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The Copyright Crusher: How Apple's iTunes Is a Vehicle Designed for Copyright Infringement and Apple's Legal Liability from Its Creation

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THE COPYRIGHT CRUSHER: HOW APPLE'S ITUNES IS A VEHICLE DESIGNED FOR COPYRIGHT INFRINGEMENT AND APPLE'S LEGAL LIABILITY FROM ITS CREATION

By: Sydney A. Beckman*

ABSTRACT

Authors of original works (such as music, books, et cetera) have certain exclusive rights including, but not limited to, the reproduction of copyrighted works in copies and the preparation of derivative works. Apple's iTunes is a vehicle for infringement. The conversion of compact discs ("CDs") to a compressed format for portable music players such as iPods, iPhones, iPads, and computers violates a copyright holder's exclusive rights. This Article discusses the fundamental issue of copyright protections, the way iTunes facilitates the infringement of these rights, and the legal liability of Apple for creation of this software.

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I. PREFACE

A summary of this Article was presented at the inaugural Intellectual Property Symposium hosted by the *Texas A&M Law Review* and was held at the Texas A&M University School of Law in Fort Worth, Texas, on October 25, 2013.

The first part of this Article discusses basic copyright law focusing on the rights of copyright holders as specifically applied to music. This is followed by a discussion of the applicable technology and how it works with regard to specific infringing actions. The next two sections address the law again, this time focusing on how the creation of iTunes and its operation infringe on rights protected by the Copyright Act while ruling out potential defenses. Next, the Article addresses Apple's potential liability from the creation of iTunes. Finally, a brief discussion of damages is presented.

II. INTRODUCTION

"The key idea behind all of these [bundles] of rights is giving the copyright owners the ability to meaningfully exploit their works."¹

"It seems almost every player—publishers, search engines, libraries, pirates² and even some scholars—is vying for position at authors' expense."³ At the heart of an author's protection is the law of copyright. The advances in technology have made the violation of copyright laws easier and hence, more and more prevalent. "From its beginning, the law of copyright has developed in response to significant changes in technology. Indeed, it was the invention of a new form of copying equipment—the printing press—that gave rise to the original need for copyright protection."⁴ As noted author Scott Turow once wrote:

1. Shira Perlmutter, former Associate Registrar for Policy and International Affairs, United States Copyright Office, Franklin Pierce Law Center's Seventh Biennial Intellectual Property System Major Problems Conference, *Digital Technology and Copyright: A Threat or a Promise?*, *IDEA: The Journal of Law and Technology* 291, 309 (1999).

2. Mr. Turow is, of course, referring to "virtual pirates" as opposed to the eyepatch wearing, sword-wielding, sea-born, peg-leg type.

3. Scott Turow, Op-Ed., *The Slow Death of the American Author*, *N.Y. TIMES*, Apr. 8, 2013, at A21.

4. *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 430 (1984).

Authors^[5] practice one of the few professions directly protected in the Constitution, which instructs^[6] Congress “to promote the progress of Science and the useful Arts by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” The idea is that a diverse literary culture, created by authors whose livelihoods, and thus independence, can’t be threatened, is essential to democracy.⁷

The laws of copyright are, in essence, a legislative attempt to strike a balance. The balance is intended to weigh the rights of a copyright holder against the uses that may be sought by those who enjoy the copyrighted work. These uses swing wildly from the commercial exploitation of works created by another to the private uses of someone or something (an entity) that may have no commercial purpose at all. Regardless of the intended uses, it is the balance—or attempt to achieve a balance—that often rocks the copyright world. Although initially detailed in the United States Code, it is the interpretation and legislative intent that is often examined through the court systems, both foreign and domestic. As more “wealth” is accumulated through intellectual property, this examination or testing of the system becomes more prevalent each day.

Rarely, it seems, are companies or individuals prepared to expend the tremendous amount of resources necessary to prosecute copyright infringement litigation based on “principle.” Rather—it is the bottom line—dollars and cents—that causes battles royal through our court systems.⁸

Changes in technology create new questions, new issues, and new challenges with regard to copyright legislation. Unfortunately, copyright laws are slow to catch up to changes in technology.⁹ As a result, courts are required to fit new technology into the existing legal paradigm. Often this results in a court attempting to force the proverbial square peg into a round hole. Definitions, applications of those definitions, and technology contemplated by existing legislation are often stretched beyond their original designs because many technological

5. This includes authors of music, artists, et cetera.

6. Although Mr. Turow was correct—in spirit—he was wrong factually. Article 1, Clause 8 of the Constitution provides Congress with the “power” to protect, not the “requirement” to protect.

7. Turow, *supra* note 3.

8. In a now somewhat famous dispute involving an intellectual property dispute, albeit a Patent dispute, it has been estimated that Apple, Inc. spent over \$60 million dollars in legal fees for one case. Stephanie Mosca, *Apple, Samsung patent cases offer big payout for IP lawyers*, INSIDE COUNSEL, <http://www.insidecounsel.com/2013/12/11/apple-samsung-patent-cases-offer-big-payout-for-ip> (last visited on Jan. 14, 2014).

9. In the last 20 years (since Jan. 1, 1994), various parts of the Copyright Act of 1976 have been amended by legislation thirty-three times. Specifically, section 101 has been amended twelve times, section 102 amended zero times, and section 106 amended three times.

inventions were not, and could not have been, contemplated by legislative drafters.

The Copyright Act was enacted in virtually its current form in 1976.¹⁰ Some thirty-five years later, in October of 2001, the iPod was brought to market.¹¹ We did not have the iPhone until 2007.¹² The iPad was not introduced until 2010.¹³ With the introduction of these new technologies, new uses are frequently discovered. These new uses could hardly have been contemplated and, therefore, addressed by legislation. Although technology advances at seemingly breakneck speeds, legislation is slow to catch up.

Many remember the old cartoon strip Dick Tracy.¹⁴ The strip made its debut in 1931 and ran until 1977.¹⁵ In that cartoon, Dick Tracy would frequently use a watch to make phone calls. No one could contemplate between 1931 and 1977 that such ability would be a reality. The smartphones and smart devices of today offer far more than one could have contemplated in the 1970s much less the 1930s.

III. THE LAW (PART 1)

United States copyright law is embodied in Title 17 of the United States Code. For purposes of this Article, the relevant sections are 101, 102, and 106 of the Code. Section 101 provides a number of definitions relevant to copyright law and this discussion.¹⁶ One such definition is that of sound recordings:

10. Copyright Act of 1976, Pub. L. No. 94-553, 90 Stat. 2541.

11. Apple Press Info, *iPod + iTunes Timeline*, <http://www.apple.com/pr/products/ipodhistory/> (last visited Jan. 18, 2014).

12. Apple Press Info, *iPhone Premieres This Friday Night at Apple Retail Stores* (June 28, 2007), <http://www.apple.com/pr/library/2007/06/28iPhone-Premieres-This-Friday-Night-at-Apple-Retail-Stores.html>.

13. Apple Press Info, *iPad Arrives This Saturday* (Mar. 29, 2010), <http://www.apple.com/pr/library/2010/03/29iPad-Arrives-This-Saturday.html>.

14. Dick Tracy is the title of a comic strip that was authored by Chester Gould.

15. Albin Krebs, *Chester Gould, Cartoonist, Dies at 84*, N.Y. TIMES, May 12, 1985, <http://www.nytimes.com/1985/05/12/us/chester-gould-cartoonist-dies-at-at-84.html>.

16. The applicable section, 17 U.S.C. § 101, states:

Except as otherwise provided in this title, as used in this title, the following terms and their variant forms mean the following:

...

“Copies” are material objects, other than phonorecords, in which a work is fixed by any method now known or later developed, and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. The term “copies” includes the material object, other than a phonorecord, in which the work is first fixed.

“Copyright owner”, with respect to any one of the exclusive rights comprised in a copyright, refers to the owner of that particular right.

...

A work is “created” when it is fixed in a copy or phonorecord for the first time; where a work is prepared over a period of time, the portion of it that

“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

has been fixed at any particular time constitutes the work as of that time, and where the work has been prepared in different versions, each version constitutes a separate work.

A “derivative work” is a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications which, as a whole, represent an original work of authorship, is a “derivative work”.

A “device”, “machine”, or “process” is one now known or later developed.

A “digital transmission” is a transmission in whole or in part in a digital or other non-analog format.

...

The term “financial gain” includes receipt, or expectation of receipt, of anything of value, including the receipt of other copyrighted works.

...

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

...

The terms “including” and “such as” are illustrative and not limitative.

...

“Phonorecords” are material 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.

...

“Publication” is the distribution of copies or phonorecords of a work to the public by sale or other transfer of ownership, or by rental, lease, or lending. The offering to distribute copies or phonorecords to a group of persons for purposes of further distribution, public performance, or public display, constitutes publication. A public performance or display of a work does not of itself constitute publication.

...

“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, such as disks, tapes, or other phonorecords, in which they are embodied.

of the nature of the material objects, such as disks, tapes, or other phonorecords, in which they are embodied.¹⁷

Sound recordings are specifically protected under Section 102. This Section sets forth those items of intellectual property that are subject to copyright protection.¹⁸

Given that sound recordings clearly encompass the “music” that is embodied on audio CDs and given that this music is subject to copyright protection, the next question is, “What does this protection mean?”

Turning to Section 106, this statute enumerates those rights that are specifically protected—that is, what exclusive rights are held by owners of copyrighted works. Section 106 provides, in relevant part, the following exclusive rights:

Subject to sections 107^[19] through 122, the owner of copyright under this title has the exclusive rights to do and to authorize any of the following:

- (1) to reproduce the copyrighted work in copies or phonorecords;
- (2) to prepare derivative works based upon the copyrighted work;
- (3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending²⁰

IV. THE RIGHT RIGHTS

As reflected in Section IV *infra*, with the creation of music the author has the right to reproduce and prepare derivative works. With current technology this translates to a number of applications, each of which potentially requires a license from the copyright holder. The following non-exclusive list reflects a number of potential applications:

17. *Id.*

18. The applicable section, 17 U.S.C. § 102, states:

(a) Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.

Works of authorship include the following categories:

- (1) literary works;
- (2) musical works, including any accompanying words;
- (3) dramatic works, including any accompanying music;
- (4) pantomimes and choreographic works;
- (5) pictorial, graphic, and sculptural works;
- (6) motion pictures and other audiovisual works;
- (7) sound recordings; and
- (8) architectural works.

17 U.S.C. § 102.

19. This Article will briefly examine Section 107 as a potential defense and will discuss why it is inapplicable to the infringement discussed in this Article.

20. 17 U.S.C. § 106.

Background Music;
Commercials;
Digital Jukeboxes;
Digital Video Discs;
Internet radio;
Karaoke discs;
Movie Soundtracks;
New arrangements of copyright-protected songs;
On-demand streams;
Podcasts;
Print or display lyrics or sheet music (print rights);
Public Performance(s);
Recordings with samples;
Ringtones, ringtunes, or ringbacks;
Sound recording or master use rights;
Tethered or limited downloads; and
Others.

As new applications develop, the language of the copyright law, as written, is intended to envelop such applications in its existing body of rights. An artist can choose to retain, transfer, release, or license the rights. Often authors will transfer some, but not all rights. On occasion all rights will be transferred.²¹ Regardless, when someone other than the copyright holder seeks to utilize someone else's protected work in a way that is protected by the copyright law, that person (or entity) must obtain permission or be in violation of the copyright law.²²

V. THE TECHNOLOGY

To examine the technology involved, we must first answer the question: What *is* an audio compact disc (CD)? An overly simplistic explanation is that an audio compact disc is a combination of a thin layer of metal embedded in a plastic casing. The metal portion of the object contains physical pits that (effectively) represent ones (1's) and zeros (0's).²³ The format used is typically referred to as CDA (Compact Disc Audio). This format is "read" by all audio CD players. The CDA

21. Usually authors transfer all rights only with an outright sale of the piece of intellectual property.

22. 17 U.S.C. § 501.

23. As illustrated on the Georgia State University Website hosted by the Department of Physics and Astronomy:

Analog sound data is digitized by sampling at 44.1 kHz and coding as binary numbers in the pits on the compact disc. As the focused laser beam sweeps over the pits, it reproduces the binary numbers in the detection circuitry. The same function as the 'pits' can be accomplished by magneto-optical recording. The digital signal is then reconverted to analog form by a D/A converter. *Compact Disc Audio*, HYPERPHYSICS, <http://hyperphysics.phy-astr.gsu.edu/hbase/audio/cdplay.html> (last visited Jan. 17, 2014).

format is an industry standard (referred to as the Red Book audio standard).²⁴ This standard is used for encoding music on CDs. These CDA files can be played only from a CD player or drive. This format cannot be stored on a hard drive or even in the “cloud.”²⁵ To store these files on a hard drive, in the cloud, in digital memory, or elsewhere (anything other than another audio Compact Disc) the files must be converted to a format that the device can read. There are numerous digital formats to which a music file can be converted.²⁶ Typical formats are WAV, MP3, or AAC.²⁷

Historically, most people would listen to music by “playing” an audio CD in a CD player or on a computer that had a disc drive capable of playing an audio CD. However, as technology advanced, so did the options for people wanting to listen to music. The reader may recall vinyl albums, 8-track players, and cassette players. These days, 8-track players are obsolete, vinyl albums are incredibly rare (although making somewhat of a comeback for nostalgic purposes), and cassettes and cassette players are all but extinct.

The invention of digital music players significantly changed the world. Although Apple²⁸ did not invent the music player, its inventions (and marketing) have changed the music industry and the way people listen to music.

VI. THE UNDERLYING INFRINGEMENT

There are many types of copyright infringement. One form is direct infringement. Direct infringement means the “[violation of] at least one exclusive right granted to copyright holders under 17 U.S.C. § 106.”²⁹

To fully grasp the infringement that occurs with the use of iTunes, one must first examine what iTunes does *not* do. It does not accomplish what has been called “space-shifting.” The concept of space-shifting is that of moving an object, thing, data file, or in this case, a piece of music, from one place to another. A simple analogy is that if you have a widget and you move that widget from one box to another

24. *Red Book (Audio CD Standard)*, [http://www.princeton.edu/~achaney/tmve/wiki100k/docs/Red_Book_\(audio_CD_standard\).html](http://www.princeton.edu/~achaney/tmve/wiki100k/docs/Red_Book_(audio_CD_standard).html) (last visited Mar. 23, 2014).

25. The cloud is merely digital storage connected via the Internet or via an intranet.

26. A non-exclusive list of formats includes: MP3, AAC, WAV, FLAC, OGG, ALAC, AIFF, Protected AAC< Audible 2, 3 & 4, MP3 VBR, AAX, Apple Lossless AIFF, and AAX+.

27. Although there are no perfect analogies, one way to look at the conversion process is to think of it as language translation. English and Spanish are both languages and the words may have the same meanings but Spanish is not English and one might have to translate it before a person could “read” it.

28. All references to “Apple” refer to Apple, Inc. Apple and the Apple logo are registered trademarks of Apple, Inc.

29. *A&M Records v. Napster*, 239 F.3d 1004, 1013 (9th Cir. 2001).

box, you have shifted the widget from one *space* to another *space*. The important distinction between space-shifting and what happens when music is transformed into a different format is that in the former example the widget has not changed form. The argument that changing music from its form on an audio CD (CDA format) to a different format (such as MP3) is merely space-shifting has been rejected by the courts.³⁰

In contrast to the concept of space-shifting, the act of changing the form of the music file from one format (such as CDA) to another format (such as MP3) is shape-shifting.³¹ Unlike space-shifting, shape-shifting alters the form of the file.

As mentioned previously, one common format that is utilized is MP3.³² Converting a file into another format, such as MP3, serves two primary purposes. First, the file can be stored on a hard drive, a flash-drive, or in the cloud; second, the file can be played by a portable music player. These purposes have helped to drive the new music industry.

By converting a song or songs from CDA to a digital format, the rights of the copyright holder are being directly infringed. The creation of the song in this new format is a new work, a derivative, that is a right specifically reserved to the copyright holder. Of course, Apple is not doing the direct infringement, but rather created the mechanism that facilitates infringement by the user. We must next examine how this mechanism works.

VII. HOW iTUNES WORKS

Sometime after the invention of various formats and the creation of “digital” music, along came Apple and Apple’s iTunes Software. Apple describes iTunes, in part, as a solution that

keeps all your music, movies, and TV shows all in one place. Instead of going through stacks and stacks of CDs, *you can import them into*

30. UMG Recordings, Inc. v. MP3.com, Inc., 92 F. Supp. 2d 349, 351 (S.D.N.Y. 2000).

31. For a detail discussion of shape-shifting, see Sydney A. Beckman, *From CD to MP3: Compression in the New Age of Technology Overlooked Infringement or Fair Use?*, 42 GONZ. L. REV. 469, 484–92 (2007).

32. According to PC MAG, www.pcmag.com/encyclopedia/term/47286/mp3 (last visited Dec. 30, 2013), the definition of an MP3 is as follows:

(MPEG-1 Audio Layer III) The audio compression technology that revolutionized digital music Derived from the audio sections of the MPEG-1 and MPEG-2 video specifications, MP3 compresses CD-quality sound by a factor of roughly 10, while retaining most of the original fidelity. For example, a 40MB CD track is turned into approximately a 4MB MP3 file

MP3 files are played on the computer via media player software, such as Apple’s iTunes and Microsoft’s Windows Media Player, as well as in countless iPods and other handheld players MP3 sound quality cannot fully match the original CD . . . but millions of people consider it “good enough” because they can pack thousands of songs into a tiny pocket-sized player.

iTunes and quickly browse your whole collection. Organize it any way you want. Move it onto any of your devices. Play it whenever—and wherever—the mood strikes. Even have Genius make mixes of songs that go great together.³³

The critical feature, for purposes of this Article, is the fact that *iTunes* has a feature—in fact a significant feature—that imports a user’s Compact Discs (“CDs”) into the *iTunes* library. In doing so, the *iTunes* software changes—transforms—the data file from its original form to a new and compressed form.

A. *The Form of Music*

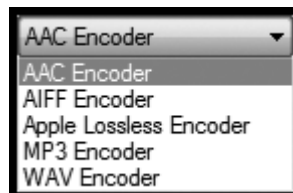
As previously discussed, audio CDs contain music in the form of “CDA.” CDA files can be played only from a CD player and the files must be converted to WAV or MP3 files for storage on a computer hard disc or DVD disc.

Apple’s *iTunes* imports audio tracks from audio CDs and converts them into one of a different number of formats: AAC, AIFF, Apple Lossless Encoder, MP3, and WAV. Figure 1 illustrates the process:



It is significant that *iTunes* is incapable of copying tracks from an audio CD and retaining their original CDA format. Figure 2 shows a screen capture of *iTunes*’s options for CD ripping:

FIGURE 2



33. *Features, iTunes*, <http://www.apple.com/itunes/what-is/> (last visited July 14, 2013).

As Figure 2 illustrates, iTunes does not have the capability of creating a true “copy” of an audio CD. Rather, when iTunes imports a music track it changes the format, (shape-shifting), to rip the music to a hard drive, portable audio player, or the cloud. Unlike the previous analogy of moving a widget from one box to another, with iTunes, if the widget in the first box were four inches square, when it is moved into the second box, after iTunes’s conversion, it would now be two inches square. It is still a widget, it is still square, but now it is much smaller. The music is still music; to the human ear it sounds the same, but the file is much smaller.

It is this change, this derivation of the original work, that is the infringing activity. As an analogy, consider the idea of a language translation.³⁴ J.K. Rowling’s novel *Harry Potter and the Sorcerer’s Stone* has been translated into multiple languages. Suppose you have a copy in English but would like a copy in Spanish. Could Apple, Inc., create a program that lets you take a copy of the novel and translate it into Spanish? In doing so, this deprives Ms. Rowling of her right to create and sell a derivative work, that is, the Spanish edition of the novel. If Apple creates the software, it deprives her of that right and the profits that come from the sale of that new work. Suppose that software could change the novel into virtually any language. How much money would be lost to the author? Currently, if you want a Spanish edition and an English edition you have to purchase both editions. Without a software product like Apple’s iTunes, if you have an audio CD of Michael Jackson’s *Thriller* and you wanted to have a digital copy, you would have to purchase a digital copy. Apple’s iTunes completely eliminates that need. Now, you can shape-shift your audio CD and use iTunes to create a digital copy without any expense.

VIII. THE LAW (PART 2): THE AUDIO HOME RECORDING ACT

When considering the possibility of infringing activities, it is necessary to review possible defenses. One such defense lies within the Audio Home Recording Act (“AHRA”).³⁵ The AHRA (which is embodied within the Copyright Act) had a number of purposes. One such purpose was to eliminate liability of consumers when making copies of recordings for personal use. The statute provides, in relevant part:

No action may be brought under this title alleging infringement of copyright . . . based on the noncommercial use by a consumer of [a digital audio recording device] or medium or making digital musical recordings or analog musical recordings.³⁶

34. See *supra* text accompanying note 27.

35. 17 U.S.C. § 1001 (2012).

36. *Id.* § 1008.

Given the statute, one must ask two questions. First, Does the statute intend to protect a third party (including a corporation such as Apple) from an infringement action when the infringement is incurred by a “consumer” as referenced in the statute? Although it is highly doubtful that the legislature intended to protect potential defendants other than consumers, the answer is preempted by a different question.

The second question is, “What is a digital audio recording device?” Or, more precisely, Does iTunes constitute a digital audio recording device? The reason that answer is significant is because under section 1008, the prohibition of an action for infringement, applies only to actions “brought under this title alleging infringement of copyright . . . based on the noncommercial use by a consumer of [a digital audio recording device].”³⁷ Therefore, if iTunes is not considered a “digital audio recording device” then the defense is not applicable. Also, if music on a hard drive is not considered a digital music recording, then the AHRA would not apply.

Both of these issues were addressed by the Ninth Circuit in *Recording Industry Association of America v. Diamond Multimedia Systems, Inc.*³⁸ In the *Diamond* case, the court was faced with determining whether or not a Rio portable music player was a digital audio recording device capable of reproducing digital music recordings.³⁹

A. *Defining Digital Music Recording*

As part of the analysis, the court considered the fact that the Rio player had music installed on it from a computer. As such, the court was faced with an examination of the role a computer and its storage devices played in the transfer and how such a role was impacted by the AHRA.⁴⁰ The court recognized that “almost all hard drives contain numerous programs (e.g., for word processing, scheduling appointments) and databases that are not incidental to any sound files that may be stored on the hard drive.”⁴¹ The court, referring to the definition in the act, noted that the AHRA provides that:

- (B) 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 constituting the fixed sounds and incidental

37. *Id.* (emphasis added).

38. *Recording Indus. Ass’n of Am. v. Diamond Multimedia Sys., Inc.*, 180 F.3d 1072 (9th Cir. 1999).

39. *Id.* at 1076.

40. *Id.*

41. *Id.*

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.⁴²

The court held that a hard drive is excluded from the definition of digital music recordings.⁴³ If a hard drive does not fall within the definition, then the Rio player could “not record ‘directly’ from ‘digital music recordings’ and therefore could not be a digital audio recording device.”⁴⁴ Explaining further, the court examined the legislative history and found that

[t]he Senate Report further states that the definition ‘is intended to cover those objects commonly understood to embody sound recordings and their underlying works. . . . [T]his definition only extends to the material objects in which songs are normally fixed: ‘[t]hat is recorded compact discs, digital audio tapes, audio cassettes, long-playing albums, digital compact cassettes, and mini-discs. There are simply no grounds in either the plain language of the definition or in the legislative history for interpreting the term ‘digital musical recording’ to include songs fixed on computer hard drives.’⁴⁵

B. *Defining a Digital Audio Recording Device*

The court also looked at computers and the definition of a digital audio recording device. The court held that “[u]nder the plain meaning of the Act’s definition of digital audio recording devices, computers (and their hard drives) are not digital audio recording devices because their ‘primary purpose’ is not to make digital audio copied recordings.”⁴⁶ The court recognized that a computer’s primary purpose is to “run various programs and to record data necessary to run those programs and perform various tasks.”⁴⁷ The court also consulted with the legislative history, noting the consistency with its finding: “The legislative history is consistent with [the court’s] interpretation

42. *Id.* (quoting 17 U.S.C. § 1001(5)(B) (emphasis added)).

43. *Diamond*, 180 F.3d at 1076.

44. *Id.*

45. *Id.* at 1077.

46. *Id.* at 1078. The court relied on section 1001(3), which provides, in part,

A “digital audio recording device” is any machine or device of a type commonly distributed to individuals for use by individuals, whether or not included with or as part of some other machine or device, the digital recording function of which is designed or marketed for the primary purpose of, and that is capable of, making a digital audio copied recording for private use, except for—

(A) professional model products, and

(B) dictation machines, answering machines, and other audio recording equipment that is designed and marketed primarily for the creation of sound recordings resulting from the fixation of nonmusical sounds.

17 U.S.C. § 1001(3).

47. *Diamond*, 180 F.3d at 1078.

of the Act's provisions, stating that "the typical personal computer would not fall within the definition of "digital audio recording device" because a personal computer's "recording function is designed and marketed primarily for the recording of data and computer programs."

C. *The Act Does Not Apply*

As noted by the court, exclusion of "hard drives from the definition of digital music recording, and the exemption of computers generally from the Act's ambit . . . 'effectively eviscerates the [Act]' because '[a]ny recording device could evade [] regulation simply by passing the music through a computer and ensuring that the [digital] file resided momentarily on the hard drive.'"⁴⁸ The court found that such a loophole was "expressly designed" into the AHRA.⁴⁹

Although the court in *Diamond* was concerned with liability under the act for Rio's alleged failure to comply with certain safeguards, the effect is the inapplicability of the act's defenses with regard to iTunes and, as a result, Apple and its potential liability. By excluding hard drives and computers from the AHRA, the prohibition against an enforcement action does not apply as well.⁵⁰ Therefore, Apple, Inc., has no defense from liability for infringement from the Audio Home Recording Act.

IX. THE LAW (PART 3): FAIR USE OR NOT

An oft-used legal defense to copyright infringement (whether viable or not) is that of fair use. The Copyright Act specifically provides that "fair use" is a limitation on exclusive rights held by copyright holders.⁵¹ The act permits, as a defense to infringement, the copying of a protected work for purposes such as "criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research."⁵² As discussed, the newly created work resulting from the shape-shifting created by iTunes would not fall into any of the aforementioned categories. In assessing fair use, the Copyright Act lists a number of factors for consideration:

- (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

48. *Id.*

49. *Id.*

50. 17 U.S.C. § 1008.

51. 17 U.S.C. § 107.

52. *Id.*

- (4) the effect of the use upon the potential market for or value of the copyrighted work.⁵³

Although the application of the fair-use defense is often challenged and, at times, difficult to define, in the situation created by iTunes, fair use clearly does not apply. In looking at the purpose of the use, the user is avoiding the purchase of the “translation.” That is, he or she need not purchase a digital copy as he or she can use iTunes to create his or her own, thereby avoiding the cost associated with purchasing the music in a digital format.

The nature of the work, that is a complete song or complete album, is copied in its entirety. In *Bridgeport Music, Inc. v. Dimension Films*, the Sixth Circuit examined the issue of copying a small portion of a song (3 notes lasting 4 seconds),⁵⁴ which is called a “sample,” and using that sample in a different work.⁵⁵ The Sixth Circuit found that such “sampling” was infringement.⁵⁶

Typically, fair-use defenses are used when a small portion of a copyrighted work is used. For example, a small portion of a book used in a classroom setting might be acceptable whereas a complete copy of a textbook given freely to each student would not. In the case of iTunes, the entire work is copied.

Section 107(4) provides the most critical factor to infringement facilitated by iTunes. Recall the analogy of a book translation. Each song, each album, is one less sale. The use of iTunes is not fair use; it is simply the deprivation of a commercial opportunity for the copyright holder.

X. APPLE’S INFRINGEMENT

A. *Types of Infringement*

There are three (possibly four) types of copyright infringement that could result in liability for a defendant: direct, vicarious, inducement, and contributory.⁵⁷ The infringement applicable to this discussion, and specifically Apple, is that of contributory infringement. As will be discussed more fully below, Apple contributes to the direct infringement of the user.

53. *Id.*

54. *Bridgeport Music, Inc. v. Dimension Films*, 410 F.3d 792, 796 (6th Cir. 2005).

55. *Id.* at 801.

56. It should be noted that the 6th Circuit did not address the issue of fair use. The trial court found that sampling was not infringement so the issue of fair use was not litigated. The case is used merely to illustrate that when copying a small portion of music is considered infringement, it is highly unlikely that a song or album in its entirety could be considered fair use.

57. There is some question among scholars as to the viability of inducement infringement. A discussion of this particular infringement exceeds the scope of this Article. Rather, this Article addresses the applicable type of infringement that would be relevant to Apple, which is contributory infringement.

For contributory infringement to apply, one must prove two elements: knowledge of the infringement; and material contribution to the direct infringer's activities.⁵⁸

B. *The Sony Case*

In *Sony Corp. of America v. Universal City Studios, Inc.*,⁵⁹ the Supreme Court examined the issue of contributory infringement with regard to Sony's videotape recorders (VTRs). Although the allegations and facts are far removed from the issue presented here, the holding is relevant to this discussion. The *Sony* case involved what the Court found to be time-shifting.⁶⁰ That is, recording a program that was broadcast to be viewed at a later time. The Court held that Sony would not be liable for contributory infringement as long as the product is capable of substantial non-infringing uses. In the *Sony* case, the device examined by the Court was the Betamax VTR. The device had very limited functionality. It could record a signal (comprising both audio and video), store it on a videotape, and play it back at a later time. Consumers could, of course, use this technology for both infringing and non-infringing uses. In analyzing the uses of the technology, the Court ultimately held that Sony was not liable for contributory infringement. In so holding, the Court found that the "contributory infringement doctrine . . . may require the courts to look . . . to the products or activities that make . . . duplication possible. The staple article of commerce doctrine must strike a balance between a copyright holder's legitimate demand for effective—not merely symbolic—protection of the statutory monopoly, and the rights of others freely to engage in substantially unrelated areas of commerce. 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. Indeed, it need merely be capable of substantial noninfringing uses."⁶¹

C. *Betamax Versus iTunes*

In the *Sony* case, Sony's VTR had two functions (to record and play back recordings) but many uses. The function of recording and playback could be used for many non-infringing uses. As such, the Court held that Sony could not be liable for contributory infringement.⁶² In short, the Court found that time-shifting was a non-infringing use and, therefore, the VTR was capable of substantial non-infringing uses.

58. *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259, 264 (9th Cir. 1996).

59. *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984).

60. *Id.* at 456.

61. *Id.* at 442.

62. *Id.* at 456.

On the contrary, as noted above, iTunes has many functions. One of those functions is to rip music from an audio compact disc to a hard drive. This function could be a stand-alone function. However, Apple has combined the function of ripping with other functions such as a media player and, most recently, an Internet radio player. These functions are wholly independent but merely contained within a single software application. Nevertheless, the issue of infringement surrounds the uses tied to the ripping ability of iTunes.

As noted above, the ripping function of iTunes cannot make a copy. It cannot space-shift (move an audio CD file from one place to another), nor can it time-shift (record a song for later playback). The only use that the ripping function has in iTunes is to shape-shift. That is, to change the format of a song from CDA to another format such as AAC, AIFF, Apple Lossless, MP3, or WAV.⁶³

The only way that use of the iTunes ripping function would not be an infringement is if the user had the right to create the derivative work. The Author is unaware of any commercial audio compact disc that includes any rights to the consumer other than the right to play the music contained on the audio CD.

D. *The Grokster Case*

In *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster*, the Supreme Court was faced not with a question of infringement but rather the question of liability.⁶⁴ Specifically, the question it addressed was “under what circumstances the distributor of a product capable of both lawful and unlawful use is liable for acts of copyright infringement by third parties using the product.”⁶⁵

A brief discussion of the facts is relevant to this Article as many facts mirror the use of iTunes and Apple’s role in the infringing activities.⁶⁶

The respondents (Grokster and StreamCast) distributed software that facilitated the sharing of electronic files through peer-to-peer networks. These networks were used for, among other purposes, “sharing copyrighted music and video files without authorization.”⁶⁷ The suit resulted from “[a] group of copyright holders . . . [suing the respondents] for their users’ copyright infringements, alleging that they knowingly and intentionally distributed their software to enable users to reproduce and distribute the copyrighted works in violation of the Copyright Act.”⁶⁸

63. As of iTunes version 11.1.3 these were the only options available.

64. *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005).

65. *Id.* at 918.

66. The Analogy Section below compares the facts and findings of the *Grokster* case to the real-world application of the use of iTunes and its infringement.

67. *Grokster*, 545 U.S. at 920.

68. *Id.*

Furthermore,

as for quantification, the parties' anecdotal and statistical evidence entered . . . does not say much about which files are actually downloaded by users, and no one can say how often the software is used to obtain copies of unprotected material. But [plaintiffs'] evidence gives reason to think that the vast majority of users' downloads are acts of infringement, and because well over 100 million copies of the software in question are known to have been downloaded, and billions of files are shared across the . . . networks each month, the probable scope of copyright infringement is staggering.⁶⁹

The Court found "the record [to be] replete with evidence that from the moment [the respondents] began to distribute their free software, each one clearly voiced the objective that recipients use it to download copyrighted works, and each took active steps to encourage infringement."⁷⁰

The Court found that evidence "of express promotion, marketing, and intent to promote further, the business models employed by [respondents] confirm that their principal object was use of their software to download copyrighted works. [Respondents] receive no revenue from users, who obtain the software itself for nothing."⁷¹

E. *Inducement of Infringement*

The *Grokster* Court found that

[t]he rule on inducement of infringement as developed in the early cases is no different today. Evidence of "active steps . . . taken to encourage direct infringement," such as advertising an infringing use or instructing how to engage in an infringing use, show an affirmative intent that the product be used to infringe, and a showing that infringement was encouraged overcomes the law's reluctance to find liability when a defendant merely sells a commercial product suitable for some lawful use.⁷²

The Court held "that one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement, is liable for the resulting acts of infringement by third parties."⁷³

XI. APPLE IS THE NEW *GROKSTER*

Many of the actions taken by the respondents in the *Grokster* case were taken by Apple. Where *Grokster* facilitated the copyright in-

69. *Id.* at 922.

70. *Id.* at 923.

71. *Id.* at 926.

72. *Id.* at 936 (citing *Oak Indus., Inc. v. Zenith Elecs. Corp.*, 697 F. Supp. 988, 992 (N.D. Ill. 1988)).

73. *Id.* at 918.

fringement of music over the Internet, Apple facilitates the copyright infringement of music through its software, ripping the music from audio compact discs.

Apple's actions share the following actions with the respondents in the *Grokster* case:

- Apple's iTunes software is distributed for free.⁷⁴
- From its inception, Apple has promoted the use of its software for purposes of infringement advertising that "iTunes lets Mac^[75] users import songs from their favorite CDs; compress them into the popular MP3 format and store them on their computer's hard drive."⁷⁶
- Even now, Apple lists as one of iTunes's features the ability to, "[i]nstead of going through stacks and stacks of CDs, . . . import them into iTunes and quickly browse your whole collection."⁷⁷
- Apple earns no income from the ripping of CDs to a format readable by a portable music player.

Apple stands in the shoes of the respondents in *Grokster*. It is simply using a different device. Instead of software that transmits songs over the Internet, Apple's software converts music from CDA to a digital format. This is clearly contributory infringement as Apple meets the two elements:

- (1) Apple has knowledge of the infringement as it advertises the capability; and
- (2) Apple materially contributes to the infringement with its creation of the ripping function in iTunes.

XII. DAMAGES

A thorough analysis of a copyright holder's potential losses (i.e., damages) as a result of Apple's infringement exceeds the scope of this Article. However, a brief analysis illustrates the massive losses that copyright holders have incurred.

For every song "ripped" instead of being purchased in a format readable by a digital audio player, a copyright holder is potentially deprived of income.

It is estimated that the average performer receives approximately \$.25 for each song sold. As of February 6, 2013, approximately 25 bil-

74. *Download*, <http://www.apple.com/itunes/download/?cid=wwa-us-kwg-music-itu> (last visited on Jan. 7, 2014) (Apple's iTunes free-download page).

75. When first introduced, iTunes was available only on the Mac and was later adapted for Window's based machines.

76. Apple Press Info, *Apple Releases iTunes—World's Best and Easiest to Use Jukebox Software* (Jan. 9, 2001), <http://www.apple.com/pr/library/2001/01/09Apple-Introduces-iTunes-Worlds-Best-and-Easiest-To-Use-Jukebox-Software.html>.

77. Apple's iTunes, *Features Page*, <http://www.apple.com/itunes/features/> (last visited on Jan. 7, 2014).

lion have been downloaded. Therefore the estimated royalties on that number of songs would be \$6.25 billion.⁷⁸

Although it is difficult, if not impossible, to accurately count how many songs have been ripped from CDs, a simple calculation can show the enormity of the damages. Assume that only 10% of the number of songs downloaded have been ripped (presumably the real number is significantly larger). That would be 2.5 billion. At \$.25 per song, the amount of losses for copyright holders would be \$625 million. Over half a billion dollars is not insignificant.

XIII. CONCLUSION

Apple is an innovator and a creator of great products. Unfortunately, in the midst of creating new technologies to, in part, solve problems of consumers, it has trampled on the rights of copyright holders who own the rights to sound recordings. The copyright holders have certain rights, which include, among others, the right to derivative works. iTunes, through its function of ripping songs from audio CDs to digital forms, creates derivative works (analogous to a translation). This new creation violates the exclusive right to create derivative works. There is no exception, nor defense, to this infringement. As a result, copyright holders have potentially been deprived of billions of dollars of royalties. Apple as a result of its creation and distribution of iTunes and the promotion of "ripping" is liable for contributory infringement.

78. To be clear, the amount of damages resulting from infringement would occur only on songs that were ripped from CDs to a digital format that is readable and capable of being stored by and on a digital media player. Legally downloaded songs are not forms of infringement. The numbers are used merely as an illustration of the massive amount of songs that have been downloaded and the likelihood that an enormous number of songs have been "ripped" from audio CDs via iTunes.