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Anna Claveria Brannan

FAIR USE DOCTRINE AND THE DIGITAL MILLENNIUM COPYRIGHT ACT: DOES FAIR USE EXIST ON THE INTERNET UNDER THE DMCA?

Anna Claveria Brannan*

I. INTRODUCTION

The authors of the U.S. Constitution found the promotion of art and science to be so vital to the progress of society that they included the subject in the U.S. Constitution.[1] In 1790, Congress enacted the first copyright act to protect the rights of individuals creating certain types of works.[2] Congress frequently amended the statute to keep up with the technological advancements impacting copyright protection.[3] Within the second half of the twentieth century, however, technology began to outpace the legislative process. This resulted in an overall change in the provisions of copyright laws, allowing them to be flexible enough to anticipate future developments.[4] The Digital Millennium Copyright Act of 1998 ("DMCA")[5] contains the most recent and controversial changes.[6]

The DMCA is currently at the epicenter of debate be-

* Comments Editor, Santa Clara Law Review, Volume 42. J.D. candidate, Santa Clara University School of Law; B.A., University of Connecticut.

1. *See* U.S. CONST. art. I, § 8, cl. 8. "The Congress shall have Power . . . to Promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." *Id.*

2. *See* ROBERT A. GORMAN & JANE C. GINSBURG, COPYRIGHT: CASES AND MATERIALS 4-6 (5th ed. 1999). Initially, the individual states governed copyright issues. The first federal copyright act was adopted in 1790. Act of May 31, 1790, ch. 15, 1 Stat. 124 (repealed 1831). Under the statute, protection was limited to maps, charts, and books for 14 years. *Id.*

3. *See* GORMAN & GINSBERG, *supra* note 2, at 6.

4. *See* 17 U.S.C. § 101 (2000). The phrase "now known or later developed" appears in several definitions within the current act, the Copyright Act of 1976.

5. *See* discussion *infra* Part II.D.

6. *See* discussion *infra* Part II.D.

tween the legal and the technological communities. Since the year 2000, courts have continuously tested the anti-circumvention provision of the DMCA.[7] A recurring issue among these cases is whether technological advancements are immune to infringement allegations under the fair use doctrine.[8]

According to the fair use doctrine, non-infringing uses of copyrighted works are allowed for the purpose of "criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research."[9] There is disagreement regarding whether technological advancements, such as a computer program, may violate copyright laws under the DMCA. Proponents of the DMCA argue that computer programs that do not fit within the scope of the fair use doctrine, violate the law.[10] The opposition categorizes such computer programs as scientific advancements that are beneficial to society, and, thus, should be promoted pursuant to the Constitution and protected under the U.S. copyright laws.[11]

This clash in views is even more pronounced when the technology involves the Internet. Regardless of the medium used, the courts' application of the fair use test,[12] so far, remains the same. However, the controversy arises out of the manner in which the courts apply it.[13]

Indeed, computer software programs designed to circumvent copyright protection systems are technological advancements, but their place in the realm of copyright remains unclear. The relevant case law that influenced Congress to enact the DMCA will be explored in this comment along with the relevant cases that followed its enactment.[14] The issue of whether the anti-circumvention provision of the DMCA hampers fair use on the Internet will be presented,[15] and the effect of the Act will be analyzed through the use of a hypothetical

7. *See* cases discussed *infra* Parts II.E.1-3.
8. *See infra* Part II.E.
9. 17 U.S.C. § 107 (2000).
10. *See infra* Part II.D.1.
11. *See infra* Part II.F.
12. *See* note 39 and accompanying text.
13. *See* discussion *infra* Part II.E.3.
14. *See infra* Part II.
15. *See infra* Part III.

situation based on current case law.[16] Finally, this comment proposes that Congress change both the anti-circumvention provision and the free-for-all culture on the Internet.[17]

II. BACKGROUND

A. *Copyright Infringement*

1. *Copyright Protection*

In 1790, Congress enacted the first copyright law. The goal of copyright law is to strike a balance between "promoting the progress of science and the useful arts" and the freedom to obtain information.[18] Copyright law promotes these goals by extending a certain amount of protection to the author, while also allowing the author to benefit financially from such creations.

Copyright protection allows the author to have a certain amount of exclusivity in her work, which encourages disclosure to the public without fear of exploitation.[19] Copyright protection generally applies to any book, work of art, play, movie, computer software program, and audio or video recordings, including Internet audio and video recordings.[20] Federal copyright laws give the authors and artists a bundle of rights that include the right to reproduce the copyrighted work, distribute copies, prepare derivative works, perform publicly, to display publicly, and to perform publicly by way of digital transmission.[21] The author also has the power to sell or assign any one of these rights to another.[22] The assignee of a particular right assumes ownership of that right but the author may become the beneficial owner of the work.[23]

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16. *See infra* Part IV.
17. *See infra* Part V.
18. *See* U.S. CONST. art. I, § 8, cl. 8.
19. *See* 17 U.S.C. § 109 (2000).
20. *See id.* § 102(a). Literary works also include software programs. *See id.*
21. *See id.* § 106.
22. *See id.* § 201(d).
23. Since a copyrighted work is property, each of the six rights is a separate interest in that property and ownership may be transferred accordingly. When one of the six rights is transferred, however, the owner of the copyrighted work reserves the right to continuously benefit financially from the work.

a. *Direct Infringement*

Direct infringement occurs any time an individual violates any of the bundle of rights without the consent of the copyright owner.[24] If direct evidence of copying is unavailable, copying may be established through circumstantial evidence, including proof of access to the copyrighted work and substantial similarity between the copyrighted work and the allegedly infringing work.[25]

Whenever an infringement occurs, the owner of the copyright must give notice to the infringer.[26] If the alleged infringer does not respond or cease the infringing activity, the owner may bring an action in court for infringement.[27] When a court finds infringement, it may award remedies including injunctions,[28] destruction of the infringing work,[29] and monetary damages.[30]

b. *Contributory Infringement*

Infringement liability can attach when an individual is only partially responsible for the infringement. A court may hold an individual liable for contributory infringement if it can be proven that she had "knowledge of the infringing activity and either, induce[d] or materially contribute[d] to the infringing conduct of another."[31] An Internet service provider, for example, may contribute to infringement by allowing a subscriber to post copyrighted works of a third party after the

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24. *See* 17 U.S.C. § 501(a) (2000).

25. *See* Arnstein v. Porter, 154 F.2d 464 (2d Cir. 1946) (publication of copyrighted work proved access); Bright Tunes Music Corp. v. Harrisongs Music, Ltd., 420 F. Supp. 177, 181 (S.D.N.Y. 1976) (holding that circumstantial evidence is enough to prove access to copyrighted work).

26. *See* 17 U.S.C. § 501(b) (2000).

27. *See* 28 U.S.C. § 1331 (1993). Copyright infringement is considered federal subject matter and cases are tried in federal court. *See id.*

28. *See* 17 U.S.C. § 502 (2000). *See also* Demetriades v. Kaufman, 680 F. Supp. 658, 666 (S.D.N.Y. 1988) (enjoining defendants from using plaintiffs' architectural plans to build defendant's house and infringed copies were impounded to prevent further use thereof).

29. *See* 17 U.S.C. § 503(b) (2000).

30. *See id.* § 504. Copyright owners may choose to receive either statutory damages or actual damages and defendants' profits. Statutory damages are only available if the owner properly registered the work with the Copyright Office. *See id.*

31. Religious Tech. Ctr. v. Netcom On-Line Communication Serv., Inc., 907 F. Supp. 1361, 1375 (N.D. Cal. 1995).

owner notifies the service provider of the infringement.[32] The notice received from the copyright owner establishes knowledge and the service provider's ability to distribute all of the subscriber's postings aids in the public distribution of those postings.[33]

c. *Vicarious Infringement*

Liability may also attach when an act directly or indirectly supports a second infringing act. "A defendant is liable for vicarious liability for the actions of a primary infringer where the defendant (1) has the right and ability to control the primary infringer's acts and (2) receives a direct financial benefit from the infringement."[34] The first element is met, for example, where the infringer either (a) actively operated or supervised the operation of the place of performance; or (b) controlled the content of the infringing program.[35] The second element is met so long as the defendant receives an actual benefit.[36] As an illustration, a landlord who actively supervises or controls the use of a piece of rental property may be vicariously liable for the infringing activities of her tenant if the amount of rent paid is proportionate to the amount of profits received by the tenant for using that property.[37] However, courts do not typically hold the landlord vicariously liable where the tenant merely rents the property for a fixed fee.[38]

B. *The Fair Use Doctrine*

Through the fair use doctrine, Congress has attempted to balance society's dual interests of copyright protection and freedom of information by placing limits on copyright protection.[39] Fair use serves as an affirmative defense to a copyright infringement accusation. Under the fair use doctrine, copyrighted works may be quoted or reproduced without the consent of the copyright owner as long as the reproduction is

32. *See id.* at 1375.
33. *See id.*
34. *Id.* at 1375-76 (citing Shapiro, Bernstein & Co. v. H.L. Green Co., 316 F.2d 304, 306 (2d Cir. 1963)).
35. *See id.* at 1367.
36. *See id.*
37. *See id.*
38. *See id.*
39. Codified at 17 U.S.C. § 107 (2000).

used for "purposes such as criticism, comment, news reporting, teaching . . . , scholarship, or research."[40]

When this defense is raised, a court must examine four factors to determine whether the use of the copyrighted material falls within the scope of the fair use defense.[41] These factors include:

> (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
>
> (2) the nature of the copyrighted work;
>
> (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
>
> (4) the effect of the use upon the potential market for or value of the copyrighted work.[42]

A plaintiff need not prove every factor to win her case. The determination of fair use often hinges on the amount of monetary harm the plaintiff suffered due to one or more of these factors.[43]

C. Sony Corp. of America v. Universal City Studios, Inc.

The landmark decision by the U.S. Supreme Court in *Sony Corp. of America v. Universal City Studios, Inc.*[44] marked a turning point in the application of the fair use doctrine. When Sony developed and marketed its Betamax machine, it became possible for private individuals to record any televised program.[45] Sony argued that most consumers primarily used the Betamax for "time shifting," through which consumers recorded the programs they could not watch at the time of their broadcast, and recorded over that tape once they

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40. 17 U.S.C. § 107 (2000).

41. *See id.*

42. *Id.*

43. *See* Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539 (1985) (holding that fair use did not apply when defendant took substantial amounts of plaintiff's work and, thus, took economic value from owner). *See also* Princeton Univ. Press v. Michigan Document Servs., 99 F.3d 1381 (6th Cir. 1996) (*en banc*) (holding that fair use did not apply when coursepacks were sold commercially and plaintiff proved that its market for coursepacks was harmed); L.A. Times v. Free Republic, 2000 U.S. Dist. LEXIS 5669 (holding that the number of visitors to defendant's site [20,000] shows a substantially adverse impact on the potential market for the original works).

44. 464 U.S. 417 (1984).

45. *Id.* at 421.

watched their program.[46]

However, because entire programs were taped, Universal pursued its infringement claim and denounced Sony's fair use defense.[47] Since a new copying technology was involved, the court's decision was critical.[48] The district court found no contributory infringement because the Betamax was capable of "substantial non-infringing uses," and therefore the court ruled in favor of Sony.[49] The Ninth Circuit reversed that decision and found Sony liable for contributory infringement.[50] The Supreme Court granted certiorari to hear the case and, by a narrow margin, the Court ruled in favor of Sony.[51] The Court held that Sony was not liable for contributory infringement.[52]

The Court's decision focused on the application of the staple article of commerce doctrine.[53] The Court held that it had to "strike a balance between a copyright holder's legitimate demand for effective . . . protection of the statutory monopoly, and the rights of others freely to engage in substantially unrelated areas of commerce."[54] The Court viewed the capabilities of the Betamax machine as similar to those of other copying equipment.[55] Justice Stevens reasoned that the Betamax, like photocopying machines, was capable of wide uses for "legitimate, unobjectionable purposes."[56] Since Sony's argument emphasized time-shifting, a process that did not cause a decrease in television viewership, and some copyright owners did not mind the recordings since it enlarged the viewing audience, the Court found that the Betamax could be used for substantial, non-infringing uses.[57]

This decision caused unrest in the entertainment industry as creators of new technologies attempted to justify the in-

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46. *See id.* at 421.

47. *See* Universal City Studios v. Sony Corp. of Am., 659 F.2d 963 (9th Cir. 1981) (Universal appealed lower court's decision), *rev'd*, 464 U.S. 417 (1984).

48. The outcome of this case resulted in the birth of the home entertainment industry.

49. *See Sony*, 464 U.S. at 418.

50. *See id.* at 420.

51. *See id.* at 421.

52. *See id.* at 442.

53. *See id.*

54. *Id.*

55. *See id.*

56. *Id.*

57. *See id.*

fringing capabilities of their technologies by showing that they were "merely capable of substantial non-infringing uses."[58] The widespread use of the *Sony* test in infringement cases prompted a battle between infringement and fair use.[59]

D. *The Digital Millennium Copyright Act of 1998*

As technology advanced, the quality of reproduced copyrighted works also advanced with the development of the digital medium.[60] In the 1990s, more and more copyrighted works became available in digital format.[61] These works included music, motion pictures, and computer software. With the increased use of digital format, copying works from compact discs ("CDs") and digital versatile discs ("DVDs") became easier and more tempting to do since the quality of the copy was virtually identical to that of the original.[62]

As the use of the Internet increased in the 1990s, computer wizards found new ways to obtain, convert, and transport copyrighted material over the Internet.[63] This resulted in an uproar by copyright owners, particularly those in the entertainment industry.[64] They lobbied Congress to develop a new law that would protect their financial interests in their copyrighted works in the digital age.[65] The result was the passage of the DMCA.[66]

Congress enacted the DMCA in 1998 to solve the problems of illegal copying of copyrighted works.[67] Section 1201 of the DMCA focuses specifically on anti-circumvention technology.[68] This provision was designed to apply to technology developed primarily to circumvent anti-copying devices on digital copyrighted works such as CDs and DVDs. For example,

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58. *Id.* at 442.

59. *See* discussion *infra* Part II.E.

60. Digital medium includes any work that may be read by a computer, such as a compact disc or any file created on a computer.

61. For example, newspapers and magazines began offering subscriptions over the Internet, vinyl records and audio cassettes became obsolete with the introduction of the compact disc, and it became more common for libraries to have volumes of reference material on read-only memory compact discs.

62. *See infra* Part II.E.2.

63. *See infra* Parts II.E.1-3.

64. *See* S. REP. NO. 105-190, at 4 (1988).

65. *See id.*

66. *See* 17 U.S.C. §§ 512, 1201-1205 (2000).

67. *See id.*

68. *See id.* § 1201.

the DMCA makes it a criminal violation to create and distribute a device that circumvents any technology designed to prevent the copying of a copyrighted work.[69]

Although the DMCA was enacted in 1998, the cases that challenged the anti-circumvention provision did not reach courts until 2000. This is due to the incorporation of a statutorily mandated two-year notice period which had to run before anyone could be charged for violating the Act.[70]

1. *Support for the DMCA*

Supporters of the DMCA feel that the anti-circumvention provision is congruent with the traditional copyright laws.[71] Many of the supporters are members of the entertainment industry.[72] The thrust of their argument stems from the notion that copyright protection secures a limited time of exclusivity for their creative works.[73] This exclusivity gives authors and promoters the incentive, as provided for in the Constitution, to continue their creativity by allowing them to profit from their works through royalties and licensing fees.

Prior to the enactment of the DMCA, it made equitable sense to protect the economic value of a copyright owner's works to prevent infringers from profiting from the hard work of others. In *Harper & Row Publishers v. Nation Enterprises,*[74] plaintiff Harper and Row agreed to give Time Magazine the right to publish an excerpt of 7,500 words from the unpublished memoirs of Gerald Ford, for a contract price of $25,000.[75] When the defendant scooped Time Magazine's article, it cost the plaintiff half the contract price, which was not yet paid.[76] One of the prevailing factors that led the court to reject the defendant's fair use defense was the economic value that was stripped from the owner as a result of defen-

69. *See id.* §§ 1201(a)(2)(A)-(C) and 1201(a)(3)(A)-(B).

70. *See id.* § 1201(a).

71. *See generally* 17 U.S.C. §§ 101-1201. Traditional copyright laws are those designed to govern copyright issues prior to the widespread use of the Internet and digital recordings.

72. *See infra* Part II.F.

73. *See generally* 17 U.S.C. §§ 302-305. For example, copyright protection for a work made for hire endures for a term of 95 years from the date of publication. *See id.* § 302(c).

74. 471 U.S. 539 (1985).

75. *See id.* at 539.

76. *See id.*

dant printing part of the excerpt from the memoirs.[77]

In *Los Angeles Times v. Free Republic*,[78] the California District Court also held that online copying constituted copyright infringement. Defendant Free Republic operated a website on which it posted news articles and allowed its users to provide comments regarding the news items.[79] The articles were verbatim copies obtained from the plaintiff's websites.[80] Although current news articles can be accessed without charge from plaintiff's sites, the plaintiff did charge to access older articles.[81] When it became apparent that visitors to defendant's websites were accessing plaintiff's older articles free of charge, plaintiff sued for infringement.[82]

Thus, the support for the DMCA stems from situations similar to *Free Republic*, where the owner desires to prevent unauthorized persons from exploiting her work, as well as benefiting from the expenditure of money, time, and effort. As long as the copyright owners grant their authorization and are remunerated and/or recognized for the use of their works, no controversy seems to arise.

This idea did not change with the invention of the Internet and digital media. For the supporters of the DMCA, advances in technology required the adjustment of copyright laws to include restrictions on those advances that provide new ways to infringe on owners' rights.[83]

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77. *See id.* at 539. Plaintiff had paid a large contract price for the right to first publish former President Ford's memoirs as soon as he left the White House. Defendant mysteriously got a hold of a portion of the memoirs and scooped the story by printing them in its monthly magazine. *Id.*

78. No. 98-7840, 2000 U.S. Dist. LEXIS 5669 (C.D. Cal. Mar. 31, 2000).

79. *See id.*

80. *See id.*

81. *See id.*

82. *See id.* Defendant's site showed an average of 20,000 hits. This number illustrated the potential loss in revenue caused by defendants' failure to post a link to plaintiffs' sites to access the articles. *Id.*

83. *See* UMG Recordings, Inc. v. MP3.com, Inc., 92 F. Supp. 2d. 349 (S.D.N.Y. 2000) (holding that infringement occurred when MP3.com made thousands of CD albums available through the Internet without prior authorization from copyright owners). *See also* RealNetworks, Inc. v. Streambox, Inc., No. 99-CV02070, 2000 WL 127311 (W.D. Wash. Jan. 18, 2000) (finding infringement where Streambox developed technology to circumvent the RealNetworks anti-copying advice); Universal City Studios, Inc., v. Reimerdes, 111 F. Supp. 2d. 294 (S.D.N.Y. 2000) (holding that infringement occurred where defendant developed and distributed technology designed to circumvent CSS encryption system for DVDs).

E. *Pending Case Law Regarding the DMCA*

1. *Fair Use and Digital Media*

A New York district court found infringement in *UMG Recordings, Inc. v. MP3.Com, Inc.*,[84] when MP3.Com converted musical recordings into MP3 files and made them available to download from the Internet.[85] MP3.Com provides a service over the Internet that allows subscribers "to store, customize and listen to the recordings contained on their CDs from any place where they have an Internet connection."[86] To provide this service, MP3.Com purchased thousands of musical CDs and converted the content of those CDs into MP3 files.[87] Without authorization from the copyright owners, plaintiff UMG Recordings, MP3.Com placed these files onto its servers.[88] To access these files, subscribers had to either "prove" they already owned the particular CD or purchase it through an online retailer cooperating with MP3.Com.[89] Although MP3.Com's business model portrayed a service that allowed its subscribers to access their own music through the Internet, plaintiff argued that MP3.Com's conduct amounted to pure copyright infringement.[90]

The district court rejected MP3.Com's defense because it failed the four factor test of the fair use doctrine.[91] First, defendant admitted that the purpose of its service was commercial.[92] Even though MP3.Com did not charge a fee for its service, it intended to profit from the size of its subscriber base through the sale of advertising space.[93] Second, the nature of the copyrighted works were the "creative recordings" of the copyright owners.[94] Third, the amount of the copyrighted works that were copied was substantial, since CDs

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84. 92 F. Supp. 2d. 349 (S.D.N.Y. 2000).

85. *See id.* at 349.

86. *See id.* at 350.

87. *See id.* at 350. MP3 is a technology that permits "rapid and efficient conversion of compact disc recordings . . . to computer files easily accessed over the Internet." *Id.*

88. *See id.* at 350.

89. *See id.* at 350.

90. *See UMG Recordings, Inc.*, at 350.

91. Part II.B states the four factors considered by courts to determine fair use. *See supra* note 43 and accompanying text.

92. *See MP3.Com*, 92 F. Supp. 2d at 351.

93. *See id.* at 351.

94. *See id.*

were copied in their entirety.[95] Finally, defendant's service significantly reduced the potential market for plaintiff's products.[96]

The court pointed out that copyright laws were designed to "protect the copyright holders' property interests" and not "to afford consumer protection or convenience."[97] In this case, however, plaintiff UMG Recordings agreed that MP3.Com provided a good service to consumers and indicated that they would be interested in licensing their work to MP3.Com.[98] Thus, the plaintiff's primary concern was that they receive the remuneration reserved for them under the law as copyright owners of creative works.[99]

2. *Fair Use and § 1201*

In *RealNetworks, Inc. v. Streambox, Inc.*,[100] a Washington district court rejected Streambox's claim of fair use and held the company liable for infringement.[101] RealNetworks, Inc., a software company, developed a program that allowed copyright owners to transmit their multimedia content to personal computers over the Internet.[102] This is done through a process known as "streaming," which allows the recipient to receive an audio or video file for viewing but, unlike downloading, prevents that recipient from saving a copy of the file.[103] The file cannot be downloaded without the permission of the owner.[104]

RealNetworks created three products that enabled users to stream files over the Internet: RealProducer, RealServer, and the RealPlayer.[105] The RealProducer converts the owner's

95. *See id.* at 352.

96. *See id.* Plaintiffs provided evidence at trial that they intended to enter the Internet market by "entering into various license agreements." *Id.*

97. *Id.* at 352.

98. *See MP3.Com*, 92 F. Supp. 2d at 352.

99. *See id.* at 352.

100. 2000 WL 127311 (W.D. Wash. 2000).

101. *See id.* at *15 - *33.

102. *See id.* at *1.

103. *See id.* The difference between streaming and downloading is critical because streaming allows the copyright owner to distribute a copy of the work without concern that the work will be copied and redistributed without authorization. In contrast, downloading permits the recipient to save the file and reproduce multiple copies for distribution later. *See id.* at *2.

104. *See id.*

105. *See id.*

content into RealMedia format,[106] the RealServer is used to send the file over the Internet, and the RealPlayer allows the recipient to play the streamed file.[107] To prevent the unauthorized copying of the streamed files, RealNetworks incorporated two different security measures into its products. The first is the "Secret Handshake" in the RealServer which verifies that the transmission goes to a RealPlayer.[108] The second measure, called a "Copy Switch," is contained in the file itself. The Copy Switch is controlled by the copyright owner who determines whether the recipient may copy the file.[109]

Streambox developed a program to circumvent the "Copy Switch,"[110] by allowing consumers to access and obtain digital copies of music and video files without the permission of the copyright holder.[111] Streambox also developed and marketed products that process audio and video content.[112] Their Streambox VCR ("VCR") enabled users to "access and download copies of RealMedia files that are streamed over the Internet."[113] The VCR was designed to obtain these files by circumventing the Secret Handshake in the RealServer.[114] In addition to receiving the RealMedia files, the VCR also circumvented the Copy Switch and thus allowed the recipient to download the file, regardless of the Copy Switch setting.[115]

The district court recognized the danger caused by the Streambox VCR because, once downloaded, the files could easily be distributed to the masses with the touch of a button.[116] This potential posed a threat to relationships that RealNetworks had with their existing customer base, who relied on the security measures imposed by RealNetworks to protect their works when transmitted over the Internet.[117] In addition to the potential loss of revenue by RealNetworks itself, there was also the potential loss in revenue and copy-

106. *See RealNetworks,* 2000 WL 127311 at *2. RealMedia are encoded files that work with RealNetworks products. *See id.*
107. *See id.*
108. *See id.*
109. *See id.*
110. *See id.*
111. *See id.* at *8.
112. *See RealNetworks,* 2000 WL 127311. at *4.
113. *See id.*
114. *See id.*
115. *See id.*
116. *See id.* at *5.
117. *See id.*

right protection by RealNetworks' clients.

The court rejected the fair use defense by Streambox because it failed the four factor test.[118] Moreover, the Court determined that the security measures (the "Secret Handshake" and the "Copy Switch") were indeed "technological measure[s] that effectively [controlled] access to copyrighted work[s]" under the DMCA.[119] Therefore, Streambox also violated § 1201 of the DMCA because it developed technology for the purpose of circumventing these anti-copying devices.[120]

3. *Section 1201 and the Programmers of New Technology*

In *A&M Records v. Napster, Inc.*[121] the district court held that Napster's service, which allowed consumers to search, obtain, and download copyrighted works through the Napster server, violated the anti-circumvention provision of the Copyright Act.[122] This case focused on the unauthorized "copying, downloading, uploading, transmitting or distribution of plaintiffs' copyrighted musical composition, and sound recordings, protected by either federal or state law, without the express permission of the rights owner."[123]

Napster, Inc., a start-up company, provides a service that assists consumers in finding music over the Internet.[124] To use this service, consumers must first download Napster's proprietary file sharing software, which it provided free of charge from its website.[125] After the consumer loads the software onto their computer, they can log onto Napster's website and share MP3 files with other users logged on at the same time.[126] According to Napster, this service "takes the frustration out of locating servers with MP3 files by providing a peer-to-peer file-sharing system that allows Napster account holders to conduct relatively sophisticated searches for music files on the hard drives of millions of other anonymous us-

118. *See infra* note 42 and accompanying text.
119. *See RealNetworks*, 2000 WL 127311 at *7 (quoting 17 U.S.C. § 1201(a)(3)(B)).
120. *See id.*
121. 114 F. Supp. 2d 896 (S.D.N.Y. 2000).
122. *See id.* at 896.
123. *Id.* at 900.
124. *See id.* at 901.
125. *See id.*
126. *See id.*

ers."[127]

The market for this service is huge.[128] However, Napster received no direct revenue from their subscriber base because it provided this service free of charge.[129] Instead, Napster planned to profit from its user-base through the use of other "potential revenue sources" such as "targeted email; advertising; commissions from links to commercial websites; and direct marketing of CDs, Napster products, and CD burners and rippers."[130]

The massive downloading and file sharing caused discontent in the music industry because "virtually all Napster users download or upload copyrighted files and . . . the vast majority of the music available on Napster is copyrighted."[131] Like MP3.Com, Napster failed to obtain licenses for distribution and downloading rights from copyright owners.[132]

Napster attempted to argue that its service met the requirements of the fair use doctrine because it uses the service to promote the works of new, unsigned artists by distributing their works in MP3 format.[133] Although this "New Artist Program" was part of its business plan, Napster did not take steps to implement the program until after this action was filed.[134] Napster also claimed its service allowed for "space shifting," a concept much like the "time shifting" concept used in *Sony*.[135] The Court dismissed space shifting as a "de minimus portion of Napster use" and was an insignificant aspect of Napster's business.[136]

The court held that the Napster service was not fair use because it failed all four factors of the fair use doctrine. First, the service was used for commercial purposes as revealed by

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127. *Napster*, 114 F. Supp. 2d at 902.

128. *Id.* Evidence of Napster's internal documents showed that they projected 75 million users of their service by the end of 2000. *See id.* Due to its popularity and the speed at which news is passed through the Internet, Napster's service appeared to be growing by more than 200 percent per month, even without marketing. *See id.* Additional statistics revealed that "[a]pproximately 10,000 music files are shared per second using Napster, and every second more than 100 users attempt to connect to the system." *Id.*

129. *See id.*

130. *Id.*

131. *Id.* at 902-03.

132. *See id.* at 903.

133. *See Napster,* 114 F. Supp. 2d at 903.

134. *See id.* at 903.

135. *See id. See also infra* note 46 and accompanying text.

136. *See Napster,* 114 F. Supp. 2d at 903.

internal documents that explained the potential of the subscriber base.[137] Second, the nature of the copyrighted works were creative music and songs composed by the copyright owners.[138] Third, the amount of the works copied was significant because users downloaded or uploaded entire songs and/or CDs.[139] Finally, the market for the copyright holders' music was harmed because copyright holders financially depend on the royalties they receive from the sale of their sound recordings. The free peer-to-peer file sharing that Napster provided seriously undermined that income stream.[140] Moreover, Napster encroached upon a market that the record companies were already embarking upon.[141] At the time of the trial, many record companies either implemented programs or had plans to make music available online.[142]

In *Universal City Studios, Inc. v. Reimerdes*,[143] the district court found infringement when defendants promoted and offered anti-circumvention software, used to decrypt DVDs, on their websites. The software, known as DeCSS, was designed to circumvent an encryption system called the Content Scrambling System ("CSS"), which is used to protect motion pictures from being copied from DVDs.[144]

Defendants included Shawn C. Remeirdes,[145] Roman Kazan,[146] Eric Corley, and 2600 Enterprises, Inc.[147] Each defen-

137. *See id.* at 908.
138. *See id.*
139. *See id.*
140. *See id.*
141. *See id.*
142. *See Napster*, 114 F. Supp. 2d. at 908.
143. 111 F. Supp. 2d 294 (S.D.N.Y. 2000).
144. *See Reimerdes*, 111 F. Supp. 2d at 303.
145. *See* Damien Cave, *A Hacker Crackdown? at* http://www.salonmag.com/tech/feature/2000/08/07/yoink_napster/print.html (last visited Aug. 7, 2000). Remeirdes is an independent programmer who was included as a defendant for posting the DeCSS code on his website. *See id.*
146. *See* Jeff Howe, *The Motion Picture Association Shuts Down Crypto Research: Fade to Black,* VILLAGE VOICE (Feb. 2-8, 2000), *at* http://www.villagevoice.com/issues/0005/howe.php. Kazan is the owner of Escape.com, an Internet Service Provider ("ISP") that hosted the DeCSS code without Kazan's knowledge. Even though he did not know the code was posted by one of his users, he was targeted as an example to other ISP owners, and included in the lawsuit. *See id.*
147. *See Reimerdes*, 111 F. Supp. 2d at 308. 2600 Enterprises is a company owned by Corley. Corley is notorious as a "leader of the computer hacker community." *Id.* Through his company, he publishes the magazine *The Hacker Quarterly*, which includes articles about hacking into just about anything from intercepting cellular phone calls and breaking into the computer systems of

dant handled a different aspect of disseminating the DeCSS code. After two defendants settled out of court, the case focused only on Corley and his company, 2600 Enterprises, Inc. ("2600"). These two defendants remained because of Corley's attitude, and his reluctance to remove links to DeCSS from his website.[148]

DeCSS is a software program that was originally designed by a 15-year-old Norwegian, Jon Johansen.[149] Johansen created the program by reverse engineering a licensed DVD player and discovering the CSS encryption.[150] Using this information, he created DeCSS.[151] Johansen claimed that he created the program so that he could play DVDs on a computer running on the Linux operating system.[152] However, DeCSS can only be executed by computers running on the Windows operating system.[153] Despite the fact that Johansen explained that it was necessary to create DeCSS on a Windows platform,[154] the court focused on the fact that he had knowledge that the program could be copied and disseminated like any other computer program.[155]

Corley obtained a copy of the DeCSS program from the Internet, offered it for download from the 2600 website, and provided links to other sites that offered the DeCSS code.[156] Although Corley received a widely distributed cease-and-desist letter[157] from the Motion Picture Association of America ("MPAA"), he ignored the warning and did not remove the software and was later served with a court-ordered injunction.[158] In an act of "electronic civil disobedience," however, the 2600 website "continued to support links to other web sites purporting to offer DeCSS for download, a list which had

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large companies. *See id.*

148. *See id.* at 294.

149. *See id.* at 311.

150. *See id.*

151. *See id.*

152. *See id.*

153. *See Reimerdes*, 111 F. Supp. 2d at 311.

154. *See id.* According to Johansen, it was necessary to create DeCSS on a Windows operating system because DVD files could not be supported on the Linux system at the time he created DeCSS. *See id.*

155. *See id.* at 311.

156. *See id.* at 312.

157. *See id.* The letters were sent to several website owners, who hosted the software on their sites, requesting that the software be removed immediately. *Id.*

158. *See id.*

grown to nearly five hundred by July 2000."[159] In addition, the 2600 website contained a banner that read "Stop the MPAA" and protested the lawsuit.[160]

The court indicated that the effect that the DeCSS Internet postings had on the plaintiffs would depend upon "the ease with which DeCSS decrypts plaintiffs' copyrighted motion pictures, the quality of the resulting product, and the convenience with which decrypted copies may be transferred or transmitted."[161] Evidence showed that decrypting copies of movies was somewhat complicated but not necessarily time consuming.[162] Once decrypted, the movie is stored on the computer's hard drive and may be copied or transmitted like any other file.[163] Plaintiffs were able to locate records that showed that two people in a chat room successfully exchanged two full-length movies: *The Matrix* was traded for *Sleepless in Seattle*.[164] Even though this exchange took approximately six hours to complete, the process required minimum supervision.[165]

Decrypted motion pictures can also be copied onto writeable compact discs.[166] By using a compression utility available on the Internet called DivX, entire two-hour movies can be compressed to fit on a single CD.[167] Based on these facts, the effect of the availability of DeCSS through the Internet was clear to the court.[168]

The court found that together, the availability of DeCSS, DivX, and high speed Internet connections could bring harm to plaintiffs if not eliminated.[169] First, plaintiffs either must tolerate the increased piracy of their motion pictures or they must expend resources to develop a replacement system to

159. *See Reimerdes*, 111 F. Supp. 2d at 312.
160. *See id.* at 313.
161. *Id.*
162. *See id.* An expert hired by plaintiff purchased a copy of the movie *Sleepless in Seattle* and used DeCSS to decrypt the DVD in 20 to 45 minutes. *See id.*
163. *See id.*
164. *See id.* at 314-15.
165. *See Reimerdes*, 111 F. Supp. 2d at 315.
166. *See id.* at 314.
167. *See id.* When a movie is decrypted, the resulting file can be anywhere between 4.3 and 6 GB in size. A writeable CD only stores 650 MB. By using the DivX utility, these files can be compressed enough to fit onto those CDs. *See id* at 313. The loss in quality due to compression is practically imperceptible to the average consumer. *See id.* at 314.
168. *See id.* at 315.
169. *See id.* at 315.

CSS.[170] Second, the DeCSS application may seriously decrease potential revenues from the sale and rental of DVDs.[171]

Accordingly, the court held that this is the type of harm that the DMCA was designed to prevent.[172] Defendant Corley's act of making a copy of DeCSS available on the 2600 website, as well as promoting several links to other sites that provide DeCSS for download, directly violated § 1201(a)(2) of the Copyright Act.[173] Therefore, even though Corley did not actually copy a copyrighted work, the district court still found that he and his company were liable under the DMCA.

F. *Aftermath of the* Napster *and* Reimerdes *Decisions*

The challengers to the DMCA believe that the Act stifles technological creativity.[174] This contrasts the protection set forth in the Constitution to "promote the progress of science and useful arts."[175] Challengers claim that fair use is more restricted under the DMCA.[176] In the past, a lawfully obtained book, sound recording, or motion picture on video belonged to the person who purchased it, and that person could do whatever she wanted with that copy, including loaning it to a friend.[177] This area of sharing legally obtained copies is murkier in the digital age because when a digital copy is made via an MP3 file, for example, both the owner and the friend have a copy.[178] Prior to the digital age, the friend only had the copy once it was loaned to her.[179]

Computer programmers, who were once hailed for their genius and for authoring programs that made computing

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170. *See id.*

171. *See Reimerdes*, 111 F. Supp. 2d at 315.

172. *See id.* at 316.

173. *See* 17 U.S.C. § 1201(a)(2) (2000). "No person shall. . .offer to the public, provided, or otherwise traffic in any technology, product, service . . .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." *Id.*

174. *See* Cave, *supra* note 145 and Howe, *supra* note 146. Both articles indicate a negative reaction towards the prosecution of individuals who were sued for creating a computer program, regardless of what the program was designed to do.

175. U.S. CONST. art. I, § 8, cl. 8.

176. *See* Cave, *supra* note 145.

177. *See* Elizabeth Weise, *Copyright Crusader: Law Prof Fights Hollywood in Name of Individual Rights*, SAN JOSE MERCURY NEWS, Jan. 3, 2001, at 1C.

178. *See id.*

179. *See id.*

easier, faster, and more efficient, are now reluctant to put their ideas into code.[180] The fear of potential liability, regardless of its validity, has caused several programmers to self-censor.[181] A computer science professor at Princeton University, for example, was reluctant to post the DeCSS code on the Internet so that his students could study and analyze the code because he feared possible prosecution.[182] Unlike big companies such as A&M Records or the MPAA, the mere involvement in a lawsuit is too costly for some individuals to bear.[183]

Programmers are not the only people who see flaws in the DMCA. Pamela Samuelson, often called "The Goddess of Copyright," sees a shift in the balance of entertainment industry power.[184] Samuelson is a crusader against the DMCA.[185] She sees the new law as a tool for the entertainment industry to "control every single copy, wherever and whenever it's played, and have a pay-for-use system so that no one can ever share anything for free again."[186] She defends her strong pro-individual rights stance by writing papers, giving speeches, and speaking at conferences on the subject.[187] She and her husband, a Silicon Valley millionaire, have donated $3 million to programs at the University of California, Berkeley "to train future lawyers and experts in information

180. *See* Cave, *supra* note 145.

181. *See id.*

182. *See id.*

183. *See id.* Shawn Reimerdes, for example, did not place himself in the same category as Napster when he heard about that lawsuit. He began to worry, however, about the file sharing software that he had created to allow users to swap MP3 files after Judge Patel came down with her decision in *Napster*. *See id.* To his surprise, instead of being sued for his software, he was sued for posting the DeCSS code on his website. *See id.*

Jon Johansen, the teenager who authored DeCSS, now faces jail time for creating something he considered harmless. *See* Howe, *supra* note 146. According to Johansen, he never intended his program to be used for copying DVDs. *See id.* Instead, he just wanted to develop a mechanism that allowed him to watch DVDs on his Linux run computer since no such device was available. *See id.* Once created, he posted it on the Internet to share with other "geeks" who were looking for a solution to the same problem. *See id.* Instead of being commended for his technological savvy, he is being punished for creating a program that fell into the hands of the wrong people. *See id.*

184. *See* Weise, *supra* note 177. Samuelson is the Director for the Berkeley Center for Law & Technology and a professor of law and information management at the University of California-Berkeley. *See id.*

185. *See id.*

186. *Id.*

187. *See id.*

technology to work in public policy" and counter the type of business-oriented perspectives that led to the DMCA without regard to individual rights.[188]

Other challengers to the DMCA include artists such as songwriter and Internet scholar, John Perry Barlow.[189] Barlow supported Napster's technology because, as he found in his personal experience with the Grateful Dead, making copies of music and giving it away is one of the best ways to make money.[190] According to Barlow, the Grateful Dead regularly distributed copies of their music for free to fans in order to market their music and develop a following.[191]

Milton E. Olin, Jr., Chief Operating Officer of Napster, Inc. and former Senior Vice President of Business and Legal Affairs for A&M Records,[192] believes that technology such as that created by Napster provides new artists with a viable alternative to struggling to sign with one of the four "Major Labels"[193] and succumb to their restrictive contracts.[194] The Major Labels view Napster technology as a threat because it has the potential to turn their dominance in the industry "completely upside down."[195]

III. IDENTIFICATION OF THE LEGAL PROBLEM

The DMCA was originally enacted to bring the copyright laws up to date with the digital age.[196] Within its first year of enforcement, however, there has been serious protest against the anti-circumvention provision as a result of the aforemen-

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188. *Id.*

189. *See* Declaration of John Perry Barlow in Support of Defendant Napster's Opposition to Plaintiff's Motion for Preliminary Injunction at 2, A&M Records, Inc. v. Napster, Inc. (N.D. Cal. 2000) (Nos. C 99-5183 & C 00-0074 MHP (ADR)). Barlow co-wrote songs with the music group the Grateful Dead from 1971-1995. He is currently a contributing writer for Wired magazine and is a Fellow at Harvard Law School's Berkman Center for Internet and Society. *Id.*

190. *Id.*

191. *See id.*

192. *See* Declaration of Milton E. Olin, Jr. in Support of Defendant Napster, Inc.'s Opposition to Plaintiffs' Joint Motion for Preliminary Injunction at 1, A&M Records, Inc. v. Napster, Inc. (N.D. Cal. 2000) (Nos. C 99-5183 & C 00-0074 MHP (ADR)).

193. *See id.* at 2. The Major Labels dominate the recording industry and include the holding companies Universal, Sony, Time Warner, and BMG. *Id.*

194. *See id.* at 3-9.

195. *Id.* at 9.

196. *See* David Nimmer, *A Riff on Fair Use in the Digital Millennium Copyright Act*, 148 U. PA. L. REV. 673, 680 (2000).

tioned cases.

The problem with section 1201 of the DMCA is that it appears to be incongruent with the Constitution, which states that Congress shall "promote the progress of science and the useful arts."[197] Rather than expand copyright protection to coincide with digital media, many view section 1201 as an obstacle that stifles progress in the computer technology field.[198]

On the other hand, enforcement of section 1201 may stop the "viral distribution"[199] of hacker-type programs and prevent the unauthorized copying of hundreds of thousands of copyrighted works. Thus, section 1201 serves as a preventative measure that stops the problem at the source and places responsibility on those who create the programs and devices that may lead to devastating results.

There are strong arguments for both sides, but the reality is that section 1201 as written cannot continue to coexist with the Constitutional imperative set forth in Article I.[200]

IV. ANALYSIS

The enforcement of section 1201 of the DMCA is still in its early stages and it would be premature to speculate how long this provision will endure, as written, in light of all the controversy. In order to really understand the impact that the DMCA has had on the area of creativity with respect to the copyright laws, the current law must be compared to the law prior to the DMCA.

A. *Basic Premise of Copyright*

The goal of the copyright laws is to make information available to the public while protecting the creators of copyrighted works.[201] As the laws evolved through the years to adjust to changing technologies, the amendments to the copyright act have been able to keep this basic premise.[202] In general, authors of copyrighted works have not been reluctant to

197. U.S. CONST. art. I, § 8, cl. 8.

198. *See* discussion *supra* Part II.F.

199. *See Napster,* 114 F. Supp. 2d at 902. The term "viral" was used as an analogy to describe how quickly information can pass to the masses through the Internet. *See id.*

200. *See* discussion *supra* Part IV.A.-B.

201. *See* discussion *supra* Part II.A.1.

202. *See* S. REP. NO. 190, at 4 (1988).

share their creations with the public due to the protection that copyright laws afford them.[203] In this way, copyright laws encourage people to create art, write books, and develop software.[204] Thus, the copyright laws have fulfilled the constitutional premise to "promote science and the useful arts."[205]

The fair use doctrine furthered this goal when it was elevated from common law status to a law codified in 17 U.S.C. § 107.[206] The basic premise of fair use is to place a limit on the rights of copyright owners so that society can make use of the information they created by allowing reasonable use of copyrighted materials for research and educational purposes.[207]

Although there has never been a case where an owner of a particular copy of a copyrighted work was sued for making copies for personal use, case law has indicated that the fair use doctrine fails as a defense when copies are made for commercial gain.[208] Fair use also fails as a defense when the number of copies made and distributed for free are so great that copyright owners suffer huge financial losses from lost royalty revenue.[209] Thus, it may be assumed that the fair use doctrine allows these types of owners to use their copies for any non-infringing use as long as it is not for commercial purposes.[210]

The *Sony* decision was critical because it was the first attempt by the courts to apply the fair use defense to a modern device.[211] The courts vacillated in their rulings because, on one hand, the Betamax machine allowed users to easily copy any televised copyrighted work.[212] On the other hand, the Betamax machine was capable of several non-infringing uses such as time-shifting.[213] One of the key factors, however, was

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203. *See generally* 17 U.S.C. § 102(a) (2000) (listing the subject matter of copyright protection).

204. *See id.* (indicating that laws extend protection to works fixed in a tangible medium of expression).

205. U.S. CONST. art. I, § 8, cl. 8.

206. *See* Nimmer, *A Riff on Fair Use in the Digital Millennium Copyright Act*, 148 U. PA. L. REV. 673, 702 (2000).

207. *See* discussion *supra* Part II.B.

208. *See* discussion *supra* Part II.D.1.

209. *See* discussion of *MP3.Com infra* Part II.E.1 and *Napster supra* Part II.E.3.

210. See discussion *supra* Part II.D.1.

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

212. *See supra* Part II.C.

213. *See supra* Part II.C.

that the copying activity was non-commercial and that viewership did not decrease as a result of Betamax machine use.[214] The final Supreme Court decision was a victory for Sony and other companies that manufactured similar videocassette recorders. Moreover, it was a victory for consumers because the decision allowed for the continued manufacturing of a new device that has made a positive impact on the general public.[215]

To demonstrate the application of the fair use doctrine to some non-infringing uses, the following is a hypothetical illustration using the fictional characters Ariel, Brett, and Cedric, who each own a copy of an autobiographical book of a well known social activist.[216] Ariel uses passages and quotes from her copy to write an analytical paper on activists in the twentieth century. As she conducts her research, she photocopies several pages from her book so that she can make notations on the copies or to facilitate her research in the library when carrying the entire book is inconvenient. When she is done, she sells her copy to a used bookstore.

Brett is part of an intellectual club that discusses influential people in history. When it is Brett's turn to choose a person of interest, he chooses the author of his book. In order to prompt discussions, he makes several photocopies of certain chapters in his book and distributes them to the ten members of his club. At the conclusion of the discussion, the club members discard their copies.

Cedric reads his book and then discovers that the book is required for one of the undergraduate courses at his university. Cedric decides to make photocopies of his book to sell to the students taking the class, both so that he can make some pocket money and so that the students can avoid paying the high prices in the campus bookstore for the book.

In all three situations, the owners of the book are legal owners of the copyrighted work. Each person made copies of their book. The copies made by both Ariel and Brett fall under the scope of the fair use defense.[217] Ariel's copies were for

214. *See supra* Part II.C.

215. After the *Sony* decision, VCRs became a popular household item, which probably led to the growth in the consumer electronics industry in the area of home entertainment systems.

216. This hypothetical is completely fictional and is used for demonstrative purposes only. The characters are not meant to depict actual persons.

217. *See generally* 17 U.S.C. § 107 (2000) (stating that use of copies for schol-

her own personal use and the excerpts that she quoted were for research purposes. Brett's copies were used for sharing his ideas on the author during his educational study group. The distribution was to a small group and he did not benefit financially from the copies he made.

Cedric, on the other hand, made copies for commercial purposes without the authorization of the copyright owner. His activity is the equivalent of the type of situations in both *Free Republic* and *Nation Enterprises*.[218] In both cases, the plaintiff suffered economic loss.[219] The plaintiffs in *Free Republic* lost potential revenues from the number of people who would have otherwise read their articles if not for defendant's copying and providing free online access to the articles.[220] The plaintiff in *Nation Enterprises* lost money when defendant published a story without permission from the owner.[221] Similarly in Cedric's hypothetical, financial loss occurred as a result of unauthorized commercial use. These cases demonstrate situations where fair use is not a defense.

The copyright laws were designed to protect owners from people like Cedric, whereas the fair use doctrine was designed to defend users of copyrighted material like Ariel and Brett. Here, the balance of equities was served by preserving the rights of the creator while allowing uses for legitimate purposes by owners of copyrighted material.

B. *Fair Use Under the DMCA*

Although Congress enacted the DMCA to make the Copyright Act compatible with the digital age, those who feel it stifles creativity have attacked it.[222] Their concerns are not without merit. The problem with the anti-circumvention provision of the DMCA is that it appears to obstruct advances in technology that could simplify life. *Sony*, for example, was decided by a very narrow margin.[223] The Betamax and other video tape recorders like it are copying devices that could potentially be used for infringing purposes. If it had been de-

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arship or research is fair use).

218. *See* discussion *supra* Part II.D.1.

219. *See* discussion *supra* Part II.D.1.

220. *See* discussion *supra* Part II.D.1.

221. *See* discussion *supra* Part II.D.1.

222. *See* discussion *supra* Part II.F.

223. *See Sony*, 464 U.S. at 417 (5-4 decision).

cided the other way, the home entertainment industry as it is known today would be vastly different.

To demonstrate the difference in results under the DMCA between similar situations, here is another hypothetical involving Ariel and Brett. Ariel is conducting her research. She currently has a free subscription to an online journal that sends her email updates to inform her when new material comes out. She frequently downloads copies of material that she uses for her research.

Brett is also a subscriber to the same online journal. He receives the same email updates but if he does not read his email, he must visit the archive page of the site to read older material. Subscribers have free access to the archives, but non-subscribers must pay a fee to obtain older articles. Brett writes software codes as a hobby and decides to break the encryption code on the non-subscriber archive page just for the challenge.

Brett does this frequently with other Internet sites where he is a member or subscriber, including a site that houses online books that he purchases. The online books have an encryption code to prevent copying. Brett wanted to share a few pages from one of his books with his book club and wrote a decryption program so that he could access the file of one of his books. He downloads the book and prints out a few pages to share with his discussion group.

Under section 1201 of the DMCA, Ariel's use is still considered fair use, but Brett's use violates the statute. Unlike a hardcopy version of the book, Brett cannot easily make copies as compared to the earlier scenario even though he legally owns the online book.[224] The encryption may be a precautionary measure by the online book company, but it restricts the use of the books by legal owners such as Brett. In this situation, his only alternative was to use his talent in decrypting codes to make use of something he already owns since he cannot easily print copies directly from the site. Brett's resourcefulness, however, is illegal under the DMCA.

Brett's situation is similar to that of Jon Johansen, author of DeCSS.[225] Johansen just wanted the DVDs to work on his computer but had to create a program that decrypted

224. *See* hypothetical situation *infra* Part IV.A.
225. *See supra* note 154.

CSS in order to make it run on his Linux system.[226] Johansen's mistake was that he made his DeCSS program available on the Internet for others to use with the Linux system.[227] Unfortunately, sharing such a program is illegal under the DMCA.[228]

In contrast, Brett did not use his decryption codes for commercial activity, nor did he make any of them available over the Internet. The mere fact that he broke the codes for the challenge and not for research is still considered the type of activity that section 1201(a) was designed to prevent.[229]

Prior to the enactment of the DMCA, Brett would have a good fair use argument for making copies of his online book because he did not copy the entire book, it was a copy that he owned, and he did not distribute it for commercial purposes.[230] But under the DMCA, the fair use defense would not apply to Brett's situation.

C. *DMCA Enacted as a Compromise*

The two sets of hypothetical situations above demonstrate how the DMCA changed the application of the fair use defense. Certain uses that were formerly considered fair use are now illegal.[231] This is why there are so many advocates against the DMCA.

Contrary to what the opposition says about the DMCA, the law was not enacted to stifle all technological development. The challenge lies within the nature of technology.[232] As technology advances, quality improves. One such improvement was the transition from analog to digital mediums.

In the music industry, for example, vinyl records were the mediums used to record copies of music for distribution to the public. The problem with vinyl is that it could get dusty, scratched by the record needle, or warped by heat and hu-

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226. *See id.*

227. *See id.*

228. *See* 17 U.S.C. § 1201(a)(2)(A) (2000).

229. *See id.* § 1201(a). "No person shall circumvent a technological measure that effectively controls access to a work protected under this title." *Id.*

230. *See id.* § 107 (listing factors to be considered to determine fair use).

231. *See* discussion *supra* Part IV.B. Whereas allowing a friend to borrow a legally purchased book or music tape was fair use, doing so with a digital format of either may be infringement under the DMCA.

232. This is whether the technology created is designed to circumvent encryption technology meant to protect a copyrighted work.

midity. Then the 8-track tape came out, which made recorded music more portable. Smaller audiocassettes emerged soon thereafter which made 8-tracks obsolete because they were smaller in size. But these mediums still had problems such as warping and diminished quality with age. It was easy to make copies of them but the copies from anything other than the original would reduce the sound quality.

When music became available in digital format, sound quality was no longer an issue. No matter how old the CD, the sound quality remains the same. Now music is available through the Internet in the form of MP3 files.[233] With MP3 files and the availability of writeable CDs, the potential for pirating music with high quality digital sound is enormous.[234] The same goes for motion pictures that are available on DVDs.[235]

When Congress began drafting the DMCA, it had to consider these worse-case scenarios. The DMCA was not written for the purpose of stifling the creativity of computer programmers, rather it was written to protect copyright owners in an age where piracy is facilitated by digital technology.[236] As Judge Rakoff said in the *MP3.Com* case, copyright laws were designed to "protect the copyrightholders property interests, [not] afford consumer protection or convenience."[237]

V. PROPOSAL

Section 1201 of the DMCA is a harsh amendment to the Copyright Act. Superficially, the anti-circumvention provision seems like a good solution for the problems of piracy and hacking. While the provision is sufficient for those problems, it has had an adverse effect on those who may have non-infringing reasons for circumventing copy protection devices. Unfortunately, there is no fair use defense to coincide with section 1201 other than the original fair use defense codified in section 107.[238]

As a result, the developers of innovative programs, such

233. *See supra* note 87.

234. *See* discussion *supra* Part III.E.2. (discussing the fact that digital files can easily be distributed to the masses with the touch of a button).

235. *See* discussion *supra* Part II.E.2.

236. *See Reimerdes*, 111 F. Supp. 2d 294, 315 (S.D.N.Y. 2000).

237. *MP3.Com*, 92 F. Supp. 2d at 352.

238. *See* 17 U.S.C. § 107 (2000).

as Napster and DeCSS, have been reprimanded for their inventions.[239] The fact that the support for these crusaders is strong and growing[240] indicates that Congress must review section 1201 in light of the cases that have gone to court.[241] Likewise, the culture on the Internet needs to be adjusted in order to prevent further innocent mistakes like that made by Jon Johansen.[242]

When Congress enacted the DMCA to update the copyright laws and make them more compatible with digital technology, it also expanded the rights of copyright owners. Since the courts originally created the fair use defense to limit the rights held by copyright owners,[243] it logically follows that the DMCA should be amended with an updated compatible fair use defense that coincides with digital technology. Thus far, the original fair use defense is insufficient to accomplish this.

Changes are also needed in the Internet culture. Right now, the Internet is viewed as a free-for-all. It was introduced as a channel for information[244] and users became accustomed to accessing a myriad of information for free. It is time for this mentality to shift. This does not mean the end of free access to information, however. As long as copyright owners want to offer their work for free, they should. Other people should not make that decision for the owners in hopes of profiting from it. The creative protection concept has not changed; it has been in force since 1790.

As with any new invention, creators still need to go through the proper channels in order to introduce the product to the marketplace. As with any other business model, Internet companies should not be afraid of charging fees for their services so that they can factor in royalty fees for copyright owners. After all, businesses traditionally operated for profit prior to the introduction of the digital medium.

People like Jon Johansen who want to share their programs for free should have the freedom to do so without hassle from authorities. Unfortunately, the world is filled with opportunists who are waiting for the chance to take advan-

239. *See supra* Part III.E.3.
240. *See* discussion *supra* Part II.F.
241. *See* discussion *supra* Part II.E.
242. *See supra* note 162.
243. *See* discussion *supra* Part IV.A.
244. The Internet is sometimes referred to as the "information superhighway."

tage of products like Johansen's program. Encryption codes were invented as security measures to safeguard digital media from being stolen. They are the equivalent of combination locks on a safe.[245] Just because an individual is bright enough to figure out the combination does not mean that the same individual has the right to publish it in the newspaper. Instead, this talent should be shared only with certain individuals, such as the people who created the encryption. Doing so would benefit both parties because the creator of the decryption code can sell her product or services and the people who created the encryption code can learn from their mistakes.

Thus, computer programs, like music and motion pictures, should be shared for free over the Internet as long as it is done with the authority of the copyright holders and does not cause them any harm. Although no one can fully predict the extent of harm the work of programmers such as Jon Johanson may bring, common sense is usually a good starting point. Such people must take responsibility for the content they place on the Internet.

VI. CONCLUSION

Section 1201 of the DMCA is an anti-circumvention provision designed to protect copyrighted works on digital media. The provision was enacted to prohibit hackers from obtaining digital quality works and pirating them for profit. Once in force, the provision accomplished that goal while contemporaneously revealing its flaw: stifling technological creativity.

The fair use doctrine has proven ineffective in protecting the developers of such creative technology because the doctrine was not updated along with the enactment of the DMCA. Now that the legal community has had an opportunity to test the DMCA in the courts, it is apparent that the new law needs to be amended, and the Internet culture needs to undergo a shift in its free-for-all based philosophy.

245. Like a combination safe, without the combination no one can access the contents. An encrypted product also cannot be read or copied without the proper mechanism encoded to either read or copy the product.