THE FUTURE OF THE AUDIO HOME RECORDING ACT OF 1992: HAS IT SURVIVED THE MILLENNIUM BUG?

Aaron L. Melville

I. Introduction 1
II. Defining The State Of Digital Music Copyright Law And The Impact Of New Technology .. 4
A. Addressing the Challenges of Digital Music - The Audio Home Recording Act of 1992 6
1. The Emergence of Digital Music Technology 6
2. The AHRA and Its Purpose 11
B. Evolving Technology Requires New Legislation - The Digital Millennium Copyright Act of 1998 14
1. Trends in the Distribution of Music - MP3 and the Impact of the Internet 16
2. The DMCA and Its Purpose 21
III. A Conflict in the Law - Recent Litigation Strains the AHRA 25
A. An Application of the AHRA - RIAA v. Diamond Multimedia 25
1. A Case of First Impression 25
2. The Ninth Circuit's Application of the AHRA 30
B. Implications of the RIAA Holding 34
IV. An Approach for the New Millennium - Broadening the AHRA 37
A. The AHRA's Lack of Clear Intent 38
1. Does the AHRA Address Music Piracy? 38
2. The Real Music Pirates 41
B. Revising the AHRA to Embrace the Future 44
1. Striving to Meet Technological Advances 44
2. Proposed AHRA Revisions 47
V. Conclusion 50

I. INTRODUCTION

Who has not heard the terms "Y2k compliant" and "millennium bug?" These familiar phrases invaded every aspect of life in the final years of the 20th century.[1] A person was bound

[1] *See What is Y2K?* (last modified Nov. 21, 1999) <http:// www.y2k.gov/java/abouty2k1.html>. The official U.S. government Y2K Internet site states that the Y2K problem is caused by a "shortcut" used in many computers and microchips. *See id.* Years ago, to conserve memory space, programmers used two numbers to record the year -- for example, 72 would mean 1972. *See id.* Unfortunately, computers and microchips that still use a two-number year will, on January 1, 2000, recognize 00 not as the Year 2000 but as the Year 1900. *See id.* This could cause them to either shut down or generate incorrect data. *See id.*

to notice a reference to this esoteric concept when browsing the Internet,[2] watching any television program, or even paging through a local newspaper. Corporations and governments worldwide spent billions of dollars preparing computer systems for the turn of the century,[3] but before the stroke of midnight they still waited anxiously, hoping that January 1, 2000 would arrive without consequence.[4] The Y2k experience was a prime example of how technological advances are not always as "advanced" as they seem.

The law is not immune from the challenges presented by changing technology. Congress spends more and more time each year debating law and technology topics, typically resulting in new legislation,[5] and the judiciary is continuously immersed in battles over high-tech patent infringement and Internet copyright and trademark violations.[6] In fact, there was even federal

---

[2] *See* Reno v. American Civil Liberties Union, 521 U.S. 844, at 849-850 (1997) (stating that the Internet is an international network of interconnected computers that now enables tens of millions of people to communicate with one another and to access vast amounts of information from around the world).

[3] *See Worldwide Spending Through 2001 on Y2K Correction* (last modified Sept. 21, 1998) <http://www.idc.com/Press/Archive/092198Apr.htm> (stating that the "total worldwide spending [to correct the Y2K problem] from 1995 to 2001 will reach $296.74 billion").

[4] *See Officials make final Y2K preparations* (last modified Dec. 29, 1999) <http://www.usatoday.com/life/cyber/tech/ctg994.htm> ("Federal officials said Wednesday they are prepared to respond quickly and can draw on resources from as many as 26 federal agencies and the Red Cross if any Y2K emergencies arise this weekend."); *see also* Matt Richtel, *Expecting a Whimper, but Preparing for a Bang* (last modified Dec. 30, 1999) <http://www.nytimes.com/library/tech/99/12/biztech/articles/30Y2K-preparation.html> (commenting on citizen reaction to the Y2K craze).

[5] For instance in 1998 alone, three new laws were enacted relating to copyright protection. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998); Sonny Bono Copyright Term Extension Act, Pub. L. No. 105-298, § 101, 112 Stat. 2827, 2827 (1998); Fairness In Music Licensing Act of 1998, Pub. L. No. 105-298, §§ 202-205, 112 Stat. 2827, 2830-2834 (1998).

[6] *See* Melvin Simensky & Eric C. Osterberg, *The Insurance And Management Of Intellectual Property Risks*, 17 CARDOZO ARTS & ENT. L.J. 321, 321 (1999) (noting that "[t]here were 1198 more intellectual property infringement lawsuits filed in the federal courts in 1996 than there were in 1992. This is an increase of twenty percent over the five-year period").

legislation passed dealing directly with the Y2K issue and the litigation that may result from it.[7] It sometimes seems that the only certainty present with new technological advances is the problems they will bring.

One of the current high-profile technology legal issues is the struggle over digital music distribution via the Internet.[8] The rapid advancement of the Internet has enabled almost anyone to easily download music, legally or illegally, to his or her personal computer.[9] These high-tech advancements have begun to challenge and strain copyright laws regarding music on the Internet, causing some commentators to suggest that the laws lack the scope and power to keep illegal music distribution from proliferating.[10] This note analyzes one of these laws—the Audio Home Recording Act of 1992 ("AHRA")[11]—and contends that it has rapidly become outdated and is no longer effective in protecting the rights of music consumers and producers as was originally intended by Congress. Specifically, the note discusses the AHRA's main purpose of legalizing home recording, and its auxiliary purposes of establishing a royalty system by which the music industry is compensated for the losses stemming from that home recording, and mandating technology-based copy protection systems. It then addresses the impact of recent copyright

---

[7] *See* The Year 2000 Information and Readiness Disclosure Act, Pub. L. No. 106-37, 113 Stat. 185 (1999) (codified as amended at 15 U.S.C. §§ 6601-6617); *see also* Lino S. Lipinsky & Erin A. McAlpin, *Legislative Approaches To The Year 2000 Computer Problem*, 28 COLO. LAW. 71, 72 (1999) (stating that the Y2K Information and Readiness Disclosure Act "seeks to prevent Y2K failures by encouraging business-to-business communication on readiness, strategies, tools, and other information related to Y2K remediation efforts. IRDA is intended to encourage companies to make truthful statements about their Y2K readiness, without fear that their statements will become the basis of future litigation").

[8] *See* Christine M. Rigney, *The Infamous Diamond Case: What Is At Stake?*, 5 No. 4 INTELL. PROP. STRATEGIST 1, 1 (1999) (introducing the debate over copyright implications of music downloaded over the Internet).

[9] *See infra* Part II(A)(1), at 5 (providing an in-depth discussion of Internet music technology).

[10] *See* Richard Raysman & Jill Westmoreland, *Fresh Battles Over Digital Music: The Sound and the Fury*, 5 No. 11 INTELL. PROP. STRATEGIST 1, 2 (1999).

[11] 17 U.S.C. §§ 1001-1010 (1994).

legislation entitled the Digital Millennium Copyright Act ("DMCA")[12] and recent federal court decisions that may together call into question the effectiveness of the AHRA.[13]

Part II begins the analysis by defining the current state of digital music legislation, including discussions of the purposes of the AHRA and the DMCA and a summary of the trends in Internet technology and digital music distribution. Next, Part III provides an analysis of the recent, high-profile AHRA litigation.[14] This is followed by a discussion of the implications of the holding, and the contention that (1) the law was misapplied in light of the current state of digital music technology, and (2) the AHRA has failed to keep up with the evolving demands placed on it. Finally, Part IV discusses a new approach to the application of the AHRA and proposes changes to the language to realign its scope with the original intent of Congress, while enabling the development of new technologies. Overall, these changes will better protect the rights of music producers and consumers.

II. DEFINING THE STATE OF DIGITAL MUSIC COPYRIGHT LAW AND THE IMPACT OF NEW TECHNOLOGY

Copyright protection is authorized by the Constitution,[15] and Congressional application of copyright protection to music dates back as far as an 1831 revision of the Copyright Statute.[16]

---

[12] Pub. L. No. 105-304, 112 Stat. 2887 (1998) (codified as amended in scattered sections of 17 U.S.C. and 28 U.S.C.).

[13] *See* Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., 29 F.Supp.2d 624 (C.D. Cal. 1998), *aff'd* 180 F.3d 1072 (9th Cir. 1999).

[14] *See id.*

[15] *See* U.S. CONST. art I, § 8, cl. 8 (providing an express provision for copyright protection "[t]o promote the . . . useful Arts, by securing for limited Times to Authors . . . the exclusive Right to their respective Writings and Discoveries").

[16] *See* Act of Feb. 3, 1831, ch. 16, 4 Stat. 436 (revising federal copyright law in 1831 to expand copyright protection to include musical compositions).

The rights first granted in 1831 and subsequently revised to their present form[17] have enabled music composers, performers, producers and distributors to build a large and successful recorded music industry.[18] The industry is growing and continues to be very lucrative, with 1998 sales of recorded music reaching $13.7 billion.[19]

Traditionally, music industry companies have achieved success by controlling the market and the release of new musical works.[20] In fact, five dominant companies control 85% of recorded music sales.[21] Many recording artists and music consumers believe this system stifles creativity and limits the availability of new and alternative types of music to only what the dominant companies believe will result in a profit.[22] One commentator also maintains that these companies "maintain absurdly high, cartel-like prices on CDs, despite plummeting costs of technology."[23]

---

[17] *See* The Copyright Act of 1976, Pub. L. No. 94-553, 90 Stat. 2541 (1976) (providing the general revision and new primary framework for the current copyright law in Title 17 of the United States Code).

[18] *See* Heather D. Rafter et al., *Streaming Into the Future: Music and Video on the Internet*, 547 PLI/PAT 605, 611 (1999) (stating that "[t]he traditional sale of music to consumers has been dominated by a small group of large record labels that sell directly to large retailers or through large distributors to a vast array of local retailers").

[19] *See* Recording Indus. Ass'n of Am., *1998 U.S. Record Sales* (last modified Oct. 24, 1999) <http://www.riaa.com/stats/stusrs.htm> (detailing the 1998 year-end statistics for all domestic record sales).

[20] *See* Ross J. Charap & Jessica L. Rothstein, *O'er the Ramparts We Watched: The Struggle to Control the Distribution of Music on the Internet*, INTELLECTUAL PROPERTY TODAY, 18, 18 (1999) (commenting that music distribution has been traditionally controlled by the largest recording companies and their various labels, which today includes BMG, EMI, Sony, Universal and Warner Bros.).

[21] *See id.*

[22] *See* Rafter et al., *supra* note 18, at 611 (stating that large record companies have limits on the ability to find and support new artists, with the result that many musicians never get a chance to be published and promoted by an established record company).

[23] Bill Machrone, *Reinventing the Music Biz* (last modified Sept. 6, 1999) <http://www.zdnet.com/pcmag/stories/opinions/0,7802,2327770,00.html>.

Until recently, the only threat to the big five companies were small, independent-label record companies, established to battle corporate dominance of the market and return some creative control to the artists.[24] The biggest problem with the small labels is their inability to market their music on a national or international level, mostly due to a lack of cost-effective distribution channels.[25] However, in the mid-1990s a new industry and medium began to impact the traditional music industry and has proceeded to threaten the status quo of the big five companies.[26] That industry is high technology and the medium is the Internet.

A. ADDRESSING THE CHALLENGES OF DIGITAL MUSIC - THE AUDIO HOME RECORDING ACT OF 1992

1. The Emergence of Digital Music Technology

Modern recording techniques utilize digital technology to accurately record and playback any type of music without static or background noise.[27] These digital recording advances have been integrated into consumer electronic devices, greatly improving the sound quality of prerecorded music.[28] However, the earliest devices—compact disc ("CD") players—were not able to record digital music.[29] In this new "playback only" medium, record companies found a massive consumer market that wanted to update their existing music collection to the new and

[24] *See* Rafter et al., *supra* note 18, at 611 (noting that "[s]o-called "independent" record labels or "Indies" have provided an alternate way for new artists to record and distribute albums").

[25] *See id.* (stating that there are high costs associated with distribution via normal channels).

[26] *See id.* at 612 (commenting on the attractiveness of the Internet as a method of distribution for new artists).

[27] *See infra* note 52 (providing an explanation of analog and digital music recording).

[28] CD players, Digital Audio Tape ("DAT") players, MiniDisc Players and Digital Video Disc ("DVD") players are currently the most common.

better-sounding CD technology.[30] This trend proved very profitable to the record companies during the 1980s.[31] However, technology soon advanced to the point where digital copies, capable of the same sound quality as the original, were easy to produce and widely available. The problem with these new capabilities was the increased threat of music piracy.[32]

Although views among commentators may differ slightly, music piracy is generally thought of as the unauthorized copying and sale of copyright protected music.[33] Owners of music copyrights have always been injured by music piracy, [34] but until the advent of digital technology a pirate's ability was hampered by re-recording capabilities in the analog consumer electronics market. Copies of original recordings made on conventional tape were of degraded sound quality, and a copy of a copy was even worse. This reduced sound quality of copies basically held music piracy in check because the number of consumers willing to purchase pirated copies of music was minimal.[35] However when digital recording devices were

---

[29] *See* A. Samuel Oddi, *Contributory Copyright Infringement: The Tort and Technological Tensions*, 64 NOTRE DAME L. REV. 47, 92 (1989) (stating that "[t]he compact disc system is . . . a "playback only" system, as CD players do not have recording capability").

[30] *See Musicmaker.com, Inc. IPO Filing* (last modified Feb. 19, 1999) < http://www.e-analytics.com/ipo/1999/february/mmkr.htm> (commenting that "[d]uring the last ten years much of the [music] industry's growth resulted from consumers replacing existing record or tape music collections with CDs").

[31] *See id.*

[32] *See* H. R. REP. NO. 105-551(II) (1998), *available in* 1998 WL 414916, at *75 (stating that in contrast to analog technology, "[d]igital technology enables pirates to reproduce and distribute perfect copies of works").

[33] *See* Jerry D. Brown, *U.S. Copyright Law After GATT: Why a New Chapter Eleven Means Bankruptcy for Bootleggers*, 16 LOY. L.A. ENT. L.J. 1, 4 (1995) (listing names, definitions and examples of various types of copyright infringement).

[34] *See* Jeffrey Jolson-Colburn, *Global Music Piracy Drops in '93*, HOLLYWOOD REP., at 1 (June 9, 1994) (stating that 1993 statistics show the recording industry to be losing approximately $2 billion dollars annually to piracy).

[35] *See* Rafter et al., *supra* note 18, at 620 (commenting that "[u]ntil the advent of digital recording technology in the late 1980's, the degraded sound quality of home tapes assured a substantial market for original audio recordings").

introduced, the ability to illegally copy and pirate any recording suddenly came within easy reach of the common consumer and demand for pirated copies increased.[36]

There is an important distinction between music piracy and home taping. Music piracy is illegal because of its "for-profit" aspect, and it has been illegal since copyright rights were extended to sound recordings in 1971.[37] On the other hand, the legality of the home taping of a legitimately purchased audio recording was a long-standing debate.[38] Though not specifically mentioned in the 1971 amendment, Congress was believed to have implied that home taping was not an infringing activity.[39] However, after the codification of the fair use exception[40] to copyright infringement in the Copyright Act of 1976, Congress mentioned that taping was not to have any special status "beyond the normal and reasonable limits of fair use."[41] Though not expressly stated, this seemed "a significant indication that Congress viewed home taping as copyright infringement."[42] Many years passed without legislation expressly making home recording of legitimately purchased music for noncommercial use lawful or unlawful.[43] Finally,

---

[36] *See* H. R. REP. NO. 105-551(II) (1998), *available in* 1998 WL 414916, at *77 (stating that pirates can use digital technology to reproduce and distribute copies at virtually no cost).

[37] *See* 1971 Sound Recording Act, Pub. Law 92-140, 85 Stat. 391 (noting that sound recordings first became copyright protected in February 1972).

[38] *See* Ramon E. Reyes, Jr., *Can the Common Law Adequately Justify a Home Taping Royalty Using Economic Efficiency Alone?*, 16 N.Y.L. SCH. J. INT'L & COMP. L. 235, 235 (1996) (commenting that "[o]ver the last twenty years, the rapid development . . . of sound reproduction technology has caused a great deal of debate [over home taping] within the United States copyright community").

[39] *See id.* at 250 (stating that "[w]hen Congress enacted the Sound Recording Amendments of 1971. . ., which extended copyright protection to sound recordings, it made clear that [the amendments] were aimed at record piracy, not home taping").

[40] *See* 17 U.S.C. § 107 (1994).

[41] H.R. REP. NO. 94-1476 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5669, 5679.

[42] Reyes, *supra* note 38, at 250.

in 1992, the Audio Home Recording Act became the legislative attempt to settle the debate over the legality of home taping.[44]

The events leading up to the AHRA began with the introduction of the CD in 1982.[45] The CD was revolutionary in that it allowed for precise, noise-free playback of recorded music.[46] It was the first commercial music medium that transformed audio from a digital to analog format for playback, eliminating the hissing and popping present when listening to a standard cassette tape or vinyl record.[47] Additionally, the CD was a playback only format.[48] Widespread home taping or outright music piracy did not pose a major threat to the music industry because the technology was not available to record from CD to CD.[49] A copy of a CD on a cassette tape produced acceptable sound quality, but it still contained noticeable degradation that kept the majority of consumers from choosing taped copies over real CDs.

In the mid-1980s, a new technology called Digital Audio Tape ("DAT") was introduced by Sony and Philips.[50] A DAT machine, functioning much like a CD player, converts a digital signal to an analog format for playback, but adds a very important feature never before available

---

[43] *See id.*

[44] *See* S. REP. NO. 102-294, at 30 (stating that "[t]he purpose of [the AHRA] is to ensure the right of consumers to make analog or digital audio recordings of copyrighted music for their private, noncommercial use").

[45] *See* Grant Erickson, *A Fundamental Introduction to the Compact Disc Player* (last modified Jul. 22, 1998) <http://www.tc.umn.edu/~erick205/Papers/paper.html#developments> (providing a technical analysis of the basics of compact disc technology).

[46] *See id.*

[47] *See id.*

[48] *See* Oddi, *supra* note 29, at 92.

[49] *See id.* (stating that "[t]he compact disc system is ideal for copyright owners because it is a "playback only").

[50] *See* R. Gilde, *DAT-HEADS Frequently Asked Questions* (last modified Nov. 21, 1999) <http://www.eklektix.com/dat-heads/FAQ>.

on a consumer music device: the ability to digitally record music.[51] Consumers were suddenly able to record a CD using a DAT recorder resulting in a "perfect" replica of the original.[52] The piracy implications were very clear to the recording industry.[53] Individuals could make exact copies of protected recordings, and music pirates could copy a single original CD many times, for the cost of blank digital tape.[54] Consumers could purchase the cut-rate pirated copy knowing that they were receiving a perfect, albeit illegal, copy of the original. It was very clear that this new product could severely impact the revenues of the music corporations and the royalties of the artists.[55] The response was an extensive lobbying effort by copyright owners for legislation that would inhibit the ability to copy music using the new DAT devices and other emerging

---

[51] *See id.*

[52] *See* Jennifer Friedman, *Audio Recordings* (last modified Oct. 20, 1999) <http://www.sils.buffalo.edu/faculty/ellison/Syllabi/519Complete/scans/Audio_Tapes.html>. Analog sounds (i.e., sounds a human ear can discern) exist in the form of a continuous wave. *See id.* During analog recording sound waves are represented by orienting the millions of magnetic particles on a cassette tape in a manner which is analogous with the input audio signal. *See id.* It is impossible to precisely orient every particle, and these disoriented particles cause noticeable "tape hiss" during playback. *See id.* Digital recordings replicate analog sounds using "sampling" techniques employed to convert the signal from analog to digital. *See id.* In a non-technical sense, sampling is the rapid copying of many instances of an analog audio signal (e.g., a live performance or a standard cassette tape) each second. *See id.* For playback, all of the copies, or samples, are played one after the other at a rate at which the human ear can not differentiate. *See id.* This gives the 'sampled' digital recording the feeling of being an uninterrupted recording. *See id.* Importantly, digital filtering and noise reduction techniques are used to remove most of the "hiss" associated with traditional analog recording. *See id.* Although not truly "perfect," the digital process collectively provides the clean, crisp sound associated with a CD during playback because the unimportant background sounds have been removed. *See id. See generally* KEN C. POHLMANN, PRINCIPLES OF DIGITAL AUDIO (1995) (detailing the intricacies of analog and digital recording).

[53] *See* S. REP. NO. 102-294, at 34 (1992) (stating that the conflict between the music and consumer electronics industries has intensified due to fears that recently developed digital audio recording technology would lead to unprecedented home audio copying).

[54] *See id*. at 36 (discussing the "proper technological remedy for the problem of unlimited taping").

[55] *See id.* at 34 (stating that the recording industry estimates the damage caused by home taping at nearly $1 billion annually).

technologies.[56] After many years of lobbying and debate, the Audio Home Recording Act was signed into law on October 28, 1992.[57]

2. The AHRA and Its Purpose

The Audio Home Recording Act was enacted as Chapter 10, Title 17 of the United States Code.[58] It applies specifically to the recording of audio works,[59] and was deemed a compromise between the music industry, the consumer electronics industry, and consumers.[60] The Senate Report accompanying the AHRA states that the main purpose of the legislation is to guarantee the right of consumers to make analog or digital audio recordings of copyrighted music for their private use,[61] and the Act expressly proscribes copyright infringement actions based on home recording.[62] Specifically, the statute prohibits actions "based on the noncommercial use by a consumer of . . . a [digital audio recording] device or medium for making digital music

---

[56] *See* Reyes, *supra* note 38, at 252 (noting that "[b]ecause of the superior quality of digital recordings, copyright owners became increasingly concerned with the effect digital recording technology would have on the already serious home taping problem. As a result, copyright owners extensively lobbied Congress to restrict the sale and use of digital audio tape in the United States").

[57] *See id.* at 250-54 (detailing the legislative gyrations required to finally pass the AHRA).

[58] *See* 17 U.S.C. §§ 1001-1010 (1994).

[59] *See* Rafter et al., *supra* note 18, at 620 (noting that the AHRA "applies only to recording of audio works and is not intended to establish general principles applicable to other types of copyrighted works").

[60] *See* S. REP. NO. 102-294, at 33 (1992) (noting that "[the AHRA] embodies the compromise reached between the audio hardware industry and the various segments of the music industry."). *See also* Reyes, *supra* note 37, at 252 (stating that the AHRA was seen as "a codification of an agreement reached between the recording and music industries and the audio equipment manufacturing and distribution industries").

[61] *See id.* at 30 (stating that "[t]he purpose of [the AHRA] is to ensure the right of consumers to make analog or digital audio recordings of copyrighted music for their private, noncommercial use"); *see also* 17 U.S.C. § 1008.

[62] *See* 17 U.S.C. § 1008. Interestingly, the AHRA does not specifically require that the copying party have legitimate possession of an original copy. *See id.* However, an ownership requirement is arguably implied by the Copyright Act's exclusive reproduction and distribution rights, *see* 17 U.S.C. § 106(1), (3) (1994), and its limitation on the distribution right, *see* 17 U.S.C. § 109 (1994).

recordings or analog music recordings."[63] As one commentator noted, the "prohibition ends the two decade debate over the legality of the home taping of sound recordings."[64] The long-standing question about the legality of home copying was finally resolved.

A secondary function of the AHRA was the creation of a music industry royalty payment system.[65] This system was part of the compromise reached between the music industry and the consumer electronics manufacturers to provide "modest compensation" to those impacted by the now authorized home recordings of copyrighted music.[66] Under the system, a percentage of the sales price of every digital audio recording device and any corresponding blank media sold is paid into a fund.[67] The funds are then periodically paid out to the recording artists and music publishers.[68]

Congress also used the AHRA to introduce the Serial Copy Management System ("SCMS") requirement, a technology in digital recording equipment to prevent unlimited serial copying of copyrighted music.[69] Specifically, the AHRA prohibits the "importation, manufacture and distribution of a digital audio recording device . . . that does not conform to the

---

[63] *Id.*

[64] Reyes, *supra* note 38, at 255.

[65] *See* 17 U.S.C. § 1003.

[66] Reyes, *supra* note 38, at 255.

[67] *See* Rafter et al., *supra* note 18, at 621 (stating that "the AHRA requires manufacturers and distributors of digital recording devices and recording medium to contribute royalties to a fund for all products imported or distributed in the United States"); *see also* 17 U.S.C. §§ 1003-1004.

[68] *See* Rafter et al., *supra* note 18, at 621-22 (stating that "[the] fund is then distributed to the recording artists, copyright owners, music publishers and music writers"); *see also* 17 U.S.C. § 1006.

[69] *See* S. REP. NO. 102-294, at 68 (1992) (stating that "[t]he [SCMS] system places limitations on "serial" copying, or making copies of copies," while allowing one to "make an unlimited number of copies from the original").

Serial Copy Management System."[70] The SCMS is a technology incorporated in digital recording devices that permits the recorder to make unlimited first generation copies of original prerecorded material, but prohibits the re-copying of those first generation copies.[71] The SCMS functions by encoding every copied tape with an inaudible signal that, when detected by a SCMS-enabled device, prevents a copy of that copy from being made.[72]

Additionally, the AHRA requires the Secretary of Commerce to establish a verification procedure to prove that a recording system meets the standards of the SCMS.[73] To meet this requirement, "each manufacturer or importer of digital audio recording devices must petition the Secretary of Commerce before it can lawfully sell such devices in the United States."[74] Finally, the AHRA prohibits the importation, manufacture, or distribution of any device capable of disabling or circumventing the SCMS implemented in a digital audio recording device.[75]

---

[70] 17 U.S.C. § 1002(a). A "digital audio recording device" is defined by the AHRA as "any machine or device of a type commonly distributed to individuals for use by individuals, whether or not included with or as part of some other machine or device, the digital recording function of which is designed or marketed for the primary purpose of, and that is capable of, making a digital audio copied recording for private use." *Id.* § 1001(3). A "digital audio copied recording," in turn, is defined as "a reproduction in a digital recording format of a digital musical recording, whether that reproduction is made directly from another digital musical recording or indirectly from a transmission." *Id*. § 1001(1). Finally, a "digital music recording" is defined as "a material object--(i) in which are fixed, in a digital recording format, only sounds, and material, statement, or instructions incidental to those fixed sounds, if any, and (ii) from which the sounds and material can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device." *Id*. § 1001(5)(A).

[71] *See supra* note 64.

[72] *See* Reyes, *supra* note 38, at 252 (detailing the initial discussions by the Senate regarding a serial copy management system requirement).

[73] *See* 17 U.S.C. § 1002(b).

[74] Reyes, *supra* note 38, at 254.

[75] *See* 17 U.S.C. § 1002(c).

B. EVOLVING TECHNOLOGY REQUIRES NEW LEGISLATION - THE DIGITAL MILLENNIUM COPYRIGHT ACT OF 1998

Once enacted, the AHRA appeared to meet the needs of all involved in the digital recording debate. It allows electronics manufacturers to sell digital audio recorders and recording medium.[76] It also allows consumers to use the recorders for home taping, while compensating affected parties, such as musical artists, for lost revenues due to home taping.[77] Thus, the AHRA, which arguably applies to all forms of digital to digital copying, seemingly benefits all legitimately interested parties.[78]

However, a new technological era arose in the mid-1990s that began to challenge the boundaries of the statute's reach. The Internet emerged during those years as a powerful new way to access and transfer information.[79] As technology advanced, neither a large investment in new, complex equipment nor an advanced degree in computer programming became required to go online. Currently, Internet users simply purchase a modem, load free software onto their personal computers and dial into their Internet service provider with a regular phone call placed on their standard home phone line.[80] Technology became accessible to non-technical people;

---

[76] *See* Rafter et al., *supra* note 18, at 621.

[77] *See id.*

[78] *See id.*

[79] *See infra* text accompanying notes 88-90 (discussing the rapid growth of the Internet).

[80] *See* CHRISTIAN CRUMLISH, THE INTERNET FOR BUSY PEOPLE 324-26 (1998). One unique feature of the Internet community has been the tendency of software programmers and companies to give away software for free. *See id.* at 55. More importantly, Internet browser software has been freely available since the late 1980s from various universities and was subsequently revolutionized by Netscape, the first Internet browser software company. *See id; see also* Mark Bell, *Web Browsers Part 1* (last modified Feb. 1, 1995) <http://www.monitor.ca/monitor/issues /vol2iss7/feature2.html> (commenting that Web browsers, most notably Mosaic, have caused the increase in popularity of the Internet).

users simply point and click their way to virtually any topic of interest within seconds.[81] This user-friendly appeal fueled phenomenal Internet growth that has now resulted in the general population downloading, copying and sending digital files via the Internet on a daily basis.[82]

Copyright law commentators have been following the Internet's growth closely and generally view the flexibility as posing unique, new challenges to copyright law.[83] Protected works can be placed on the Internet and quickly copied by thousands of users without the knowledge of the author or copyright holder.[84] Furthermore, the ease of information transfer enabled by new technology such as digital home scanners and wide-reaching search engines can quickly transform the average citizen into an infringer.[85] In fact, a few years ago the top government copyright official has deemed the Internet "the world's biggest copying machine."[86] Unfortunately for the music industry digital music has always been one of the most sought after

[81] *See* CRUMLISH, *supra* note 80, at 5 (stating that browsing the Internet is a simple matter of running a web browser program and jumping to a destination).

[82] *See* New York Times on the Web, *U.S. Internet Users Surpass 100 Million Mark* (last modified Nov. 10, 1999) <http://www.nytimes.com/library/tech/99/11/biztech/articles/10net.html> (documenting the incredible increase in Internet users).

[83] *See* Daniel T. Brooks, Kristen N. Geyer, & James Hill, Jr., *Networks And The Copyright Law*, 322 PLI/PAT 615, 619 (1991) (commenting that "[p]erhaps it is already obvious to some of you why the oft-predicted ascendance of [networks] into common use will undoubtedly generate copyright infringement suits if manufacturers, users and software developers do not promptly grapple with the inevitable and inexpensive copying, distributing, displaying, and performing that accompanies network use").

[84] *See id.* at 622 (commenting that "[u]sing a network can entail infringement of all the exclusive rights granted by the copyright laws: (i) reproduce copies; (ii) prepare derivative works; and (iii) distribute copies to the public and perform or display the work publicly").

[85] *See id.* at 625 (stating that "[s]canning documents is copying in its most basic form").

[86] *See* Vic Sussman, *Policing Cyberspace*, U.S. NEWS & WORLD REP., Jan. 23, 1995, at 54 (quoting Hon. Marybeth Peters, Register of Copyrights, Copyright Office of the United States, The Library of Congress).

items on the Internet.[87] This fact, taken in light of new advances in digital music recording and transfer technology, has sparked a controversy that is threatening to change the business of music forever.

1. Trends in the Distribution of Music - MP3 and the Impact of the Internet

The Internet has grown into a ubiquitous information, business, and entertainment medium that few could have imagined.[88] In 1998 there were 65 million Internet users in the United States, and in just one year that number nearly doubled to over 100 million.[89] Current projections maintain that by 2003 the U.S. Internet user population will reach about 175 million, and the worldwide user population will surpass 500 million.[90] This growth has created an unrivaled distribution network because anything that can be digitally recorded or stored on a computer can be accessed in seconds from anywhere in the world.[91] Much to the consternation of the large record companies, music falls squarely into this category.[92]

---

[87] *See* Robin D. Gross, *The Digital Music Revolution (New Music Industry)* (last modified Nov. 1, 1998) <http://www.virtualrecordings.com/digital_music_htm> (stating that "[t]oday, music is the second most often searched category on the Internet, after sex").

[88] *See* CRUMLISH, *supra* note 80, at 12 (commenting on the vast number of different resources that the Internet has to offer for useful activities like shopping, traveling, employment, etc.).

[89] *See* New York Times on the Web, *supra* note 82.

[90] *See id.*

[91] *See* Andrew Hartman, *Don't Worry, Be Happy! Music Performance and Distribution on the Internet is Protected after the Digital Performance Rights in Sound Recordings Act of 1995*, 7 DEPAUL-LCA J. ART & ENT. L. 37, 39-40 (1996) (stating that "[n]early every substance of copyright ownership can be transformed to digital bits and transmitted and copied with ease").

[92] *See id.* at 47 (noting that "the heart of the music industry's fear of digital technology is the ease with which digital recordings may be reproduced").

When the Internet began its dramatic increase in popularity, digital music had been around in the form of CDs for nearly a decade.[93] In addition, the enactment of the AHRA produced a satisfactory answer to the debates over home recording with the newly introduced digital audio tape.[94] However, what Congress and the music industry did not foresee was the extensive role that the personal computer and the Internet would take in the recording and playback of music.[95]

The integration of musical recording and playback capabilities into computers was an obvious step after the development of digital music technology.[96] CD-ROM drives employing the same disk format as a standard music CD, and sound cards adding playback and recording capabilities to home computers have become standard items[97] This common computer configuration initially resulted in users occasionally recording songs to their hard drives.[98] However, computer technology and Internet access had just not advanced to the state where it was reasonable to download or transfer music. The large amount of hard drive space required to record one song, much less an entire CD, proved to be a serious limitation.[99] Furthermore, music

---

[93] *See supra* text accompanying note 45.

[94] *See supra* note 60 and accompanying text (discussing the AHRA compromise).

[95] *See, e.g.,* Rafter et al., *supra* note 18, at 612 (stating that "[t]he idea underlying [the music sites] that proliferated over the Internet was the ability to use technology to supply artists with a cheap and easy way to get their music heard and distributed").

[96] *See* Hartman, *supra* note 91, at 49 (commenting that a "[d]igitized musical work can be changed, stored and transferred in the same manner as a document that has been created in the computer").

[97] *See id.* at 48 (noting that computers now come with CD-ROM drives and speakers that can be used to play and record music CDs).

[98] *Id.* (stating that copying music onto a computer hard drive is common, and that music is "stored under a file name chosen by the user in just the same fashion as any other information entered into [a] computer").

[99] *See* Rigney, *supra* note 8, at 1 (stating that a five-minute song would take up approximately 50 MB of hard drive space, so if an average CD is 50 minutes long, the amount of hard drive space needed to store it would be 500 MB).

copied to a hard drive posed only a minor copyright threat because slow modems made it impractical to transfer the music to another person.[100] Given the relatively large size of music files, a person would need to connect for an entire evening just to obtain one or two songs.[101] These problems were soon overcome as technology rapidly progressed.

Four important developments simultaneously enabled the Internet to have a large impact on digital music. First, Internet access is now faster and cheaper.[102] The latest technologies enable the home user to connect to the Internet from ten to twenty times faster than a standard modem.[103] Second, the cost of hard drive storage space on computers has plummeted.[104] The affordability of large-capacity hard drives has enabled the average consumer to own a computer capable of storing many CDs worth of music without any difficulty. Third, computer equipment

---

[100] *See* June Chung, *The Digital Performance Right In Sound Recordings Act and Its Failure to Address the Issue of Digital Music's New Form of Distribution*, 39 ARIZ. L. REV. 1361, 1368 (1997) (stating that "[s]low modem speeds might make it inefficient for potential copyright violators to download songs from the Internet").

[101] *See id.* Assuming that a user wants to download a song stored as a 50 MB file over the Internet, it would take approximately 2 hours for that download to occur, under ideal conditions, with typical 56k modems sold today. *See generally* Phil J. Shuey, *High-Speed Internet Connections: What You Need To Know*, 27-OCT COLO. LAW. 9, 12 (1998) (discussing the variety of Internet connection options available and their respective abilities to download large files).

[102] *See* David Legard, *Free Internet Access to Explode in 2000* (last modified Jan. 4, 2000) <http://cnn.com/2000/TECH/computing/01/04/free.net.2000.idg/index.html> (reporting that the latest trend in Internet access is to give it away for free to consumers who, in return, must watch periodic advertisements while online).

[103] *See* Paul Modzelewski, *Internet Connection Alternatives,* PC MAG. ONLINE (last modified Jan. 16, 1998) <http://www5.zdnet.com/pcmag/pctech/content/17/01/it1701.001.html> (examining the four new technologies that will offer Internet access speeds over 10-20 times faster than the typical modem: ISDN, Direct TV, Cable Modems and ADSL).

[104] *See* David Doering, *RAIDing CD Networks: In Search of a Real Read-Write Solution* (last modified Feb. 1, 1999) <http://www.emediapro.net/EM1999/doering2.html> (noting that "[t]he average cost per megabyte for hard drive storage is less than one-fourth of what it was a year ago. Starting at 8.8 cents in May 1997, it dropped to 5.9 cents by January 1998, then down to 2.5 cents in September. While the cost of hard drives was decreasing precipitously, overall capacity was growing by leaps and bounds").

manufacturers developed recordable CD-ROM drives for home computers.[105] These drives have become very popular for storing all types of data and typically come with software that enables computer users to make copies of digital audio CDs.[106] Lastly, a technology called "data compression" has become widely used for reducing the size of computer files.[107] These compression techniques allow computer users to reduce the size of data files to accommodate more efficient storage and transfer.[108]

A compression standard called MP3[109] has become the predominant digital music storage format on the Internet.[110] The compression advantage gained by using the MP3 standard is somewhere between 10:1 and 12:1, which translates to quick download times and less required

---

[105] *See* CD-R/CD-RW (last modified Oct. 26, 1999) <http://www.pctechguide.com/09cdr-rw.htm>. There are currently two types of recordable CD-ROMs: CD-R and CD-RW. *See id.* Both technologies use the standard audio CD size media and can be read on most newer CD-ROM drives, however each type has its own capabilities. *See id.* CD-R technology was developed in the late 1980s, and its blank disks can only be written to one time. *See id.* This limitation lead to the development of CD-RW in 1997. *See id*. CD-RW was the first CD-ROM derivative to have the capability of rewriting over an already recorded disk, much like a floppy disk. *See id*. Both types require a special drive and special media, but the CD-RW has taken over as the preferred type for obvious reasons. *See id*. Significantly, the drives can record standard computer data files or, with the use of widely-available software, audio format tracks for playback on a standard audio CD player. *See id.*

[106] *See* David Essex, *Rewritable CDs Go Mainstream* (last modified Nov. 5, 1999) <http://cnn.com/TECH/computing/9911/05/CDRW.mainstream.idg/index.html (reporting that the cost of rewritable CD drives has dropped to the $100-300 range and that their popularity is high because they enable both easy data backup and the creation of music CDs).

[107] *See* Multimedia (last modified May 25, 1999) <http://www.pctechguide.com/glossary/07mmedia.htm#Compression> (defining data compression as: "[t]he translation of data (video, audio, digital or a combination) using a variety of computer compression algorithms and other techniques to reduce the amount of data required to accurately represent the content").

[108] *See id.*

[109] *See Eiger Labs MPMan FAQ – What is MP3?* (last modified Aug. 19, 1999) <http://www.eigerlabs.com/MPMan/faq_whatisMP3.htm>. MP3 stands for Motion Pictures Experts Group ("MPEG") 1, audio layer 3. *See id*. MP3 compresses audio files into a special digital format that only requires one-tenth the memory to store, while maintaining near CD-quality sound. *See id*.

[110] *See* Rafter et al., *supra* note 18, at 614-15 (commenting that MP3 is becoming the most popular compression standard among consumers).

hard drive space.[111] There are other compression techniques available, some of which work even more efficiently than MP3, but to use these competing methods would require licensing the rights to implement the technique and the continual payment of royalties or license fees.[112] MP3, on the other hand, is an "open standard," meaning it has been made freely available to anyone wishing to implement it.[113] Consequently, many programmers have written software that can quickly compress and decompress standard audio files using the MP3 format.[114] These programs, often available free of charge, helped enable the MP3 standard to quickly establish itself as the preferred format of online music web sites.[115]

The Internet, as a result of these rapid advances in technology, is stressing the limits of copyright law.[116] First and foremost are the concerns about rampant music piracy.[117] The power and flexibility of current technology has nearly "encouraged" users to copy protected works in violation of some section of the current copyright laws.[118] Additionally, the debate over home

---

[111] *See* Charap & Rothstein, *supra* note 20, at 20.

[112] *See* Rafter et al., *supra* note 18, at 614 (stating that several formats that are competing to become the standard for digital downloading of music including "a2b" <http://www.a2b.com>, "realaudio" <http://www.realnetworks.com>, and "liquidaudio" <http://www.liquidaudio.com>).

[113] *See* Justin Couch, *How Open of a Standard is MP3?* (last modified Sept. 15, 1998) <http://www.mp3.com/news/098.htm> (commenting that "open standards" are not necessarily free because various implementations of any standard can receive patent protection, however the MP3 standard is basically open and available for implementation by using the official ISO specification).

[114] *See, e.g., MP3.com Software* (last modified Mar. 12, 2000) <http://www.mp3.com/software/> (offering for download various shareware versions of MP3 players and file encoders).

[115] *See id.*

[116] *See* Rafter et al., *supra* note 18, at 615 ("The arrival of MP3 . . . is raising great concerns because of the threat it poses for music piracy.").

[117] *See id.*

[118] *See id.* (remarking that MP3 technology allows a person to quickly and easily download a song from the Internet and upload audio files they have compressed from their own CDs).

recording that the AHRA supposedly resolved takes on a new life given the technological advancements since its enactment. The early underground music distribution sites, typically hosted by college students from their dorm rooms, have made way for large, commercial web sites fully devoted to leveraging the Internet music craze into a strong bottom line.[119] How does a site track who pays for the music, and furthermore, who tracks the web sites to makes sure that the rights of copyright holders are being protected? The real question becomes: Can the AHRA, a law enacted to legalize home copying, effectively function to protect copyrighted musical works on the Internet?[120] These questions concerning the distribution of music over the Internet are being vigorously debated, and an answer does not appear to be coming soon.

2. The DMCA and Its Purpose

One of the most recent attempts at regulation and protection of Internet copyright rights was the Digital Millennium Copyright Act.[121] The main purpose of the Act was to implement two World Intellectual Property Organization ("WIPO") international treaties focused on improving copyright protection in the age of digital communications technology.[122] Because of

---

[119] *See id.* at 613 ("Today there are dozens of other online storefronts, including www.goodnoise.com, www.musicboulevard.com, www.amazon.com, www.mp3.com, www.towerrecords.com and www.cdnow.com. . . . [T]hose sites offer numerous advantages to users, including ease of access, the ability to hear music samples, obtain information about the artist, including touring schedules and other recorded music, and the ability to order instantaneously the music of the listener's choosing.").

[120] Rigney, *supra* note 8, at 3 (posing the question: "Is the AHRA an effective tool for protecting copyrighted musical works on the Internet?").

[121] *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2887 (1998) (noting that the DMCA was signed into law Oct. 28, 1998 and was codified as amended in scattered sections of 17 U.S.C. and 28 U.S.C.).

[122] *See* H. R. REP. NO. 105-551(II) (1998), *available in* 1998 WL 414916, at *67. *See generally World Intellectual Property Organization* (last modified Mar. 11, 2000) <http://www.wipo.org/eng/main.htm> (explaining that WIPO is one of the 16 specialized agencies of the United Nations system and that WIPO is responsible for the promotion of the protection of intellectual property throughout the world through cooperation among States, and for the administration of various multilateral treaties dealing with the legal and administrative aspects of intellectual property).

the DMCA's complexity,[123] and because only limited aspects of the Act have impact on the AHRA, this note will only discuss the pertinent portions of section 1201, which was added under Title I of the DMCA.[124]

Title I of the DMCA added chapter 12 to the Copyright Act, which restricts and makes unlawful the circumvention of copyright protection measures.[125] Section 1201 of the DMCA "restricts the circumvention of technological measures that control access to copyrighted works or that protect copyright owner rights."[126] Specifically, Section 1201(a)(1)(A) provides that "[n]o person shall circumvent a technological measure that effectively controls access to a work protected under this title."[127] Furthermore, the Act goes on to provide that "[n]o person shall

---

[123] *See id.* at 331-32 (stating that "some would say [the DMCA provisions are] convoluted").

[124] 17 U.S.C. § 1201 (Supp. IV 1998). Additionally, title II of the DMCA adds section 512 to the Copyright Act, which carves out four safe harbors from copyright liability for online service providers. *See* 17 U.S.C. § 512 (Supp. IV 1998); *see also* Neil Netanel, *Recent Developments in Copyright Law*, 7 TEX. INTELL. PROP. L.J. 331, 335 (1999) ("Section 512 reflects the result of extended negotiations between the telecommunications and content provider industries amidst considerable uncertainty regarding the extent to which online service providers may be held liable for direct, contributory, or vicarious copyright infringement for material placed on the service provider's network."). Title III of the DMCA amends the existing section 117 to allow for the lawful maintenance of computer systems without violating the Copyright Act. *See* 17 U.S.C. § 117 (Supp. IV 1998); *see also* Netanel, *supra* note 124, at 339 (commenting that prior to this amendment there was some question concerning the downloading of copyright protected software for the purposes of maintaining computer equipment. Copyright holders argued that the step of loading the software from the computer to the repair device (e.g., a laptop computer) for analysis constituted infringement. This new amendment resolves the issue by exempting legitimate repair providers from liability). Title IV of the DMCA amends Copyright Act provisions concerning limitations on the exclusive right of owners of the copyright in sound recordings to perform the work publicly by means of a digital audio transmission. *See id.* ("The Digital Performances Rights in Sound Recordings Act of 1995, which added that exclusive right to the panoply of copyright owner rights under the Copyright Act, was designed to meet the concern of interactive digital audio services that enable subscribers to call up (and tape) high quality digital recordings of their choice, thus impairing the market for cassettes and compact discs. Given Congress's primary focus on interactive digital audio services, Congress exempted from the new right traditional radio and television broadcasts, background music services, and transmissions in business establishments."). Title V of the DMCA added chapter 13 to the Copyright Act, which protects certain original designs of vessel hulls. *See* 17 U.S.C. §§ 1301-1332 (Supp. IV 1998).

[125] *See* 17 U.S.C. §§ 1201-1205 (Supp. IV 1998).

[126] Netanel, *supra* note 124, at 332.

[127] 17 U.S.C. § 1201(a)(1)(A).

manufacture, import, [or] offer to the public . . . any technology, product, service, [or] device" that is designed to "circumvent a technological measure."[128] This includes the marketing of any technology or device that is known to be able to circumvent a copyright protection measure.[129]

This prohibition on 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."[130] Some House members also feared that the anti-circumvention language went too far in protecting the copyright owner because it essentially provided an unlimited duration to copyright materials protected by technological measures, which would directly contradict the Constitution.[131] In addition, the House Report cites a response from sixty-two copyright law professors expressing concern about "the implications of regulating devices in the name of copyright law."[132] The House Commerce Committee responded to the professors by stating that "the digital environment poses a unique threat to the rights of copyright owners, and as such, necessitates protection against [circumvention

---

[128] *See* 17 U.S.C. § 1201(b). *But cf.* Netanel, *supra* note 124, at 333 (stating that "[t]he new Section 1201(b) of the Copyright Act effectively deprives the vast majority of noninfringing users of any real possibility for circumventing technology protection"). *See generally* 17 U.S.C. § 1201(a)(3)(A), (B) (noting that for the purposes of the DMCA, "to circumvent a technological measure means to . . . avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner. Furthermore, a technological measure controls access to a work if the measure requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work").

[129] *See* 17 U.S.C. § 1201(a)(2)(C).

[130] Netanel, *supra* note 124, at 332.

[131] *See* H. R. REP. NO. 105-551(II) (1998), *available in* 1998 WL 414916, at *206. (noting Reps. Klug's and Boucher's opposition to the DMCA anti-circumvention language from their remarks that it "bootstraps the limited monopoly into a perpetual right," and that it "fundamentally alters the balance that has been carefully struck in 200 years of copyright case law . . . ."); *see also* U.S. CONST. art I, § 8, cl. 8 (stating that the exclusive rights granted to authors and inventors shall only be secured for limited times).

[132] *See* H. R. REP. NO. 105-551(II) (1998), *available in* 1998 WL 414916, at *76 (noting that the concern was based on the fact that the "[a]nti-circumvention provisions would not be an ordinary copyright provision, liability under the section would result from conduct separate and independent from any act of copyright infringement or any intent to promote infringement").

devices]."[133] The Committee also noted that because digital technology allows pirates to make perfect copies easily and inexpensively, any new law must protect the interests of copyright owners while remaining technology neutral.[134] As a compromise, Congress decided to impose a two-year delay in the anti-circumvention prohibitions of the DMCA, during which a determination will be made of whether the prohibitions will adversely affect certain noninfringing users.[135]

All of this debate stemmed from the broad reach of the DMCA's anti-circumvention measures. The passage of the Act brought copyright law into the modern era by finally acknowledging the reality of digital recording, copying, and distribution of all types of protected materials over the rapidly expanding Internet. It also took a new approach to unauthorized copying: a near ban on the circumvention of any technological protection scheme. Of particular interest to this note, this anti-circumvention approach arguably eliminates the need for the AHRA's SCMS requirement. However, before analyzing this tension between the AHRA and the DMCA, it is important to review recent litigation in order to gain exposure to how the courts view the AHRA.

---

[133] *Id.* at *77.

[134] *See id.* ("As technology advances, so must our laws. The Committee thus seeks to protect the interests of copyright owners in the digital environment, while ensuring that copyright law remain technology neutral.").

[135] *See* Netanel, *supra* note 124, at 332-33 (stating that "[d]uring that two-year period (and during each succeeding three-year period), the Librarian of Congress must determine whether the circumvention prohibition is likely to adversely affect noninfringing uses of any particular class of copyright works during the ensuing three years").

III. A CONFLICT IN THE LAW - RECENT LITIGATION STRAINS THE AHRA

For six quiet years after its enactment the AHRA encountered scrutiny only by way of academic critique.[136] The only case to consider the AHRA in this time frame ended with the court stating that it had been misapplied.[137] Its first full judicial interpretation came in 1998 when the Recording Industry Association of America ("RIAA") filed a complaint against Diamond Multimedia Systems ("Diamond") in the United States District Court for the Central District of California.[138] This litigation ultimately led to a first impression interpretation of the AHRA, which exposed inherent weaknesses in the legislation, especially in light of the newly enacted DMCA and the continuing advances in Internet technology.

A. AN APPLICATION OF THE AHRA - RIAA V. DIAMOND MULTIMEDIA

1. A Case of First Impression

The RIAA is a non-profit trade organization representing the creators, manufacturers, and distributors of over ninety percent of all legitimate sound recordings.[139] Diamond is a

---

[136] *See generally* Christine C. Carlisle, *The Audio Home Recording Act of 1992*, 1 J. INTELL. PROP. L. 335, 335 (1994) (arguing that the AHRA is inconsistent with the Copyright Clause of the Constitution and that it also makes no allowance for fair use under section 107 of the Copyright Act); Joel L. Mckuin, *Home Audio Taping of Copyrighted Works and the Audio Home Recording Act of 1992: A Critical Analysis*, 16 HASTINGS COMM/ENT L.J. 311, 312 (1994) (arguing that the AHRA does not adequately protect music performers or copyright holders).

[137] *See* Abkco Music, Inc. v. Stellar Records, Inc., 96 F.3d 60 (2nd Cir. 1996). The Abkco case involved copyright infringement claims against a karaoke company's use of Rolling Stones lyrics in an audio-visual CD without authorization. *See id.* at 62. The karaoke company asserted the AHRA definition of "phonorecord" as a defense, arguing that the new legislation expanded the definition from strictly audio works to the audio-visual CDs used for karaoke. *See id*. at 63. The company argued that if the AHRA definition applied to their "cover" of the song, the compulsory license provision of 17 U.S.C. § 115 applied to the lyrics, and their use was statutorily authorized. *See id.* at 64. The Second Circuit held that the AHRA was never intended to expand the definition of "phonorecord" to audio-visual CDs, and consequently, the video portion of the CD that published the song lyrics on a video monitor violated copyright law. *See id*. Thus, the AHRA was not interpreted in this case. *See id*. at 66.

[138] *See* Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., 29 F. Supp.2d 624 (C. D. Cal. 1998) [hereinafter RIAA I].

[139] *See id.* at 625.

manufacturer of computer products specializing in products to improve multimedia, audio, graphics, video, and communications in personal computers.[140] Diamond developed and was manufacturing a device called the Rio PMP 300 ("Rio").[141] The Rio is a lightweight device, similar to a Walkman, capable of downloading, storing, and playing digital music files saved using the MP3 format.[142] The Rio connects to a personal computer with a standard serial cable, after which proprietary software is employed to transfer MP3 audio files from the computer's hard drive to the Rio.[143] After the Rio receives the selected MP3 files, the user can detach the Rio from the computer and play back the audio through standard, analog headphones while away from the computer.[144] The Rio has no digital audio output capability, and is therefore incapable of passing digital musical files to other Rio devices or computer products.[145]

Using MP3 compression, the Rio can store approximately sixty minutes of music in its thirty-two megabytes of memory.[146] The memory can be doubled to sixty-four megabytes by the purchase of a removable memory card, thereby allowing for one hundred twenty minutes of playback time.[147] Note that because the card is removable, a Rio user could conceivably download music into the memory card and give that card to any other Rio user for playback on

---

[140] *See id.*

[141] *See id.*

[142] *See id.*

[143] *See* Rigney, *supra* note 8, at 1.

[144] *See* RIAA I, 29 F. Supp.2d at 625.

[145] *See id.*

[146] *See id.*

[147] *See id.*

his or her device.[148]

The RIAA believed that the Rio violated the AHRA.[149] It argued that "given the ease with which consumers could download and replay compressed digital audio files by using the Rio, Diamond's sale of the Rio would lead to widespread music piracy."[150] The RIAA filed a complaint alleging a single cause of action for violation of the AHRA, and filed a motion for a preliminary injunction to enjoin Diamond's manufacture or distribution of the Rio.[151] The District Court issued a temporary restraining order against Diamond, and a hearing was scheduled to argue the injunction.[152]

The RIAA believed that the Rio was a "digital audio recording device," as defined by the AHRA.[153] It contended that the Rio was in violation of the Act because it did not incorporate the required SCMS and because Diamond did not pay the mandated royalties.[154] Diamond responded by arguing that the Rio was not a "digital audio recording device" because the MP3

---

[148] *See id.*

[149] *See* Rigney, *supra* note 8, at 1 (stating that the RIAA filed suit against Diamond because they believed the Rio was a "digital audio recording device," and was therefore subject to provisions of the AHRA).

[150] *Id.*

[151] *See* RIAA I, 29 F. Supp.2d at 626.

[152] *See id.*

[153] *See* 17 U.S.C. § 1001(3) (1994) (noting that the AHRA defines a "digital audio recording device" as "any machine or device of a type commonly distributed to individuals for use by individuals, whether or not included with or as part of some other machine or device, the digital recording function of which is designed or marketed for the primary purpose of, and that is capable of, making a digital audio copied recording for private use . . .").

[154] *See* Rigney, *supra* note 8, at 2 (stating that all devices subject to the AHRA must incorporate certain copying controls, and all manufacturers of such devices must pay certain royalties on the sale of the devices).

file is copied from a computer's hard drive, which was not included in the definition of "digital music recording" in the AHRA.[155]

The application of the AHRA's definition of "digital audio recording device" to the Rio became the central issue of the analysis.[156] Both parties were able to advance persuasive arguments because the complex definitions of the terms in the AHRA can be easily contorted. Diamond defended the claim that the Rio fell under the purview of the Act by relying on the "hard drive exception" ostensibly written into section 1001(5)(B)(ii)[157] of the AHRA and its supporting legislative history.[158] The RIAA countered by stating that the "exception" does not fall under section 1001(5) at all, and can actually be found in the Senate Report discussion of section 1001(3), which defines a "digital audio recording device" as having the "primary purpose" of making digital audio copied recordings for private use.[159] The Court, because this was a case of first impression, had to rely solely on the apparent meaning of the statutory language and the guidance of the AHRA's legislative history.[160]

---

[155] *See* S. REP. NO. 102-294, at 48 (1992) (commenting that "[n]either a personal computer whose recording function is designed and marketed primarily for the recording of data and computer programs, nor a machine whose recording function is designed and marketed for the primary purpose of copying multimedia products, would qualify as a "digital audio recording device" [under the AHRA]").

[156] *See* RIAA I, 29 F. Supp.2d at 628 (observing that the first section of the Court's analysis is entitled: 1. Is the "Rio" a "Digital Audio Recording Device"?).

[157] 17 U.S.C. § 1001(5)(B) (stating in part that "[a] "digital musical recording" does not include a material object. . . (ii) in which one or more computer programs are fixed . . .").

[158] *See* RIAA I, 29 F. Supp.2d at 628 (arguing, per the AHRA, that a "digital audio recording device" *must* be able to make a reproduction of a "digital music recording," and a "digital music recording" statutorily does *not* include an object in which computer programs are fixed (e.g., a computer hard drive), so therefore the Rio can not be a digital audio recording device because it only receives MP3 files from a computer hard drive).

[159] *See id.* (stating that the "exception" results from the digital audio recording device definition, which excludes devices that do not have as a "primary purpose" the recordation of digital audio, and that this language was included so as to not immunize the illegal copying of computer programs under the AHRA); *see also* S. REP. NO. 102-294, at 47.

Interestingly, the ultimate decision to deny the RIAA's preliminary injunction was not based on the determination of whether a computer's hard drive is a "digital musical recording," or when a device's recording function falls within the AHRA.[161] Rather, after its analysis of the AHRA the District Court only stated that the Rio *may* be a "digital audio recording device."[162] The Court then sidestepped the ultimate issue and simply found no irreparable harm to the RIAA[163] and a mixed probability of success on the merits.[164] Of interest to this note are the striking points found in dictum about the effectiveness of the AHRA.[165] In responding to the RIAA's interpretation of the AHRA's language, exceptions, and legislative history, the Court stated "[the] construction . . . would effectively eviscerate the AHRA."[166] Ironically, the Court may have unwittingly had a premonition.

---

[160] *See* RIAA I, 29 F. Supp.2d at 627 (noting that the Court mentioned that it has no precedent to guide its interpretation of the AHRA).

[161] *See* Rigney, *supra* note 8, at 3 (reporting that the "[D]iamond court denied the plaintiffs' preliminary injunction motion without determining whether a computer's hard drive can be construed as a digital musical recording and whether a machine must have an independent digital recording function to be subject to the AHRA").

[162] *See* RIAA I, 29 F. Supp.2d at 632 (stating that the RIAA has "established a probability that the Rio is a "digital audio recording device". . .").

[163] *See id.* at 633. The Court stated that "[a]lthough the Rio will inevitably be used to record both legitimate music (e.g., commercially available CDs) and illegitimate music (e.g., copyrighted music illegally posted on the Internet), the absence of the SCMS information does not cause the illegitimate uses. Even if the Rio did incorporate SCMS, a Rio user could still use the device to record unauthorized MP3 files posted to the Internet. Moreover, to the extent [the RIAA is] injured through an illicit use of the Rio, this is precisely the type of injury for which the royalty provisions were adopted. . . . [T]he Court concludes [the RIAA has] failed to establish any irreparable or incalculable injury." *Id.*

[164] *See id.* at 632 (noting the Court's comment that the RIAA has "not established a probability of success in establishing that the Rio, if assessed by the Secretary of Commerce, would fail to satisfy [the] Section 1002(a)(3) [requirement against serial copying]").

[165] *See id.* at 630 (commenting that "[a]ny recording device could evade AHRA regulation simply by passing the music through a computer and ensuring that the MP3 file resided momentarily on the hard drive").

[166] *Id.*

2. The Ninth Circuit's Application of the AHRA

The RIAA appealed the District Court's denial of a preliminary injunction to the Ninth Circuit Court of Appeals.[167] The Ninth Circuit affirmed the denial of an injunction in June of 1999, but employed a different approach.[168] The Court, instead of denying injunctive relief based on lack of irreparable harm, took the opportunity to analyze the AHRA's language and legislative history and hold unequivocally that the Rio was not a "digital audio recording device" under the AHRA.[169]

The Court began its analysis with the question of whether the Rio is a device that falls under the Act. Importantly, the Court noted that "the Act does not broadly prohibit digital serial copying of copyright protected audio recordings."[170] Instead, the Act places restrictions only upon a specific type of recording device.[171] Thus, in looking only at the clear language of the statute, the Court took the focus off the serial copying aspects of the AHRA and focused exclusively on whether the Rio was such a device.[172]

To qualify as a "digital audio recording device" under the AHRA, the Court noted, the machine or device must be able to make a "digital audio copied recording" of a "digital music

---

[167] *See* Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., 180 F.3d 1072 (9th Cir. 1999) [hereinafter RIAA II].

[168] *See* Charap & Rothstein, *supra* note 20, at 18 (stating that the Ninth Circuit "upheld denial of the preliminary injunction but ruled neither the Rio, nor a computer's hard drive, was subject to . . . the AHRA").

[169] *See id.* (noting that the District Court refrained from whether the Rio was subject to the AHRA, while the Ninth Circuit ruled that the Rio was specifically *not* subject to the AHRA).

[170] RIAA II, 180 F.3d at 1075.

[171] *See id.*

[172] *See id.* ("[T]o fall within the SCMS and royalty requirements in question, the Rio must be a "digital audio recording device". . .").

recording."[173] Of these three terms, the Court focused on the meaning of "digital audio recording" within the language and legislative history of the statute.[174] This approach seemed the most obvious, the Court reasoned, because if the Rio could not reproduce a "digital musical recording" as defined by the Act, then it could not be subject to the Act's requirements, regardless of whether it could make a "digital audio copied recording."[175] So, as in the District Court, the question of whether a computer or a hard drive could be a "digital musical recording" became the pivotal issue.[176]

The Ninth Circuit proceeded to rule definitively that the Rio is not a "digital audio recording device" under the AHRA because it does not make copies from digital musical recordings.[177] The Court took special note of the "hard drive exception" that Diamond had argued in the District Court, and found that the drafters had specifically excluded computer hard drives from the AHRA.[178] Moreover, the Senate Report specifically states that "if the material

---

[173] *See id.* at 1075-76 (analyzing the complex, nested definitions found in section 1001 of the AHRA).

[174] *See id.* at 1076 (stating that "[t]o be a digital audio recording device, the Rio must be able to reproduce, either "directly" or "from a transmission," a "digital music recording").

[175] *See id. See generally* 17 U.S.C. § 1001 (1994). This is a difficult, but important, distinction to make, because a "digital audio copied recording" can *only* be made from a "digital musical recording" or indirectly from a transmission. *See id.* § 1001(1). Furthermore, a "digital musical recording" is any object in which sounds are fixed in digital format and from which the sounds can be reproduced. *See id.* § 1001(5). *See, e.g.,* Rigney, *supra* note 8, at 2 (stating that an example of a "digital musical recording" would be Garth Brooks' latest CD).

[176] *See* RIAA II, 180 F.3d at 1076.

[177] *See id.*

[178] *See id.* ("The typical computer hard drive from which a Rio directly records is, of course, a material object. However, hard drives ordinarily contain much more than "only sounds, and material, statements, or instructions incidental to those fixed sounds." Indeed, almost all hard drives contain numerous programs (e.g., for word processing, scheduling appointments, etc.) and databases that are not incidental to any sound files that may be stored on the hard drive. . . . Moreover, the Act expressly provides that the term "digital musical recording" does not include: a material object-
(i) in which the fixed sounds consist entirely of spoken word recordings, or
(ii) in which one or more computer programs are fixed.").

object contains computer programs or databases that are not incidental to the fixed sounds, then the material object would not qualify" under the definition of a "digital musical recording."[179] Thus, the Court found that "there are simply no grounds in either the plain language of the definition or in the legislative history for interpreting the term "digital musical recording" to include songs fixed on computer hard drives."[180]

The RIAA argued that the Rio doesn't fall within the "hard drive exception" in the digital musical recording definition because the House Report describes the exception as applying to computer programs.[181] However, the Court stated that limiting the exemption to computer programs is contrary to the plain meaning because a computer program is not a material object, but rather a literary work that can be fixed in a variety of material objects.[182] Thus, the Court found that "the plain language of the exemption at issue does not exclude the copying of programs from coverage by the Act, but instead, excludes copying from various types of material objects."[183] In the context of this case, this means that the exemption is not limited to the copying of programs, but instead extends to any copying from a computer hard drive.[184] Because the Rio can only copy MP3 files from the hard drive of a computer, it does not reproduce files from a device falling within the plain language of the definition of a "digital

---

[179] S. REP. NO. 102-294, at 46 (1992).

[180] RIAA II, 180 F.3d at 1077.

[181] *See id.*; *see also* H.R. REP. NO. 102-873(I), at 13 (1992), *reprinted in* 1992 U.S.C.C.A.N. 3578, 3583.

[182] *See* RIAA II, 180 F.3d at 1077; *see also* Apple Computer, Inc. v. Franklin Computer Corp., 714 F.2d 1240, 1249 (3d Cir. 1983) (stating that "a computer program . . . is a literary work").

[183] RIAA II, 180 F.3d at 1078.

[184] *See id.*

music recording." On this reasoning, the Court held that the Rio was not violating the AHRA.[185]

The Court took the opportunity to expound on this apparently intentional loophole in the AHRA that allows a device to evade regulation simply by passing music through a computer to ensure that the file resides momentarily on the hard drive.[186] The Court found that the legislative history is consistent with this loophole interpretation of the Act's provisions, and stated that the typical personal computer would not fall within the definition of "digital audio recording device" because a personal computer is designed and marketed primarily for the recording of data and computer programs.[187] Furthermore, the Court stated that "because computers are not digital audio recording devices, they are not required to comply with the SCMS requirement and thus need not send, receive, or act upon information regarding copyright and generation status."[188] Thus, the Court concluded, "the Act seems designed to allow files to be "laundered" by passage through a computer," because even a device incorporating the SCMS would be able to copy MP3 files that lacked SCMS codes from a computer hard drive, for the simple reason that there would be no codes to prevent the copying.[189] Finally, the Court deemed the Rio's operation to be consistent with the AHRA's purpose of facilitating the home taping exception, because the Rio "merely makes copies in order to render portable, or "space-shift," those files that already reside

---

[185] *See id.*

[186] *See id.*

[187] *See id.* (citing text from Senate Report 102-294, at page 48).

[188] RIAA II, 180 F.3d at 1078.

[189] *Id.* at 1079.

on a user's hard drive."[190]

B. IMPLICATIONS OF THE RIAA HOLDING

The Rio cases certainly strained the AHRA during its first real application.[191] The District Court and the Ninth Circuit both understood that new ground was being broken and took the opportunity to make subtle comments about the effectiveness of the law.[192] The District Court grappled with the "device" issues by delving into the legislative history for an answer, but came up short when it refused to rule beyond the procedural requirements of a preliminary injunction.[193] Certainly the law should have required a more complete investigation before the quick decision to deny the RIAA its day in court. At the other extreme, the Ninth Circuit stated that there was no issue because the "clear" language of the statute made it obvious that the Rio was not an infringing device.[194] However, the Court proceeded to analyze the legislative history and find that the AHRA seems to create a loophole through which copyright infringement is allowed.[195] In its first interpretation, the AHRA seemed to provide little guidance in how to adequately deal with new technology.

---

[190] *Id.* (stating that the Rio is consistent with the AHRA's purpose of facilitating personal use); *see also* Sony Corp. of America v. Universal City Studios, 464 U.S. 417, 455 (1984) (holding that "time-shifting" of copyrighted television shows with [a VCR] constitutes fair use under the Copyright Act, and thus is not an infringement).

[191] *See* Raysman & Westmoreland, *supra* note 10, at 2 (noting that the AHRA was enacted before the growth of the Internet and that it is having difficulty meeting current copyright needs).

[192] *See generally id.* (commenting that statutes regulating technology are almost immediately obsolete).

[193] *See* RIAA I, 29 F. Supp.2d 624, 633 (C. D. Cal. 1998) (noting that the Court concluded that the RIAA failed to establish that Diamond caused any irreparable or incalculable injury).

[194] *See* RIAA II, 180 F.3d at 1076 (observing the Court's comment that "[w]e need not resort to the legislative history because the statutory language is clear").

[195] *See id.* at 1079.

At the most basic level, the central issue becomes Congress's goals during the drafting of the AHRA. The Act was intended to legalize home recording and create a modest royalty payment system for those affected by the lost sales.[196] There was never any mention of the Act becoming a broad anti-piracy statute. In fact, the text of the AHRA does not mention the terms "piracy," "pirated," or "pirate" even a single time."[197] Furthermore, the Senate Report on the AHRA does not mention any variation of "pirate."[198] However, in its Rio opinion, the Ninth Circuit happened to mention a variation of the word "pirate" over fifteen times.[199] Was this judicial law-making, the work of industry interest groups, or a fair change in viewpoints due to the technology-driven times in which we live? Perhaps the answer is all of the above? Whatever the underlying intention, the result is that problems caused by advances in digital recording technology have outpaced the AHRA.

The new Digital Millennium Copyright Act's anti-circumvention measures only complicate the issue further. As discussed above, the AHRA defines various "recording devices" to exclude computers, hard drives, and subsequent to the Ninth Circuit's opinion, devices like the Rio. Consequently, based on the "loophole" created by the RIAA holding, the SCMS becomes unnecessary in any device found to be a "computing device." However, if courts continue to apply the AHRA in its limited, circa-1992 context, every person choosing to use a computer device to record music will arguably violate the DMCA's new anti-

---

[196] *See* S. REP. NO. 102-294, at 30 (1992). The Report states that the purpose of the AHRA is to ensure the right of consumers to make analog or digital audio recordings of copyrighted music for their private, noncommercial use. *See id.* at 33. Furthermore, the AHRA creates a royalty payment system that provides modest compensation to the various elements of the music industry for the digital home recordings of copyrighted music. *See id.*

[197] *See* 17 U.S.C. §§ 1001-1010 (1994).

[198] *See* S. REP. NO. 102-294.

[199] *See* RIAA II, 180 F.3d at 1072.

circumvention language. Thus, the AHRA, as interpreted, contradicts the DMCA. The AHRA loophole allows a computer to "launder" copyright protection encoded digital music because the computer is not required by law to implement the SCMS even though it could clearly be seen to function as a recording device. Therefore, under the AHRA, 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. That action, however, appears unlawful under the DMCA because protection system encoding is being circumvented.[200] These tensions must be resolved to provide consumers of music and computer technology with clear guidance as to which music recording and playback activities that are lawful and those that are not.

This note is not advocating that all devices like the Rio should be legal, nor is it proposing that music should be freely available to everyone. It is also not advocating that computers should fall under the scope of the AHRA. The position taken is simply one of clarity. Digital music technology is in its infancy, and it will continue to advance regardless of the state of the law. This advancement is certain because such progress is the essence of the Internet: open ideas and freely-shared creations. The difficulties arise when one of these ideas suddenly hits the commercial mainstream because it will inevitably affect the operation of big business and the law. Lawmakers, who often claim an understanding of the Internet and an openness to the possibilities it brings, must be even more receptive to changes in technology by drafting technology-*embracing* laws that do not contradict the Internet's underlying essence. This note is advocating a clarification of the laws surrounding a consumer's right to copy music, while

---

[200] *See* 17 U.S.C. §§ 1201-1205 (Supp. IV 1998).

maintaining the important balance between the rights of the electronics manufacturers to advance the state of the art and the incentives required by the music industry to create new works.

IV. AN APPROACH FOR THE NEW MILLENNIUM - BROADENING THE AHRA

When a court is presented with the interpretation of a statute, a well-established procedure guides their approach. Initially it looks at the statutory language.[201] If the statutory language is unclear, the court must next delve into the legislative history of the statute to attempt to glean its true meaning.[202] This procedure has long been relied upon to provide judicial consistency and predictability from which precedent may be built. However, a failure in Congress's attempt to provide clear language can mislead a court when a statute has been recently passed or has not been subjected to past judicial scrutiny. When such ambiguity occurs, the court may misapply the statute based upon its "clear" interpretation of the language, while the intended meaning becomes lost in the verbiage.

The AHRA is now suffering from both a lack of clear language and misapplied intent. This is not to say that the Act was drafted with bad intentions. Rather, it implies that the AHRA's vague language is being used, in light of the Rio litigation, to advance self-serving interests and positions inconsistent with its original intent. A clear purpose must be re-articulated before the law can be applied in future technology-based litigation.

---

[201] *See* Consumer Prod. Safety Comm'n v. GTE Sylvania, Inc., 447 U.S. 102, 108 (1980) (stating that it is a "familiar canon of statutory construction that the starting point for interpreting a statute is the language of the statute itself. Absent a clearly expressed legislative intention to the contrary, that language must ordinarily be regarded as conclusive").

[202] *See id.*

A. THE AHRA'S LACK OF CLEAR INTENT

1. Does the AHRA Address Music Piracy?

As stated previously, the AHRA has three goals.[203] First, the Act legalizes the copying of music for home, noncommercial use.[204] Second, the Act establishes a royalty payment scheme by which the music industry is compensated for the losses stemming from the authorized home recordings.[205] Finally, the Act requires a serial copy management system or "SCMS" to be incorporated into any digital audio recording device to prevent the copying of a copy.[206] These provisions were initially viewed as an adequate remedy to the problems associated with home audio recordings. However, changes in technology now seem to have now moved the AHRA beyond these original goals.

This note contends that the AHRA is being applied by litigants like the RIAA to gain an economic advantage, and by the courts to compensate for the changing technological landscape, with both approaches being much broader than the purpose proposed by Congress. The AHRA appears on the verge of becoming a vehicle by which a whole new range of new music and digital technology copyright issues will be challenged. Consider, however, if the courts in the Rio litigation interpreted the provisions to meet the intent of the drafters? Was the RIAA only concerned with the personal use of MP3 music files? The answer to both of these questions is no. The RIAA was actually attempting to gain some legal control of the surging MP3 music standard while fighting music piracy, and the court was attempting to balance new technology

---

[203] *See supra* notes 58-72 and accompanying text.

[204] *See supra* text accompanying notes 61-64.

[205] *See supra* text accompanying notes 65-68.

[206] *See supra* text accompanying notes 69-75.

against the threat of music piracy. What does not fit is that these motives were all advanced under the guise of personal home recording. These unjustified applications of the AHRA are actually detrimental to the music consumer and to the advancement of digital audio technology.

The only clear purpose addressed by the House and Senate Reports on the AHRA is the exemption of home taping from copyright infringement liability.[207] The Senate Report states that the purpose of the Act was to ensure the right of consumers to make analog or digital recordings of copyrighted music for their private, noncommercial use.[208] It next mentions the inclusion of the royalty payment system and the SCMS requirement.[209] In analyzing these provisions, the Senate also proceeds to discuss specific concerns about the various problems arising from home taping.[210] Specifically, the Report mentions a concern about the impact of new digital recording devices on home taping,[211] and details various studies surrounding the impact of home taping that project the amount of lost unit sales and revenues due to increasing home recordings.[212] Each of these concerns seems to have been addressed in the provisions of the AHRA pertaining to royalty payments.

---

[207] *See* S. REP. NO. 102-294, at 30 (1992) (stating the purpose of Senate bill 1623 is to ensure the right of private consumers to make analog or digital audio recordings); H.R. REP. NO. 102-873(I), at 12 (1992), *reprinted in* 1992 U.S.C.C.A.N. 3578, 3582 (stating the purpose of House bill 3204 is to provide a framework within which digital audio recording technology may be made available to consumers).

[208] *See* S. REP. NO. 102-294, at 30.

[209] *See id.*

[210] *See id.* at 34 (noting a section of Senate Report 294 entitled "The Effect of Home Taping").

[211] *See id.* at 35 (discussing the changes in home taping technology that have caused fears of a large increase in home taping).

[212] *See id.* (claiming that over 322,500,000 recording sales are lost per year due to home recording, and that the number will rise with the release of DAT technology).

What is not clearly addressed in the legislative history is the reasoning behind the SCMS. The Report fails to mention if its inclusion arose from concern directed toward the consumer copying for his or her own personal use (e.g., a copy for in the car), toward the consumer making a recording and then passing it along to a friend, or from the consumer participating in music piracy. Copying for personal use in the car is certainly a legal consumer use under the AHRA. Similarly, making a copy to give to another person is arguably authorized by the AHRA because a 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.[213] Finally, piracy is clearly unlawful. The bottom-line is that the real threat of advances in digital recording technology does not stem from the consumer copying for use in a car, or, arguably, from the consumer that makes copies for a few of his or her friends. The threat that exists is due to the music pirate that provides cut-rate copies. Is this why the SCMS requirements were added to the AHRA?

The SCMS is not a necessary aspect of a law that legalizes home recording. Consider a consumer that purchases a CD for home use who then makes a recording of it for use in his or her car. Later, the consumer desires another copy for use in a Walkman cassette-player. Would he or she copy the copy? Most likely not. This is because the second-generation copy's sound quality is degraded and because the original is readily available. Next, consider the possibility

[213] *See* 17 U.S.C. § 106(1), (3) (1994). Section 106 identifies a copyright holder's exclusive right to copy and distribute his or her work. *See id.* However, section 109 of the Copyright Act (the "first sale doctrine") provides a limitation on the section 106(3) distribution right by allowing the owner of a copy of a work to sell or dispose of that copy without the copyright holder's authorization. *See* 17 U.S.C. § 109(a) (1994). This limitation does not apply if the copy is lent to another for direct or indirect commercial advantage. *See* 17 U.S.C. § 109(b)(1)(A) (1994). In light of the AHRA, this implies that the only way infringement could possibly take place when someone makes a copy for a friend is if those friends routinely exchange copies of audio works to decrease their overall expenditure on pre-recorded music, thereby obtaining a commercial gain. *See id.*

that second-generation copies did not lose sound quality (as with DAT). Further consider that because certain DAT recorders copy quicker than standard CD playback, the consumer decides to copy the DAT copy. Why should that activity be prohibited? Repeated once again, the AHRA makes home taping for "private, noncommercial use" legal.[214] Assuming the consumer legally purchased the original, why should it be unlawful to copy a copy for personal use, especially given the new advances in Internet and CD recording technologies?

Logic would seem to indicate that the SCMS requirement advances different goals than those stated by Congress. The AHRA without the SCMS requirement would still allow the consumer to make personal copies of his or her own music collection without violating copyright law, and the royalty scheme placed on the blank media and recording devices would still compensate the industry for the home taping losses. By inserting the SCMS requirement into the AHRA, Congress implicitly acknowledged that the recording industry's concern with piracy is being advocated without once mentioning the term "pirate." The small-time consumer making an occasional copy does not seem to be the real focus. This view constrains the consumers right to copy and stifles innovation in the electronic devices designed to provide the consumer new recording and playback options.

2. The Real Music Pirates

Two situations seem to have led to the belief that technology-based copyright protection systems like the SCMS should be required by law. First, there is blatant music piracy, which occurs when another person compensates a copier in exchange for an unauthorized recording of a musical work. This problem occurs around the world daily and is especially prevalent in

[214] *See* 17 U.S.C. § 1008 (1994).

countries without strict copyright enforcement.[215] The most notorious culprits are Asian countries like Taiwan and Malaysia that have a long record of blatant copyright infringement and piracy.[216] This problem has resulted in many government and industry studies on how to combat the problem, but there seems to be no adequate solution.[217] Foreign pirates will continue to flourish because their illegal copies are made and sold outside of the United States where federal copyright laws are unenforceable. Furthermore, the SCMS will not prevent piracy in other countries because the protection is only effective in a device that is equipped with SCMS technology.[218] Foreign countries have recording equipment that does not comply with the SCMS, and thus, these devices are used to copy originals and second-generation copies without the recorder recognizing the difference. These foreign pirates are very difficult to stop.

In the United States, serious penalties can result from copyright infringement prosecution.[219] Given the implications, only the most serious music pirates risk prosecution in

---

[215] *See generally* Alan S. Gutterman, *International Intellectual Property: A Summary of Recent Developments and Issues for the Coming Decade*, 8 SANTA CLARA COMPUTER & HIGH TECH. L.J. 335, at 342 (1992) (stating that the United States created the "Special 301 watch list" to identify and track countries that used potentially illegal intellectual property practices or market barriers).

[216] *See Southeast Asia urged to take on CD pirates* (last modified Nov. 4, 1999) <http://english.hk.yahoo.com /headlines/041199/news/941698620-91104065723.newsasia.html> (quoting Jay Berman, chairman of the International Federation of the Phonographic Industry, as stating "[t]ens of millions of pirate CDs, as well as the equipment that makes them, are being shipped . . . from countries such as Malaysia and Taiwan to Brazil and Argentina").

[217] *See* USTR (United States Trade Representative), *USTR Special 301 Review on Intellectual Property* (last modified May 3, 1999) <http://www.usia.org/regional/nea/sasia/docs/doc177.htm> (detailing the contents of a report identifying inadequate protection of intellectual property by U.S. trading partners).

[218] *See* S. REP. NO. 102-294, at 36 (noting that the SCMS technology is required in digital audio recorders and interface devices to make it function).

[219] *See* 17 U.S.C. §§ 502(a), 504-506 (1994). The Copyright Act contains a variety of penalties that may be imposed on infringers including injunctions, s*ee id.* § 502(a), the recovery of monetary damages and actual profits earn from the infringement, *see id.* § 504, and recovery of attorney's fees, *see id.* § 505. Criminal penalties are even available in certain instances. *See id.* § 506.

order to copy and sell unauthorized tapes or CDs in this country. Also, these sophisticated pirates do not simply work from home making occasional copies to sell on a one-by-one basis. They possess the intent to pirate music on a large scale and would most likely accomplish the goal by acquiring an extensive array of recording equipment with which to make large quantities of copies. Additionally, if the pirates can acquire their equipment from a foreign source that doesn't incorporate the SCMS, the AHRA provisions become meaningless and do nothing to prevent the large-scale operations. Alternately, if the pirates can not acquire foreign equipment, they can alter existing equipment or use recorders produced before the SCMS requirement was enacted to work around the SCMS protection schemes. In either scenario, the music pirates will be able to make copies of a copy. It is these types of sophisticated pirates, whether foreign or domestic, that inflict the greatest economic losses felt by the music industry.

The second situation that seems to require SCMS technology is, as discussed previously, when a copy is simply given to another by the authorized purchaser.[220] This scenario also seems to require the incorporation of the SCMS to break the ongoing chain of copies because without it, the friend who was given the copy can make second-generation copies. However, the SCMS will have little effect in preventing this situation from occurring because if another copy is desired, the original is most likely accessible. The source was not an unknown music pirate from Malaysia, but rather someone's friend from across the street. Another copy from the original can easily, and legally, be made, and the distribution of the copy is arguably legal.[221] While this "friendly copying" situation is important to consider, it has a much lower impact on the music

[220] *See* 17 U.S.C. § 109(a) (1994) (detailing the "first sale doctrine"). In general, a lawful copy may be given to a friend, provided it is a gift and no commercial advantage is gained. *See id.*

[221] *See id.* However, if any direct or indirect commercial advantage results from the "lending" of the copy, infringement may be argued under 17 U.S.C. § 109(b)(1)(A) (1994).

industry than large-scale piracy because the economic impact felt by the artists and the music industry is comparatively minimal, and because the AHRA's royalty system on blank media compensates for these losses. The reality is that no technology-based copyright prevention scheme will prevent these types of transfers, aside from the complete prevention of all copying.

Theses scenarios described above are of great concern to the music industry. Both situations impact music industry revenues and rights of copyright owners. Steps need to be taken to reduce the amount of music piracy in the world, and technology should be used, if it can be used effectively, to prevent the unlawful reproduction of musical works. However, the AHRA can not be the means to serve that end. A law enacted to legalize home recording and provide compensation for the small loss of revenue attributable to basic home copying is not a worldwide anti-piracy vehicle for use by major corporations and wealthy interest groups. The Act was never intended to be a broad anti-piracy statute and revisions are necessary if is it to retain any viability.

B. REVISING THE AHRA TO EMBRACE THE FUTURE

1. Striving to Meet Technological Advances

The law that Congress attempted to create in the AHRA was too ambitious and complex. It appears that because the technology was advancing and becoming more complicated, the lawmakers believed that the law had to become similarly complicated. The AHRA contains very precise definitions of, among other things, a "digital audio recording device," a "digital music recording," and a "digital audio recording medium."[222] The use of these terms and definitions

---

[222] *See* 17 U.S.C. § 1001 (1994).

within the text of the Act makes any sensible interpretation very difficult. In revising the AHRA, Congress should move away from the exacting definitions of each type of digital device and focus on the *results* that they wish to prevent and those that they wish to allow. This is the only approach that will allow the law to coexist with emerging technologies. Under this logic, for example, assuming the AHRA was primarily drafted to solve the home taping issue, Congress should have focused on the home taping portion of the pre-recorded music buying consumer base to define conduct that is authorized and that which is unlawful.

This note proposes that *any* home copying of audio recordings for private use by an authorized purchaser should be legal, regardless of how the duplication takes place. Under this view, the legitimate consumer can make a single copy of the original, multiple copies of the original, or even multiple copies of copies without violating nor being constrained by the Act because the *result* is the same: legal home taping that does not harm the copyright owner or reduce incentives to create new works. A results-based approach would provide the consumer with his or her authorized copy, regardless of how the copies were made or how the technology changes in the future, with the right to copy stemming from being a legitimate owner with private, non-commercial intentions.

A results-oriented approach is easier to establish, amend and enforce than a restrictive approach. For example, consider the wide range of methods currently available for making digital audio recordings by combining computer equipment and home audio recording equipment. To list all possible *restricted* combinations and activities would be nearly impossible and would frustrate the lawmakers, consumers, and manufacturers. On the other hand, a results-oriented view of the law would allow users of new recording technologies to have a presumption of legality until the lawmakers have the time, experience, and information needed to amend the

laws to compensate for violating actions. A consumer could purchase prerecorded music from his or her new outlet of choice, be it a CD from a music store, an MP3 file from an Internet site, or via any hot technology of the moment, and make a copy of the recording without the worry that a narrow, outdated law is making his or her new activity illegal.

With a results approach there would be no need to redraft entire sections to the United States Code just because a small high-tech company invents the next popular technology. For instance, DVD is the hot, new technology in digital video. To combat piracy, the DVD standards committees spent years attempting to design copyright protection controls.[223] Interestingly, only months after its release, the copyright protection codes were hacked and illegal copies of DVDs are now being made.[224] Furthermore, electronics companies are set to release a recordable DVD device similar to the recordable CD-ROM drives mentioned earlier,[225] which will only serve to raise the same contentious issues previously discussed in this note's music context. As this real-world example illustrates, technology will always outpace the legislative process, and lawmakers must be forward thinking and focus on the behavior and result that they want to affect. Even the drafters of the AHRA mentioned that they did not want to "revisit [the] issue almost annually in order to keep pace with the rapidly changing technological world."[226]

---

[223] *See* Mathew Schwartz, *DVD encryption hacked*, CNN.com (last modified Nov. 5, 1999) <http://www,cnn.com/TECH/computing/9911/05/dvd.hack.idg/index.html> (stating that the motion picture industry spent years negotiating the encryption standard for DVD).

[224] *See id.* (reporting that a small group of Norwegian hackers recently released a program that can break the copyright protection of almost any DVD).

[225] *See* CNN.com, *Pioneer to launch world's first recordable DVD player* (last modified Nov. 26, 1999) <http://www.cnn.com/TECH/ptech/9911/26/japan.dvd.reut/index.html> (reporting that Pioneer Corp. will begin selling recordable DVD players in North America in 2000).

[226] S. REP. NO. 102-294, at 36 (1992).

2. Proposed AHRA Revisions

The AHRA's convoluted definitions for the various aspects of digital recording technology should be eliminated and replaced with a clear statement of its purpose: the authorization of home recordings for any type for personal, noncommercial use. Likewise, the AHRA should be redrafted to include a specific "exceptions" section that would be used to enumerate unlawful actions. These revisions would allow the basic purpose of legal home recording for personal use to remain stable and unquestioned, while providing an easily-amendable section in which to identify specific activities that are deemed unlawful. Once the broad home recording aspects of the AHRA are made very clear, specific behaviors that would violate the intended results of the Act could be identified at any time and written into the exception section. For example, the previously discussed problems with large-scale piracy or "friendly copying" could be addressed as particular exceptions, with each being specifically explained and the prohibited technologies and actions listed. This approach would provide courts with a roadmap of the current unlawful recording activities without restricting any personal consumer rights. Any type of commercial gain claimed to stem from a right granted by the AHRA could be exempted as unlawful, as could any unlawful transfer, be it physical or electrical, of a lawfully copied work. This would allow Congress to simply amend newly discovered unlawful activities to the Act (e.g., illegal Internet transfers), rather than hold back the advancement of new recording and playback technologies. Most importantly, this approach would alleviate the need for the courts to make determinations about every emerging

technology,[227] an example of which can be found in the excruciating interpretation exercise that the District Court and the Ninth Circuit were required to make in the Rio litigation.[228]

When drafting a new, technology-embracing AHRA, any reference to a particular SCMS should be excluded. As previously discussed, the SCMS does not support the AHRA's basic purpose of legalizing home recording. A SCMS requirement is an anti-piracy device that, if included, belongs in legislation that speaks harshly of the penalties of using any technology to pirate copyrighted sound recordings. The revised AHRA should not take an anti-piracy position because other aspects of copyright law already meet those goals, and because its real intent is to eliminate a class of people from being viewed as copyright infringers, not provide a law with which to battle infringers. The AHRA should not require any of these specific technology-based schemes that functions as cloaked anti-piracy legislation. This only serves to create suspicion in all users of emerging technologies like MP3.

The SCMS requirement is arguably even unnecessary in light of the new DMCA. The DMCA currently includes extensive penalties for circumvention of *any* copy-prevention technology,[229] and it thus eliminates the need for laws requiring specific SCMS-type schemes. Recording companies or electronics manufacturers could implement any technology-based protection scheme with immediate rights against anti-circumvention, or they could choose to not use any schemes and rely on existing copyright law to enforce copyright rights. Either approach

---

[227] *See* Don Clark, *Record Labels Sue MP3.com Over Services*, N.Y. TIMES, Jan. 24, 2000, at B8 (reporting on another new lawsuit by the recording industry against the web site MP3.com).

[228] *See* Elizabeth Clampet, *Diamond, RIAA Settle Internet Music Lawsuit* (last modified Aug. 9, 1999) <http://www.internetnews.com/prod-news/article/0,1087,9_174801,00.html> (reporting that after nine months of litigation the RIAA settled its lawsuit with Diamond over the Rio MP3 player).

[229] *See* 17 U.S.C. §1201(a), (b) (Supp. IV 1998).

would be more effective than the current SCMS because market-driven systems will always lead to a more optimal design that more quickly responds to changes than government-imposed limitations. Of note, this argument would effectively close the loophole previously discussed by the Ninth Circuit in the Rio litigation because there would be no distinction between computers, software, music, and multimedia in terms of anti-circumvention under the DMCA.[230]

Ironically, after this extended debate, the SCMS and similar systems may simply be unworkable and unnecessary. This is because the systems are inherently weak, a point punctuated by the need to have laws that punish their circumvention. Protection schemes are really just an invitation extended to computer hackers to break the code, and hacking will inevitably occur. Consequently, the legal system must be used to prosecute the parties cracking the protection schemes that were required by law in the first place. This circular statement illustrates the wasteful squandering of legal resources that should motivate lawmakers to rethink the long-term impact of specific technology laws. Furthermore, technology usually quickly advances beyond the capabilities of any particular protection system, requiring continuous development of new ones. The home consumer is not the individual likely to break anti-circumvention devices, and the AHRA should not be the vehicle by which protection systems are propagated.

Critics of this results-based approach may argue for keeping the SCMS requirement in the AHRA because it does not hurt consumers as much as it silently assists in the battle against music piracy. However, the AHRA is unable to battle true music piracy. It was only designed to permit home recording and compensate those affected by home recording through the collection of royalty payments. The RIAAs of the world should not be allowed to use a law focused on

[230] *See supra* text accompanying note 207.

home recording to wage litigation against personal electronics manufacturers that are simply taking economic advantage of emerging technologies. Employing the AHRA in that manner is inconsistent with its purpose and effectively begins to limit the advances in music technology that it was intended to support. Furthermore, music pirates and software hackers will always break technology-based protection systems soon after they are introduced. The code-breaking is inevitable because these individuals are motivated by more than just a desire to make an extra copy of a recording for use in the car; they thrive on the challenge and may even see the opportunity to make large amounts of money. There is no need to limit the rights of law-abiding consumers or penalize the advances in new technology in an attempt to stop these sophisticated pirates. Separate laws must be used to attack the music piracy problem.

In short, the AHRA must be revised. The intent of the AHRA needs to be clearly stated to permit any legitimate home taping while compensating the music industry for home taping losses via the royalty payment system. The law should not penalize the equipment manufacturers that are revolutionizing the audio and computer world. It should also not pursue the consumer that typically pays for all music but occasionally downloads an unknown MP3 (or similar) file. Legislation must be provided that focuses on the behavior to be punished. Continuing down the path of the current AHRA and the recent Rio litigation will only serve to chill advances in music technology and restrict consumer rights.

V. CONCLUSION

Internet music technology presents a new paradigm for intellectual property law because the very nature of this sophisticated industry quickly antiquates technology-focused legislation. New, never-imagined capabilities inevitably emerge after technology laws are drafted, and any precise schemes mandated by a law become prime targets for the programmers and hackers that

see such restrictions as a new challenge. Lawmakers need to remember that technology is never perfect and loopholes can always be found. The rapid changes in emerging recording technologies demand results-oriented lawmaking. Congress should refrain from drafting legislation that attempts to prophesize every new development and instead focus on the result they are trying to achieve.

Music piracy is a problem, and it is one that has been exacerbated by the development of digital recording and Internet technology. However, a consumer's right to make home recordings and the personal electronics industry's right to produce new products must not be impinged under the guise of fighting music piracy. The RIAA's recent use of the AHRA as a sword for stopping music piracy is a misapplication of the law's purpose of legalizing home recording. Furthermore, the repeated references to "music piracy" by the courts in the Rio litigation illustrate the confusion associated with the AHRA's scope. The drafters of the AHRA did not anticipate the current changes in digital music recording and distribution, and applying the AHRA to combat music piracy tends to compromise the very rights that the law extended to consumers and personal electronics manufacturers.

The AHRA should be revised to include a specific section of exclusions to its broad right of allowing any home taping for personal, non-commercial use. With this approach, the exclusions section could be easily amended in the future to account for unimagined technological developments without the need to revise the underlying purpose of the law. The AHRA would then have a clear purpose and could not be used to battle large-scale music piracy—an issue not mentioned in its language or legislative history. Furthermore, the SCMS requirement should be eliminated from the AHRA in light of the DMCA's specific purpose of prohibiting digital piracy and the devices used to circumvent copyright-protection schemes. The current SCMS

requirement does not stop the major music pirates of the world because it is not a challenge for most sophisticated pirates to circumvent. It only serves to restrict the AHRA's purpose of allowing personal copies, and has become a sword with which the recording industry fights the emergence of new technology. A new AHRA, without the SCMS, would continue to meet its goal of allowing home copying for personal use while compensating the members of the recording industry for lost revenues due to home taping. Revisions to the AHRA must occur because, as written, it only serves to stifle development of new technology and injure consumers by making many of each of seemingly innocent actions subject to copyright infringement lawsuits. With appropriate amendments, the AHRA and DMCA can together enhance the technology market while protecting the rights that the creators of new expression deserve.