researching or to refrain from publishing their research. In either scenario, the progress of art and science is either curtailed or altogether defeated. But this is the effect that is produced by the DMCA. One group has even been bold

359 Benjamin Kaplan, An Unhurried View of Copyright 75-76 (1967).
360 See Nard, supra note 105, at 34-35 ("By focusing on circumvention technology instead of infringing activity, the anti-device provisions are inconsistent with patent law's constitutional command to promote the progress of the useful arts and may adversely affect patent law's incentive dynamic."); see also Sheets, supra note 87, at 3 ("The DMCA anti-circumvention measures fundamentally change copyright law in a way that is sure to crush innovation.").
enough to state that "the DMCA is being used to silence researchers, computer scientists and critics."

Some commentators, however, "have argued that these fears are unwarranted under a proper reading of the statute, and that such fears may be exaggerated by DMCA critics to increase opposition to the DMCA." The bases for these contentions lie in § 1201(g)(2), § 1201(g)(4), and § 1201(j). These subsections provide exemptions from § 1201(a) for "permissible acts of encryption research," for "use of technological means for research activities," and for "security testing." Based on these exemptions, some commentators feel that research activities are not covered by the DMCA. A closer analysis of the statute, however, will show that these activities, although technically permitted, are, in practice, impeded, if not curtailed altogether, by the DMCA. This result is produced both by the actual text of the DMCA and by the reaction of researchers to the DMCA.

The text of the DMCA does allow for some encryption research to be conducted. However, this research cannot, under the statute, be published. The statute places a series of restrictions on an encryption researcher. First, to obtain the exemption from § 1201(a)(1)(A), the encryption researcher must have "made a good faith effort to ob-

361 The Issue: US Constitution, The Digital Millennium Copyright Act (DMCA), at http://www.anti-dmca.org (last updated Jan. 25, 2004); see also Sheets, supra note 87, at 20 ("In the field of encryption, innovation is effectively outlawed.").
364 Id. § 1201(g)(4).
365 Id. § 1201(j).
366 See Liu, supra note 362, at 503 ("[P]ractically speaking, certain types of academic encryption research can still occur under the DMCA.").
367 A full analysis of this point is beyond the scope of this Note; therefore, this section provides an overview of the main points. For a more in-depth discussion, see, for example, id. passim.
368 See id.
369 See id.

[T]he DMCA: imposes additional hurdles, which researchers must overcome before engaging in and publishing their research; limits the universe of individuals with whom researchers can freely communicate about their research; requires disclosure of the intention to engage in research and the fruits of such research to third-parties; affects the content of academic research papers; and limits avenues for publication of the research.

Id.
tain authorization before the circumvention”\(^\text{370}\) or, for security testing, have “the authorization of the owner or operator.”\(^\text{371}\) This creates the first hurdle for researchers to overcome, in that they either must actually obtain authorization or at least make a “good faith” effort to acquire authorization. “Moreover, it is not clear whether a researcher must accept conditions on his or her authorization to remain in ‘good faith.’”\(^\text{372}\)

Thus, exemption from § 1201(a)(1)(A) may require permission from the copyright owner; this gives control over the work not to the copyright law, but to the owner. Second, publication of the results of the research would most likely violate the antitrafficking provisions of the DMCA.\(^\text{373}\) This means that, in order to publish the research, the researcher must be protected by an exemption from the DMCA. However, the exemptions provided for in § 1201(a)(2) only exempt the researcher from liability for dissemination of “the technological means to another person with whom he or she is working . . . or for the purpose of . . . [verification]”\(^\text{374}\) or for dissemination that is intended “for the sole purpose of performing . . . acts of security testing.”\(^\text{375}\) Publication is not allowed in any of these situations, because publication is intended to disseminate the information to the public, not merely to co-workers and not just to increase the owner’s security.\(^\text{376}\) Therefore, these exemptions do not allow for publication. Furthermore, there are no exemptions from § 1201(b)(1). This means that researchers cannot publish any work that discusses the circumvention of a copy control.\(^\text{377}\) Thus, these exemptions merely allow


\(^{371}\) Id. § 1201(j)(1).


\(^{373}\) See Imfeld, *supra* note 285, at 112 (“Researchers and educators, for example, who publish articles or present papers discussing how to bypass the encryption device on a DVD to access a copyrighted work for educational or commentary purposes could face criminal and civil penalties.”); Preston & Lofton, *supra* note 372, at 121–22 (“Most exploits published on the Internet for the sake of demonstrating a vulnerability would probably be found to be primarily designed or produced for the purpose of circumventing digital rights technologies, or to have only limited commercially significant purpose or use besides circumventing digital rights technologies.”).


\(^{375}\) Id. § 1201(j)(4).

\(^{376}\) See Preston & Lofton, *supra* note 372, at 125 (concluding that the limitations on the exemption for security testing could “restrict computer security publications to the general public”).

\(^{377}\) See Liu, *supra* note 362, at 512 (discussing the concern that the exemption is incomplete, in that it does not cover § 1201(b), and concluding that “an encryption researcher may be shielded from liability under 1201(a), but still subject to liability
copyright owners to dictate when the DMCA applies and when it does not, they do not actually provide for researchers to conduct and publish their work. The DMCA stifles the progress of learning, because it limits the ability of researchers to increase the state of encryption technology.

Another important factor in assessing the impact of the DMCA on researchers is the actual reaction of the research community. How the researchers respond to the DMCA is more significant than the theoretical effect that the DMCA should have. This is because their reaction to the DMCA controls how much research will be conducted and disseminated. Therefore, an examination of the effect of the DMCA on researchers is necessary.

The first major effect on research in the United States came as a result of the criminal cases threatened or actually brought under the DMCA.378 “As a result of the Felten and ElcomSoft disputes, several prominent foreign computer scientists who study cryptographic systems have publicly stated that they will no longer attend computer science conferences in the United States.”379 Conferences are one of the methods by which members of a scientific field can come together to discuss recent events in that field, to promote new research, and to create new ideas for future research.380 Thus, if prominent members of a field are afraid to come to the United States and share their research for fear of being prosecuted under the DMCA for work that is legal in their own countries, it will encumber the progress of science in this nation.

The problem has expanded beyond even the reluctance of a few foreign scientists to venture into the United States, however. “European computer scientists have been warned to avoid US conferences following the arrest of a Russian expert accused of breaking the Digital Millennium Copyright Act (DMCA). Some have decided to move

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379 COHEN ET AL., supra note 280, at 594.
The publication of warnings to foreign scientists, by foreign governments, to avoid the United States is not likely to promote the progress of art and science in the United States. It is highly probable that these warnings, which are the direct result of the DMCA, will inhibit progress in this country. Further, international conferences are finding new locations to hold their events. After the Felten case, the "organisers of one conference that concentrates on testing the security of data protection systems, the International Hiding Workshop, have already decided to no longer hold the event in the US." Again, conferences are important to the development of science, and they are being diverted away from the United States. All of these results (the reluctance of foreign scientists to travel to the United States, the warnings from foreign officials, and the departure of conferences from this country) impede the progress of arts and sciences.

The DMCA also restricts publication of research after it has been conducted. "Since its enactment, the DMCA has been used to prevent the posting on the Internet of information about how to circumvent encryption technology and to prevent researchers and technology developers from disseminating their latest research in the area." This research is important for the progress of encryption technology, as well as for the security of the program or device that the encryption is meant to protect. And it is not merely research focused on circumvention of encryption technology that is prohibited from being posted. All kinds of researchers have encountered difficulty in disseminating their research; the Felten and Elcom cases discussed above are examples of this phenomenon. "Professor Edward Felten of Princeton University was asked to withdraw his paper from a scholarly conference, lest he be prosecuted under the DMCA. And a Russian cryptographer was arrested after giving a presentation on his company's software that removed security protection from Adobe..."

381 Will Knight, Computer Scientists Boycott US Over Digital Copyright Law, NEWSCIENTIST.COM (July 23, 2001), at http://www.newscientist.com/news/news.jsp?id=ns00001063; see also E-mail from Tim Bartelsman, to Departments of Canadian Heritage and Industry (Sept. 15, 2001), available at http://strategis.ic.gc.ca/epic/internet/incrprda.nsf/vwGeneratedInterE/rp00590e.html [hereinafter Bartelsman E-mail] ("Even the Russian government has gone as far as to issue a travel warning to all its programmers and technologists not to travel to the US.").

382 Knight, supra note 381.


385 See supra Part VI.
Both Felten and the Russian, Sklyarov, were at least temporarily prevented from disseminating their research. (Felten did eventually succeed in publishing his paper.) This trend did not stop with just two incidents: another question involving the publication of research culminated in Edelman v. N2H2, Inc. Ben Edelman, a computer researcher, sought a declaratory judgment that he had the right to reverse engineer the defendant's software and publish the results. The court dismissed the case on the ground that Edelman had failed to show that he had standing, as he had not demonstrated a sufficiently imminent injury. This case shows Edelman's concern that he would be prosecuted for publishing his research, but the issue was not resolved. There are also a number of examples, outside of court proceedings, of researchers refusing to publish their work:

Noted Cryptographer and contributor to the advanced encryption standard (AES) to replace DES refused to publish his critical analysis of a digital use management technology from Intel. In this case Niels Ferguson is not even a US citizen, nor does he reside in the US. However because he must do business with the US he has been advised by legal counsel to not publish his work.

The plight of Niels Ferguson is similar to several other researchers, except that they had already posted their research on the Internet. However, these "well-known computer security experts pulled down their works from the Internet ... for fear of being prosecuted under 1998's Digital Millennium Copyright Act." These events further support the theory that the DMCA prohibits dissemination of research.

Examples also exist outside the context of encryption research, such as the case of Andrew Huang. "U.S. publisher John Wiley & Sons dropped plans to publish a book by security researcher Andrew 'Bunnie' Huang, citing DMCA liability concerns." To make matters
worse, "Huang’s initial attempt to self-publish was thwarted after his online shopping cart provider also withdrew, citing DMCA concerns."\textsuperscript{395}

To prohibit the publication, and therefore the dissemination, of research hardly seems to satisfy the purpose of promoting the progress of learning. The most egregious effect of the DMCA, however, is its inducement of researchers to limit their activities or to refrain from conducting any research at all. "[A] number of prominent computer security experts have curtailed their legitimate research activities out of fear of potential DMCA liability."\textsuperscript{396} One of these researchers is Alan Cox, who, after the Sklyarov case, "resigned from the committee of the USENIX Advanced Computing Systems Association, which organises many US events, over the incident and pledges to steer clear of US conferences."\textsuperscript{397} Another example is Matthew Blaze, "a research scientist at AT&T Laboratories."\textsuperscript{398} He has stated, "[b]ecause of the DMCA, I am reluctant to continue engaging in the study of vulnerabilities in existing and proposed security systems, despite having previously enjoyed a number of successes with my research in this area."\textsuperscript{399} Both of these examples demonstrate the ramifications of the DMCA, in that it discourages, rather than encourages, research. Thus, the DMCA does not promote, but rather inhibits, progress in science and art.\textsuperscript{400}

These illustrations show the results produced by the DMCA: researchers either refuse to research in the first place, refuse to publish their work, or refuse to come to the United States. This result is grounded in a reading of the DMCA that shows that publication of research in the United States, without the copyright owner’s authorization, could well result in a violation of the DMCA. This result is antithetical to the purpose of copyright protections, and the authority

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\textsuperscript{395} Id.
\textsuperscript{396} Id. at 4.
\textsuperscript{397} Knight, supra note 381; see also Bartelsman E-mail, supra note 381 (“Alan Cox, software developer and key figure in the Linux community resigns from Usenix. Refuses to travel to the US.”).
\textsuperscript{399} Id.
\textsuperscript{400} See Bellia et al., supra note 3, at 312 (“[P]rohibiting circumvention of access controls will actually curtail the development of truly effective technological measures designed to prevent access to protected works, because content owners can rely instead on marginally effective measures backed by the protections of the DMCA.”) (citing Pamela Samuelson & Suzanne Scotchmer, The Law and Economics of Reverse Engineering, 111 Yale L.J. 1575, 1639, 1646 (2002)).
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to enact provisions that achieve this result is explicitly withheld from Congress by the Copyright Clause.

B. The DMCA Prohibits Legitimate Uses of Copyrighted Works

The Copyright Act of 1976 codified the concept of “fair use” in § 107 of Title 17 of the United States Code. This concept represents a limit on the rights of copyright holders. The statute provides a list of factors to consider in determining whether a use is a fair use, as well as a list of purposes for which fair use can be made. These purposes include “criticism, comment, news reporting, teaching . . . scholarship, or research.” However, the ability to engage in the activities permitted by the fair use doctrine is being curtailed by the DMCA.

The inclusion of § 1201(c)(1), which states that “[n]othing in this section shall affect rights, remedies, limitations, or defenses to copyright infringement, including fair use, under this title,” suggests that “Congress did not intend to diminish the effect of section 107 . . . .” The problem is that “the statute prevents the defense of fair use for encryption researchers and academicians by defining ‘anti-circumvention as something distinct from copyright infringement.’” But “[f]air use is only a defense to copyright infringement.” This means that fair use, although not restricted by the DMCA, does not

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401 See Copyright Law Professors' Brief, supra note 143, at 3–4 (“Furthermore, the DMCA frustrates the legitimate access of copyrighted works by the general public, which 'is the overriding purpose of the constitutional provision.'”) (quoting Eldred v. Ashcroft, 537 U.S. 186, 241 (2003) (Stevens, J., dissenting)).


403 See id.

404 Id.

405 See Imfeld, supra note 285, at 112 (“[T]he DMCA’s ‘fair use’ exemption for encryption research . . . dangerously narrows the fair use defense that once offered protection against copyright infringement under the Copyright Act of 1976.”); Jeff Sharp, Coming Soon to Pay-Per-View: How the Digital Millennium Copyright Act Enables Digital Content Owners to Circumvent Educational Fair Use, 40 AM. BUS. L.J. 1, 33 (2002) (asserting that the DMCA is “crowding out fair use”).


408 Imfeld, supra note 285, at 125 (citing MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.05[F][6] (2001)); see also Sharp, supra note 405, at 39 (“Violating section 1201 makes one a transgressor of the anti-circumvention provisions—a criminal and tortious act separate from copyright infringement.”).

409 Sharp, supra note 405, at 39.
provide a defense to activity covered by the DMCA. This sentiment has been echoed by the courts, which have held that the fair use defense is not applicable to § 1201(a)(2). These courts have shown that the fair use defense does not protect a person who circumvents an access control; fair use, however, also does not help a person who violates § 1201(b):

The real effect of § 1201(b) will be that while it remains legal under the DMCA to make fair use of a lawfully accessed work, there probably will be no device available that is legally capable of making the copy. Manufacturing or distributing such a device, a near necessity for making fair use of an encrypted work in a digital environment, violates § 1201(b).

Therefore, unless the person wishing to make fair use is a skilled hacker, the DMCA effectively eliminates the fair use defense.

Fair use is important because it provides a means of balancing the rights of copyright holders with the public's interest in dissemination of information. Without fair use, which promotes learning through improved access to knowledge, this balance will shift towards copyright holders, and away from the promotion of learning. An example of how far the DMCA shifts the balance will help make this clear:

The DMCA gives publishers the power to prevent you from printing a page, loaning a book to your friends or in some cases, even reading it out loud. For example, if you purchase and download an electronic book from the Internet and figure out how to circumvent the reader software so that you can print it out to read in the bathroom, the DMCA makes what you have done a federal crime, and if you tell anyone how you did it, you can be looking at a fine of up to $500,000 and 5 years in prison. This has happened.

This may seem extreme, and it is. But it is activity that is covered by the DMCA, because the reader software is an access control on the book, and in circumventing it, you are violating § 1201(a)(1) of the

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411 Sharp, supra note 405, at 35.

412 See id. at 41 (recognizing that the statements about the "preservation of fair use under the DMCA provide little help in making fair use of technologically locked content").

413 See Meeropol v. Nizer, 560 F.2d 1061 (2d Cir. 1977).

DMCA. Moreover, in telling someone how you did it, you are violating § 1201(a)(2). To make matters even worse, because the courts have determined that fair use does not apply to § 1201(a), there is no defense that can protect you from liability. Thus, by prohibiting these uses, the DMCA restricts the dissemination of information, thereby inhibiting the progress of learning.

C. The Overall Effect of the DMCA Is to Impede Progress

The DMCA was ostensibly enacted to promote progress by encouraging authors and inventors to create new works by providing extra protection for those works. Although a legitimate goal which should result in valid consequences, this asserted purpose does not, in practice, produce such results. The actual effects of the DMCA are to stifle research activities, to create incentives to refrain from disseminating research, and to prohibit legitimate uses of works. The real world consequences of the DMCA counteract the promotional effect of the protections granted to authors and inventors, producing an aggregate result that impedes the progress of science and art. Therefore, by enacting the DMCA, Congress violated an express limitation on its authority included in the Copyright Clause in the Constitution; the DMCA is unconstitutional.

Conclusion

If the U.S. Constitution is to be implemented with integrity in accordance with the principle that the Copyright Clause is a limitation on, as well as a grant of, congressional power, the unconstitutionality of the DMCA is beyond doubt. The statute is a complete repudiation of the constitutional policies that copyright promote learning, protect the public domain, and provide public access. The DMCA must be declared invalid. The federal government is one of limited and enumerated powers, and Congress must have

416 See supra Part VII.A.
417 See id.
418 See supra Part VII.C.
419 See Liu, supra note 362, at 528-35 (concluding that the burdens placed on encryption research by the DMCA are not justified).
420 Patterson, supra note 86, at 57.
421 See Quinn, supra note 1, at 36; Copyright Law Professors’ Brief, supra note 143, at 19 (“If Congress wishes to afford protection for ‘technological measures’ applied to protect copyrighted works beyond that which copyright law already affords, it must return to the drawing board.”).
422 See supra Part I.
authority from the Constitution in order for any law it enacts to be valid. Congress did not have constitutional authority to enact the DMCA. The Copyright Clause does not grant Congress authority for the DMCA. The Commerce Clause fails to provide constitutional authority for this statute. Finally, the treaty power fails to authorize the enactment of this statute. Furthermore, by impeding the progress of art and science, the DMCA is antithetical to the purpose of the Copyright Clause. This represents a major problem for a statute purportedly enacted to cultivate copyright protections. The DMCA also contravenes the promotion of progress of art and science in its actual, real-world effects. Therefore, Congress surpassed its authority by enacting the DMCA, and the DMCA is unconstitutional.

423 See supra Part III.
424 See supra Part IV.
425 See supra Part V.
426 See supra Part VII.
427 See Sheets, supra note 87, at 26 ("[T]he anti-circumvention provisions of the DMCA . . . are invalid because the provisions are not related to promoting progress in the arts and sciences."); cf. Marbury v. Madison, 5 U.S. (1 Cranch) 137, 177 (1803) ("[A]n act of the legislature, repugnant to the constitution, is void . . . ."); Vanhorne v. Dorrance, 28 F. Cas. 1012, 1015 (C.C.D. Pa. 1795) (No. 16,857) ("[I]f a legislative act oppugns a constitutional principle, the former must give way, and be rejected on the score of repugnance . . . it will be the duty of the court to adhere to the constitution, and to declare the act null and void.").