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Notes

ANTICIPATING TECHNOLOGY: A STATUTE BYTES THE DUST
IN RECORDING INDUSTRY ASS'N OF AMERICA v.
DIAMOND MULTIMEDIA SYSTEMS, INC.

I. Introduction

What is the most popular search term on the web today? If you guessed "sex" you are wrong.1 "Sex" runs a sad second to the real king-of-the-Net: MP3.2 MP3 is the popular music download format that is sweeping cyberspace and showing no signs of fading away.3 MP3, which stands for MPEG-1, Layer 3, is a digital compression format for audio files on the Internet.4 The format is an open standard, which means that it has no built-in encryption or protection of the files.5 The MP3 format has been used extensively by independent musical artists attempting to distribute their music without going through the traditional recording companies.6

1. For a further discussion of the most popular search term on Jan. 28, 2000, see infra note 2 and accompanying text.


3. See Heather D. Rafter et al., Streaming into the Future: Music and Video on the Internet, 547 P.L./Pat 605, 614-15 (1999) (commenting on MP3 popularity for digital downloading of music); Roger O. Crockett, Heard Any Good Computer Files Lately?: If the record business is to thrive, it must embrace the digital-music format, BUSINESS WEEK E.BIZ, Sept 27, 1999, at EB 16 ("If you haven't heard of MP3, either you're not into the Net or you're over 40. But get familiar fast."); David Weiss, MP3: The Real Deal, MUSICIAN, Apr. 1999, at 39-42 (reporting on rise of MP3 format in music industry and practical implications for musicians). For a definition of download, see infra note 70 and accompanying text.

4. See Rafter et al., supra note 3, at 615 (defining MP3); Jon Halpin, PCs Get Wired for Audio with MP3, COMPUTER SHOPPER, Feb. 1999, at 130 (same); see also MPEG Layer 3 Audio, supra note 3 (same). For the definition of compression format, see infra note 69 and accompanying text.

5. For a further discussion of MP3's open standard and competing proprietary formats, see infra note 72 and accompanying text.

6. For a further discussion of independent artists using MP3, see infra note 73 and accompanying text.
It is also a popular format for illegally posting songs on the Internet for download.7 Moreover, MP3 is the Achilles’ heel of the music industry—and a symbol of the future death of the Audio Home Recording Act of 19928 (“AHRA”).9 In an attempt to curb the loss of revenues attributable to pirated postings, the Recording Industry Association of America (“RIAA”) has been diligently scouring the Internet on a daily basis, searching for sites with illegally posted music and shutting them down.10 The effort has met with mixed success and cynicism.11

Recently, digital electronics companies have taken note of the explosive MP3 market, developing new products that will transfer MP3 files from a consumer’s computer to playback devices such as portable digital audio players and digital audio car stereos.12 The first affordable digital audio player to hit the market was the Rio PMP300 (“Rio”), which was designed and marketed to play only MP3 files transferred from the device

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7. For a further discussion of the proliferation of pirated music on the Internet, see infra notes 75-77 and accompanying text.
9. For a further discussion of the reasons MP3 is the bane of the Recording Industry Association of America (“RIAA”), see infra notes 72-77 and accompanying text.
10. For a further discussion of the RIAA’s efforts to keep pirated music off the Net, see infra note 79 and accompanying text.
11. See, e.g., Bruce Haring, You Can’t Stop the Music on the Net, Recording Industry Debates MP3 Piracy Issue, USA TODAY, Nov. 4, 1998 (final edition), at 5D (noting that “RIAA cites large numbers of illegal sites and files on the Net, but can offer few specifics on the number of digital downloads from those sites”). The RIAA claims that after one site has been notified and removed, another arises to take its place. See id. (noting ease of establishing MP3 distribution sites). Critics argue that the real culprits are not hard to find. See id. (stating that necessary bandwidth to store large amounts of audio files is red flag to diligent Internet service providers). But see id. (lamenting difficulty of locating and prosecuting individuals running illegal sites).
12. See Peter Clarke, Engineers Drive Craze for MP3 Audio Players, ELECTRONIC ENGINEERING TIMES, Feb. 8, 1999 (describing emerging MP3 hardware market). For example, as of February 1999, the hardware guide at the MP3.com site listed “25 standalone MP3 portable players, 10 car players and 23 computer-tethered players . . . .” Id. As of January, 2000, MP3.com listed 39 standalone portable devices and 39 car players. See MP3.com Hardware: Portable (visited Jan. 31, 2000) <http://www.mp3.com/hardware/portables/listportables.html> [hereinafter Portables] (listing commercial and hobbyist devices); MP3.com Hardware: Car Players (visited Jan. 31, 2000) <http://www.mp3.com/hardware/car/listcar.html> [hereinafter Car Players] (listing car players). One car player in particular, the Empeg-car brand, uses regular computer disks to store up to 7,000 CD-quality singles in the auto dashboard, all loaded into the device from a computer. See Clarke, supra (reporting on one engineer’s contribution to MP3 popularity, particularly portable car device). The same device can also be modified to play through a standard stereo system. See id. (discussing possibilities for Empeg-car system). Price ranges for portable digital audio devices vary from $179 for a portable walkman-like device to $1,211 for a car system. See Portables, supra (listing current retail prices on commercial portable devices); Car Players, supra (listing car devices).
to the consumer’s computer. In response, the RIAA filed a lawsuit in the United States District Court for the Central District of California seeking to enjoin distribution of the device on the grounds that the Rio was a digital audio recording device under the AHRA, and had not complied with the statute.

This Note will track the development of copyright law from its birthplace in the United States Constitution to the AHRA. It will then briefly explain the change in digital technology over the past decade and attempt to make some projections for the future. Most importantly, this Note will explore the recent United States Court of Appeals for the Ninth Circuit Court of Appeals decision in Recording Industry Association of America v. Diamond Multimedia Systems, Inc., and its impact on the future of digital technology. Specifically, this Note will parse the Ninth Circuit’s analysis of the definition of “digital musical recording” under the AHRA and its arguable but solid reliance on an accepted canon of statutory interpretation: the plain meaning rule.

II. BACKGROUND

A. The Copyright Laws and Cases

The United States Constitution grants Congress the power to establish limited copyrights to certain individuals. This exclusive right to monopoly is limited in its scope and is not meant to confer a “special private

13. See Tom Abate, Diamond Multimedia Systems is Caught in Legal Quagmire; Music Publishers Fighting Firm’s New Digital Gizmo, SAN FRAN. CHRON., Oct. 13, 1998, at C1 (identifying Rio as first practical digital playback device on market). Prior to the introduction of the Rio, other digital playback devices existed, but they were more expensive than the Rio, despite their limited capabilities. See id. For a further discussion of the Rio playback device, see infra notes 80-90 and accompanying text.


15. For a discussion of the development of copyright law leading to the Audio Home Recording Act of 1992, see infra notes 20-28 and accompanying text.

16. For a further discussion of the changes in digital technology over the past decade, see infra notes 46-53, 67-79 and accompanying text.

17. 180 F.3d 1072 (9th Cir. 1999).

18. For a further discussion of the impact of the Ninth Circuit’s decision, see infra notes 180-88 and accompanying text.

19. For a further discussion of the Ninth Circuit’s analysis, see infra notes 96-131 and accompanying text. For a further discussion of the plain meaning rule, see infra notes 140-43 and accompanying text.

20. See U.S. CONST. art. 1, § 8, cl. 8. (“The Congress shall have Power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”).
benefit” to authors and inventors.21 Rather, the foundation of the constitutional grant, and the policy behind copyright and patent legislation, is that “the welfare of the public will be served and progress of science and useful arts will be promoted.”22 The purpose behind the establishment of an exclusive right to works is to grant authors and inventors the freedom and incentive to continue their creative activities.23 After the limited monopoly has expired, the benefit of the artist’s work is transferred to society as a whole by granting public access to his or her results.24

The first copyright law enacted by Congress in 1790 appeared to be limited in its scope, protecting maps, charts and books.25 As technology advanced, the copyright law was amended and revised to accommodate the changing environment.26 The current Copyright

23. See Sony, 464 U.S. at 429 (explaining constitutionally limited monopoly privileges to copyright owners are established for overall public benefit); see also Brian A. Carlson, Comment, Balancing the Digital Scales of Copyright Law, 50 SMU L. REV. 825, 829 (1997) (recognizing economic philosophy behind constitutional grant was encouraging individual effort through personal gain); Joel L. McKuin, Comment, Home Audio Taping of Copyrighted Works and the Audio Home Recording Act of 1992: A Critical Analysis, 16 HASTINGS COMM. & ENT. L.J. 311, 316 (1994) (same).
26. See Sony, 464 U.S. at 429, nn.11-12 (listing specific changes in technology that preceded change in copyright law). See generally Goldstein, 412 U.S. at 562-66 (discussing change in music technology and effect on law). The Act was amended again in 1802 to accommodate engravings, etchings and other prints. See Act of Apr. 29, 1802, ch. 36, 2 Stat. 171 (repealed 1831) (expanding protection to inventions, designs, engravings and etchings); Goldstein, 412 U.S. at 562 n.17 (listing changes). Musical compositions gained protection in 1831, photographs and negatives were covered by an amendment in 1865 and paintings, drawings, chromos, statuettes, statuary and models or designs of fine art were added to the Copyright list in the Act of 1870. See id. (discussing changes). Furthermore, the types of persons granted copyright protection was broadened so that the definition of author encompassed, “he to whom anything owes its origin,” and the definition of a “writing” encompassed, “any physical rendering of the fruits of creative or aesthetic labor.” Id. at 561.

The Copyright Act has gone through four general revisions since its original promulgation in 1790: the first revision was in 1831, the second in 1870, the third in 1909 and most recently in 1976. See Carlson, supra note 23, at 830 (discussing revisions of copyright law). In 1909 Congress revised the Act to accommodate technology that allowed for greater reproduction of copyrighted works than had previously existed. See Goldstein, 412 U.S. at 562 n.17 (summarizing necessity of 1909 revision); Carlson, supra note 23, at 830-31 (same). The 1909 Act listed 11
Act\textsuperscript{27} was revised in 1976 and has been updated by many amendments since that time.\textsuperscript{28}

Although there has long been copyright protection for underlying musical compositions (\textit{i.e.}, the actual creative music writing), no federal copyright protection for sound recordings existed until the early 1970s, when Congress enacted the Sound Recording Act of 1971.\textsuperscript{29} A sound recording is the term given to recorded performances of musical works, or a work constituted of a series of recorded sounds.\textsuperscript{30} The copyright of sound nonexclusive classes of protected works. \textit{See} Act of Mar. 4, 1909, ch. 320, 35 Stat.1 (amended 1912) (listing 11 classes of work and stating that classes do not "limit subject matter of copyright"); Goldstein, 412 U.S. at 562 (discussing revision of 1909). The 1909 Act was amended twice to include motion pictures (1912) and sound recordings (1971). \textit{See id.} (listing amendments to 1909 act); Carlson, \textit{supra} note 23, at 850-31 (same). For further discussion of the Sound Recordings Amendment of 1971, see \textit{infra} notes 29-32 and accompanying text. For a further discussion of the 1976 Copyright Act, see \textit{infra} notes 32-45 and accompanying text.


30. \textit{See} 17 U.S.C. § 101 (listing definitions). The current definition of sound recording requires sounds to be "fixed" on some type of material object, from which they can be perceived. \textit{See id.} ("Sound recordings" are works that result from the fixation of a series of musical, spoken, or other sounds, but not including the sounds accompanying a motion picture or other audiovisual work, regardless of the nature of the material objects . . . in which they are embodied."); \textit{see also J. GUNNAR ERICKSON ET AL., MUSICIAN'S GUIDE TO COPYRIGHT 6} (2d ed. 1983) (defining term). A sound recording is "fixed" in a tangible medium of expression:

[W]hen its embodiment in a copy or phonorecord . . . is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration. A work consisting of sounds, images, or both, that are being transmitted, is "fixed" for purposes of this title if a fixation of the work is being made simultaneously with its transmission.


"Phonorecords" are:

[M]aterial objects in which sounds, other than those accompanying a motion picture or other audiovisual work, are fixed by any method now known or later developed, and from which the sounds can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. The term "phonorecords" includes the material object in which the sounds are first fixed.
recordings protects an artist’s particular rendition of a song and is an independent, copyrightable expression separate from the underlying musical work.  

The Sound Recordings Act of 1971 was short-lived. After nearly twenty years in the making, Congress made its fourth general revision to the copyright law, enacting the Copyright Protection Act of 1976. The revised Act granted to copyright holders a “bundle” of five exclusive rights, including: (1) the right to reproduce the work; (2) the right to prepare derivative works; (3) the right to distribute copies to the public by sale, rental, lease or lending; (4) the right to perform the work publicly (performance right); and (5) the right to display the work publicly. Protections for copyright owners of sound recordings, however, did not receive the full benefit of the bundle of rights. Specifically, the Copyright Act of 1976 did not grant a performance right to sound recordings. Therefore, if an artist’s song were played on the radio, the composer of the song would receive royalties, while the artist performing that underlying composition would receive nothing.

The Copyright Act of 1976 also included a provision creating the wrongful act of copyright infringement, and it granted copyright owners several remedies against copyright infringers. Excluded from the purview of copyright infringement were certain activities that fell under the

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31. See Abrahamson, supra note 29, at 188 (tracing birth of right to copyright in sound recordings). The Sound Recording Act of 1971 protected copyright owners from unauthorized distribution or reproduction of sound recordings. See id. at 191. The Act did not, however, protect copyright owners from unauthorized public performance of their work. See id.


34. See 17 U.S.C. § 114(a) (defining “Scope of Exclusive Rights in Sound Recordings”). Section 114(a) states that the copyright owner’s rights include only the right to reproduce, prepare derivative works and distribute their works to the public by sale or other transfer. See id. (limiting rights in sound recordings). Furthermore, copyright owners are specifically excluded from the right of performance listed under § 106(4). See id.

35. See id. (specifically excluding performance right to sound recordings).

36. See, e.g., McKuin, supra note 23, at 344 (lamenting AHRA’s failure to grant performance rights to sound recordings).

37. See 17 U.S.C. § 501(a) (stating that “[a]nyone who violates any of the exclusive rights of the copyright owner as provided by section 106 . . . is an infringer of the copyright . . . ”). The copyright owner has at his or her disposal several remedial options. See Sony, 464 U.S. at 433 (discussing “arsenal of remedies”). The copyright owner may enjoin the infringer from violating the owner’s rights, impound or destroy all wrongfully made reproductions and recover actual damages and additional profits realized by the infringer or statutory damages and fees. See 17 U.S.C. § 501(b) (stating remedies); Sony, 464 U.S. at 433-34 (same).
ambit of the “Fair Use” provision of the Copyright Act of 1976. The Fair Use Doctrine exempts an individual from seeking the copyright holder’s permission to use or reproduce the copyrighted work in certain circumstances, such as educational and library use.

The revised Copyright Act of 1976 effectively superceded the Sound Recording Amendment of 1971, and thus spurred an active debate over home recording activity. Other than codifying the Fair Use Doctrine, the Copyright Act of 1976 did not include an expression or intention to treat home taping for personal use as a noninfringing activity, nor did the legislative history reveal any expression or intention to protect home taping. Because the Fair Use Doctrine and its application is not black-letter

38. See 17 U.S.C. § 107; Sony, 464 U.S. at 446-47 (describing Fair Use Doctrine). Section 107 states:

[T]he fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include—

(1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;

(2) the nature of the copyrighted work;

(3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and

(4) the effect of the use upon the potential market for or value of the copyrighted work.


The Fair Use Doctrine was a common law doctrine employed by the judiciary to counteract equitably the overly broad definition of exclusive rights in the 1909 Act. See Sony, 464 U.S. at 433 (“[The 1909 Act’s] compendium of exclusive rights ‘to print, reprint, publish, copy, and vend the copyrighted work’ was so broad as to encompass virtually all potential interactions with a copyrighted work . . . .”).


ARLENE BIELEFELD & LAWRENCE CHEESEMAN, TECHNOLOGY AND COPYRIGHT LAW 62-63 (1997) (noting no standard definition of fair use). The Copyright Act's Fair Use provision directs:

Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes of such criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright.


40. For a further discussion of the uncertainty in this area of the law, see infra notes 41-45 and accompanying text.

41. See 17 U.S.C. § 107 (establishing Fair Use Doctrine); McKuin, supra note 23, at 319 (analyzing legislative history and statutory provisions of 1976 Copyright Act to exclude express safeguard for home taping). Furthermore, in the legislative history of the Sound Recording Act of 1971, Congress expressed the intention that home taping for private use was not considered copyright infringement:

Specifically, it is not the intention of the Committee to restrain the home recording, from broadcast or from tapes or records, of recorded
law, the battle over the Fair Use Doctrine shaped the home-taping debate for close to a decade.\(^{42}\)

Then, in 1984, the Supreme Court decided *Sony Corp. of America v. Universal City Studios, Inc.*,\(^ {43}\) which held that tape recording television programs on a VTR (Betamax player) for personal use was a noninfringing activity under the Fair Use Doctrine.\(^ {44}\) The *Sony* decision was highly controversial

performances, where the home recording is for private use and with no purpose or reproducing or otherwise capitalizing commercially on it. H.R. Rep. No. 92-487 (1971), reprinted in 1971 U.S.C.C.A.N. 1566, 1572.


44. *See id.* at 454 (establishing fair use protection for personal taping of television programs). *Sony’s* Betamax VTR was the forerunner of today’s VCR; the VTR had the ability to record a broadcast from one television station, while allowing the user to view another station. *See id.* at 422-23 (describing functions). The Betamax would also record television broadcasts even while the user was not at home, through the use of a timer. *See id.* (same).

The crux of the Court’s holding in *Sony* was based on the doctrine that courts must “look beyond actual duplication of a . . . publication to the products or activities that make such duplication possible.” *Id.* at 442. Thus, the courts must strike a balance between the copyright owner’s statutory monopoly and the rights of others to engage in substantially unrelated areas of commerce. *See id.* (applying commerce doctrine). “Accordingly, the sale of copying equipment, like the sale of other articles of commerce, does not constitute contributory infringement if the product is widely used for legitimate, unobjectionable purposes . . . . [I]t need merely be capable of substantial noninfringing uses.” *Id.*

Studies of the device revealed that most consumers used the VTR for “time-shifting” purposes. *See id.* at 423-24 (noting survey of several hundred users during sample period in 1978). “Time-shifting” is the practice of “recording a program to view it once at a later time, and thereafter, erasing it.” *Id.* at 423. Testimony in the district court revealed the VTR’s potential for copying sports, religious, educational and other programs, which all fall into the explicit noninfringing fair uses under 403. *See 17 U.S.C. § 107(1)* (listing numerous examples of uses permitted under Fair Use Doctrine); *Sony*, 464 U.S. at 444 (citing *Universal City Studios, Inc. v. Sony Corp. of Am.*, 480 F. Supp. 429 (C.D. Cal. 1979) (describing injunction as “harsh” remedy in case of product capable of “some noninfringing use”)). Concluding that time-shifting for these types of programming fell under the fair use provision, the district court wrote, “‘[w]hatever the future percentage of legal versus illegal home-use recording might be, an injunction which seeks to deprive the public of the very tool . . . capable of some noninfringing use would be an extremely harsh remedy, as well as one unprecedented in copyright law.’” *Id.* at 444 (quoting *Sony*, 480 F. Supp. at 468).

Under the fair use provision, however, courts must still weigh the “‘effect of the use upon the potential market for or value of the copyrighted work.’” *Sony*, 464 U.S. at 450 (quoting 17 U.S.C. § 107(4)). Therefore, according to the Court, any challenge of a non-commercial use of a copyrighted work requires proof that the particular noncommercial use is harmful, or that it would adversely effect the potential market for the copyrighted work if widely used in the same manner. *See id.* at 450-51 (describing balance of interests under fair use provision). Under the
and became the new center of the audio home recording debate—whether or not the Sony decision could be analogized from copying video to copying music.45

B. Emergence of Digital Recording Technology

Adding fuel to the fire of the audio home-taping debate was the emergence of digital recording technology. In particular, Digital Audio Tapes ("DAT") had the potential to erase the technological barriers that had protected copyright owners from the threat of serial copying.46 Until the late 1980s, music recording technology was limited to analog cassettes.47 Therefore, the threat of serial copying was largely ignored because each serial copy of an analog recording produced severe degradation in audio sound quality.48

facts of Sony, although the studies of the VTR revealed that many consumers had collected libraries of recorded programs, the respondents could not prove that the viewing audience of the television broadcasts had actually decreased. See id. at 423-24 ("Sony's survey indicated that over 80% of the interviewees watched at least as much regular television as they had before owning a VTR."). Thus, the court concluded that home-taping on the VTR was a noninfringing activity under the fair use provision, and as such, Sony could not be held liable for contributory infringement. See id. at 454-55 (holding that time-shifting is fair use).

45. See S. Rep. No. 102-294, at 31 (1992) ("The electronics industry has maintained that the [Sony] decision applied to virtually all home taping while songwriters, music publishers, performers, and recording companies have insisted the decision applies to a very limited set of facts. . . .").

46. See Rafter et al., supra note 3, at 620 (noting that degraded sound quality of home taping assured substantial market for original audio recordings). Serial copying is the making of a copy from a copy, and is prominent in music piracy. See, e.g., id. (giving pyramid example: "a purchaser of a recording could make three copies and give them to three friends . . . and so on"). The introduction of DAT technology represented a giant leap in the evolution of audio recording media. See Andrew S. Muroff, Some Rights Reserved: Music Copyright in the Digital Era, 1997 Dep. C.L. L. Rev. 1241, 1269-72 (1997) (tracing development of recording formats). DAT technology allowed near-perfect serial copies to be made of an original recording, while the traditional analog cassettes experienced severe diminution of sound quality with each successive recording of a copy. See id. at 1270 (noting drawbacks of analog technology versus digital recording). Furthermore, analog media are relatively flimsy—subject to wear and tear—while digital recordings do not diminish in sound quality even after successive play. See id. (comparing formats). For a further discussion of the obstacles to serial copying, see infra notes 47-50. For a comparison of the recording technology behind analog and digital media, respectively, see infra notes 48-49 and accompanying text.

47. See RIAA v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1073-74 (9th Cir. 1999) (noting history of recording technology). Analog recording involves a physical reproduction of sound by tracing the wave of the sound into grooves on a storage medium. See Muroff, supra note 46, at 1269 (explaining process of analog recording); see also Abrahamson, supra note 29, at 195 ("Analog devices record a stream of information that tends to fluctuate."). When an analog recording is played, a "stylus" runs through the grooves, converting the movement through the grooves into an electrical signal that is then amplified. See Muroff, supra note 46, at 1270 (explaining process of analog sound).

48. See Diamond, 180 F.3d at 1073 (discussing drawbacks to analog format). A second-generation copy of a first-generation copy will produce cracks and hisses.
In contrast, digital recordings experience no degradation in sound quality, regardless of the number of serial copies that are made.\textsuperscript{49} This new technology means that anyone with an original copy of a music recording could make an unlimited number of serial digital copies from the original without any noticeable loss in sound quality, opening the door for music pirates to distribute unlicensed copies of copyrighted music for profit.\textsuperscript{50}

In 1987, the first digital audio recording products were hitting the markets in Europe and Asia, and manufacturers were eager to introduce the technology to the American marketplace.\textsuperscript{51} Frightened that digitally pirated copies would disrupt the traditional channels of music distribution, the recording industry was thrown into a panic.\textsuperscript{52} Consequently, specific technologies, such as DAT, the mini-disc and the digital compact cassette were stalled in the American marketplace by recording trade groups, who foresaw a revolution in digital musical recording and sought to gain control of potential copyright infringement actions before the technologies hit the store shelves.\textsuperscript{53}

\textit{See id.} (comparing sound quality to older recordings); Muroff, supra note 46, at 1269 (explaining analog recording process). Because the making of an analog recording is a physical process, imperfections in the original will affect the overall sound quality and produce a diminished quality after copying. \textit{See id.} at 1270 (remarking on reason for analog imperfections); see also Abrahamson, supra note 290, at 195 ( likening analog recording to photocopy of original—both with slightly diminished quality).

\textsuperscript{49} \textit{See Diamond}, 180 F.3d at 1073 (discussing advantage to digital recording technology). Digital technology takes the physical analog format and simulates it digitally. \textit{See Webopedia} (last modified, Sept. 1, 1996) <http://webopedia.internet.com/TERM/d/digital.html> (defining digital). An example of digital technology is a photograph in a newspaper comprised of black and white dots. \textit{See id.} (analogizing digital representations). The viewer does not see the individual dots, but a simulated representation of reality using only two values: black and white dots. \textit{See id.} (analogizing digital representations). Likewise, digital audio electronically translates an "original sound recording into a series of mathematical 1s and 0s, known as 'bits,' and storing these bits on some form of digital medium, such as a computer hard drive or compact disk." Muroff, supra note 46, at 1270 (describing digitization process). During playback the digital device converts the bits into sound. \textit{See id.} (same). When digital recordings are made, the digitization process makes an exact replica of the pattern of 1s and 0s from the original recording, offering no change in sound quality. \textit{See Abrahamson}, supra note 29, at 194 (describing digital characteristics).

\textsuperscript{50} \textit{See Diamond}, 180 F.3d at 1073 (noting digital technology used by pirates); Rafter et al., supra note 3, at 620 (noting digital technology allows user to make unlimited number of serial copies without loss in sound quality); Muroff, supra note 46, at 1272 (describing piracy concerns).

\textsuperscript{51} \textit{See McKuin}, supra note 29, at 321 (noting that DAT was already available in Japan and Europe by 1987); Brian C. Fenton, \textit{Audio Format Confusion}, \textit{Radio-Electronics}, Sept. 1991, at 63 (reporting Japanese manufacturers thought DAT would replace cassettes like CD's replaced records).

\textsuperscript{52} \textit{See Fenton}, supra note 51, at 63 (stating that DAT's technology to make near perfect recordings from CD's frightened RIAA).

\textsuperscript{53} \textit{See id.} (noting threats of litigation stopped DAT from entering market); Brian C. Fenton, \textit{The DAT PACT}, \textit{POPULAR ELECTRONICS}, Nov. 1991, at 38 (report-
A compromise between the recording industry and the electronics industry came in 1989, when both groups met in Athens, Greece, to form an industry cooperative. Under the agreement, digital recording technologies would incorporate serial copying protection measures into their products to prevent consumers from making a copy from a copy. The only other group that needed to be persuaded on the merits of the agreement was Congress.

54. See Rafter et al., supra note 3, at 621 (reaching negotiation on July 28, 1989); McKuin, supra note 23, at 322 ("In 1989, the International Recording Industry and the Consumer Electronics Industry reached a compromise during their meeting in Athens, Greece."). The proponents of the royalty agreement fought for two more years to get other members of the music and electronics industries to sign off on the agreement. See Rafter et al., supra note 3, at 621 (listing music publishers, songwriters and performing rights societies); Fenton, supra note 53, at 40 (discussing terms of royalty agreement); Gatski, supra note 53, at 8 (reporting on industry-wide consensus on digital recording royalty agreement after four years of stalemata). Among those parties signing off on the agreement were the National Music Publishers Association, the AFL-CIO Department of Professional Employees, the American Federation of Musicians, the American Society of Composers, Authors, and Publishers (ASCAP), the American Federation of Television and Radio Artists, Broadcast Music, Inc. (BMI), the National Academy of Songwriters and the National Consumers League. See Fenton, supra note 53, at 89 (listing interest groups in agreement with pact).

55. See Gatski, supra note 53, at 8 (describing Serial Copy Management System). The Serial Copyright Management System ("SCMS"), is an internal security device that would allow a digital recorder to make a copy from an original recording, yet prevent further copies from being made from the second generation copy. See Fenton, supra note 53, at 40 (listing terms of agreement). Also included in the agreement was a royalty system whereby manufacturers would pay royalties based on a small percentage of the manufacturing price to the United States Copyright Office, who would then distribute the money into two unequal funds—one for the copyright owners of the musical work, and the other for the copyright owners of the sound recordings. See id. In exchange for the royalties and the SCMS system, consumers could make home copies without the threat of copyright infringement actions. See id. at 40, 89 (noting first-time concession of recording industry to allow noncommercial copies).

56. See H.R. REP. No. 102-1085, at 92 (1992) (stating bill H.R. 3204 introduced to House of Representatives reflected June 1991 agreement among "record companies, hardware manufacturers, songwriters, music publishers, and performing rights societies"); see also Fenton, supra note 53, at 89 (noting that unless agreement is codified, "things will be right back where they started").
C. **The Audio Home Recording Act of 1992**

On October 28, 1992, after numerous hearings and revisions, Congress codified what began as the Athens Agreement and made the AHRA the newest amendment to the Copyright Act.\(^57\) Essentially, the AHRA grants the right to home record copyrighted material in exchange for a levy on "digital audio recording devices."\(^58\) In addition, the AHRA requires digital audio recording devices to comply with one of three serial copyright protection provisions: (1) the Serial Copy Management System ("SCMS"); (2) a system that has the same functional characteristics as the SCMS; or (3) any other system certified by the Secretary of Commerce as prohibiting unauthorized serial copying.\(^59\)

Manufacturers and distributors of digital audio recording devices and digital audio recording media are required to file annual and quarterly statements with the Register of Copyrights as prescribed by regulation.\(^60\) These statements are to include royalty payments.\(^61\) According to the statute, digital audio recording devices are to pay a royalty equal to two percent of the transfer price, but not less than one dollar and no more than eight dollars per device.\(^62\) Likewise, digital audio recording media are to pay royalties that equal three percent of the transfer price.\(^63\) The royalty payments are allocated between two groups or funds: the Sound Recordings Fund and the Musical Works Fund.\(^64\)

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58. See 17 U.S.C. §§ 1001-1011 (creating royalty system). For the statutory definition of a digital audio recording device, see infra note 98 and accompanying text.

59. See 17 U.S.C. § 1002(a) ("No person shall import, manufacture, or distribute any digital audio recording device . . . that does not conform to . . . the Serial Copyright Management System . . . [or its functional equivalent]."). SCMS is a type of internal security code that prevents serial copying (i.e., copying from copies). See Stephanie L. Brauner, *High-Tech Boxing Match: A Discussion of Copyright Theory Underlying the Heated Battle Between RIAA and MP3ers*, 4 VA. J.L. & TECH. 5, ¶ 21 (Spring 1999) <http://jolt.student.virginia.edu/graphics/vol4/home_art5.html> (describing SCMS).

60. See 17 U.S.C. § 1003(c)(1) (defining "Filing of Quarterly and Annual Statements of Account, Generally").

61. See id. § 1003(c)(3) (defining "Royalty Payments").

62. See id. § 1004(a)(1), (3) (describing royalty requirements). There are slight variations on payment of royalties for digital audio recording devices that are distributed in combination with one or more devices. See id. § 1004(a)(2) (describing variations).

63. See id. § 1004(b) (describing royalty requirements of digital audio recording media).

64. See id. § 1006(b)(1) (creating Sound Recordings Fund); id. § 1006(b)(2) (creating Musical Works Fund). The Sound Recordings Fund receives 66 2/3% of the royalty payments. See id. § 1006(b)(1) (providing for allocation of royalties within Sound Recordings Fund). The Musical Works Fund receives a total allocation of 33 1/3% of the royalty payments, thereafter allocating 50% to music pub-
The AHRA also grants a prohibition on certain infringement actions, including the noncommercial use of digital and analog devices or mediums for making recordings.\(^{65}\) Thus, at first blush, the AHRA effectively ended the debate on home-taping with audio equipment, and it appears to close the door on copyright infringement through the noncommercial use of digital audio recording technology.\(^{66}\)

D. Growth of Digital Compression Files

The explosion of digital recording technology that spawned the Athens Agreement and the AHRA never materialized.\(^{67}\) Shortly after passing the AHRA, the digital audio technology expected to overtake the market floundered on the store shelves.\(^{68}\) Simultaneously, however, new digital technology arose, and the traditionally cumbersome audio files on the Internet were replaced by new digital audio compression formats, leading to the practical ability to deliver music digitally on the Net.\(^{69}\)

Digital audio compression formats are mathematical formula that shrink the size of an audio file by a ratio of ten to one, thereby greatly reducing the download time of a digital audio file.\(^{70}\) Although there are...

lishers and 50% to writers. See id. §§ 1006(b)(2)(A), (B) (allocating royalties within Musical Works Fund).

65. See id. § 1008 (prohibiting certain infringement actions). The Act reads:

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

Id.

66. See Brauner, supra note 59, at ¶ 22 (discussing exemptions from copyright infringement).

67. For a further discussion of the digital recording bust, see infra note 68 and accompanying text.

68. See Muroff, supra note 46, at 1272 (noting that maker of DCC pronounced digital format dead and Mini-discs clinging to life); see also Joe Dysart, Blank Audio and Video: Where Demand Will Be in ’93, 137-8 DRUG TOPICS 83 (1993) (lamenting death of Digital Audio Tapes technology in consumer market); Kevin McManus, Music by the Numbers, THE WASH. POST, Mar. 29, 1995 (FAST FORWARD MAGAZINE), at 7 (“[T]he [digital] revolution seems stuck on ‘pause,’ with Sony’s MiniDisc and Philips’ Digital Compact Cassette fighting for an audience . . .”). The threats of copyright infringement suits and responsive weak marketing seem to have doomed digital recording technologies from the start. See Fenton, supra note 53, at 38 (noting DAT sales poor prior to AHRA due to war with recording industry).


70. See Rafter et al., supra note 3, at 614-15 (explaining compression technology); see also Halpin, supra note 4, at 130 (same); Peter Lewis, Orchestrating “Rip-
numerous different proprietary formats available for download, the most widely used format is the nonproprietary MPEG-1, Layer 3 (commonly referred to as MP3).\textsuperscript{71} MP3 is an open standard, and it does not normally contain copyright or generation status information.\textsuperscript{72}

Generally, there are three identifiable users of MP3. The first group is made up of struggling artists working outside the recording industry.\textsuperscript{73} The second group consists of some major musical acts who have

\textit{Offs":} The Wildfire Growth of MP3s, THE SEATTLE TIMES, Aug. 15, 1999, at C1 (noting rule of thumb is one minute per megabyte).

The term “download” is one of several terms used to describe the process whereby a computer user can download an entire music file for permanent or temporary storage on their computer hard drive. See Rafter et al., supra note 3, at 614 n.11 (explaining origin of term). Digital downloading is contrasted with the process of “streaming media,” which is the “live distribution of music or video online in which no permanent copy is made on the downloader’s system.” Id. at 614. The difference between streaming and digital downloading is that streaming media or music can only be experienced simultaneously with the digital broadcast, while a digital download creates a file on the downloader’s computer for repeated playback. See id. (comparing download capabilities).

71. See Halpin, supra note 4, at 130 (defining MP3). Other digital download formats include a2b, RealAudio and LiquidAudio. See Rafter et al., supra note 3, at 614 (listing competing formats).

72. See Halpin, supra note 4, at 130 (discussing legal and illegal uses of MP3’s open standard). MP3’s open standard means that any file contained in MP3 format sits unprotected from recording. See Rafter et al., supra note 3, at 614-15 (noting anyone can use MP3 for free). The format is also nonproprietary, meaning that it is freely available—virtually anyone can deal in MP3-formatted files. See, e.g., Joseph Menn & James Bates, MP3.com: Sonic Boom on Wall St., LOS ANGELES TIMES, July 22, 1999, at C1 (reporting on Initial Public Offering (IPO) success of MP3.com—Internet music business with no proprietary claim to MP3 technology).

Some competing proprietary formats boast security technologies to protect the file’s contents, which usually require separate computer software to listen to the music on the format. See Malcolm Maclachlan, Digital Music Needs Copyright Protection, TECWeb News, Oct. 22, 1998, at 1 (commenting on need for standardized digital security format (interviewing Cary Sherman, contemporary executive vice president and general counsel of Recording Industry Association of America)).

For example, music formatted in LiquidAudio format requires a LiquidAudio Player, while a consumer needs an a2b player to listen to music in a2b format. See id. (describing comment formats).

The availability of the MP3 format has led to a variety of MP3-based technologies. For example, there are many different MP3 players available for free download on the Internet, and companies have started to create devices that allow consumers to move MP3 files from their computers to their car stereos. See Brauner, supra note 59, at ¶ 6-7 (discussing MP3 technologies).

73. See Brauner, supra note 59, at ¶ 4 (noting MP3 popularity with new artists); Halpin, supra note 4, at 130 (describing Internet as important distribution channel for independent artists); Angela Hickman & Don Willmott, Online Music Chaos: Blame It on Rio, PC MAGAZINE, Dec. 15, 1998, at 35 (recognizing ease of making MP3 songs attracts unsigned artists to Internet music distribution); Weiss, supra note 3, at 39 (noting convergence between MP3 files and independent artists attempting to promote and distribute music outside traditional industry channels).

The music industry is dominated by the “Big Five” studios: Sony, BMG, Time-Warner, Polygram Holdings and EMI. See Crockett, supra note 3, at EB18 (noting that around 80\% of marketed music is distributed by limited group of industry leaders). Independent artists are largely left out of the treasure trove; “‘[t]he sys-
either shirked the major recording labels and are distributing their music solely on-line, or are using the MP3 format to supplement traditional music sales through MP3 samples of new and old work.74 The third group, and the one that has the traditional music industry on its feet, consists of the music “pirates” of MP3 format.75 Many of these pirates, however, are actually unwitting copyright infringers—college students uploading and exchanging music libraries on college computer networks.76

The proliferation of piracy is easy to understand: if a computer user has certain technologies, pirating music in MP3 format is relatively simple.77 Once an MP3 file is uploaded onto a bulletin board, FTP site or temp we have today works fabulously well if you’re a Spice Girl, but for that other 95 percent, what you have now sucks.” Weiss, supra note 3, at 40 (quoting Michael Robertson, CEO of MP3.com); see also Coughlin, supra note 69, at Business 1 (“[MP3 computer technology] has empowered artists . . . to bypass the starmaker machinery and deliver their tunes directly to fans.”). The popular web site MP3.com is symbolic of this musical grass-roots effort, boasting more than 1,500 artists registered to market their products on-line. See id. (commenting on recent success of Internet web site in attracting independent artists). The incentive to work in an on-line format is great—“artists with profit-splitting deals [with Internet music companies] . . . can make $3 to $5 for each record sold online, vs. $1.50 to $2 through the record company and retail outlets.” Crockett, supra note 3, at EB18 (discussing incentives for redefining music distribution).


75. See Halpin, supra note 4, at 130 (noting that copyrighted works are being illegally copied and placed on bulletin boards, FTPs and Web sites); Haring, supra note 11, at 5D (discussing piracy and MP3); Hickman & Willmott, supra note 73, at 35 (referring to search by Recording Industry Association of America that uncovered eighty MP3 sites on Web with almost 20,000 unlicensed song files).

76. See DeVault, supra note 2, at 1E (identifying students as unwitting pirates); Hawaleshka, supra note 2, at 33 (“It’s like a record store sitting with its doors open, no staff, and everybody helping themselves.”); Pareles, supra note 74, at C1 (discussing free circulation of unauthorized music on Web).

77. See Haring, supra note 11, at 5D (“[A]bsolutely anybody with a CD-ROM drive in a computer can become a publisher.”); see also Halpin, supra note 4, at 130 (noting computer users making copyrighted materials available in mass). Uploading music to the Internet from a CD requires only a CD-ROM, a “ripper” (freely available software that convert digital CD tracks into a sound file on a computer hard drive known as a “.wav” file), and MP3 conversion software (also freely available). See id. (mapping process for creating MP3 file from CD tracks). Once the user has created an MP3 file, the file may be illegally distributed via email, Web site, bulletin boards or FTPs. See id. (listing common places for unauthorized MP3 files). Once an MP3 file is uploaded to the Net, its open standard allows it to be copied without any internal restrictions. See Pareles, supra note 74, at C6 (noting that “vast majority of MP3 songs circulate free of charge”).

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website, anyone on the Internet can gain access to copyrighted works.\textsuperscript{78} To combat the proliferation of unlicensed MP3 postings on the Net, the recording industry has spent exhaustive efforts locating the illegal sites and closing them down; however, new sites are popping up everyday.\textsuperscript{79}

III. FACTS

Diamond Multimedia Systems, Inc. ("Diamond"), is a Personal Computer (PC) multimedia and Internet connectivity company that creates products such as audio appliances, video accelerators, modems and home networking products.\textsuperscript{80} In October 1998, just a month before the holiday shopping rush, Diamond was scheduled to ship its new product to stores: the Rio PMP300.\textsuperscript{81} Rio is a small portable digital audio player that allows users to copy MP3-format files from their computer's hard drive to the device and replay the audio through headphones.\textsuperscript{82} The Rio was specifically designed to read and play MP3 files.\textsuperscript{83}

Prior to Rio's affordable technology, MP3 users were usually resigned to a set of headphones and their computer hard drive to enjoy the format.\textsuperscript{84} The Rio makes MP3 files portable, allowing a listener to hear up to one hour of music or sixteen hours of spoken material.\textsuperscript{85} The Rio also has flash memory cards that can store up to an additional hour of music.\textsuperscript{86} The Rio is a playback-only machine.\textsuperscript{87} It cannot upload music to a computer or make a duplicate of any file that it holds.\textsuperscript{88} The device's only output is an analog audio signal channeled through the headphones.\textsuperscript{89}

\textsuperscript{78} For further information on the ease of copying pirated music on the Internet, see supra note 76 and accompanying text.

\textsuperscript{79} See Brauner, supra note 59, at ¶ 27-28 (noting that RIAA is active in litigating Internet pirates); Maclachlan, supra note 72, at 1 (stating that RIAA is leading crusade against illegally distributed music online); Di Mari Ricker, Digital Music Deprise; 'Rio' Raises Copyright Concerns, ENT. L. & FIN., Dec. 1998, at 1 ("[O]n a recent afternoon . . . [the RIAA] found on the Internet more than 80 sites containing more than 20,000 compressed music files. It characterized 'virtually all' of those files as 'unlicensed recordings of America's favorite artists.'"). The RIAA is also attempting to help police international piracy, cooperating with international versions of the trade group to shut down illegal sites originating outside the United States. See Maclachlan, supra note 72, at 1 (stating that many illegal files originate in Denmark).

\textsuperscript{80} See generally DIAMOND MULTIMEDIA SYSTEMS, INC., ANNUAL REPORT 1998 (describing company).

\textsuperscript{81} See Abate, supra note 13, at C1 (reviewing critical timing of case).

\textsuperscript{82} See Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1073 (9th Cir. 1999) (describing device).

\textsuperscript{83} See id. at 1074 (noting narrow capabilities).

\textsuperscript{84} See id. (describing Rio's advantage).

\textsuperscript{85} See id. at 1075 (describing memory).

\textsuperscript{86} See id. (describing removable components).

\textsuperscript{87} See id. (noting limited capabilities).

\textsuperscript{88} See id. (same).

\textsuperscript{89} See id. (same).
Diamond did not register the device, pay royalties or incorporate a SCMS system into the Rio prior to its initial scheduled shipments.\textsuperscript{90} In response, the RIAA and the Alliance of Artists and Recording Companies filed a suit to enjoin the manufacture and distribution of the Rio under the AHRA in the Central District of California.\textsuperscript{91}

The district court denied a motion for a preliminary injunction, holding that the RIAA’s likelihood of success on the merits was mixed.\textsuperscript{92} The district court reasoned that although the Rio was a digital audio recording device, and thus came within the ambit of the AHRA, the Rio was incapable of making serial copies.\textsuperscript{93} First, the very nature of MP3 files precluded the effectiveness of the SCMS system, and second, the Rio could only copy from a computer hard drive—it could not record from another Rio.\textsuperscript{94}

The RIAA appealed the district court’s decision and asked the United States Court of Appeals for the Ninth Circuit to determine whether the Rio was a digital audio recording device under the ambit of the AHRA.\textsuperscript{95}

\textbf{IV. Analysis}

\textbf{A. Narrative Analysis}

The Ninth Circuit first addressed the question of whether the Rio came under the AHRA’s purview.\textsuperscript{96} Looking to the act as a whole, the court stated that the AHRA is not broad in its restriction of digital serial copying of copyright protected audio recordings, but rather, focuses its restrictions on a certain type of digital audio recording device.\textsuperscript{97} The


\textsuperscript{91} See Diamond, 180 F.3d at 1075 (stating procedure).

\textsuperscript{92} See id. (referring to district court holding); Diamond, 29 F. Supp. 2d at 632 (holding likelihood of success on merits is mixed).

\textsuperscript{93} See Diamond, 180 F.3d at 1075 (reiterating district court’s disposition of case).

\textsuperscript{94} See Diamond, 29 F. Supp. 2d at 632 (setting forth two reasons why Rio meets requirements of Act). Specifically, the district court found that the Rio was a digital audio recording device under the AHRA, but incorporating SCMS technology into the device would be an “exercise in futility,” because the Rio reads MP3 audio files that do not contain copyright information. Id. at 632. Thus, a Rio without SCMS would be functionally equivalent to a Rio with SCMS. See id. (noting function over form). The district court was convinced that the uselessness of the SCMS and the Rio’s inability to permit downstream copying would lead the “Secretary of Commerce [to] conclude the Rio adequately ‘prohibit[s] unauthorized serial copying’ for purposes of subsection (a)(3).” Id. Therefore, the Rio’s violation of § 1002(a)—not acquiring a certificate—was a mere technicality. See id. (finding equitable solution to Rio’s failure to register).

\textsuperscript{95} See Diamond, 180 F.3d at 1075 (identifying issue).

\textsuperscript{96} See id. (identifying primary issue).

\textsuperscript{97} See id. The court refers to two sections of the AHRA in support of this interpretation. First, “[n]o person shall import, manufacture, or distribute any \emph{digital audio recording device} . . . that does not conform to the Serial Copy Management System [‘SCMS’] [or] a system that has the same functional characteristics.”
court then traced the statutory definition of digital audio recording device through a series of nested definitions and concluded that a "digital audio recording device" is a device that is able to reproduce, either "directly" or "from a transmission," a "digital music recording." 98

The court first asked if the Rio is capable of directly reproducing a digital music recording. 99 The court concluded that the Rio does not directly reproduce a digital musical recording because a computer's hard drive—the source of an MP3 file—is excluded from the statutory definition of a digital musical recording. 100 Although the Rio directly records from a material object (a computer hard drive), a computer hard drive is comprised of more than "only sounds, and material, statements, or instructions, incidental to those fixed sounds," and therefore, computer hard drives do not meet the statutory definition of a digital music recording. 101 The court concluded that because a computer hard drive does not meet the statutory definition of a digital music recording, the Rio does not make a copy directly from a digital musical recording under the AHRA. 102

Furthermore, the court found that the statutory language of § 1001(5)(B) specifically precludes computer hard drives from the defini-

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98. Id. at 1075-76 (quoting 17 U.S.C. § 1001(1)). According to the statute, a digital audio recording device is:

[A]ny 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...


Therefore, in order to be a digital audio recording device, the product must be able to make a digital audio copied recording, which 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." 17 U.S.C. § 1001(1).

99. See Diamond, 180 F.3d at 1076 (reiterating statutory language that digital music recording is material object in which only sounds are fixed).

100. See id. A digital musical recording is:

[A] material object—

(i) in which are fixed, in a digital recording format, only sounds, and material, statements, 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.


101. See Diamond, 180 F.3d at 1076 (listing various applications that may be fixed to computer hard drive other than "only sounds, and material, statements, or instructions incidental to those fixed sounds").

102. See id. at 1077-78 (using plain meaning).
tion of digital music recordings. The reading of § 1001(5)(B) "provides confirmation that the Rio does not record 'directly' from 'digital music recordings.'" Thus, stated the court, the only way the Rio might qualify as a digital audio recording device under the AHRA, is if it makes copies from a transmission.

Next, the Ninth Circuit discussed the district court's different statutory interpretation of the AHRA regarding computer hard drives. The district court found that computer hard drives were not excluded from the definition of digital musical recording, holding that a plain language interpretation of § 1001(5)(B) excluding computer hard drives was contrary to legislative history, and "'contrary to the spirit and the purpose of the [Act].’" Nevertheless, the Ninth Circuit held that the plain language of

103. See id. at 1076 (citing 17 U.S.C. § 1001(5)(B) ("[T]he term 'digital musical recording' does not include: a material object . . . in which one or more computer programs are fixed . . . ."). Section 1001(5)(B) provides in full:

A "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, except that a
digital musical recording may contain statements or instructions con-
stituting the fixed sounds and incidental material, and statements or
instructions to be used directly or indirectly in order to bring about
the perception, reproduction, or communication of the fixed sounds
and incidental material.


104. Diamond, 180 F.3d at 1076 (finding computer hard drive cannot be digi-
tal musical recording).

105. See id. (finding alternate possibility to bring Rio under Act).

106. See generally id. at 1076-77 (analyzing legislative history because district
court opinion turned on history and because both parties briefed legislative history
extensively).

107. Id. at 1076 (quoting Recording Industry Association of America v. Diamond
Multimedia Sys., Inc., 29 F. Supp. 2d 624, 629 (C.D. Cal. 1998); see Diamond, 29 F.
Supp. 2d at 628-29 (addressing both parties' proposed statutory interpretation of
§ 1001(5)(B)(ii)). In the district court proceeding, Diamond argued that the
plain language of the text was "unambiguous on its face," and that the material
object exception of Section 1001(5)(B)(ii) includes CD-ROMs, hard drives, zip
drives, integrated circuit boards and more. See id. at 629 (referring to defendant's
argument). To the contrary, RIAA argued that the language, "material objects . . .
in which one or more computer programs are fixed," located in § 1001(5)(B)(ii),
was not meant to exclude hard drives as digital music recordings. Id. at 628.
Rather, the language was meant to "clarify that copying of CD-ROMs containing
incidental audio tracks [was] not intended to be addressed by the AHRA." Id.
(citing Plfs.' Reply at 12:5-7). RIAA did not deny that the Act meant specifically to
exclude computer hard drives from its reach, but argued that this exclusion was to
be found in § 1001(3), which defines a digital audio recording device. See id. at
628-29 ("Section 1001(3) . . . excludes devices that do not have as a 'primary pur-
pose' the record[ing] of digital audio.").

The district court relied on two considerations to reach its conclusion that
computer hard drives are not digital music recordings: legislative history and the
underlying purpose of the AHRA. See id. at 629-30 (noting spirit and purpose of
Act). Diamond asserted that the affidavit of James Burger, former chairman of the
Intellectual Property Committee of the Information Industry Council (a trade asso-
the statute was clear, and therefore, it did not need to look further into
the legislative history.108

The Ninth Circuit addressed the legislative history, however, because
it found that the history "is consistent with the statute's plain meaning and
because the parties ... briefed it so extensively."109 The court examined
the legislative history surrounding the definition of "digital musical rec-
dording" and concluded that there existed no grounds in the history to
indicate that Congress intended digital music recordings to include songs
on a computer.110 Furthermore, the Ninth Circuit expressly rejected the
RIAA's argument that the Act's exemption of "material objects in which one or more computer programs are fixed," contained in § 1001(5)(B)(ii), was meant only to maintain the copyright protection of talking books and computer programs.\(^{111}\) The plain language of the Act, stated the court, was meant to exclude material objects, although computer programs were indirectly excluded from the Act through the text, "to which one or more computer programs are fixed."\(^{112}\) Finally, the Ninth Circuit reasserted its holding that any copying from computer hard drives is exempted by the Act under the plain language of the statute.\(^{113}\)

Next, the Ninth Circuit addressed the district court's concern that to exclude computer hard drives from the framework of the Act would render the Act useless because "[a]ny recording device could evade . . . regulation simply by passing the music through a computer and ensuring that the MP3 file resided momentarily on the hard drive."\(^{114}\) The court recognized that the effect on the Act is significant and that the district court claims may be true; however, the "Act seems to have been expressly designed to create this loophole."\(^{115}\)

First, the court found that computers are not digital audio recording devices because they do not meet the definition's "primary purpose"

No. 102-294, at 46 (1992)). Furthermore, the Senate Report stated, "The definition is intended to cover those objects commonly understood to embody sound recordings and their underlying works." \(^{111}\) Id. (quoting S. Rep. No. 102-294, at 36 (1992)). The court continued, explaining that a footnote in the Senate Report "makes explicit that this definition only extends to the material objects in which songs are normally fixed." \(^{112}\) Id. (quoting footnote's list: "recorded compact discs, digital audio tapes, audio cassettes, and mini-discs").

\(^{111}\) Id. (rejecting argument that § 1001(5)(B)(ii) was meant to exempt computer programs because computer programs are already protected under copyright law as "literary works"). In support of its position, the RIAA cited to two sections of the House Report. See id. (referring to House report). First, a section of the report described the exemption as "revisions reflecting exemptions for talking books and computer programs." \(^{112}\) Id. (quoting H.R. Rep. No. 102-873(I), at 13 (1992)). Second, RIAA argued that an excerpt from the report implied that the exemption's language was meant to exclude computer programs, not hard drives: "In addition to containing an express exclusion of computer programs in the definition of 'digital musical recording' . . ." \(^{113}\) Id. (quoting from H.R. Rep. No. 102-873(I), at 17).

The district court accepted RIAA's interpretation of the legislative history, stating that although these excerpts from the legislative history were not unambiguous, they pointed to a legislative intent "to avoid immunizing the illegitimate copying of computer programs from liability for copyright infringement," and not necessarily the computer hard drive. \(^{114}\) Diamond, 29 F. Supp. 2d at 630.

\(^{114}\) See \(^{115}\) Id. at 1076 (noting that "statutory language is clear").
The Ninth Circuit concluded that the Rio's primary function, facilitating personal use, paralleled the desired goal of the Act, which was to ensure the right of individuals to make private recordings of copyrighted works for their own use. To the contrary, the court, the Rio "merely makes

116. See id. (finding that computers are not digital audio devices under plain meaning of 17 U.S.C. § 1001(3)). According to the statute, a digital audio recording device is:

[A]ny 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 audio recording function of which is designed or marketed for the primary purpose of . . . making a digital audio copied recording for private use . . . .


To the contrary, the Ninth Circuit wrote that the primary purpose of a computer is to run programs and record data needed to run the programs. See Diamond, 180 F.3d at 1078 (explaining primary purpose of computers). The court also cited a section of the Senate Report that stated that the "typical personal computer would not fall within the definition of 'digital audio recording device.'" S. Rep. No. 102-294, at 48. Furthermore, a personal computer's "recording function is designed and marketed primarily for the recording of data and computer programs." Id. Thus, the court of appeals held that the legislative history recognized the prospect that computers could record audio, yet specifically excluded them from the Act's ambit. See Diamond, 180 F.3d at 1078 (finding legislative history consistent with Act's plain meaning to exclude computers from definition).

117. Diamond, 180 F.3d at 1078 (citing 17 U.S.C. § 1002(a)(2)). The relevant provision of the AHRA states that a digital audio recording device must conform to the SCMS, or "a system that has the same functional characteristics as the [SCMS] and requires that copyright and generation status information be accurately sent, received, and acted upon between devices . . . ." 17 U.S.C. § 1002(a)(2).

118. See Diamond, 180 F.3d at 1078-79 (noting ability to laudner audio files through computer hard drive). Because the Rio downloads MP3 files that do not contain copyright or generation information, a digital audio recording device with a SCMS would simply code the MP3 files as "original generation status," thus allowing an unlimited number of recordings from that single audio file. See id. (citing to Technical Reference Document that explains function of SCMS when digital audio signals without copyright information are recorded by digital audio recording device equipped with SCMS).

119. Id.

120. See id. (stating function of Rio consistent with purpose of AHRA). The court noted that the Copyright Act allows music listeners to make copies of works through a home taping exemption. See id. (citing House Report, which states that "[home taping exemption] protects all noncommercial copying by consumers of
copies in order to render portable, or 'space-shift,' those files that already reside on a user's hard drive.”  

Finally, the court considered the second possible definition of a digital audio recording device: if the device can produce a digital musical recording from a transmission. The court first considered the proper definition of "transmission." According to the court, the AHRA adopted the copyright law definition: “'[t]o 'transmit' . . . is to communicate it by any device or process whereby images or sounds are received beyond the place from which they are sent.'” The court then focused on two possible conflicting interpretations of § 1001(1): whether an indirect reproduction of a transmission (i.e., through a computer hard drive) is covered by the Act, or if a recording of a transmission is an “indirect recording” under the Act.

Diamond argued that the adverb “indirectly” was meant to modify the underlying recording, thus the recording of a transmission would be an indirect recording. To the contrary, RIAA asserted that the adverb “indirectly” is meant to modify the new recording: an “indirect” recording of an already recorded “transmission.” Because the statutory language was “arguably ambiguous” the court looked to the legislative history for interpretation. After considering the Senate Report, the court concluded that “indirectly” modified the recording of the underlying work, stating that the most logical reading of § 1001(1) fell in line with legislative history.


121. Id. (citing Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 455 (1984)). The Court in Sony held that under the Copyright Act, taping a copyrighted show on a VCR for personal viewing was merely “timeshifting” and was not infringement under the fair use policy. See Sony, 464 U.S. at 455. For a further discussion of the Sony decision, see supra note 44 and accompanying text.

122. See Diamond, 180 F.3d at 1079 (citing 17 U.S.C. § 1001(1)). For statutory language, see supra note 98 and accompanying text.

123. See Diamond, 180 F.3d at 1079 (noting that “transmission” is not defined in Act).

124. Id. (reporting that legislative history confirms copyright law interpretation of “transmission”). The court also considered an implication in the Act that a transmission was a communication to the public. See id. (looking at § 1002(e) of AHRA titled, “Information Accompanying Transmissions in Digital Format”).

125. See id. at 1080 (noting possible interpretations).

126. See id. (“Diamond . . . asserts that the statute should be read as covering devices that are capable of making a reproduction from a digital musical recording, ‘whether that reproduction is made directly[,] from another digital musical recording[,] or indirectly[,] from a transmission.’” (brackets in original) (quoting 17 U.S.C. § 1001(1)).

127. See id. (noting example of RIAA’s interpretation would be recording transmission on digital audio tape or cd, uploading that recording to computer hard drive, then indirectly reproducing transmission by downloading to Rio).

128. Id.

129. See id. at 1081 (“Thus, a device falls within the Act’s provisions if it can indirectly copy a digital music recording by making a copy from a transmission of
The Ninth Circuit thus concluded that the Rio was not a digital audio recording device under the AHRA because (1) it did not make a direct recording of a digital music recording and (2) it did not indirectly record from a transmission.\textsuperscript{130} Therefore, the Ninth Circuit upheld the district court's denial of a preliminary injunction against the distribution and manufacture of the Rio.\textsuperscript{131}

B. Critical Analysis

A critical analysis of this case must be placed in the proper context. Significantly, the district court and Ninth Circuit opinions represent the only cases directly dealing with the AHRA since the Act was promulgated in 1992.\textsuperscript{132} Why does this matter? In the seven or so years since the promulgation of the AHRA, the face of the music industry has become digitized as forecasted, but not in the manner anticipated by Congress, the music industry or even the electronics industry.\textsuperscript{133} Essentially, the Ninth Circuit was asked to consider whether or not a device that reproduces digital music files temporarily located on a computer hard drive is a digital audio recording device under the AHRA.\textsuperscript{134}

The \textit{Diamond} court had two very different paths to choose from in its analysis of the statutory language as applied to the Rio device.\textsuperscript{135} Either the court could interpret the statute narrowly, using the plain meaning rule and its conservative policies, or the court could interpret the statutory language broadly, within the spirit and intent of the Act, as had the district court. Their choices in interpreting the meaning and intent of the Act, and the implications of a ruling either way, must be considered in the context of the history and evolution of the music and electronic industries.

\textsuperscript{130} See id. at 1081 (listing reasons why Rio is not covered under Act).

\textsuperscript{131} See id. (relating final disposition). In making this determination, the court found it unnecessary to decide the other issues on appeal. See id.

\textsuperscript{132} See id. at 1077 n.4 (noting lack of precedent interpreting AHRA); Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc., 29 F. Supp. 2d 624, 627 (C.D. Cal. 1998) (same). There has been one other published opinion mentioning the AHRA, but that case indirectly discussed the Act's effect on another provision of the copyright law. See Diamond, 180 F.3d at 1077 n.4 (discussing Second Circuit finding).

\textsuperscript{133} See Brauner, supra note 59, at ¶ 23 (noting that AHRA never envisioned MP3 paradox). "When the Congress enacted [the AHRA], they never envisioned that people could download and play digital samples from the Internet." Id. (quoting Walter McDonough, a Boston-based entertainment and music-industry attorney). For a further discussion on the technology surrounding the AHRA's enactment, see supra notes 43-53 and accompanying text.

\textsuperscript{134} See Diamond, 180 F.3d at 1075 (identifying issue).

\textsuperscript{135} For a further discussion of the court's choices of statutory interpretation, see infra notes 140-43 and accompanying text.
court. The Ninth Circuit chose to consider the legislative history of the Act, yet relied on the plain meaning interpretation, giving an open-ended answer to the question, "What do you do with an out-dated statute?"

The *Diamond* court made three critical decisions in its analysis of the definition of a digital audio recording device. First, the court seemed to sit squarely on the well-accepted principle of statutory interpretation: the plain meaning rule. Second, the court compromised its decision by attempting to justify its interpretation of the statute's plain meaning with the legislative history. Finally, the court refused to waiver from the plain meaning of the statute despite legislative intent, and in doing so, espoused a policy of judicial interpretation that affords present and future deference to the legislature's rule-making power.

1. Using the Plain Meaning Rule

A well-known legal scholar once wrote, "[T]here are two opposing canons on almost every point." With this in mind, the Ninth Circuit confidently stated, "[w]here statutory command is straight forward, 'there is no reason to resort to legislative history.'" This form of statutory interpretation is best described as the plain meaning rule; if the plain meaning of the text's words are clear, they are taken to be the legislature's intent, unless a reading of the statute according to the plain meaning would lead to absurd or impracticable consequences. The plain meaning rule has often been contrasted with the legislative history approach, which the Ninth Circuit explicitly relied on in *Diamond*.

136. For a further discussion of the plain meaning rule, see infra notes 140-43 and accompanying text. For a further discussion of interpreting a statute within the spirit and intent of the act, see infra notes 140-43 and accompanying text.

137. For a further discussion of the court's use of the plain meaning rule, see infra notes 144-47 and accompanying text.

138. For a further discussion of the court's analysis of the legislative history, see infra notes 164-73 and accompanying text.

139. For a further discussion of the court's deference, see infra notes 173, 177 and accompanying text.

140. Karl L. Llewellyn, Remarks on the Theory of Appellate Decision and the Rules or Canons About How Statutes are to be Construed, 3 Vand. L. Rev. 995, 401 (1950) (arguing that judiciary has always chosen of different canons of statutory interpretation). For example, Prof. Llewellyn compares the canon, "a statute cannot go beyond its text," with its parry, "to effect its purpose a statute may be implemented beyond its text." *Id.* Indeed, for every rigid proponent of the plain meaning rule, there is a proponent of the use of legislative history. See generally Office of Legal Policy, Using and Misusing Legislative History: A Reevaluation of the Status of Legislative History in Statutory Interpretation 47-72 (Jan. 5, 1989) (comparing use of legislative history with plain meaning rule and making recommendation for better statutory interpretation).


142. See Office of Legal Policy 69 (defining plain meaning rule); see also J.G. Sutherland, Statutory Construction 315 (1891) ("[A]n interpretation of a statute which must lead to consequences which are mischievous and absurd is inadmissible if the statute is susceptible of another interpretation by which such consequences can be avoided."). Legal commentators, however, have criticized...
ing rule is designed to avoid the rush to interpret the legislative history for statutory meaning, following the policy that "the law is the best expositor of itself."\textsuperscript{145}

Under the court's interpretation based on the plain meaning rule, according to the AHRA definition of a digital musical recording, a digital musical recording must be a material object, but a digital musical recording cannot be a material object in which one or more computer programs are fixed.\textsuperscript{144} The court noted that the Rio reproduces audio files directly from a computer hard drive, which is a material object.\textsuperscript{145} The court concluded that a computer hard drive cannot meet the definition of a material object under the plain meaning of § 1001(5)(B), because it is a material object in which one or more computer programs are fixed, and is therefore exempted from the definition.\textsuperscript{146} Thus, under a literal interpretation of the statutory language, the Ninth Circuit rationally concluded that a computer hard drive cannot be a digital musical recording, and therefore, the Rio is not a digital audio recording device under the AHRA.\textsuperscript{147}

2. \textit{Interpreting Legislative History to Support Plain Meaning Interpretation Possibly Compromises Decision}

The Ninth Circuit's consideration of the legislative history, however, compromises its previous reliance on the plain statutory language of the this pure definition of the plain meaning rule as misleading, claiming that the contemporary rule always refers to the legislative history to bear the burden to disprove the plain meaning. \textit{See generally Patricia M. Wald, Some Observations on the Use of Legislative History in the 1981 Supreme Court Term, 68 Iowa L. Rev. 195 (1982)} (noting judicial compromise of plain meaning rule). It is this latter observation of the plain meaning rule that conforms to the Ninth Circuit's analysis. \textit{See Diamond}, 180 F.3d at 1077 (stating that statutory meaning is clear, yet choosing to "address the legislative history . . . because it is consistent with the statute's plain meaning").

\textsuperscript{143} \textit{Office of Legal Policy, supra} note 142, at 59 (citing \textit{Pennington v. Cox}, 6 U.S. 33, 52-53 (1804)). Thus, under the plain meaning rule, legislative history may only be used to resolve an ambiguity in the text, not to create an ambiguity. \textit{See id.} at 61 (passing plain meaning rule's policies).

\textsuperscript{144} \textit{See} 17 U.S.C. § 1001(5)(A) (1994) ("A 'digital musical recording is a material object . . . ."); \textit{id.} § 1001(5)(B)(ii) ("A 'digital musical recording does not include a material object . . . in which one or more computer programs are fixed.").

\textsuperscript{145} \textit{See Diamond}, 180 F.3d at 1076 (recognizing computer hard drive as location of audio file, as well as location for many independent programs and files).

\textsuperscript{146} \textit{See} 17 U.S.C. § 1001(5)(B)(ii) (exempting certain material objects in which one or more computer programs are fixed); \textit{Diamond}, 180 F.3d at 1076 (placing hard drive under exemption); \textit{see also} Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc., 29 F. Supp. 2d 624, 629 (C.D. Cal. 1998) (recognizing hard drive exemption under § 1001(5)(B)(ii) has superficial appeal).

\textsuperscript{147} A hard disk drive is a "mechanism that reads and writes data on a hard disk." \textit{Webopedia} (last modified May 15, 1998) \url{<http://webopedia.internet.com/TERM/h/hard_disk_drive.html>} (defining hard disk drive). A hard disk is a "magnetic disk on which you can store computer data." \textit{Id.} For a further discussion of the Ninth Circuit's analysis, see \textit{supra} notes 96-131 and accompanying text.
Act. Had the court refused to delve into the legislative history, concluding that the statutory language was sufficiently clear, the court’s opinion might only stand to be criticized for its policy of choosing the plain meaning form of statutory interpretation. Addressing the legislative history, however, moves the debate away from what Congress wrote (for better or for worse), to what Congress intended.

A close analysis of the legislative history reveals a very specific purpose underlining any congressional intent to exclude computers from the Act. Congressional concerns regarding the statute’s potential effects on computers did not stem from the classification of audio files stored on computer hard drives as digital musical recordings. Rather, they arose from the fear that personal computers, computer programs and computer equipment would be covered in the overly broad definitions of digital audio recording technologies under the Act. The record reveals that testifying parties in the computer industry were concerned that the Act as introduced would inadvertently accomplish two evils. First, witness testimony indicates and the committee reports reflect the fear that the AHRA would slap royalties on all media that could be used to make audio copied recordings. According to the House subcommittee hearings, this concern stemmed from the overlap between computer digital technology and digital audio technology used by the music industry.

148. See Diamond, 180 F.3d at 1077 (choosing to address legislative history despite stating that clear statutory language precludes need to resort to history).

149. See, e.g., Abner J. Mikva & Eric Lane, An Introduction to Statutory Interpretation and the Legislative Process 10 (1997) [discussing pitfalls of plain meaning rule]; Office of Legal Policy, supra note 142, at 63 [discussing policy criticisms of plain meaning rule].

150. Cf. Mikva & Lane, supra note 149, at 6 [defining statutory interpretation as search for legislative intent by asking, “Did the legislature intend the particular result achieved by applying the statute’s plain meaning to a particular fact pattern?”].

151. For a further discussion of congressional intent, see infra notes 152-63 and accompanying text.


153. See id. According to the chairman, a particular witness’ testimony made some interesting observations about the definitions of digital audio interface device, digital audio recording device and digital audio recording medium, all of which are obligated to pay royalties under the proposed bill. See id. (commenting on testimony of Dr. Irvin LeBow). According to the testimony, these definitions were overly broad and loose. See id. (summarizing Dr. LeBow’s testimony). When asked to comment on those observations, Mr. Oman, Register of Copyrights, agreed that the definitions might be overly broad, with the possible consequence of including computer programs “and the like.” Id. (replying comment of Mr. Oman).

154. Id. at 189-90 (statement of Irvin L. LeBow, Ph.D., Author, Private Consultant, and Former Chief Scientist-Associate Director for Technology, Defense
The structure of the statute seems to recognize and appease these fears. Congress set out three "primary purpose" tests in the definitions of all royalty-triggering definitions of the Act: digital audio recording device, digital audio recording medium and digital audio interface device.155 According to the primary purpose tests under the AHRA, computers and computer storage media will fail to meet all three definitions.156 Thus, the structure of the Act itself implies that the intent of Congress was to exclude computers and computer media from certain provisions of the Act, and not specifically to exempt digital audio files per se.

Second, the legislative record reflects the fear that the Act would inadvertently encompass some forms of technology that contained audio but that the Act meant to exclude—namely, computer programs and other multimedia products.157 This concern that the AHRA would regulate be-

Communications Agency) (noting shared technologies). Dr. LeBow testified that digital audio equipment is really only special-purpose computer equipment dedicated to audio use. See id. (expressing concern that bill would affect general computing equipment). This equipment is used on general-purpose computers for a variety of reasons that may include audio storage. See id. Accordingly, Dr. LeBow testified that the bill would walk a thin line in any attempt to regulate audio reproduction with such general purpose equipment that can be used for reasons besides audio recording. See id. “If the legislative definitions are very strict, piracy can be committed through the use of general purpose computers. If, on the other hand, the definitions are too loose, then computer users with no interest in audio may be penalized.” Id. at 190.

Similarly, the Senate subcommittee hearings raised the same concerns, prophesizing that computers and home stereos will use the same recording media within the next five years. See Audio Home Recording Act of 1991: Hearing on S. 1623 Before the Subcomm. on Patents, Copyrights and Trademarks of the Senate Comm. on the Judiciary, 102d Cong. 129-30 (1991) (statement of Phillip Greenspun, Research Assistant, MIT, Cambridge, MA) (stating that computers store data on same media as consumer video tape and consumer digital audio tape). If the broad definitions were allowed to stand, consumers would pay a tax for the use of their computers, because the recording media inside the computers would incur a royalty. See id. (lamenting affects of AHRA as proposed).

155. See 17 U.S.C. § 1001(3) (1994) (stating digital audio recording device must be designed or marketed for primary purpose of making digital audio copied recording); id. (stating digital audio recording medium must be primarily marketed for making digital audio copied recordings and cannot be commonly used to record computer programs); id. (stating digital audio interface device must be designed specifically to communicate digital audio information to digital audio recording device).

156. See S. Rep. No. 102-294, at 48 (1992) (concluding that typical personal computers will not fall under definition of digital audio recording device because computers fail primary purpose test, and assigning objective values to primary use test of digital audio recording media and reiterating that media must be sold to individuals for use by individuals); Recording Indus. Ass’n of Am. v. Diamond Multimedia Sys., Inc., 29 F. Supp. 2d 624, 629-30 (C.D. Cal. 1998) (quoting statement by former Chair of Intellectual Property Committee that computers exempted under primary purpose test of id. 1001(5)(A)).

157. For example, the Senate Report expressly refers to a letter written to Senator Joseph Biden from John L. Pickitt, President of the Computer and Business Equipment Manufacturers Association. See S. Rep. No. 102-294, at 35-36 (addressing letter). According to the letter, a major difficulty with the Act as
introduced to the Senate was that it did not explicitly exclude computer programs from being copied, and the term for audio recording, phonorecord, was too broad. See id. (lobbying for amendment). Likewise, the House Report commented that the Act as introduced would encompass meanings of the term phonorecord that the Act was not meant to include. See H.R. Rep. No. 102-873(I), at 17 (1992) (noting that Act as introduced would require amending other areas of Copyright Act).

158. The statute as introduced to the Senate and the House originally contained the term, phonorecord (the common term for musical recording found in Copyright law), instead of digital musical recording. See S. Rep. No. 102-294, at 46; H.R. Rep. No. 102-873(I), at 17 (same). Both the Senate and the House attempted to rename the term and revise its definition to limit its scope; the Senate chose the term "audiogram," while the House used "digital musical recording." See S. Rep. No. 102-294, at 46; H.R. Rep. No. 102-873(I), at 17.

159. See S. Rep. No. 102-294, at 35 ("It is the intention of the committee that this legislation is technologically neutral.")); H.R. Rep. No. 102-873(I), at 17 (noting difficulty of creating term to encompass digitally-formatted music, while excluding computer programs).

160. S. Rep. No. 102-294, at 35 (citing computer programs as example of technology that might mistakenly be included in definition).

161. Id. The Senate report listed examples of common objects containing sound recordings: recorded compact discs, digital audio tapes, audio cassette tapes, audio cassettes, long-playing albums, digital compact disc and mini-discs. See id. at 36 n.36 (listing common embodiments of sound recordings).

162. See H.R. Rep. No. 102-873(I), at 13, 17 (noting that term phonorecord amended to digital musical recording, with exemptions for computer programs and talking books).

163. See id. at 17 (expressing concern that digitally-formatted music usually contained incidental computer programs to run audio). The House explained that the new term would exclude conventional computer programs from its ambit, yet include incidental programs necessary to the digital sound recording. See id. (referencing requirements of §§ 1001(5)(A) (i), (B) (ii)).
The Ninth Circuit misread this portion of the legislative history. First, the court interpreted the Senate report as intending the definition of digital musical recording to extend solely to the contemporary, listed examples of sound recordings. A better interpretation is that the Senate’s definition of audogram was expressly intended to exclude computer programs, video, multimedia and other unitary products that integrate several prominent components such as text, video clips, computer graphics, speech and music. Furthermore, the Ninth Circuit blankly stated that there are absolutely no grounds in the legislative history for interpreting the term digital musical recording to include songs fixed on computer hard drives. The Senate report, however, does seem to bring up the possibility in its discussion of the definition of digital audio recording device. Moreover, although the definition of digital musical recording does not expressly include audio files contained on a computer hard drive, the legislative history does not expressly exclude them either. In fact, the only mention of computers arises in the context of excluding computer programs from the definition.

Close examination of the legislative history also reveals that Congress sought to create a technologically neutral statute that would vitiate the need for continuing revision. The congressional committees detailed

164. See Recording Indus. Ass’n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1077 (9th Cir. 1999) (“A footnote makes explicit that this definition only extends to the material objects in which songs are normally fixed.”) (emphasis added). Nothing in the Senate report, however, indicates that the footnote contained an exclusive list of technologies covered under the AHRA. See generally S. Rep. No. 102-294 (failing to state or infer exclusivity of list). To the contrary, the report implies that the list is not exclusive, stating that the definition is meant to include technologies “such as” CD’s, DAT’s, LP’s, etc. Id. at 46 (emphasis added).
166. See Diamond, 180 F.3d at 1077 (denying existence of legislative intent to include audio files on computer hard drives).
167. See generally S. Rep. No. 102-294, at 48 (discussing exclusion of personal computers from definition of digital audio recording device). Although the personal computer would not qualify as a digital audio recording device, a separate peripheral device may fit the definition. See id. (noting peripheral to personal computer might be digital audio recording device “if the recording function was designed or marketed for the primary purpose of making digital audio copied recordings for private use”). This statement seems to suppose that the peripheral device would be able to make a digital audio recording from a computer.
168. See generally id. (lacking reference to digital audio files on computer hard drives); H.R. Rep. No. 102-873(I), at 17 (same).
169. See generally S. Rep. No. 102-294, at 35, 46-47 (referencing computers in context of computer programs); H.R. Rep. No. 102-873(I), at 17 (same). For a further discussion on the reference to computer programs in the committee reports, see supra notes 159-63 and accompanying text.
170. See S. Rep. No. 102-294, at 35 (defining intent). The Senate sought to create a term that would eliminate any unnecessary litigation to determine the scope of the Act, as well as preclude “Congress from having to revisit this issue almost annually in order to keep pace with the rapidly changing technological world.” Id. at 36.
the need to define digital musical recordings so as to exclude computer programs, talking books and other non-audio technologies. They also sought to create a term that would include digitally formatted music that was commonly understood to embody sound recordings. Yet, despite the narrow legislative intent to exclude computer programs from the definition of digital musical recording, and general use computers and equipment from royalty-triggering definitions, the Ninth Circuit stood by its plain meaning interpretation of the statute.

3. The Ninth Circuit’s Continued Reliance on the Plain Meaning Rests on Firm Judicial Policy

It is very possible that the legislature intended to do exactly what it did—create a giant loophole whereby any peripheral device that recorded audio files from a computer hard drive would be excluded from the definition of a digital audio recording device. To the contrary, it is very possible that the legislature simply legislated for the contemporary and foreseeable future, never anticipating that a scenario such as the one before the court would arise. The Ninth Circuit never addressed this possibility, but simply said that it would not move beyond the text.

Although the court’s interpretation of the statutory definitions damps the efforts and effects of congressional action in promulgating the AHRA, the court’s decision to side with the plain meaning of the Act is sound. This refusal to interpret the AHRA beyond its text conforms to

171. For a further discussion of technologies intended to be excluded from the Act, see supra notes 159-63 and accompanying text.
172. For a further discussion of the technologies intended to be included within the Act, see supra notes 159-63 and accompanying text.
173. See Recording Indus. Ass’n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1078 (9th Cir. 1999) (“[R]egardless of that portion of the legislative history which addresses the exemption from the definition of the definition of digital musical recording . . . [the hard drive] does not . . . fall[] within the plain language of the basic definition . . . ”).
174. See id. (“[T]he Act seems to have been expressly designed to create this loophole.”).
175. See, e.g., Brauner, supra note 59, at ¶ 23 (“When Congress enacted [the AHRA], they never envisioned that people could download and play digital samples from the Internet.”).
176. See Diamond, 180 F.3d at 1078 (standing behind plain meaning of statute); Andrew Marshall & Linus Gregoriadis, Music Industry Fears Effect of Net Ruling, The Independent (London), June 17, 1999, at 15 (“The court appears to have concluded that, despite congressional intent, the Audio Home Recording Act has limited application in a world of convergent technologies.”).
177. Although some would criticize this outcome based on the statute’s plain meaning, the foundation of the plain meaning rule is that the text of a statute is the embodiment of legislative intent. See Mika & Lane, supra note 149, at 9 (emphasizing that legislature enacts language of statute, apart from legislative history); Office of Legal Policy, supra note 142, at 24 (“[S]tatutory text is the most plausible basis for a reliable inference of intended meaning.”). Furthermore, the courts are not to supervise the legislature or to save a failing act. See Sutherland, supra note 142, at 316 (discussing plain meaning rule and its application).
the Supreme Court's articulation of the judiciary's role in interpreting copyright law.\textsuperscript{178} The Sony Court stated:

The judiciary's reluctance to expand the protections afforded by the copyright without explicit legislative guidance is a recurring theme. Sound policy, as well as history, supports our consistent deference to Congress when major technological innovations alter the market for copyrighted materials. Congress has the constitutional authority and the institutional ability to accommodate fully the varied permutations of competing interests that are inevitably implicated by such new technology.\textsuperscript{179}

Therefore, consistent with sound judicial restraint when interpreting copyright law, the court has left the responsibility with Congress to promulgate a new royalty system based on digital Internet technology.

V. IMPACT

The Diamond case stood at the edge of a projected explosion of technology, heralded to reach all other forms of media in the near future.\textsuperscript{180} Thus, the outcome of the case was anticipated to set the example for resolving technology-based copyright issues for other forms of digital media.\textsuperscript{181} The overarching issue behind expectations for the Diamond court's decision was whether a technology-based law, legislated from industry compromise, will stand the test of time. The answer lay in how far courts are willing to go to maintain or even to stretch the laws.\textsuperscript{182}

\begin{itemize}
  \item \textsuperscript{179} Id.
  \item \textsuperscript{180} See Miran Chun, Digital Music Players Pump Up the Volume, INFOBEADS.COM (August 9, 1999) <http://infoheads.com/INSIDER/PAGES/TOPICS/INTERNET/080999.Default.asp> (researching number of consumers of desktop-based digital music players such as RealJukebo—reached four million in June 1999); Frances Katz, Atlanta Tech: Downloadable music hits high notes at conference, THE ATLANTA CONSTITUTION, July 21, 1999, at D5 ("Downloadable digital music is the final frontier in the world of electronic commerce."). The Internet research group Infobeads.com, suggests that there are more than 67 million personal computers capable of downloading music (legal or illegal) in the United States alone. See id. (basing suggestion on January 1999 count of 121 million personal computers total in United States). Another Internet research company, Jupiter Communications, foresees an expansion in the revenues of online music reaching $147 million by 2003, with online music sales possibly reaching $2.6 billion. See Deborah Kong, Computers Allow Listener to be the DJ, SAN JOSE MERCURY NEWS, Aug. 30, 1999, at A1 (referring to Jupiter projections).
  \item \textsuperscript{181} See, e.g., Doug Bedell, Coming to a PC Near You: First-run movies begin to roll into homes, raising chills in Hollywood, THE DALLAS MORNING NEWS, Aug. 17, 1999, at 1F (foresee simulating problems with online copying of first-run movies that record industry is facing with MP3); Steven M. Zeitchik, The DIGITS on the Wall, PUBLISHER'S WEEKLY, Aug. 23, 1999, at 25 (analogizing record industry MP3 copyright woes to future of publishing industry).
  \item \textsuperscript{182} Compare Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc., 29 F. Supp. 2d 624, 630 (C.D. Cal. 1998) (acknowledging that court is reading
Therefore, choosing to employ a literal, plain meaning interpretation of the definition of a digital musical recording, the Ninth Circuit glimpsed the future of digital recording based on computer audio files, and effectively eviscerated the AHRA's control over these technologies.\(^{183}\) The immediate impact of this decision has already lead to an explosion of Rio-like devices.\(^{184}\) A secondary effect may well be increased litigation between the recording industry and the electronics industry, attempting to ascertain whether the substantially noninfringing, noncommercial use exception from the Sony decision will hold in the face of such a lucrative music pirating industry.\(^{185}\) Another consequence might be inconsistent interpretations from other jurisdictions that will either accept or reject the court's statutory analysis, based on policy considerations.\(^{186}\)

Perhaps the most interesting impact of the Diamond decision will be its effect on industry "cooperation." Absent a change in the legislation or beyond text to effectuate purpose of act), with RIAA v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1078 (9th Cir. 1999) (recognizing that reading statute on plain meaning may eviscerate statute).

183. See Marshall & Gregoriadas, supra note 176, at 15 ("The court appears to have concluded, that despite congressional intent, the Audio Home Recording Act has limited application in a world of convergent technologies."). See generally Diamond, 29 F. Supp. 2d at 630 (noting that any statutory construction that exempted hard drives from definition of 'digital audio recording' would nullify AHRA).

184. See, e.g., Abate, supra note 13, at Cl (noting existence of other portable devices besides Rio); Doug Bedell, The Box that Roared: MP3 format expected to proliferate even as music industry tried to safeguard recordings, THE DALLAS MORNING NEWS, Dec. 16, 1999, at 6F ("When a judge ruled that the tiny Diamond Rio MP3 player could not be regulated as a digital audio recording machine, the floodgates opened . . . "); Clarke, supra note 12 (listing contemporary devices such as standalone players, car stereos and computer-tethered players); Kong, supra note 180, at 1A (discussing how digital delivery is redefining concept of album, driving listener's options away from CDs to computer-permanent audio files). Commenting on the portable digital audio players, one computer industry executive said, "It's not possible to stop this revolution." See Marshall & Gregoriadas, supra note 176, at 15 (likening portable device revolution to video cassette recorders). For more information on the proliferation of portable digital audio players, see supra note 12 and accompanying text.

185. The AHRA excludes users of digital audio recording devices from copyright infringement actions. See 17 U.S.C. § 1008 (1992) (prohibiting certain infringement actions). Because the Rio is not a digital audio recording device, Rio consumers do not fall under § 1008's proscription against copyright infringement actions. See generally id. (noting exclusions for consumers of digital audio recording devices). Although the Diamond court alludes to a fair use exemption for Rio consumers, analogizing the "time-shifting" characteristic of Betamax machines to a "space-shifting" characteristic in the Rio, the debate over Sony's application to home recording has not yet been resolved. See Diamond, 180 F.3d at 1079 (citing Sony); see, e.g., H.R. REP. NO. 102-873(1), at 12 (1992) (noting that at time of promulgation of AHRA, "the precedential value of the [Sony] decision audio home taping [had] been sharply debated"). For further discussion of the Sony fair use exemption from copyright infringement, see supra notes 41-45 and accompanying text.

a ruling by the Supreme Court, the recording and electronics industries will have to work together to create their own secured music protection scheme to protect their own interests.187 Ultimately, any legislation or format should conform to the primary goal of copyright policy: "to stimulate artistic creativity for the public good," and not private profit.188

Stephanie Skasko Rosenberg

187. The industries have already begun to create their own secured system, called the Secured Digital Music Initiative ("SDMI"). See Bedell, supra note 184, at 6F (reporting SDMI originally formed in 1998 by 150 recording industry and technology companies); Pareles, supra note 74, at Cl (discussing birth of Secured Musical Initiative); Neil Strauss, Pirate-Proof Digital Music? So Far, That Does Not Compute, THE N.Y. TIMES, Apr. 24, 1999 (late edition), at Cl (stating SDMI is "consortium of computer companies, electronics manufacturers, and major record labels"). As expected, the progress is slow and the bickering continues. See Bedell, supra note 184, at 6F (noting formation of splinter groups, impatient with length of process); Strauss, supra, at Cl (noting numerous areas of contention among industries involved in SDMI).

188. Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 432 (1984) (quoting Justice Stewart in Fox Film Corp. v. Doyal, 286 U.S. 123, 127 (1932)).