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Monika Roth
Fordham University School of Law

Entering the DRM-Free Zone: An Intellectual Property and Antitrust Analysis of the Online Music Industry

Monika Roth*

Recently, EMI, the world's third largest recording company, and part of the "Big Four" record labels that own and control almost all of the music available to American consumers, broke with industry practice and announced that it would no longer sell songs with built-in copy restrictions. This move followed a public request by Steve Jobs, Chief Executive Officer of Apple, for recording companies to allow the sale of music online without antipiracy software, proclaiming that it would be the "best alternative for consumers."[1] Up until this point, all the major music companies have been selling all digital songs with copy restrictions. Starting in May 2007, EMI's music began to be sold through Apple's iTunes and other online music stores at the cost of thirty cents extra per song ($1.29 per song rather than 99 cents). Eric Nicoli, EMI's chief executive was quoted saying: "It was clear what we had to do because we hold the customer at the center

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[1] Steven Jobs, *Thoughts on Music*, http://www.apple.com/hotnews/thoughtsonmusic/ (Feb. 6, 2007); *see also* John Markoff, *Apple Chief Urges Shift on Piracy*, N.Y. TIMES, Feb. 7, 2007, at C1 [hereinafter *Apple Chief*].

of our focus" and "we have to trust our customers."[2] Was it the potential concern for its customers, and Apple's support, that caused EMI to part with its long-standing business practice? Possibly. However, an analysis of the history and current state of the online music industry presents some alternate factors that likely influenced the moves made by both Apple and EMI.

Part I of this Note begins by defining copyright infringement and explaining its rise in the music industry with the advent of the internet. Next, Part II outlines the legal complexities regarding copyright infringement in the music industry, and Part III highlights the music industry's non-legal response to the copyright infringement problem. Part IV introduces the innovative solutions initiated by Apple to combat industry problems and Part V explains the antitrust issues raised by these innovative solutions. Part VI broadens the scope of the problems faced by Apple to the international playing field. Part VII concludes that the failure of the music industry's past solutions to copyright infringement may be the true reason that the record labels are looking at selling online music without copy restrictions.

I. COPYRIGHT INFRINGEMENT AND P2P NETWORKS

The United States Copyright Act of 1976 provides that copyright holders have the exclusive right to authorize the reproduction and distribution of duplicates of copyrighted work.[3] Thus, copyright infringement occurs when copyrighted material is used without authorization. The internet, while producing many benefits for our society, also facilitated a new realm of copyright infringement. With the rise of peer-to-peer (P2P) software, it is relatively easy for consumers to obtain music online by sharing files through an autonomous network of computers without any

[2] Thomas Crampton, *EMI Dropping Copy Limits on Online Music*, N.Y. TIMES, Apr. 2, 2007, http://www.nytimes.com/2007/04/03/technology/03music.web.html [hereinafter *EMI Dropping Copy Limits*].

[3] 17 U.S.C. §§ 101–22 (2006); *see also* J. Heath Loftin, *Secondary Liability for Copyright Infringement: Why the Courts May Be Nearing the End of the Line for Imposing Further Liability on Peer-to-Peer Software Distributors*, 37 CUMB. L. REV. 111, 114 (2006).

central server.[4] The software connects the hard drives of users with those of other users and thus creates a network.[5] Once a network exists, an index of files can be freely exchanged among its users.[6]

A prime reason for copyright infringement is the consumer's desire to have a specific song without having to purchase the entire album.[7] The desire for unbundled music is difficult to satisfy when music is distributed through compact disks (CDs). The proliferation of download services has made it simpler to respond to consumer demand through "disaggregation."[8]

II. THE LEGAL DIMENSION OF UNAUTHORIZED ONLINE MUSIC DISTRIBUTION AND QUESTIONS REGARDING LIABILITY

Copyright holders tried to combat copyright infringement by taking the problem to court. Since it would be too arduous to sue all the individual copyright infringers, copyright holders instead opted to sue the designers and providers of the P2P networks for contributory infringement. *Sony Corp. of America v. Universal City Studios, Inc.* is the seminal United States Supreme Court case construing contributory copyright liability.[9] In *Sony*, owners of copyrights on television programs brought a copyright infringement action against manufacturers of home videotape recorders (VCRs). The copyright owners alleged that some individuals had used Betamax VCRs to record copyrighted works played on commercially sponsored television, claiming that the manufacturers were liable for the copyright infringement committed by the consumers.[10]

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4 *See* MGM Studios, Inc. v. Grokster, Ltd., 380 F.3d 1154, 1158 (9th Cir. 2004), *vacated*, 545 U.S. 913 (2005) [*hereinafter Grokster*]*; see also* Peer-to-peer, Wikipedia, http://en.wikipedia.org/wiki/Peer-to-peer (last visited Oct. 18, 2007); File sharing, Wikipedia, http://en.wikipedia.org/wiki/File_sharing (last visited Oct. 18, 2007).

5 Peer-to-peer, *supra* note 4; File sharing, *supra* note 4.

6 *Grokster*, 380 F.3d at 1158; Peer-to-peer, *supra* note 4; File sharing, *supra* note 4.

7 Eddy Hsu, *Antitrust Regulation Applied to Problems in Cyberspace: iTunes and iPod*, 9 INTELL. PROP. L. BULL. 117, 120 (2005).

8 *Id.*

9 464 U.S. 417 (1984).

10 *Id.* at 420.

Relying on an analogy to patent law,[11] the Supreme Court held that a party could not be held liable as a contributory infringer as a result of manufacturing and selling copying equipment like a VCR. If the copying device is capable of "'substantial' or 'commercially significant noninfringing uses,' . . . the manufacturer would not be liable for contributory infringement."[12] The Supreme Court held that the VCR was "capable of substantial noninfringing uses" since "the primary use of the machine for most owners was time-shifting"[13] and a "significant quantity of that time-shifting was expressly authorized by various broadcasters."[14] Time-shifting is the ability of a consumer to record a program and watch it at a later time.

Meanwhile, the emerging field of P2P software raised new questions within copyright law. Historically, "anyone wishing to publicly distribute an artistic work . . . would have to negotiate with the rights-holding gatekeeper . . . for permission to do so."[15] However, P2P software programs eliminate the need for a gatekeeper. The realization of this fact led many copyright holders to come together and bring suits against designers of these programs, starting with Napster.[16] They deemed it less costly and more effective to go after the single secondary infringer rather than the mass of direct infringers.[17] Unfortunately, the results of these lawsuits were "less than conclusive."[18] The uses of P2P file sharing systems are clearly infringing when users downloaded copyrighted works, but "it was not at all clear that *Sony's* contributory liability test should support the imposition of liability on the designers of these programs—especially as many P2P programs arguably satisfied *Sony's* 'capable of substantial noninfringing use' threshold."[19]

11 *See* 35 U.S.C. § 271(b), (c) (2006).

12 John M. Moye, *How Sony Survived: Peer-to-Peer Software, Grokster, and Contributory Copyright Liability in the Twenty-First Century*, 84 N.C. L. REV. 646, 657 (2006) (quoting *Sony*, 464 U.S. at 442).

13 *Sony*, 464 U.S. at 423.

14 *Id.* at 444.

15 Moye, *supra* note 12, at 661.

16 *Id.*; *see also infra* notes 20–31 and accompanying text.

17 *Id.*

18 *Id.* at 662.

19 *Id.* (italics added).

Contributory liability for a P2P software designer was first truly addressed in *A&M Records, Inc. v. Napster, Inc.*[20] Through various tools like Napster's MusicShare software, an internet site that offered the software for free, network servers and server-side software, Napster made it possible for users to download exact copies of music files stored on other users' computers.[21] In order to determine whether Napster was liable for contributory copyright infringement, the court set out two elements: (1) knowledge of the infringing activity and (2) material contribution to the infringing activity.[22] Napster satisfied both elements. Napster had "knowledge, both actual and constructive, of direct infringement"[23] and materially contributed by providing "the site and facilities" for direct infringement.[24] The court clarified the *Sony* holding by stating that *Sony* does not impute the requisite level of knowledge where there is capability of substantial noninfringing uses.[25] However, since Napster had "actual, specific knowledge," contributory liability was applicable, despite the existence of a capability for substantial noninfringing uses.[26]

The Ninth Circuit approach to the Sony doctrine conflicted with an alternate interpretation that developed in the Seventh Circuit. In the case *In re Aimster Copyright Litigation*,[27] involving another P2P software provider, the court held that when there is a product involving both infringing and noninfringing uses, an estimate of the "respective magnitudes of the uses is necessary for a finding of contributory infringement."[28] "Construing Sony this way, the court held that a defendant would not be able to escape liability for contributory infringement merely by showing that its product could be used in noninfringing ways."[29] Being capable of

[20] 239 F.3d 1004 (9th Cir. 2001).
[21] *Id.* at 1011.
[22] *Id.* at 1019 (quoting Gershwin Publ'g Corp. v. Columbia Artists Mgmt., Inc., 443 F.2d 1159, 1162 (2d Cir. 1971)).
[23] *Id.* at 1020.
[24] *Id.* at 1022 (citing Fonovisa, Inc. v. Cherry Auction, Inc., 76 F.3d 259, 264 (9th Cir. 1996)).
[25] *Id.* at 1020.
[26] *Id.*
[27] 334 F.3d 643 (7th Cir. 2003), *cert. denied*, 540 U.S. 1107 (2004).
[28] *Id.* at 649; *see also* Moye, *supra* note 12, at 667.
[29] Moye, *supra* note 12, at 667.

noninfringing uses is not enough to escape liability; a defendant must show that the product was used for substantial noninfringing uses.[30]

The split between the Seventh and Ninth Circuits over the interpretation of the *Sony* doctrine caused a change in strategy in the recording industry. Injunctions against P2P systems were abandoned in favor of pursuing individual lawsuits against direct infringers.[31] However, this approach, besides being expensive and time-consuming, backfired. Rather than stirring public sympathy for the industry, it had the reverse effect of demonizing the parties bringing the suits, such as the Recording Industry Association of America and the copyright holders they represented.[32]

The Supreme Court finally tackled the P2P debate in the wake of the *Sony* doctrine in *MGM Studios Inc. v. Grokster, Ltd*.[33] A group of movie studios and other copyright holders brought a copyright infringement suit against distributors of a P2P file sharing computer networking software.[34] The distributors were aware that their software was used to download copyrighted files, but the decentralized networks did not reveal which files were copied and when they were copied.[35] Evidence suggested that the the distributors intentionally structured their networks to circumvent the centralized control that had led to Napster's demise.[36] There was also evidence that the distributors "took active steps to encourage infringement" and promoted and marketed themselves as Napster alternatives.[37] Furthermore, the distributors took no steps to filter copyrighted material or otherwise prevent the sharing of copyrighted files.[38] The incentive to refrain from regulating the downloading of files was financial; the distributors made money by selling advertising space, and

30 *Id.* at 667–68; *Aimster*, 334 F.3d at 651–53, 648.
31 Moye, *supra* note 12, at 671–72.
32 *See id.*
33 545 U.S. 913 (2005).
34 *Id.* at 913.
35 *Id*.
36 Moye, *supra* note 12, at 664–65.
37 *Id.*
38 *Id.*

revenues increased the more the software was used.[39] All of these factors showed that the "principal object" of the business models of the distributors was to use their software to download copyrighted works,[40] and thus an unlawful objective was "unmistakable."[41] The theoretical basis for this conclusion was expressed by the Supreme Court in "the rule on inducement of infringement."[42] According to the inducement rule, "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."[43] Consequently, due to the factors of intent "to bring about infringement and distribution of a device suitable for infringing use"[44] present in this case, the Supreme Court held that contributory liability was applicable.

The inducement theory articulated in *Grokster* still leaves many issues open. "For example, is such a theory intended to now supplement the already-familiar *Sony* doctrine, simply by incorporating into it considerations of intent and purpose?"[45] Or, "alternatively, should a lower court now completely forgo the 'capable of substantial noninfringing uses' analysis where the evidentiary record is replete with references to 'affirmative steps' taken to infringe?"[46] These questions will only be answered with time as lower courts begin applying the opinion to new copyright liability cases. However, "considering the amount of money at stake (Grokster, for example agreed to 'pay up $50 million in damages'), it is extremely important that P2P networks have some sense of their potential liability in a case where no inducement exists, and what they could and should do to avoid such liability. The *Grokster* opinion is not instructive on this point . . . ."[47] Thus,

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39 *Id.* at 913.
40 *Id.* at 926.
41 *Id.* at 940.
42 *Id.* at 936.
43 *Id.* at 936–37.
44 *Id.* at 940.
45 Moye, *supra* note 12, at 679.
46 *Id.*
47 Julie Zankel, *A Little Help With Sharing: A Mandatory Licensing Proposal to Resolve the Unanswered Question Surrounding Peer-to-Peer Liability for Contributory*

it is understandable that the music industry has begun to explore new technologies that protect copyrighted media, such as digital rights management (DRM).

III. DIGITAL RIGHTS MANAGEMENT

With the rise of technology such as the cassette tape recorder, photocopying equipment, the VCR, and most recently, P2P networks, copying media has become a lot easier. It is now more difficult to protect legal rights that had been previously enforced through technological barriers.[48] The introduction of digital media has raised more concerns because, unlike the case with analog media, digital media files can be copied infinitely without a corresponding loss in quality. As a result, copyright holders have turned to DRM as a method for protecting their copyrights. DRM gives copyright holders the right to control the making of copies by incorporating technology with use restrictions.[49] Unfortunately, as the case of Sony and others has proven, DRM has proven to present many obstacles of its own.

Sony implemented a type of DRM when it began to sell CDs with "built in copy protection designed to prevent illegal copying between computers by forbidding a second computer from playing the music without an additional purchase."[50] This solution may sound clever but it came with numerous problems, including the requirement that the first computer have an internet connection and online registration by the owner. These technological obstacles created a consumer backlash.

Sony used two different encryption systems, XCP and MediaMax.[51] An unencrypted CD allows the computer to copy and store the music files on a computer.[52] XCP and MediaMax,

Copyright Infringement in the Wake of Grokster, 80 S. CAL. L. REV. 189, 191 (2006) (footnotes omitted).

48 Randal C. Picker, *Mistrust-Based Digital Rights Management*, 5 J. TELECOMMS. & HIGH TECH. L. 47, 49 (2006).

49 *See* Digital Rights Management, Wikipedia, http://en.wikipedia.org/wiki/Digital_rights_management (last visited Nov. 5, 2007).

50 Hsu, *supra* note 7, at 119.

51 Picker, *supra* note 48, at 56.

52 *Id.* at 57–58.

however, work differently.[53] According to Ed Felton, a computer scientist at Princeton University and Alex Halderman, his graduate student, both types of DRM take advantage of the autorun feature built into the Windows operating system that simplifies the installation of new software.[54] When autorun is enabled and a CD with DRM is inserted, the software on the CD is triggered. This software blocks "normal copying of the CD and can impose an end-user license agreement that limits access by the computer to the CD."[55] However, according to Felten and Halderman, a knowledgeable computer user can avoid the DRM systems by turning off autorun.[56]

Beyond the technical obstacles of the encryption systems, Sony has also been presented with some legal issues. For example, the Electronic Frontier Foundation (EFF) filed a class action lawsuit under the California Consumer Legal Remedies Act alleging: (i) unfair, unlawful and fraudulent business practices in violation of California Business and Professions Code Section 17200; (ii) breach of the implied covenant of good faith and fair dealing; and (iii) false or misleading statements under California Business and Professions Code 17500.[57] Additionally, the State Attorney Generals of Massachusetts and New York launched investigations stemming from Sony sales and the Texas Attorney General brought suit under the Texas Consumer Protection Against Computer Spyware Act of 2005.[58] Although the legal sufficiency of some of these claims may be doubtful[59] they nevertheless indicate increased costs and trouble for Sony. Therefore, it is not surprising that Sony was willing to settle the EFF lawsuit and cease using encryption systems in the sale of CDs.[60]

53 *Id.* at 58.
54 *Id.*
55 *Id.*
56 *Id* at 60.
57 *Id.*
58 *Id.* at 60–61.
59 *See id.* at 61 (explaining the true purpose of the Computer Fraud and Abuse Act).
60 *See id.* at 62.

IV. THE APPLE APPROACH TO DRM

Apple's solution to the problems facing the online music industry and the music industry in general is iTunes.[61] iTunes allows consumers to download songs individually or as albums.[62] The online store eliminates CD production costs, so songs and albums are less expensive and available on demand.[63]

Probably the most significant aspect of iTunes is that it addresses online music piracy and provides a new revenue option by selling copyrighted music over the internet.[64] A song purchased through iTunes is downloaded to a destination computer and comes encoded with the Advanced Audio Coding ("AAC") codec, copying technology based on MPEG-4 digital compression technology.[65] According to Apple, "AAC provides audio encoding that compresses much more efficiently than earlier formats such as MP3, yet delivers quality rivaling that of uncompressed CD audio."[66]

Before downloading the song, the consumer must agree to the iTunes "Terms of Service," which include "usage rules limiting the number of times the music may be burned into CDs, the number of devices which can simultaneously store the downloaded music and an acknowledgement that the purchased music is encrypted to prevent violation of the usage terms,"[67] in addition to the right by Apple to limit or stop access to downloaded music if iTunes is discontinued.[68] All of these restrictions that the user must agree to allow Apple to limit the distribution of downloaded music.

While iTunes can be viewed as an effective way to deal with copyright infringement, the real issues arise after the music is purchased. Naturally, consumers might want to listen to their

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61 *See* Hsu, *supra* note 7, at 120.
62 *Id.*
63 *Id.* at 120–21.
64 *See id.* at 121.
65 *Id.*
66 *Id.* (citing iTunes: About Advanced Audio Coding (AAC), http://docs.info.apple.com/article.html?artnum=93012 (last visited Apr. 16, 2006)).
67 *Id.*
68 *Id.*

downloaded music on other devices besides their computers.[69] The digital audio compression format, such as MP3 and AAC, allows consumers to listen to mass quantities of music on very small portable music players.[70] However, in selecting a portable music player or any other type of music-playing device, the consumer is limited by the iTunes Terms of Service, which only allows for five Apple-authorized devices at a time and the Apple iPod as the only portable music player.[71] Thus, when shopping around for a portable music player, the consumer is limited to just one, the iPod, the only player licensed by Apple to play music securely encoded with Apple's AAC codec.[72] "Furthermore, if iTunes should cease its service, the iPod will be the only way to continue to hear AAC encoded music outside of the original computer used to download the purchased music."[73] This close link that AAC encoded music creates between iTunes and the iPod triggers antitrust concerns.[74]

V. ANTITRUST LAW AND TYING VIOLATIONS

The purpose of antitrust law is to promote competition.[75] Technological innovation can challenge that purpose because it enables competitors to produce a product that is technologically incompatible with the rest of the marketplace.[76] If several competitors do the same thing, the benefits of the increase in competition is counteracted with "a fractured market of non-compliant standards, which ultimately leads to consumer frustration. Consumers buy incompatible devices, waste time by trying to make devices compatible, and lose money in the

69 *Id.*
70 *See id.*
71 *Id.* at 121–22.
72 *Id.* at 122 (citing iTunes 4: About Third-party Music Players and AAC File Support, http://docs.info.apple.com/article.html?artnum=93032 (last visited Apr. 16, 2006)).
73 *Id*. (citing iTunes Music Store Terms of Service, http://www.apple.com/support/itunes/legal/terms.html (last visited Apr. 16, 2006)).
74 *Id.*
75 *See id.*
76 *Id.*

process."[77] Furthermore, if competitors want to agree on standards they must proceed with caution to avoid a violation of the Sherman Act, which can result in treble damages or criminal charges.[78] The Sherman Act was enacted as "a comprehensive charter of economic liberty aimed at preserving free and unfettered competition as the rule of trade. It rests on the premise that the unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress, while at the same time providing an environment conducive to the preservation of our democratic political and social institutions."[79] Section 1 of the Sherman Act prohibits contracts, combinations or conspiracies among competitors that unreasonably restrain competition.[80] Section 2 punishes anyone who attempts or obtains an unlawful monopoly.[81]

A. Tying Arrangements

The Supreme Court has defined a tying arrangement as "an agreement by a party to sell one product but only on the condition that the buyer also purchases a different (or tied) product, or at least agrees that he will not purchase that product from any other supplier."[82] Thus, tying arrangements suppress competition by denying competitors free access to the market for the tied product, "not because the party imposing the tying requirements has a better product or a lower price but because of his power or leverage in

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77 *Id.* at 123 (footnotes omitted).

78 *See* 54 AM. JUR. 2D *Monopolies and Restraints of Trade* § 309 (2007).

79 N. Pac. Ry. Co. v. United States, 356 U.S. 1, 4 (1958).

80 *Id.* at 4–5; *see* 15 U.S.C. § 1 (2004) ("Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal.").

81 15 U.S.C. § 2 (2004) ("Every person who shall monopolize, or attempt to monopolize, or combine or conspire with other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding $100,000,000 if a corporation, or, if any other person, $1,000,000, or by imprisonment not exceeding 10 years, or by both said punishments, in the discretion of the court."); *see also* Eastman Kodak Co. v. Image Technical Servs. Inc., 504 U.S. 451, 459 (1992).

82 *N. Pac.*, 356 U.S. at 5–6.

another market. At the same time buyers are forced to forego their free choice between competing products."[83]

Tying arrangements, agreements between the consumer and the tying company for exclusive dealing, violate both § 1 and § 2 of the Sherman Act. It is a § 1 violation because the agreement excludes competition from the market.[84] The monopolistic power of the tying company is a § 2 violation because the tying company unnecessarily restrains competition in the tied product.[85] Although both parties participate in the agreement, only the tying company is punished for the violation because the consumer has no power to resist and thus cannot be guilty of a tie.[86]

A tying arrangement is established upon the showing that: "(1) the tying arrangement is between two distinct products or services, (2) the defendant has sufficient economic power in the tying market to appreciably restrain free competition in the market for the tied product, and (3) a not insubstantial amount of interstate commerce is affected."[87]

In the past, a tying arrangement has been a "per se" violation.[88] "Per se" violations are agreements or practices "which because of their pernicious effect on competition and lack of any redeeming virtue are conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use."[89] A "per se" violation "avoids the necessity for an incredibly complicated and prolonged economic investigation into the entire history of the industry involved, as well as related industries, in an effort to determine at large whether a particular restraint has been unreasonable . . . ."[90]

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83 *Id.*
84 Hsu, *supra* note 7, at 123.
85 *Id.*
86 *Id.*
87 Carl Sandburg Vill. Condo. Ass'n No. One v. First Condo Dev. Co., 758 F.2d 203, 207 (7th Cir. 1985); *see also N. Pac.*, 356 U.S. at 7–8 (noting a defendant's economic power and its purpose to "stifle competition" in determining a violation of the Sherman Act).
88 *See N. Pac.*, 356 U.S. at 5; Int'l Salt Co. v. United States, 332 U.S. 392, 396 (1947) *abrogated by* Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006).
89 *N. Pac.*, 356 U.S. at 5.
90 *Id.*

Recent cases such as *United States v. Microsoft Corp*. and *Jefferson Parish Hospital District. v. Hyde* state that a tying violation is just a presumed Sherman Act violation and may be rebuttable under a "rule of reason" analysis.[91] However, *Microsoft Corp.* was settled before ever reaching the Supreme Court, so the issue of whether a "rule of reason" analysis should be applied in tying arrangements is still unresolved.[92] Although not the majority rule, Justice O'Connor's concurrence in *Jefferson Parish* does mention that "[t]he time has therefore come to abandon the '*per se*' label and refocus the inquiry on the adverse economic effects, and the potential economic benefits, that the tie may have."[93] Justice O'Connor's reasoning was that "[i]n practice, a tie has been illegal only if the seller is shown to have 'sufficient economic power with respect to the tying product to appreciably restrain free competition in the market for the tied product . . . .'"[94] Control or dominance over the tying product is necessary for it to be "an effectual weapon" to pressure buyers into taking the tied product; otherwise any "restraint of trade" attributable to such tying arrangements would be "insignificant."[95] Furthermore "[t]he [Supreme] Court has never been willing to say of tying arrangements . . . that they are always illegal, without proof of market power or anticompetitive effect."[96]

B. iPod and iTunes: A Tying Arrangement?

The tie between Apple's iTunes and iPod may not be initially obvious because a subscription to iTunes does not require an iPod

[91] Jefferson Parish Hosp. Dist. v. Hyde, 466 U.S. 2, 44–55 (1984) (O'Connor, J., concurring), *superseded by statute*, 35 U.S.C. § 271(d)(5) (2003), *as recognized in* Tex. Instruments, Inc. v. Hyundai Elec. Indus., Co. Ltd., 49 F. Supp. 2d 893, 908 (E.D. Tex. 1999); United States v. Microsoft Corp., 253 F.3d 34, 94 (D.C. Cir. 2001).

[92] *See The Microsoft Settlement: A Look to the Future: Statement Before S. Comm. on the Judiciary*, 107th Cong. (2001) (statement of Charles A. James, Assistant Attorney General, Antitrust Division), *available at* http://www.usdoj.gov/atr/public/testimony/9681.htm (last visited Oct. 12, 2007).

[93] *Jefferson Parish*, 466 U.S. at 35 (O'Connor, J., concurring).

[94] *Id.* at 34 (quoting *N. Pac.*, 356 U.S. at 6).

[95] *N. Pac.*, 356 U.S. at 6.

[96] *Id.*

purchase.[97] Nevertheless, a tying analysis is not foreclosed for this reason. Courts have found tying arrangement claims even when they arise subsequent to the purchase of a service or product by a consumer.[98] For example, in *Microsoft*, the court found a tying claim existed between the Internet Explorer browser and the Windows operating system.[99] This tie would only be noticed by a consumer that attempted to get on the internet or tried to get another browser.[100] Additionally, in *Jefferson Parrish*, a tying claim was found because a hospital allowed only limited choices of anesthesiologists.[101] However, to discover these limited choices a patient would need their services. "In both cases, the courts recognized that the tie existed before deciding whether the tie was illegal."[102] Therefore, a court may find that a tying arrangement between iTunes and the iPod exists before initiating an analysis of the legality of such an arrangement.

1. Two Distinct Products

iTunes and the iPod are two distinct products with different competitors that are founded in a consumer's desire for music. iTunes is an online music store whose competitors include "MSN Music, Napster (revamped since the lawsuits), MusicNow, MusicMatch, Wal-Mart, f.y.e., PureTracks and audible.com."[103] "Each competitor has its own subscription agreement and pricing strategy."[104] Prices for an individual song are generally \$0.99, which means that competitors must adopt alternate strategies to attract customers. The iPod is a portable music device that competes with other consumer product manufacturers such as "Sony, Philips, Creative, iRiver, Archos, Pogo, Interactive Media,

97 *See* iPod + iTunes, Apple, http://www.apple.com/itunes (iTunes is a program that may be downloaded separately from any Apple purchase).
98 *See, e.g.*, *Jefferson Parish*, 466 U.S. 2; United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).
99 *Microsoft Corp.*, 253 F.3d at 88–89.
100 Hsu, *supra* note 7, at 125.
101 *Jefferson Parish*, 466 U.S. at 30–31.
102 Hsu, *supra* note 7, at 125.
103 *Id.*
104 *Id.*

and Samsung."[105] The portable music players provided by these manufacturers must compete based on "capacity, size, battery life, looks, and compatibility with several music formats."[106] The iPod has been said to be one of the "worst in battery life, the most expensive and the least compatible with other music formats."[107]

The Supreme Court has ruled that for two products to be considered distinct there must be sufficient consumer demand so that it is efficient for a firm to provide each separately.[108] "The presence of different competitors in the iTunes market and the iPod market strongly infers that Apple has two distinct products because each market must have their own strategies based on price and product development."[109] Furthermore, a subscriber of iTunes does not need an iPod to listen to the music. However, once a portable music player is desired, that iTunes subscriber must purchase an iPod. Thus, the purchase of the iPod occurs because of the AAC-secured format rather than a desire for the product enhancement of iTunes.[110] The iTunes subscription is the tying product because the AAC-encoded music it provides prevents the consumer from freely choosing other portable music players. The iPod is the tied product since a consumer that is not an iTunes subscriber is free to purchase any available online music player. Without the existence of the AAC-secured format, iTunes and the iPod could be sold and marketed independently.

2. Sufficient Economic Power

"Market power is the power 'to force a purchaser to do something that he would not do in a competitive market.'"[111] "It has been defined as 'the ability of a single seller to raise price and

[105] *Id.*
[106] *Id.*
[107] *Id.* (citing Elliot Van Buskirk, *Five reasons not to buy an iPod*, CNET REVIEWS, Nov. 5, 2003, http://reviews.cnet.com/4520-6450_7-5102324-1.html (last visited Oct. 18, 2007)).
[108] Eastman Kodak Co. v. Image Technical Serv., Inc., 504 U.S. 451, 642 (1992).(citing Jefferson Parish, 466 U.S. at 21–22).
[109] Hsu, *supra* note 7, at 126.
[110] *Id.*
[111] *Eastman Kodak*, 504 U.S. at 464 (quoting *Jefferson Parish*, 466 U.S. at 14).

restrict output.'"[112] "The existence of such power ordinarily is inferred from the seller's possession of a predominant share of the market."[113]

A glance at the online music industry reveals the market dominance enjoyed by Apple. iTunes has more than seventy percent of the market for downloaded music,[114] and Apple's iPod players and iTunes Store are said to "have defined the online music market."[115] Additionally, Apple's iPod accounts for approximately seventy-eight percent of all sales of portable music players.[116]

In *Eastman Kodak*, the plaintiffs argued that "Kodak's control over the parts market . . . excluded service competition, boosted service prices and forced unwilling consumption of Kodak service."[117] Evidence of increased prices and excluded competition imply the existence of market power.[118] Claims of the iPod's inferiority to other portable music players[119] and Apple's obstruction to competition with the iPod through the use of AAC encoded music similarly imply market power (leading to unwilling consumption).

Furthermore, the presence of other competitors does not preclude a finding of market dominance. In *Eastman Kodak*, Kodak argued for the adoption of a legal rule that would proclaim that "equipment competition precludes any finding of monopoly power in derivative aftermarkets."[120] However, the Supreme Court ruled that it prefers to resolve antitrust claims on a case-by-case basis with a focus on the particular facts on record:[121] "In determining the existence of market power, and specifically the

112 *Id*. (quoting Fortner Enter. v. U.S. Steel, 394 U.S. 495, 503 (1969)).
113 *Id*. (quoting *Jefferson Parish*, 466 U.S. at 17).
114 *See EMI Dropping Copy Limits*, *supra* note 2.
115 *Apple Chief*, supra note 1.
116 Christopher Sprigman, *The 99 Cent Question*, 5 J. TELECOMM. & HIGH TECH. L. 87, 111 n.31. (2006) (citing MacNN, Apple's Music Biz, iPod Shares Grow (Apr. 20, 2006), *available at* http://www.macnn.com/articles/06/04/20/apples.music.business (last visited Apr. 13, 2007)).
117 *Eastman Kodak*, 504 U.S. at 465.
118 *See id.* at 469.
119 *See* Hsu, *supra* note 7, at 126.
120 *Eastman Kodak*, 504 U.S. at 466 (quoting Brief for Petitioner at 33).
121 *Id.* at 467.

responsiveness of the sales of one product to price changes of the other [the Supreme Court] has examined closely the economic reality of the market at issue."[122] The Supreme Court went on to rule that "[t]he fact that the equipment market imposes a restraint on prices in the aftermarkets by no means disproves the existence of power in those markets."[123] Similarly, in the case of the tie between iTunes and the iPod, the tie inhibits competition in iPod pricing because of the lack of substitutes in the iTunes aftermarket.

Additionally, Kodak argued that "supracompetitive prices in the service market lead to ruinous losses in equipment sales . . . ."[124] One of the counter-arguments that the Court used to undermine this theory was that the costliness of switching products would induce consumers to tolerate some level of price increase.[125] A comparable argument can be made in the case of Apple since once an investor has invested the time, money and resources in obtaining an iTunes subscription, he/she will be willing to tolerate higher prices for iPods as a result of the increasing cost of switching online music providers.

3. Not Insubstantial Amount of Interstate Commerce

The "non insubstantial" language was chosen by the Supreme Court because the Court did not want de minimis damage amounts to be alleged. But the Court also did not require a substantial "volume of commerce" to "determine[e] whether the amount of commerce foreclosed is too insubstantial to warrant prohibition of the practice."[126] Rather, the Court held that "the relevant figure is the total volume of sales tied by the sales policy under challenge . . . ."[127]

The iPod costs between \$79 and \$349,[128] and over 100 million have been sold.[129] If Apple artificially increased the price per iPod

[122] *Id.* (quotations and citations omitted).
[123] *Id.* at 471.
[124] *Id.* at 476.
[125] *See id.*
[126] Fortner Enters., Inc. v. U.S. Steel Corp., 394 U.S. 495, 501–02 (1969).
[127] *Id.* at 502.
[128] iPod + iTunes, Apple, http://www.apple.com/itunes/ (last visited Apr. 13, 2007).

by five percent then Apple's tying practices would result in a multi-million dollar gain. Thus, the amount of commerce involved is clearly not insubstantial. Furthermore, since iTunes and the iPod are both available over the Internet and can be accessed/purchased from any state, the interstate commerce requirement is easily met.

C. Antitrust Violations: "Per Se" Rule and Rule of Reason Analysis

After a tying arrangement is established, it is necessary to explore whether the tie violates the Sherman Act or any other antitrust laws. Although traditionally tying arrangements have been considered "per se" violations,[130] there have been recent movements towards a rule of reason analysis.[131] Thus, the strength of the iTunes/iPod tying arrangement should be evaluated under both rules.

1. "Per Se" Rule

The tying arrangement is a "per se" violation because it leaves consumers privy to inefficient pricing in the iPod market.[132] Apple's offense begins when it encourages the purchase of music through iTunes but restricts how it can be played and the options of portable music devices available to consumers, allowing Apple to charge higher prices for iPods.[133]

iTunes draws customers with a music collection that has the greatest market dominance[134] and is larger than any other music download service.[135] Once the consumer makes a purchase, he/she is subject to the terms of the iTunes user agreement and becomes the owner of AAC-encoded music files. These two features limit

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129 Apple Press Release, *100 Million Ipods Sold*, http://www.apple.com/pr/library/2007/04/09ipod.html (last visited Apr. 13, 2007).

130 *See* N. Pac. Ry. Co. v. United States, 356 U.S. 1 (1958); Int'l Salt Co. v. U.S., 332 U.S. 392 (1947).

131 *See* United States v. Microsoft Corp., 253 F.3d 34, 94–95 (D.C. Cir. 2001).

132 *See, e.g.*, Hsu, *supra* note 7, at 128.

133 *E.g.*, *id.* at 128–32.

134 *See EMI Dropping Copy Limits*, *supra* note 2.

135 Sprigman, *supra* note 116, at 94 (displaying a comparison chart of the available content, pricing, and terms of service for the ten largest paid music download services).

where the music can be played (five approved devices) and what kind of device it can be played on (in the case of portable music players, the iPod).[136]

When entering the online music market, Apple was faced with the challenge of satisfying two opposing laws: the approval of time shifting in the *Sony*[137] case and the Digital Millennium Copyright Act ("DMCA").[138] "In *Sony*, the Court allowed the copying of TV shows to Betamax tapes because the shows were originally free to watch and no real loss was incurred by the copyright owners."[139] Meanwhile, the DMCA bans the circumvention of electronic access controls for copyrighted materials. Consumers, of course, will want to "space-shift" their music onto other devices. In other words, consumers want the freedom and flexibility of listening to their music on various devices. However, "[d]efendants in DMCA violation suits have consistently lost when copyrighted music has been shifted to another medium."[140] Thus, Apple allows consumers to "space-shift" music to alternate devices but limits the number of times a consumer can do so in order to create a contractual allowance to the DMCA.[141]

Each time a consumer wants to space-shift a music collection, the new device must be registered to the Apple iTunes server.[142] The registration requirement is essentially an enforcement technique that ensures that the consumer complied with limits on space-shifting. iPods are excepted from this general rule because iPods do not need to be registered. Although the terms of the user agreement provide that a consumer will not share music on more than five devices, there is no technological enforcement in the case of the iPod.[143] The special treatment given to iPods makes it possible for an iTunes customer to share his/her songs with an

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136 Hsu, *supra* note 7, at 128–29.
137 Sony Corp., of Am. v. Universal Studios, Inc., 464 U.S. 417, 421 (1984).
138 17 U.S.C. § 1201 (1999)
139 Hsu, *supra* note 7, at 129 (citing *Sony*, 464 U.S. at 451 (1984)).
140 *Id*. at 129, n.84 (summarizing case law from the 9th Cir. and S.D.N.Y. holding file sharing in violation of the DMCA).
141 *Id.* at 129.
142 *Id.* (citing iTunes 4: About Music Store Authorization and Deauthorization, http://docs.info.apple.com/article.html?artnum=93014 (last visited Mar. 10, 2005)).
143 *See* Hsu, *supra* note 7, at 129–30, n.87.

unlimited number of iPods. Even though the consumer may share songs infinitely, artists are only compensated once, and, thus, a copyright infringement is born.

a) Comparison with *Kodak*

In the *Kodak* case, Kodak implemented policies that limited the availability of replacement parts to independent service organizations (ISOs), making it more difficult for them to compete with Kodak in servicing Kodak machines.[144] The ISOs brought an antitrust action against Kodak for unlawfully tying the sale of service for Kodak machines to the sale of parts (a § 1 Sherman Act violation) and unlawfully monopolizing and attempting to monopolize, the sale of service for Kodak machines (a § 2 Sherman Act violation).[145]

The Supreme Court ruled that "service and parts are separate markets" and that Kodak has the "'power to control prices or exclude competition' in service and parts."[146] Thus, Kodak created an illegal tie between services and parts in violation of § 1 of the Sherman Act. A Sherman Act § 2 violation requires a showing of "a scheme of willful acquisition or maintenance of monopoly power."[147] The Court held that "Kodak took exclusionary action to maintain its parts monopoly and used its control over parts to strengthen its monopoly share of the Kodak service market."[148]

Similarly, in the case of the iTunes/iPod tying arrangement, there is a substantial argument to be made that the measure taken by Apple in the form of barring the purchase of other portable music players by iTunes subscribers through the use of the AAC code format also reflects a willful scheme to acquire/maintain monopoly power. No one can compete with the iPod among iTunes subscribers because of the incompatibility between the AAC encoded music and other portable music players. The exclusion of all other portable music players mandates the purchase of an iPod if a consumer wants to listen to music on a

144 Eastman Kodak Co. v. Image Technical Serv., Inc., 504 U.S. 451, 458 (1992).
145 *Id.* at 459.
146 *Id.* at 481.
147 *Id.* at 483.
148 *Id.*

portable music player. This requirement is analogous to the tying arrangement in Kodak "where a consumer would not purchase competing service contracts after buying the Kodak bundled parts and service contract because of the extra costs incurred to buy a useless service contract. . . . [A]n iTunes consumer will not purchase a non-iPod because the purchase will be useless to the consumer."[149] As a result of the tying arrangement, Apple can "leverage the iTunes monopoly to create a greater market share for the iPod."[150] Thus, Apple should be subject to liability under the Sherman Act.

2. Rule of Reason

a) Economic Benefits

The rule of reason test paves way for courts to consider economic benefits as well as the adverse economic effects of the tying arrangement in comparison to the emphasis of the "per se" rules on the anti-competitive result. In *Microsoft*, the defendants argued that the tying arrangement/integration is beneficial to consumers because choices are not reduced and consumers gain from the integration of added functionality into platform software:[151] "Since consumers could still choose other browsers and the Windows OS was enhanced by the Internet Explorer integration, the court remanded the case for deeper analysis of the competitive loss borne by the consumers compared to the benefit gained by integration."[152]

Apple has many arguments that can support the existence of economic benefits to the consumer that stem from the iTunes/iPod tying arrangements. First of all, it presents a solution to the copyright infringement problem of illegal downloading that plagues the online music industry. Through the AAC code format, iTunes limits the space-shifting of music to five devices. Additionally, "[u]nlimited iPod transfers do not disrupt the AAC

149 Hsu, *supra* note 7, at 131.
150 *Id.*
151 *See* United States v. Microsoft Corp., 253 F.3d 34, 94–95 (D.C. Cir. 2001).
152 Hsu, *supra* note 7, at 133 (citing *Microsoft Corp.*, 253 F.3d at 94–95).

encoded security measures."[153] When music is transferred to an iPod it is encoded with the AAC format, and to transfer it back onto another device that device must be registered: "Thus the iPod is harmonized with iTunes' security measures because a consumer gets to download music to a portable player and copyright infringement is stopped at the iPod."[154] A scheme of "legitimate sharing of music" is created.[155]

Secondly, Apple can argue that consumers benefit from the AAC code format because it ensures that artists receive royalties and therefore have an incentive to continue creating and producing music.[156] On the flip side, the consumers have accepted this form of copyright law compliance. Given the popularity of iTunes and the iPod it can be argued that the tying arrangement has produced a solution that is legally compliant and makes the consumers happy.

Lastly, there are other options that exist for consumers. Consumers can, for example, burn the AAC encoded music onto CDs and play it on CD players.[157] Also, if the prices for the iTunes service were truly non-competitive consumers have other competitors from whom they can opt to purchase music and portable music players.[158]

Apple can approach the tying arrangement claim from a different angle by arguing for a broader definition of the market to refute the notion that it has sufficient market power (the second element of a tying arrangement claim). Digital music accounts for only about ten percent of the music industry as a whole, or about $2 billion of the industry's sales in 2006.[159] The iTunes store has an even smaller share of that. Thus, in the context of the music industry, Apple barely has the power to induce customers to purchase iPods.

153 Hsu, *supra* note 7, at 133.
154 *Id.*
155 *Id.*
156 *See id.*
157 *See id.* at 134.
158 *See id.*
159 *See EMI Dropping Copy Limits*, *supra* note 2.

b) Justification

The rule of reason requires pro-competitive justifications for anticompetitive behavior.[160] When the iPod was first released it could not play music that was not encoded with the AAC code format well.[161] The continuation of this practice would violate the rule of reason because there is no benefit from limiting the consumer from playing music without the AAC code format; "[it took] away the usefulness of non-AAC music without giving anything back to society."[162] Thus, Apple made the iPod compatible with most other codec formats. However, the iPod is still incompatible with the Microsoft Windows Music Audio Codec ("WMA") which is the standard used on Microsoft's Windows Media Player, the default media player on the Windows operating system.[163] Apple goes so far as to encourage the conversion of WMA files into AAC files knowing that once the conversion is complete only the iPod can play the AAC files. By forgoing a competitor's standards to use the iPod, the iTunes/iPod tying arrangement is reinforced to the benefit of Apple and to no benefit to the consumer (besides the labor of conversion).[164]

It is argued that if Apple fixed the incompatibility issue or allowed other portable music players to play AAC encoded music, then the iTunes/iPod tying arrangement would be legal under a rule of reason test.[165] The reasoning is as follows: "iTunes customers would no longer be forced to buy the iPod" and the "consumer would gain the benefits of having an integrated product without the restriction on their choice of portable music players."[166]

VI. INTERNATIONAL BACKLASH TO APPLE'S SOLUTION

Consumer organizations in several European countries have expressed discontent over the fact that the AAC encoded files

[160] *See* United States v. Microsoft Corp., 253 F.3d 34, 95 (D.C. Cir. 2001).
[161] *See* Hsu, *supra* note 7, at 134.
[162] *Id.*
[163] *See id.*
[164] *See id.* at 134–35.
[165] *See id.* at 135.
[166] *Id.*

purchased on iTunes can only be played on iPods.[167] In January 2007, a Consumer Ombudsman in Norway agreed with a complaint filed on the matter on behalf of the Norwegian Consumer Council. Apple's response was due by March 1, 2007, and it has until October 1, 2007, to remedy the situation: "The Ombudsman has also backed the Consumer Council's claim that the DRM technology is not simply a copy protection scheme. The Council had argued that in restricting consumers' use of music so heavily the technology broke contract law in Norway."[168]

Admittedly, Norway is a small market, but more significantly, Norway's complaint has been echoed in other European countries, including France, Germany and the Netherlands.[169] According to Mark Mulligan, an analyst at Jupiter Research, "Apple can see that the legislative tide is turning in Europe. . . . To U.S. readers it might seem strange to be so concerned about consumer group actions in little markets like Norway, which have just four million inhabitants. But this is all about precedents and other markets following suit."[170] Thus, Apple's iPod/iTunes tying arrangement has already begun to cause some international legal problems and, if the tie continues, promises to create more in the future.

CONCLUSION

When EMI announced that it would offer DRM-free music, and that the music would be available on iTunes, a Wall Street Journal reporter said "a major label is finally treating its customers like customers, instead of regarding them as likely shoplifters who should be given as few rights as possible."[171] While there may be some truth to that statement, this paper presents alternate reasons that probably influenced EMI's decision. These alternatives

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[167] *See* Eric Pfanner, *Europe Cool to Apple's Suggestions on Music*, N.Y. TIMES, Feb. 8, 2007, *available at* http://www.nytimes.com/2007/02/08/technology/08music.html.

[168] *Apple DRM Illegal in Norway: Ombudsman*, REGISTER, Jan. 24, 2007, *available at* http://www.theregister.co.uk/2007/01/24/apple_drm_illegal_in_norway.

[169] *See* Pfanner, *supra* note 167.

[170] *Id*.

[171] Jason Fry, *A Changing Map for Digital Music*, WALL ST. J. Apr. 9, 2007, *available at* http://online.wsj.com/public/article/SB117579460306061099-pDg6mCZljJVPz_Udzotm9C2hOcA_20070509.html.

encompass different approaches to making music available to consumers online and the problems faced by each of them. Given the failure of free P2P networks, the difficulties faced by DRM, and antitrust issues regarding Apple's iTunes/iPod, it is not surprising that a new development has been made in the music industry in the sale of online files. Furthermore, a move towards DRM-free online music would help lift Apple out of the legal trouble it faces regarding the iTunes/iPod link in some countries, and the potential legal claims it could face in others (including an antitrust claim under United States law as explored above). It can be argued that the mounting legal, both copyright and antitrust, problems faced by the music industry forced the powerful players in the industry, such as EMI and Apple, to consider new, innovative solutions. Hopefully, after years of exploration in varying approaches and constant uncertainty, a viable solution that successfully balances the competing interests of various parties has emerged.