

“Acts” Wound: Fair Use and Music Lovers vs. The Recording Industry Association of America’s Secret Weapon

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INTRODUCTION

After taking into account factors such as technology, transaction costs, and opportunity costs, businesses often give discounts to consumers when it seems like the best economic decision. However, if the business lacks information, the decision to make the deal may appear unwise in hindsight, and this bad decision may lead the business to attempt to reconstruct a more beneficial deal. In the case of digital music and digital recording devices, the music recording industry has done the same.

In 1992, the music recording industry successfully lobbied for an act that operated to allow consumers to copy copyrighted music so long as the consumer made certain payments and met other conditions.¹ However, six years later the industry changed its position and lobbied for an act that permitted manufacturers to incorporate copy-protection technologies on copyrighted music recordings.² Further, the 1998 act made it illegal for consumers to bypass these technologies,³ effectively prohibiting the operation of the rights provided to consumers by the 1992 act.

One of these copy-protection technologies, SafeAudio,⁴ is

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1. Audio Home Recording Act of 1992, Pub. L. No. 102-563, 106 Stat. 4237 (codified as amended at 17 U.S.C. §§ 1001-1010 (2000)).

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

3. 17 U.S.C. § 1201(a)(1) (2000).

4. For the purpose of this Note, I am specifically referring to SafeAudio, but the argument is equally directed at any software intended to achieve the same objective of

intended to prevent someone from copying songs from audio compact discs (“CDs”) to computer hard drives, a practice known as *ripping*.⁵ TTR Technologies and Macromedia⁶ developed this new technology in response to the recording industry’s desire to end the alleged illegal copying of copyrighted music.⁷

This Note focuses on the legality of ripping songs from existing CDs to computer hard drives by examining the significance of the apparent gap between the Audio Home Recording Act of 1992 (“AHRA”)⁸ and the Digital Millennium Copyright Act (“DMCA”).⁹

preventing listeners from making digital copies of music for personal use. Other protection systems include the following:

[T]he Cactus Data Shield System (from Israel’s Midbar Technology) is applied in the mastering stage of a CD’s production, and confounds CD recorders by intentionally and incorrectly blending player “control” signals into the music stream. Midbar’s patent states the square wave playback distortion produced in a CD-ROM copy would not only sound bad but be “potentially damaging” to amplifiers and speakers . . . The prickly Cactus system also disables stand-alone Audio CD recorders, despite the fact these decks and companion blank discs pack in a royalty fee for artists as part of the asking price, and have protection built in so that only original, first-generation CDs can be copied (not copies of copies). A third technology, developed by Phoenix-based SunnComm, is now being tested by BMG Entertainment. SunnComm says it deploys unspecified “digital-rights management technology” to prevent protected titles from being e-mailed, burned onto a blank CD or placed in a file-swapping network. Curiously, that same digital rights technology might also allow the music company to hide extra tracks on a disc which would only be “unlocked” and playable on a PC drive if the consumer goes online to acquire a “key.” Sure to cause some controversy is Sony’s key2audio system, already tested in Europe on 20 different titles, it’s claimed.” This protection system is so robust that PC users won’t even be able to play a key2audio encoded disc on their CD-ROM or DVD-ROM drive, let alone copy it.

Jonathon Takiff, *Music Pirates, Heed These Words: Days of Burning Own CDs May End—Worse, It Could Damage Your Speakers*, TALLAHASSEE DEMOCRAT (Aug. 20, 2001).

5. According to one authority, “ripping” is “[d]igitally extracting audio tracks from a CD [to] store[] as a file on your computer.” High-Tech Dictionary Definition, at <http://www.computeruser.com/resources/dictionary/definition.html?lookup=8023> (last visited on Mar. 15, 2003) (on file with the Washington University Journal of Law & Policy).

6. In November 2002, Midbar announced its merger with Macrovision. See John Lettice, ‘No More Music CDs Without Copy Protection,’ *Claims BMG Unit*, THE REGISTER (Nov. 11, 2002), at <http://www.theregister.co.uk/content/54/27960.html>.

7. The development companies such as Napster, Mp3.com, Kazaa, and Limewire combined with faster Internet connections and broader bandwidths have made downloading digital music over the Internet simple and popular.

8. 17 U.S.C. §§ 1001-1010 (2000).

9. 17 U.S.C. §§ 1201-1205 (2000); see also Aaron L. Melville, Note, *The Future of the Audio Home Recording Act of 1992: Has It Survived the Millennium Bug?*, 7 B.U. J. SCI. & TECH. L. 372, 395 (2001) (stating “[t]hus, the AHRA, as interpreted, contradicts the DMCA”).

The AHRA allows consumers to use copying technologies to make copies of copyrighted music for personal use at home as long as the manufacturers of copying technology pay copyright holders a percentage of revenues received from the sale of the copying technology.¹⁰ Purchasers of the copying technology, who have ultimately paid the cost of this percentage in the marketplace, can then use the technology to make legal copies of copyrighted music for personal use at home.

On the other hand, the DMCA states that “[n]o person shall circumvent a technological measure that effectively controls access to a work protected under this title.”¹¹ Because the technological measure in this statement includes software such as SafeAudio, the DMCA seems to prohibit the right to make the home copies of copyrighted music permitted by the AHRA.¹² Ultimately, however, the DMCA should not prevent consumers from ripping songs by decrypting or otherwise circumventing the software of programs such as SafeAudio.¹³

10. See 17 U.S.C. §§ 1004, 1006, 1008 (2000).

11. 17 U.S.C. § 1201(a)(1)(A) (2000).

12. The first indictment under the DMCA occurred in August, 2001. Jacques De Werra, *Moving Beyond the Conflict Between Freedom of Contract and Copyright Policies: In Search of a New Global Policy for On-Line Information Licensing Transactions*, 25 COLUM. J.L. & ARTS 239, 246 n.16 (2003). Dmitry Sklyarov and Elcom Ltd., the company that employed Sklyarov were both indicted by a federal grand jury in the Northern District of California on five counts of copyright violations. A Department of Justice press release stated:

[Mr. Sklyarov] was charged with one count of conspiracy in violation of Title 18, United States Code, Section 371, and two counts of trafficking for gain in technology primarily designed to circumvent technology that protects a right of a copyright owner in violation of Title 17, United States Code, Section 1201(b)(1)(A), and two counts of trafficking for gain in technology primarily marketed for use in circumventing technology that protects a right of a copyright owner in violation of Title 17, United States Code, Section 1201(b)(1)(A).

U.S. Department of Justice, U.S. Attorney, Northern District of California (Dec. 13, 2001) (Press Release), available at <http://www.usdoj.gov/criminal/cybercrime/SklyarovAgree.htm>. Sklyarov allegedly developed software that could circumvent the copy-protections of Adobe Acrobat eBook Reader. Mr. Sklyarov admitted that “[p]rior to June 20, 2001 . . . [he] wrote a part of [a] computer program [to limit] certain operations [of Adobe Acrobat eBook Reader], such as opening, editing, printing or annotating.” *Id.* Sklyarov entered into a settlement agreement with the United States on December 13, 2001. *Id.*

13. See generally Melville, *supra* note 9, at 396 (advocating “a clarification of the laws surrounding a consumer’s right to copy music, while maintaining the important balance between the rights of the electronics manufacturers to advance the state of the art and the

Part I of this Note discusses the copyright history relevant to this issue, including a brief summary of the origins of copyright law in the United States and descriptions of the AHRA and the DMCA. Part II describes and explains how SafeAudio protects against CD *burning*.¹⁴ Finally, Part III analyzes SafeAudio in light of the AHRA and the DMCA and suggests a proposal of action.

I. RELEVANT COPYRIGHT HISTORY

The United States Constitution recognizes copyright protection.¹⁵ However, although Congress passed copyright legislation in 1790, it did not protect musical compositions until 1831.¹⁶ It was not until 1972, that copyright legislation finally protected sound recordings.¹⁷ The Copyright Act of 1976 (the “1976 Act”) wrapped various protections into a single act.¹⁸ The 1976 Act provided all copyright holders with the exclusive rights to reproduce, to prepare derivative works, and to distribute copies of their copyrighted works.¹⁹ Additionally, the 1976 Act provided some copyright holders with the right to “perform the copyrighted work publicly,” to “display the copyrighted work publicly,” and “in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.”²⁰

A. *The Audio Home Recording Act of 1992*

After more than a decade of legislative attempts to resolve the issue of home recording,²¹ Congress developed the AHRA to

incentives required by the music industry to create new works”).

14. “Burning” is the process of “writing data to a CD.” MP3-Converter.com, *MP3 Glossary*, at <http://www.mp3-converter.com/glossary/index.htm> (last visited Mar. 15, 2003) (on file with the Washington University Journal of Law & Policy).

15. See U.S. CONST. art. I, §8, cl. 8. See also *infra* text accompanying note 62.

16. Brendan M. Schulman, *The Song Heard 'Round the World: The Copyright Implications of MP3s and the Future of Digital Music*, 12 HARV. J.L. & TECH. 589, 602-03 (1999).

17. *Id.*

18. 17 U.S.C. § 101 (2000).

19. 17 U.S.C. § 106 (2000).

20. *Id.*

21. S. REP. NO. 102-294, at 51 (1992) (stating that “[t]he copyright law implications of

supplement traditional copyright law in the face of new technologies such as digital audio tapes and the Internet.²² According to 17 U.S.C. § 101, copyright law applies to, among other things, *fixed* works.²³

Section 1008 legalizes digital copying of copyrighted music for personal, noncommercial uses.²⁴ According to one court, the AHRA’s main purpose was to facilitate personal copying.²⁵ Congress did not intend for the AHRA to prevent “serial copying”²⁶ per se, but the Act does address devices that do not conform to the Serial Copyright

private audio recording for noncommercial use have been the subject of longstanding debate. Since 1981, there have been successive legislative attempts to resolve the issue”). The report further noted that the lack of legislative direction on the subject has led to legal challenges based on contributory negligence for the distribution of digital audio recording technologies. *Id.*

22. Melville, *supra* note 9, at 376.

23. The 1976 Act defined “fixed” works as the following:

A work is “fixed” in a tangible medium of expression when its embodiment in a copy or phonorecord, by or under the authority of the author, is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration. A work consisting of sounds, images, or both, that are being transmitted, is ‘fixed’ for purposes of this title if a fixation of the work is being made simultaneously with its transmission.

17 U.S.C. § 101 (2000).

24. The AHRA states:

No action may be brought under this title alleging infringement of copyright based on the manufacture, importation, or distribution of a digital audio recording device, a digital audio recording medium, an analog recording device, or an analog recording medium, or based on the noncommercial use by a consumer of such a device or medium for making digital musical recordings or analog musical recordings.

17 U.S.C. § 1008 (2000). While the Fair Use Doctrine was previously established in copyright law, the AHRA extended this doctrine to ensure its application to digital copying. *See* Universal City Studios, Inc. v. Sony Corp., 464 U.S. 417 (1984) (holding videotaping television programs for private home viewing amounted to a fair use of the copyrighted broadcast). *See also* S.R. REP. NO. 102-294, at 31 (1992) (noting “[t]he electronics industry has maintained that the [Universal City Studios] decision applied to virtually all home taping while songwriters, music publishers, performers, and recording companies have insisted that the decision applies to a very limited set of facts, i.e. home video taping for time-shifting purposes”).

25. Recording Industry Association of America v. Diamond Multimedia Systems, Inc., 180 F.3d 1072, 1079 (9th Cir. 1999).

26. *Id.* at 1075 (stating that “the Act does not broadly prohibit digital serial copying of copyright protected audio recordings,” but “instead, ... places restrictions only upon a specific *type* of recording *device*”) (emphasis added). “The term ‘serial copying’ means the duplication in a digital format of a copyrighted musical work or sound recording from a digital reproduction of a digital musical recording.” 17 U.S.C. § 1001 (2000). This does not refer to “a digital musical recording as distributed, by authority of the copyright owner, for ultimate sale to consumers.” *Id.*

Management System (“SCMS”).²⁷

The AHRA also provides for a blanket royalty system in which copy technology manufacturers pay copyright holders and performers from a predetermined schedule.²⁸ The schedule ensures that copyright holders receive compensation “for the copying of their works on digital audio recording media.”²⁹ This scheme represents a compromise between the “consumer-electronics industry, the recording industry, music publishers, songwriters and groups in favor of maintaining the consumer’s home taping capabilities.”³⁰

Finally, the AHRA requires the implementation of a SCMS into

27. For a discussion of the SCMS see *infra* notes 31-33 and accompanying text.

28. For example, manufacturers within the U.S. who import and distribute or manufacture and distribute digital audio recording medium must pay a royalty of three percent of the transfer price of the medium. 17 U.S.C. § 1006(b) (2000). “A digital audio recording medium is any material object in a form commonly distributed for use by individuals, that is primarily marketed or most commonly used by consumers for the purpose of making digital audio copied recordings by use of a digital audio recording device.” 17 U.S.C. § 1001(4)(A) (2000). The definition does not include any sound recordings as first released or distributed by the manufacturer or medium that is commonly used for coping movies, other audiovisual works, computer programs, and databases. *Id.* at § 1001(4)(B).

The royalty to be paid “for each digital audio recording device imported into and distributed in the United States, or manufactured and distributed in the United States” is two percent of the transfer price, with variations for digital audio recording devices “first distributed in combination with one or more devices, either as a physically integrated unit or as separate components.” 17 U.S.C. § 1004(a)(1)-(2) (2000). Interestingly, the minimum royalty payment on a digital audio recording device is prohibited from falling below one dollar regardless of the transfer price. *Id.* at § 1004(a)(3). The royalty on digital audio recording media is not subject to a minimum payment. *Id.* at § 1004(b). The maximum royalty payment on a digital audio recording device is eight dollars per device, “except that in the case of a physically integrated unit containing more than [one] digital audio recording device, the royalty maximum for such unit shall be [twelve dollars].” *Id.* at § 1004(a)(3).

The distribution of funds is separated between “sound recordings” and “musical works” interest holders. 17 U.S.C. § 1006 (2000). Two-thirds of all royalty payments go into the Sound Recordings Fund. *Id.* Of this, “nonfeatured musicians” get 2 and 5/8 percent and “nonfeatured vocalists” get 1 and 3/8 percent. *Id.* The remaining portions of the Fund goes to “featured recording artists,” which includes artists, who receive 40%, and copyright holders, who receive 60%. *Id.* The Musical Works Fund receives one-third of all royalty payments. *Id.* “The entire Musical Works Fund is allocated to a subset of interested copyright owners different from the subset applicable to the Sound Recordings Fund.” MELVILLE B. NIMMER & DAVID NIMMER, 2 NIMMER ON COPYRIGHT § 8B.05[A][2][a] [2000]. Out of the Musical Works Fund, music publishers get 50% and the writer or composer of a composition gets 50% of the royalty payments. 17 U.S.C. § 1006 (2000). See MELVILLE B. NIMMER & DAVID NIMMER, 2 NIMMER ON COPYRIGHT § 8B.04, 8B.05, 8B.05[C][3]-[4] (2000) for a breakdown of the royalty payment scheme.

29. H.R. REP. NO. 102-780, pt. 1, at 56 (1992).

30. *Id.* at 19.

digital audio recording devices.³¹ This part of the legislation requires that digital audio recording devices prevent *serial copying*.³² Ideally, CDs conforming to the AHRA’s standards and utilizing a SCMS will not have less-than-perfect sound quality.³³

B. The Digital Millennium Copyright Act of 1998

In passing the DMCA, Congress implemented two World International Property Organization treaties on improving copyright protection in the digital era.³⁴ Title I of the DMCA adds a new chapter, Chapter 12, to the 1976 Act. Chapter 12 prohibits “circumvention of technological measures that effectively control access to copyrighted work.”³⁵ There is, however, an exception

31. See 17 U.S.C. § 1002(a) (2000). See also 17 U.S.C. § 1002(c) (2000) (prohibiting circumvention of “any program or circuit which implements, in whole or part, a system set forth in subsection (a)). This prohibition would not apply to SafeAudio and its ilk, because § 1002(a) refers to *serial copying*, while SafeAudio prevents *first-generation copying*; H.R. REP. NO. 102-780, at 32 (1992) (stating “SCMS is intended to prohibit [digital audio recording] devices from recording ‘second-generation’ digital copies from ‘first-generation’ digital copies containing audio material over which copyright has been asserted via SCMS”); S. REP. NO. 102-294, at 36 (1992) (indicating that “[with the SCMS,] [o]ne can make an unlimited number of copies from the original, but one cannot copy the copy”). Because the SCMS places its coding in the digital subcode, a person can make three varieties of copies. First, a person can make only one copy from an original copyright protected source. *Id.* at 37. The second variety prohibits the making of any copies from previously copied sources. *Id.* Third, a person can make unlimited copies from a coded but not copyrighted source. *Id.*

32. 17 U.S.C § 1001(11) (2000) (defining “serial copying” as “the duplication in a digital format of a copyrighted musical work or sound recording from a digital reproduction of a digital musical recording”).

33. See S. REP. NO. 102-294, at 36. The SCMS essentially has four important facets:

- (1) SCMS controls copying done on digital recorders and has no effect on analog recorder operation;
- (2) SCMS limits second generation copying of copyrighted source material and not first generation copying of the original source;
- (3) SCMS will allow only one copy of a copy (two generations) made from an analog source to be recorded;
- (4) the code which triggers the SCMS device is not stored in the same location as the sound signals. *Thus . . . the code does not affect the overall sound quality.*

Id. (emphasis added).

34. H.R. REP. NO. 105-551, pt. 2, at 20 (1998).

35. Katherine C. Spelman & Sarah A. Cunniff, *Copyright Current Developments 2001*, 660 PLI/Pat 7, 27 (2001). See also Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 65 Fed. Reg. 64,556 (Oct. 27, 2000) (to be codified at 17 C.F.R. pt. 201) (announcing two classes of works that are exempt from the circumvention prohibition in the DMCA: (1) “[C]ompilations consisting of lists of websites blocked by filtering software applications,” and (2) “[l]iterary works, including computer

written into the Act for “reverse engineering.”³⁶ This exception allows a person to circumvent security measures for reasons related to *interoperability*³⁷ if the information is not otherwise available.³⁸

Unlike traditional copyright law, the DMCA does not incorporate the fair use doctrine.³⁹ Rather, section 104 of the DMCA called on the Register of Copyrights and the Assistant Secretary of Commerce for Communications and Information to prepare a report for Congress that “examin[ed] the effects of the amendments made by title 1 of the [DMCA] . . . and the development of electronic commerce on the operation of sections 109 [the first sale doctrine] and 117 [which applies to computer programs] of [the 1976 Act].”⁴⁰ The report also

programs and databases, protected by access control mechanisms that fail to permit access because of malfunction, damage or obsolescence”); Melville, *supra* note 9, at 387-88 (stating that “[t]his prohibition against circumventing access control faced opposition in Congress because some lawmakers were concerned that it would ‘impair the availability of public domain works and copyrighted works for noninfringing uses [T]his anti-circumvention approach arguably eliminate[d] the need for the AHRA’s SCMS requirement”).

36. 17 U.S.C. § 1201(f) (2000).

37. *Id.* (defining “interoperability” as the ability of computer programs to use exchanged information).

38. *Id.* (stating “a person who has lawfully obtained the right to use a copy of a computer program may circumvent a technological measure that effectively controls access to a particular portion of that program for the sole purpose of identifying and analyzing those elements of the program that are necessary to achieve interoperability of an independently created computer program with other programs, and that have not previously been readily available to the person engaging in the circumvention, to the extent any such acts of identification and analysis do not constitute infringement”).

39. *See* The Copyright Act, 17 U.S.C. § 107 (2000) (stating the basis for the fair use doctrine).

40. U.S. Copyright Office, *DMCA Section 104 Report* (Aug. 2001), available at <http://www.copyright.gov/reports/studies/dmca/sec-104-report-vol-1.pdf>. The First Sale Doctrine states:

Notwithstanding the provisions of section 106(3), the owner of a particular copy or phonorecord lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy or phonorecord. Notwithstanding the preceding sentence, copies or phonorecords of works subject to restored copyright under section 104A that are manufactured before the date of restoration of copyright or, with respect to reliance parties, before publication or service of notice under section 104A(e), may be sold or otherwise disposed of without the authorization of the owner of the restored copyright for purposes of direct or indirect commercial advantage only during the 12-month period beginning on—

(1) the date of the publication in the Federal Register of the notice of intent filed with the Copyright Office under section 104A(d)(2)(A), or

examined the effect of existing and emerging technology on the operation of these sections.⁴¹ Section 104 of the DMCA, however, does not require the Register or the Assistant to address the DMCA’s effect on the fair use clause. Many commenters were concerned about the extension of the first sale doctrine⁴² to the DMCA, as well as the Act’s effect on the fair use doctrine.⁴³

The fair use doctrine is ostensibly a rule of reason, a balancing test that uses the factors set forth in section 107. However, some of the pending litigation presents a threat that courts will use something closer to a per se rule when dealing with fair use under the DMCA regime.⁴⁴

Opponents of the DMCA, ranging from researchers to librarians to the music-loving public, have a general criticism: the Act’s overbroad language may allow courts to construe the Act in a manner way that prohibits otherwise legal and productive activities.⁴⁵

II. SAFEAUDIO EXPLAINED

Most copy protection schemes “take advantage of small differences between the technical specifications” of CDs and CD-ROMs.⁴⁶ According to Steve Allen of About.com, “while planting false data in the table of contents is part of every copy-protection

(2) the date of the receipt of actual notice served under section 104A(d)(2)(B), whichever occurs first.

17 U.S.C. § 109(a) (2000).

41. *Id.*

42. *Id.* The first sale doctrine provides that a person who knowingly purchases a copy of a copyrighted work from the copyright holder receives the right to sell, display, or otherwise do whatever he wants with that particular copy of the work. *Id.* Once he has disposed of that particular copy, he loses the right to distribute. *Id.*

43. 17 U.S.C. § 107.

44. H.R. REP. NO. 94-1476, at 65 (1976) (“Indeed, since the [fair use] doctrine is an equitable rule of reason, no generally applicable definition is possible, and each case raising the question must be decided on its own facts”).

45. For a general account of DMCA opponents, see Declan McCullagh, *Rep: Give Fair Use a Fair Shake*, WIRED.COM (July 25, 2001), at <http://www.wired.com/news/prints/0,1294,45548,00.html> (stating that “DMCA critics say users should be allowed to circumvent technological protection for research, criticism, or fair use purposes, such as reading an encrypted e-book on another computer”).

46. Steve Allen, *CD Copy Protection Is Here!*, at <http://mp3.about.com/library/weekly/aa090301.htm> (last visited Mar. 15, 2003).

scheme, the most potent techniques . . . involve adding actual errors to the music.”⁴⁷ SafeAudio is a software-based technology applied during the mastering portion of the manufacture of a CD.⁴⁸

SafeAudio prevents the copying of CDs by adding “grossly erroneous values” or “bursts of noise” to the regular signal of a digital music file.⁴⁹ While normal CD players use existing error-correcting techniques to cover up the bursts, CD-ROM drives⁵⁰ cannot fix the sound when transferring the file to another device, like the hard drive on a PC. As a result, the CD-ROM copies will feature loud noises, pops, and crackles.⁵¹

Macrovision “designed [SafeAudio] to prevent or distort high-speed digital copies of music CDs” regardless of the purpose behind making the copies.⁵² This design equates to an indiscriminate interference with the sound quality of products, often without the permission of the artists.

47. *Id.*

48. “CD Mastering is the technical and artistic process of transferring and compiling your studio material to create a CD Master in a format that is ready for Glass Mastering—which is the first stage in CD manufacturing.” Sounds Good—The knowledge, *What is CD Mastering*, at http://www.sounds-good.co.uk/knowledge_mast.htm (last visited Mar. 15, 2003).

49. Barry Fox, *Anti-Piracy CD System Raises Distortion Fear*, NEWSSCIENTIST.COM (July 15, 2001), at <http://www.newscientist.com/news/news.jsp?id=ns9999998>.

50. A CD-ROM drive is a “device that holds and reads CD-ROM discs. CD-ROM drives generally also play audio CD discs by sending analog sound to the sound card via a 4-pin cable.” Techweb, TechEncyclopedia, CD-ROM Drive, at <http://www.techweb.com/encyclopedia/defineterm?term=cd-rom+drive> (last visited Mar. 16, 2003) (on file with the Washington University Journal of Law & Policy). A CD-ROM, which stands for Compact Disc Read Only Memory, is a “compact disc format used to hold text, graphics and hi-fi stereo sound. It’s like an audio CD with spiral, grooved tracks, but uses a different format for recording data. The audio CD player cannot play CD-ROMs, but CD-ROM players can play audio discs.” Techweb, TechEncyclopedia, CD-ROM, at <http://techweb.com/encyclopedia/defineterm=cd-rom> (last visited Mar. 16, 2003) (on file with the Washington University Journal of Law & Policy).

51. See John Iverson, *Copy-Protecting CD’s Begins*, STEREOPHILE (July 23, 2001), available at <http://www.stereophile.com/shownews.cgi?1094>.

52. Macrovision, *Music Copy Protection FAQ*, available at <http://www.macrovision.com/solutions/audio/audiofaq.pdf> (Dec. 2002).

III. ANALYSIS OF SAFEAUDIO IN LIGHT OF THE DMCA AND THE AHRA AND A PROPOSED COURSE OF ACTION

A. Analysis

The DMCA should not prohibit the circumvention of copy-protection software. Three reasons support this proposition: (1) The DMCA’s reverse engineering provision excuses the circumvention of copy-protection software to the point where the Act’s ban loses meaning, (2) the prohibition unconstitutionally discourages creativity in the arts and sciences, and (3) principles of equity demand consumer protection against deceptive practices like producing copy-protected CDs.

First, the Act’s reverse engineering exception to the prohibition should apply. Under the DMCA, circumvention of SafeAudio’s encryption software is permitted to achieve “interoperability”⁵³ in cases where the consumer has “lawfully obtained the right to use a copy” and otherwise does not infringe on copyright law.⁵⁴ Thus, a person can legally circumvent SafeAudio by satisfying three requirements. First, achieving interoperability between the music contained on a CD and the desired source must require the decoding of the SafeAudio Software. Second, a person must have lawfully obtained the right to use a copy by purchasing the CD at a store or through any other legal method.⁵⁵ Third, the act of copying must conform with the fair use doctrine and therefore not otherwise infringe on the Copyright Act.

There is currently a movement to extend the fair use doctrine into the digital world.⁵⁶ Although Congress considered traditional fair use

53. 17 U.S.C. § 1201(f) (2000).

54. *Id.*

55. According to the fair use doctrine, discussed *supra* note 24, a person who has legally obtained a copy of copyrighted music has the right to make copies for personal use. 17 U.S.C. §§ 1001-1010.

56. See Association of Research Libraries, *Fair Use In the Electronic Age: Serving the Public Interest*, available at <http://www.arl.org/info/frn/copy/fairuse.html> (last visited Mar. 16, 2003). Stating:

The fair use provision of the Copyright Act allows reproduction and other uses of copyrighted works under certain conditions The preservation and continuation of these balanced rights in an electronic environment as well as in traditional formats are

issues when crafting the DMCA, it essentially took the teeth out of the traditional fair use exception to copyright law.⁵⁷ Many people now look to judicial or legislative affirmation of this right.⁵⁸ In fact, last year Rep. Adam Schiff (D-CA) announced plans to draft a bill to reduce online piracy through strict copy controls.⁵⁹ The combination of new technology and the limits imposed by the DMCA amounts to the decimation of fair use in the realm of digital music.⁶⁰

Second, the Constitution may provide reason why the DMCA should not prohibit circumvention. Some argue that the DMCA is unconstitutional on free speech grounds,⁶¹ but even without raising

essential to the free flow of information and to the development of an information infrastructure that serves the public interest.

Id.

57. See *supra* note 39 and accompanying text.

58. Although Congress gave lip service to the purpose of maintaining information users' fair use rights, stating that "[fair use] is critical to advancing the personal interests of consumers . . . The Committee has endeavored to specify, with as much clarity as possible, how the right against anti-circumvention would be qualified to maintain balance between the interests of content creators and information users." H.R. REP. NO. 105-551, pt. 2, at 26 (1998), the text of the DMCA seems to contradict those sentiments. Section 102(a)(1), in which Congress claims they "struck a balance," gives the Secretary of Commerce two responsibilities:

The first is to issue regulations against the circumvention of technological protection measures that effectively control access to a copyrighted work. The second is to convene a rulemaking proceeding and, in conjunction with other specified officials, to determine whether to waive the applicability of the regulations for the next two years with respect to any particular category of copyrighted materials.

Id. at 31.

Very little in section 102(a)(1), however, indicates a balance of any kind. Nothing in the section addresses the fair use rights of information users. See Cave, *Copywrong?*, at http://dir.salon.com/tech/feature/2001/08/31/dmca_report/index.html (quoting Eben Moglen, Columbia University law professor and counsel to the Free Software Foundation, who stated "[t]he Library report carefully summarizes the public debate it solicited, while equally carefully failing to respond to any of the real questions that debate raised").

59. Declan McCullagh, *Another Punch for Copy Protection*, WIRED NEWS (Mar. 28, 2002), at <http://www.wired.com/news/politics/0,1283,51400,00.html>.

60. See John Borland, *Labels Loosening Up on CD Copy Locks*, CNETNEWS.COM (Sept. 3, 2002), at <http://news.com.com/2100-1023-956069.html?fd=lede> ("In Washington, Rep. Rick Boucher, D-Va., has led a campaign questioning the legality of copy protection, asking whether the technology would violate consumers' 'fair use' rights to the music they've purchased").

61. See Declan McCullagh, *Russian Adobe Hacker Busted*, WIRED NEWS (July 17, 2001), at <http://www.wired.com/news/politics/0,1283,45298,00.html>. "The recording industry threatened Ed Felten, a Princeton University computer science professor, with a civil suit under the DMCA if he presented his research on copy protection plans, prompting the Electronic Frontier Foundation to file a lawsuit trying to declare the DMCA unconstitutional on free-

this extreme view, it seems that the Constitution would call for a liberal reading of the DMCA with respect to audio copy-protection technology like SafeAudio. The Constitution grants Congress the 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.”⁶² This clause promotes creativity in the arts and inventions for the benefit of the public domain.⁶³ In contrast, technology such as SafeAudio does not seem to promote the arts. In fact, it seems to stifle creativity and growth in the arts.

The conclusion that SafeAudio stifles creativity and growth is reached in several ways. First, the manner in which many artists utilize technology makes it necessary to have access to music via a computer. For example, for an artist to exercise his compulsory cover license right under section 115 of the 1976 Act⁶⁴ or to explore the possibility of creating a potentially legal derivative work of a copyrighted work, the artist may need to create a digital copy of the copyrighted work. In the first case, if a band wishes to “cover”⁶⁵ another artist’s song, the band may need several copies of the song to distribute to other band members in order for all of them to learn the song. In the second case, an artist must typically have access to a sound recording to make a successful derivative work because the artist needs to determine whether he can make a successful derivative before paying for the right to use the copyrighted work. This means the artist needs access to a personal copy with which to experiment. Thus, the inability to make a copy stifles creativity.

The third reason why DMCA’s provisions fail result from

speech grounds.”

62. U.S. CONST. art. I, § 8, cl.8.

63. See *Feist Publications, Inc. v. Rural Telephone Service Co.*, 499 U.S. 340, 349-50 (1991) (holding “The primary objective of copyright is not to reward the labor of authors, but ‘to promote the Progress of Science and useful Arts.’ To this end, copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work.”).

64. 17 U.S.C. § 115 (2000).

65. An artist “covers” a song when he records another version of a previously recorded or written song. Section 115 of the 1976 Act allows a person or artist to distribute a cover of a musical work if the musical work has “been distributed to the public in the United States under the authority of the copyright owner,” and if the person complies with other notice and payment requirements in the statute. 17 U.S.C. § 115(a)(1).

considerations of equity and consumer protection. When traditional copyright law, the AHRA, and the DMCA are viewed as an interdependent web of regulatory and legislative mandates and rules, it becomes clear that the current scheme is unjust and does not make economic sense. Pursuant to the AHRA royalty payment plan, copy technology manufacturers pay copyright holders upfront for the possible future copying of protected works.⁶⁶ The manufacturers invariably include this cost in the price charged to consumers. Therefore, consumers seem to pay for the right to make personal copies of CDs they purchase. With the passage of the DMCA, software such as SafeAudio is permitted to prevent consumers from making personal copies, even though they have paid for this right through the CD's purchase price. If the DMCA is read to prevent consumers from making copies of CDs they have legally purchased, it would destroy the achievement of the AHRA in allowing public access to digital audio recording technology.⁶⁷

Additionally, many record companies do not announce which released CDs utilize SafeAudio.⁶⁸ This raises the concern that consumers may not know that the CD they are purchasing has been manufactured using SafeAudio,⁶⁹ and they might not be able to make

66. See 17 U.S.C. §§ 1004, 1006.

67. See H.R. REP. NO. 102-780, pt.1, at 56 (1992). The House Report demonstrates Congress's concern for consumers:

American consume[r]s have been denied overall access to digital audio recording technology . . . due to litigation . . . [The AHRA] would finally put an end to the legal battles and ongoing disputes over digital audio recording . . . Eventually, this would lead to the widespread introduction of this technology to the American consumer at affordable prices . . . The benefits to consumers of the legislation of release from liability regarding home copying . . . outweigh the limited of burdens [sic] having to indirectly pay royalties

Id. at 21-22.

68. Computer Tracker, *Trouble Brewing Over Copy Protected CDs*, available at <http://www.computertracker.com/2001/7-Aug/page30.html> (last visited Jan. 21, 2003) (on file with the Washington University Journal of Law & Policy) (noting, however, that “[t]he record . . . industry is boasting that sales of copy-protected audio CDs, including one—presumably, a title from country music legend Charley Pride noted by the trade press back in April—that has sold more than 100,000 [copies]”).

69. John Borland, *Compromise for CD Copying Is in the Works*, CNETNEWS.COM (Sept. 28, 2001), at <http://news.cnet.com/news/2009-1023-273619.html> (stating “[a] small sampling of shoppers at a Virgin Megastore in San Francisco found nobody who was even aware that CDs were likely to be guarded against computer piracy.”).

an informed purchase decision.⁷⁰ The possibility that purchasers do not know such technology exists exacerbates this information deficiency. Thus, consumer protection is another concern to address when dealing with CD copy-protection schemes.

Consumers have already filed two lawsuits in matters relating to copy-protected CDs.⁷¹ The first case concerned the release of country singer Charley Pride’s most recent album, “alleging that customers were being misled about the contents of their purchase.”⁷² That case settled out of court.⁷³ The second case involves a class action suit against the five major labels, “charging that the big music companies were selling defective CDs without notifying consumers.”⁷⁴ This case has yet to make its way through the court system.⁷⁵

B. Proposal

Recently, Phillips, the electronics manufacturer that licenses the compact disc logo for both discs and players, announced that it would prohibit the compact disc logo from being used on copy-protected CDs, and that “future models of Phillips players would both read and burn the copy-protected discs.”⁷⁶ While the presence of the compact

70. Computer Tracker, *supra* note 68. For example, Macintosh computers may not play audio CDs manufactured with SafeAudio. *Id.* Further:

Andy McFadden’s CD-R FAQ explanation of the scheme . . . [states that the design] to create discs that will play back correctly on a CD player, but won’t ‘rip’ or copy correctly on a CD-ROM drive, indicates that there may be a conflict with modern Macintoshes, which use digital extraction to play audio CDs rather than an analog path.

Worse, McFadden warns that any discussion on how to work around the problem might be illegal under the terms of the Digital Millennium Copyright Act.

Id.

71. See Borland, *supra* note 60.

72. *Id.*

73. *Id.*

74. *Id.*

75. *Id.*

76. Paul Boutin, *Phillips Burning on Protection*, WIRED NEWS (Feb. 4, 2002), at <http://www.wired.com/news/politics/0,1283,50101,00.html>. But see Macrovision, *supra* note 52 (stating “Macrovision recommends that the compact disc logo not be applied to copy-protected CDs, as there is debate in the industry as to whether copy-protected CDs are supported by the logo licensing entity.”). The company also recommends that copy-protected CDs carry a warning label notifying the consumer that the CD may not be playable on some platforms.

disc logo may be of no importance to the average consumer, this action underscores the fact that some major players in the industry oppose the proliferation of such copy protection schemes.

Since the introduction of CDs into the market two decades ago, people have been able to legally record personal copies of the CDs they legally purchased under the fair use doctrine. Within the past decade, the general public gained access to digital copying technology and the ability to make digital copies of those CDs. Consumers include the capability to make copies in their cost analysis decision of whether or not to purchase a CD.⁷⁷ Copy protection technology prevents consumers from using their legally purchased CDs in many traditional ways.⁷⁸

This argument should not be construed as claiming that the SCMS system is, in and of itself, detrimental to listener's rights or sound quality.⁷⁹ The SCMS system, as ideally envisioned, seems to propose a sufficient solution to most of the issues raised in this Note. In fact, effort went into making sure that the SMCS system would not

Ultimately, however, the record companies that release the albums have the power to decide whether or not to comply. *Id.*

77. See Matthew Broersma, *Consumers Attack CD Copy Protection*, ZDNET UK (Oct. 29, 2002), at <http://news.zdnet.co.uk/story/0,,t277-s2124661,00.html>. Broersman states:

In a series of US interviews with 1,005 adults and 1,009 teenagers, analysts GartnerG2 found that most consumers believed that copy-protected CDs stopped them from carrying out a legal right to make personal-use copies of discs.

...

... 82 percent of respondents believe[d] it is legal to make copies of CDs for personal backup purposes, while 77 percent think they should be able to copy the CD for personal use in another device. Sixty percent thought it was legal to make a copy for another member of the household.

Id. After all, consumers already pay for this right through the royalty payment scheme of the AHRA. See *supra* notes 28, 66.

78. If CDs were sold with the condition that consumers could only listen to them on one CD player, common sense dictates that the utility of those CDs would severely decline. Additionally, severe due process limitations would result if this prohibition made listening to such a CD on more than one CD player a *criminal* activity and did not inform the consumer that the particular CD they were purchasing had criminal liabilities attached to it for performing acts that would otherwise be legal.

79. See Melville, *supra* note 9, at 398 (“[m]aking a copy to give to another person is arguably authorized by the AHRA because a personal copy made under the AHRA is owned by the copier, and any transfer of that copy without commercial gain would therefore be allowed under the first sale doctrine.”) (citation omitted).

contain many of the undesirable effects to sound quality that appear to plague SafeAudio.⁸⁰ The SCMS system does not affect the sound quality of recordings, whereas SafeAudio allegedly does.⁸¹ Even if technology such as SafeAudio technically allows copies to be made, the significant damage and distortion to the quality of the recording produces a constructive violation of the policy argument stated above.

The practical difficulties associated with a universal copy protection system are numerous. New CDs would have to work in old CD players. New CD players would have to play old CDs. A system in which new CD players would not be able to play illegally copied CDs would require market saturation and an understanding that there will always be small, independent bands and labels releasing music that may not have the money to incorporate new, possibly expensive technologies into their business plans. It will take a long time for market saturation of new CD players because old CD players will necessarily retain the ability to play new CDs.

One way or another, individuals will find a way to make copies of their favorite music. The vast majority will not do it to make money or to exploit artists. They will do it because they love music and will stop at nothing to obtain and listen to their favorite songs and artists.⁸²

80. See S. REP. NO. 102-294, at 37 (1992) (noting that the SCMS differed from previous copy-protection efforts because the technology involved in the SCMS system did not affect the sound quality). See also *id.* at 32 (stating that SCMS's predecessor, the "Copycode" system, failed and had been found to have "altered the audio signal, which some listeners claimed resulted in a degradation of the sound quality").

81. Several professional and amateur webpages feature commentaries and editorials claiming to find reduced sound quality on CDs using the SafeAudio technology. See Graeme Bennett, Editorial, *'SafeAudio' Sucks*, PC BUYER'S GUIDE.COM (Aug. 5, 2001), at <http://thetechnozone.com/pcbuyersguide/editorials/editorial-SafeAudioSucks.htm> (on file with the Washington University Journal of Law & Policy). See also Borland, *supra* note 69 (describing "songs [distributed in SafeAudio-protected CDs full of audible cracks and pops]"); Althea Legaspi, *Super (Un-Copyable) Audio: Labels Take A Stand Against Piracy*, ILLINOIS ENTERTAINER, at <http://www.illinoisentertainer.com/2001/August/News1831.shtml> (last visited Mar. 15, 2003) (SafeAudio "will sound marred if copied from a PC."); Wendy McAuliffe, *Michael Jackson Rocks the Copy-Protection World*, ZDNet UK (Sept. 25, 2001), at <http://news.zdnet.co.uk/story/0,,t287-s2095931,00.html> ("[I]n some cases the corruption is so severe that the reliability and sound quality of the CD is damaged as a result.").

82. Examples such as the two Canadian students behind FairTunes.com have emerged as proof of the idea that people who copy digital music do not do so to steal from the record

Of course, there will still be a small handful of people that will try to make money from selling illegal copies of copyrighted music by as original copies or practicing music piracy.⁸³ According to the Recording Industry Association of America (“RIAA”), piracy “generally refers to the illegal duplication and distribution of sound recordings.”⁸⁴ People who practice music piracy should be prosecuted to the fullest extent of the law under the Copyright Act. However, the current trend of trying to prevent the fair use copying of songs from CDs to computer hard drives is not the way to prevent piracy.⁸⁵

industry or engage in music piracy, but instead, these people act to take advantage of the most convenient, fast, and practical way to obtain new music in the digital age. On their website, Fairtunes.com, the digital philanthropists collected so-called “guilt money” from people who wished to donate money to the artists from whom they had freely downloaded music in the past. In one and a half months, they collected over \$3264 and distributed that sum to 230 musicians. Janelle Brown, *Ethical Music Piracy*, SALON.COM (Oct. 5, 2000), at <http://www.salon.com/tech/log/2000/10/05/fairtunes/>.

83. See *Sharp Rise in Music Piracy*, BBC NEWS (June 12, 2001), available at http://news.bbc.co.uk/1/hi/entertainment/new_media/1384774.stm (quoting Jay Berman of the International Federation of the Phonographic Industry, who stated “there’s a difference between the kind of copying that takes place in someone’s house, where you make a copy from one that you’ve purchased—and copying from an MP3 file, or using CD-Rs as a commercial pirate. Now commercial pirates, instead of using industrial processes, are using CD copiers. A guy puts 50 to 100 CD burners in a garage—and you don’t know where it is.”).

84. The Recording Industry Association of America, available at <http://www.riaa.org/Protect-Campaign-1.cfm> (last visited Mar. 13, 2003). The RIAA has identified four different types of piracy:

1. Pirate recordings are the unauthorized duplication of *only* the sound of legitimate recordings, as opposed to all the packaging, i.e. the original art, label, title, sequencing, combination of titles etc. This includes mixed tapes and compilation CDs featuring one or more artists.
2. Counterfeit recordings are unauthorized recordings of the prerecorded sound *as well as* the unauthorized duplication of original artwork, label, trademark and packaging.
3. Bootleg recordings (or underground recordings) are the unauthorized recordings of live concerts, or musical broadcasts on radio or television.
4. Online piracy is the unauthorized uploading of a copyrighted sound recording and making it available to the public, or downloading a sound recording from an Internet site, even if the recording isn’t resold. Online piracy may now also include certain uses of “streaming” technologies from the Internet.

Id.

85. See Melville, *supra* note 9, at 395 (arguing that, based on the Court’s interpretation of the AHRA in *RIAA v. Diamond Multimedia Sys.*, 180 F.3d 1072 (9th Cir. 1999), “a computer can be used to legally circumvent the SCMS copyright protections placed on any second generation copy simply by copying the song to the hard drive,” but noting that circumventing the SCMS protections “appears unlawful under the DMCA because protection system encoding

Even if the AHRA does not prohibit CD manufacturers from utilizing such technology as SafeAudio, the record-buying public will not stand for it.⁸⁶ According to one commenter, “[t]he battle over music piracy is like the war on drugs: You can’t win it, but you can fight it forever, and spend millions on the battle.”⁸⁷ The RIAA has not completely overreacted, and the association cannot be faulted for wanting to enforce their rights in copyright. While the majority of CD-copiers do not engage in large-scale music piracy,⁸⁸ there is indeed enough piracy to warrant the attention of the recording industry.⁸⁹

The most effective way to clean up this problem would involve the complete overhaul of copyright legislation. Congress should discard the Copyright Act of 1976, the AHRA, and the DMCA (and others) and redraft the protections into one comprehensive piece of copyright legislation that accounts for current technology, allows room to develop new, protective technology (as the DMCA did), and abandons phraseology that originated in the pre-World War II era. This solution, however, would not be easy or practicable. The time and money needed to complete such an ambitious project are prohibitive. Additionally, pre-overhaul jurisprudence would surely carry into post-overhaul litigation.

is being circumvented”).

86. See Borland, *supra* note 69 (quoting Jupiter Research analyst Aram Sinnreich as saying, “I think the reality here is that none of these (CD copy-protection) techniques is going to be successful in the long term. They’re fraught with technical difficulties, and if they did surmount those, they would meet with a severe consumer backlash”) (internal quotation marks omitted).

87. Jesse Berst, *Why Technology Can’t Stop Music Piracy*, ZDNET (Jan. 24, 2001), at <http://www.zdnet.com/anchordesk/stories/story/0,10738,2677668,00.html>.

88. *But see* Amy Harmon, *Online Piracy Fight: Next Up, Consumers*, N.Y. TIMES, Dec. 31, 2001, at C3; John Schwartz, *Trying to Keep Young Internet Users From a Life of Piracy*, N.Y. TIMES, Dec. 25, 2001, at C1.

89. 1,257,796 illegal CD-Rs were seized by the middle of 2001. The Recording Industry Association of America, at http://www.riaa.org/News_Story.cfm?id=457 (last visited January 11, 2002). This figure shows a 133% rise from the 539,130 CD-Rs seized by mid-year 2000. *Id.* The RIAA was involved with “the execution of search warrants at 72 illicit distribution locations and 34 manufacturing operations, seizing a total of 604 CD-R burners in the process. This number is approximately equal to the total number of burners seized in all of 2000.” *Id.* See also Ashling O’Connor, *Music Industry Burned By the Blank Generation*, FINANCIAL TIMES (Nov. 25, 2001), available at <http://news.ft.com/ft/gx.cgi/ftc?pagename=View&c=Article&cid=FT3QP3V2HUC&live=true> (noting a decline in record sales and an increase in recordable CDs sales in 2001).

A second option would involve implementing technology that prevents pirate-scale copying of CDs, but allows the burning of single copies. This is what the SCMS tried to accomplish.⁹⁰ Unfortunately, this is simply a distant technological solution. Additionally, in the information age technological solutions are anything but permanent. For this option to work, it must become a piece of a larger integrated solution that accounts for the new and complex issues that have appeared with the development of the digital music/Internet paradigm.

A third option would restructure the music industry licenses similarly to the way the software industry uses licenses.⁹¹ This approach has the limitation of not affecting all musical works and sound recordings produced prior to the restructuring. Again, this solution would be purely technological. Other unsatisfying solutions certainly exist, but, for the time being and in light of current technology and current legislation, an integrated solution is necessary.

The RIAA, the music-listening public, and musicians need to come to a new understanding and realization that we live in a society with the Internet, in which friends trade easily exchanged and widely available music.⁹² People will likely reject,⁹³ and almost always overcome, technological cures to the illegal copying problem.⁹⁴ A

90. See 17 U.S.C. § 1002 (2000). See also *supra* text accompanying note 31.

91. See generally Batya Goodman, Note, *Honey, I Shrink-Wrapped the Consumer: The Shrink-Wrap Agreement as an Adhesion Contract*, 21 CARDOZO L. REV. 319 (1999).

92. It appears that some in the industry have begun to understand this. See Gwendolyn Mariano, *Attacking Piracy at the Source: CDs*, CNET NEWS.COM (July 28, 2000), at <http://news.com/2100-1023-243806.html?legacy=cnet> (quoting EMI's senior vice president, Jay Samit, as saying "We're working very hard to make buying music as easy as stealing music. And we're also working hard to make stealing a hell of a lot harder") (internal quotation marks omitted).

93. *Id.* (stating "[T]he industry must tackle considerable nontechnical issues, including potential consumer backlash and legal uncertainties over curtailing copying for personal use.>").

94. At the time of this Note, someone had allegedly already bypassed the SafeAudio software. See Tony Smith, *Anti-Rip CD System Bypassed*, THE REGISTER (June 8, 2001), at <http://www.theregister.co.uk/content/54/20766.html>. The author states:

"Macrovision's SafeAudio technology, designed to prevent PC-owning music fans from ripping CD tracks onto their hard drives, has been bypassed.

...

The bypass, highlighted by European Web site CD Freaks, converts the disc tracks to

more basic and fundamental solution must exist. Some record companies have actually slowed down their rollout of copy-protected CDs to the public.⁹⁵ Universal Music, who in the fall of 2001 had been among the biggest advocates for rolling out copy-protected CDs as quickly as possible, had, by the fall of 2002, only released three relatively low-profile, copy-protected albums.⁹⁶

Currently, SunnComm and Macrovision⁹⁷ have perhaps put forth the best solution,⁹⁸ although even this has drawbacks. The Macrovision and SunnComm solution provides two different copies of the music on each CD.⁹⁹ A consumer can play the first on any

.wav files in RAM and mounts them as readable volumes. At that point any .wav app can handle the rip. The bypass uses a custom VXD virtual device driver file.

Id. See Mark Ward, *Legal challenge to US piracy law*, BBC NEWS (June 7, 2001), available at <http://news.bbc.co.uk/1/hi/sci/tech/1375151.stm> (describing the lawsuit brought by the Electronic Frontier Foundation on behalf of a group of researchers against the RIAA, the SDMI development group, the US Justice Department, and the technology company Verance). Upon the invitation of the RIAA to test the security of proposed technologies, the researchers cracked five of the six systems. However, according to the DMCA, the RIAA did not allow the researchers to release to the public any of their findings on bypassing the systems. *Id.*

95. See Borland, *supra* note 60.

96. *Id.*

97. See Macrovision, *supra* note 52 (describing the second session encrypted ‘Yellow Book’ file on a CD, an option available on SafeAudio). The problem with the ‘Yellow Book’ option is that the record company releasing the CD maintains all power to decide whether or not to take advantage of the option. *Id.* Macrovision also makes a weak attempt at addressing the issue of whether or not SafeAudio decimates fair use. *Id.*

98. See Borland, *supra* note 69.

Over the next few months, CDs will begin showing up that include a second version of the album on the CD in a compressed computer audio format. Macrovision and SunnComm have chosen to use Microsoft’s Windows Media Audio for these files, which record buyers will be able to drag and drop right onto their computer. Although this will be faster and likely easier than ordinary ripping, the files will have limitations that prevent them from being traded online, or from serving as the source for unlimited copies. A modified version of this approach has already been used by SunnComm, which provided links on a CD to a Web site where compressed audio versions of the songs could be downloaded. However, record executives who don’t want to rely on music fans having a fast Net connection to listen to music are now placing such files on the discs they sell through stores.

Id. However, “[o]n his CD-R information site, a popular resource for recordable CD technology, software engineer Andy McFadden tells his own story of how he was able to get a digital copy of a SunnComm-protected CD.” *Id.*

99. *Id.*

audio CD player, but the technology would prevent him from playing or ripping songs to computers.¹⁰⁰ The second copy provides the purchaser the music in play-only format, usable in any one of several computer applications (in this case, Microsoft's Windows Media Audio).¹⁰¹ This solution addresses the issues of preventing unauthorized pirating and of protecting consumer fair use rights, but still does not allow for legal, personal *copying* of music from CD's onto one's computer for the purposes of transferring the songs onto portable Mp3 players or mix CD's.

CONCLUSION

As the recording industry drags its feet into the Internet Age kicking and screaming,¹⁰² other interested parties, such as the artists and the government, have begun to take the matter into their own hands.¹⁰³ The United States has targeted countries that allow illegal

100. *Id.*

101. *Id.*

102. The recording industry attempted to organize itself to help prevent digital copying with the formation of the Secure Digital Music Initiative ("SDMI") in 1998:

The Secure Digital Music Initiative (SDMI) is a forum that has brought together more than 200 companies and organizations representing information technology, consumer electronics, security technology, the worldwide recording industry, and Internet service providers. SDMI's charter is to develop open technology specifications that protect the playing, storing, and distributing of digital music such that a new market for digital music may emerge.

SDMI at <http://www.sdmi.org/> (last visited Mar. 16, 2003); See also John Borland and Gwendolyn Mariano, *Anti-Piracy Feud Bodes Ill for Web Music*, NET NEW.COM (Nov. 26, 2001), at <http://news.cdm.com/2100-1023-276140.html?legacy-cnet&tag=ovw> (noting the failure of the SDMI to develop a common method of adding "anti-piracy features to digital playback devices"). Some companies such as Walt Disney are "pushing for a legislative version of SDMI that would force all digital devices to include content protection technology." *Id.* This legislation has not yet occurred, "and growing opposition from powerful technology companies appears likely to sink it." *Id.*

103. At least one major record label, EMI, has announced plans to move ahead with a program that allows consumers to purchase music online and then burn the digital files onto CDs. See Dawn C. Chmielewski, *Targeting Piracy of Music CDs: Record Label EMI Joins With Roxio of Milpitas*, available at <http://www.siliconvalley.com/docs/news/depth/roxio060501.htm>, (last visited Jan. 12, 2002). EMI's plan is significant because it shows that at least one player in the industry recognizes the need to allow consumers to make copies of their music. *Id.* "[O]nly one record company has embraced this approach. And therein lies its drawback. 'The fact that you can burn EMI music is interesting,' said P.J. McNealy, a digital media analyst for the Gartner Group. 'But it gets compelling when the big five are all

pirating of U.S.-copyrighted music to occur on a much greater level than what occurs in the United States by threatening the offending nations with economic sanctions.¹⁰⁴ On the other hand, some artists have simply choose to bypass the bureaucratic and profit consuming nature of major record labels by releasing their albums independently on the Internet.¹⁰⁵ Unfortunately, and as a sign of the complexity and sometimes contradictory problems facing the RIAA and the courts dealing with these issues, even when the record companies take seemingly positive steps to combat piracy, they face obstacles not

involved.” *Id.*

104. In December, 2001, the United States imposed “sanctions on \$75 million worth of metals, footwear and other goods from Ukraine in retaliation for piracy of music compact discs and other optical media products in that country.” Reuters, *U.S. Imposes Sanctions on Ukraine in CD Piracy Row* (Dec. 21, 2001), available at <http://www.cdrinfo.com/Sections/News/Details.asp?index=1587>. According to the U.S. Trade Representatives Office, \$75 million is the amount the U.S. loses to piracy in Ukraine each year. *Id.* See also O’Connor, *supra* note 89 (“The country worst affected by piracy is China, where it accounts for 90 per cent of music sales. It is also common in eastern Europe, where it is entangled with local organised crime such as gun-running and credit card fraud.”); *Sharp Rise in Music Piracy*, *supra* note 83 (“The IFPI report lists China, Russia, Mexico, Brazil and Italy as the top five countries in its priority list in terms of domestic piracy. Countries in South East Asia and Eastern Europe, particularly Ukraine, top the list of manufacturers and exporters of pirate product.”).

105. See Darryl Chamberlain, *Entertainment Taming Music on the Web*, BBC NEWS (Apr. 22, 1999), available at <http://news.bbc.co.uk/1/hi/entertainment/325301.stm> (noting that such popular and successful artists as Tom Petty, Alanis Morissette, the Beastie Boys, and Public Enemy have either exclusively released music over the Internet or have supported the use of the Internet as a music distribution tool); Julene Snyder, *Musicians Find Net Success Without Record Labels*, CNN.COM (May 10, 2001), at <http://www.cnn.com/2001/TECH/internet/05/10/music.net.success.idg/index.html> (describing the entire state of the music industry and the response of “former major-label artists to go independent and [use] technology to their [financial and creative] advantage”; Sara Trathen, *The New Wave in Music Distribution: Releasing Albums over the Internet*, 1999 B.C. INTELL. PROP. & TECH. F. 111401, available at http://www.bc.edu/bc_org/avp/law/st_org/iptf/headlines/content/1999111401.html (last visited Mar. 16, 2003) (“David Bowie recently became the latest . . . artist to release [an] album . . . on the internet. Bowie is avoiding retail stores altogether, a move that has potential for long-term effects on the distribution side of the music business. Many are predicting the failure of major labels.”).

only from consumers, but sometimes from the artists too.¹⁰⁶ Despite the difficulties in balancing all interests, all parties involved must learn how to take advantage of this new technology without trampling the rights of those holding copyrights. As of now, it seems that the music-loving, album-buying fans, the recording industry, and the federal government have their work cut out for them.

106. See Chuck Philips and Jon Healey, *Round 2 of Online Music Battle Begins*, L.A. TIMES, Dec. 10, 2001, at C1 (describing “dozens of angry artists” seeking to prevent their songs from being distributed through online distribution companies MusicNet and PressPlay).