A BITE OUT OF APPLE? iTUNES, INTEROPERABILITY, AND FRANCE'S DADVSI LAW

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In the nearly ten years since computer software companies and content owners lobbied Congress for statutory protection against digital piracy, leading to the enactment of the 1998 Digital Millennium Copyright Act (DMCA) in the United States, the role of technical protection measures (TPMs) in protecting digital media has developed into a globally contested issue. Traditionally, content providers regarded TPMs as a fail-safe system for protecting digital content. Both the DMCA and the 2001 European Union Copyright Directive (EUCD), which harmonizes digital copyright law in Europe, recognize the importance of anti-circumvention legislation in stimulating the global digital marketplace.[1] Their theory is that safeguarding TPMs cultivates the digital marketplace by creating an incentive for companies to develop new products. Yet the role of governments in *limiting* the reach of TPMs is inchoate. For this reason, companies have been given free reign to use TPMs that not only prevent digital piracy, but also restrict how consumers use their products. This restriction has created controversy in Europe and beyond.

In August of 2006, in order to implement the EUCD, France passed the "Law on Copyright and Neighboring Rights in the Information Society" known as Dadvsi.[2] Under this law, individuals may now petition the government to compel the disclosure of TPM source code in order to permit product interoperability. Parallel to the enactment of Dadvsi, French, Scandinavian, German, and Dutch consumer groups have waged a campaign against Apple, creator of iTunes software and the iPod portable music player.

Apple's digital rights management system (a type of TPM), called FairPlay, limits interoperability between iTunes and devices created by

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1. The legislative history of the DMCA reveals that this principle was highlighted in the 1998 World Intellectual Property Organization (WIPO) Treaty. *See* S. REP. NO. 105-190, at 8 (1998); *see also* text accompanying note 16.

2. In French, Dadvsi stands for *Loi relative au droit d'auteur et aux droits voisins dans la société de l'information*, which translates as "Law on Copyright and Neighboring Rights in the Information Society." *See* Law No. 2006-961 of Aug. 1, 2006, Journal Officiel de la République Française [J.O] [Official Gazette of France], Aug. 3, 2006, p. 11529, *available at* http://www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=MCCX0300082L.

Apple's competitors. In other words, it obligates iTunes users to listen to their music on an iPod by preventing songs purchased from the iTunes Store from playing on any competing player.[3] Apple's critics, including open-source proponents and consumer rights groups such as Union Federale des Consommateurs-Que Choisir (UFC Que Chosir), argue that FairPlay's primary function is to enable Apple to monopolize the market and create consumer lock-in, and not, as the company suggests, to prevent illegal file sharing.[4]

Apple's CEO Steve Jobs has attempted to shift all responsibility to the music labels, which he claims require an effective digital rights management (DRM) system as a precondition for selling their music.[5] Indeed, Apple's iTunes is far less restrictive than the earlier music label-led platforms, such as PressPlay and MusicNet, which themselves survived U.S. antitrust investigations by the Department of Justice.[6] Nevertheless, the question of whether Apple should be permitted to employ copyright protection technology that also prevents software interoperability has important ramifications for whether intellectual property rights can justifiably limit consumer choice.

This Note examines how Dadvsi attempts to reconcile intellectual property rights with consumer rights, bringing interoperability under government regulation but with no clear-cut answer as to whether intellectual property rights or consumer rights take priority. Part I explains Dadvsi's impact on interoperability in France. Part II discusses the interoperability debate in more depth, with particular regard to the European consumer actions against FairPlay. Part III evaluates the right of consumers to interoperability and the right of companies like Apple to unregulated use of DRM. Finally, Part IV proposes ways that governments may more effec-

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3. Thomas Crampton, *Key Parts of 'iPod Law' Struck Down*, INT'L HERALD TRIB., July 28, 2006. FairPlay does not prevent iTunes from being played on iTunes mobile phones, or, of course, on computers. Hamish Porter & Rebecca Swindells, *Wrangling over French Copyright Legislation Continues*, 161 COPYRIGHT WORLD 20, 21 (2006).

4. *See* Porter & Swindells, *supra* note 3, at 21.

5. Jobs' statements will be discussed in Section II.B. *See infra* text accompanying notes 85-93.

6. These early platforms were developed by the music labels themselves. The U.S. Department of Justice found that the music label's joint ventures did not harm competition or consumer choice. *See* Press Release, Statement by Assistant Attorney General R. Hewitt Pate Regarding the Closing of the Digital Music Investigation (Dec. 23, 2003), http://www.usdoj.gov/atr/public/press_releases/2003/201946.htm. For a description of the restrictions created by pressplay and MusicNet, see Jim Hu, *Labels defend MusicNet, Pressplay*, CNET NEWS.COM, July 8, 2002, http://news.com.com/2100-1023-942066.html.

tively regulate DRM in the digital age. This Note concludes that intellectual property rights will most likely enjoy priority over consumer rights under Dadvsi in view of France's general approach to copyright and the nature of Dadvsi's interoperability provisions.

I. DADVSI: BACKGROUND, HISTORY, AND INTEROPERABILITY

This Part gives a brief background on French copyright law, followed by a discussion of Dadvsi's foundation in the EUCD, Dadvsi's legislative history, and finally, Dadvsi's impact on interoperability.

A. French Copyright

A brief background on French copyright law is helpful for understanding Dadvsi. French copyright is known as *droit d'auteur* or "author's right." The modern concept of *droit d'auteur* is composed of a moral right (*droit moral*[7]) and property right (*droit patrimonial*[8]).[9] In 1985, France codified copyright protection for performers, phonogram producers, video producers, and audiovisual communication companies under the title *droits voisins*, or "neighboring rights."[10] *Droits voisins* are secondary to author's rights; they may not limit or infringe authors' rights.[11] Such rights have no direct connection with the author of the work.

France's Intellectual Property Code includes several exceptions to the *droit d'auteur*, most notably the private copy (*la copie privée*) exception, codified at Article L. 122-5-2°.[12] This exception permits individuals to

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7. Code de la propriété intellectuelle [C.P.I.] [Intellectual Property Code] art. L. 121-1 (as last amended 2006), *available at* http://www.legifrance.gouv.fr (click on "*Les Codes*" and then scroll down to find "*Code de la propriété intellectuelle*") and in English at http://195.83.177.9/code/index.phtml?lang=uk.

> An author shall enjoy the right to respect for his name, his authorship and his work. This right shall attach to his person. It shall be perpetual, inalienable and imprescriptible. It may be transmitted mortis causa to the heirs of the author. Exercise may be conferred on another person under the provisions of a will.

Id.

8. "The right of exploitation belonging to the author shall comprise the right of performance and the right of reproduction." *Id.* art. L. 122-1.

9. Société de l'information: DébatAutour du Droit d'Auteur, VIE PUBLIQUE.FR, Apr. 27, 2006, http://www.vie-publique.fr/actualite/dossier/droit-auteur/societe-information-debat-autour-du-droit-auteur.html [hereinafter Débat Autour du Droit d'Auteur].

10. CPI arts. L 211-1-L 211-5 ; Débat Autour du Droit d'Auteur, *supra* note 9.

11. CPI. art. L. 211-1.

12. CPI art. L. 122-5 ; *see also* CHRISTOPHE GEIGER, DROIT D'AUTEUR ET DROIT DU PUBLIC A L'INFORMATION: APPROCHE DE DROIT COMPARE 232-34 (2004). While the

make "copies or reproductions reserved strictly for the private use of the copier and not intended for collective use."[13] Copyright holders are compensated for this exception through a tax on private copies placed on blank media (*la taxe prélevée sur les medias vierges*).[14] Exceptions to intellectual property rights under the French code are not intended to interfere in any way with the author's exclusive rights.[15] This prioritization of author's rights has ramifications for the future of interoperability in France, indicating that author's rights—and the rights of DRM holders who protect them—will be upheld over the consumer interest in interoperability.

B. The European Union Copyright Directive (EUCD)

In 1998, France, the United States, and other World Intellectual Property Organization (WIPO) nations signed the WIPO Treaty, under which signatory states were required to provide, *a priori*, "adequate legal protection and effective legal remedies" against the circumvention of TPMs.[16] The WIPO Treaty embraced the theory that safeguarding TPMs encourages copyright owners to disseminate digital content because the circumvention of TPMs reduces the incentive for dissemination.[17] As a direct result of the WIPO Treaty, the European Union issued the 2001 EU Directive on the Harmonization of Certain Aspects of Copyright and Related Rights in the Information Society, commonly known as the European Union Copyright Directive, or EUCD.[18]

The EUCD reflects the WIPO Treaty's goal of providing incentives for progress. In clause 2, the EUCD stresses the need to create a legal frame-

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American fair use defense is a general defense to the copyright holder's exclusive rights, the French exceptions are individually enumerated. In addition to *la copie privée*, the CPI also contains separate exceptions for private and free performances carried out exclusively within the family circle; press reviews; dissemination of a work as news or for political, judicial or administrative speeches or ceremonies; analysis and short quotations used for critical, educational and similar purposes; parody, pastiche and caricature; reproductions for a catalogue used in a judicial sale in France; and finally acts necessary to access the contents of an electronic database within the terms provided by contract. *See* CPI art. L. 122-5.

13. CPI art. L. 122-5-2; *see also* GEIGER, *supra* note 12.

14. *See* Débat Autour du Droit d'Auteur, *supra* note 9.

15. *See infra* text accompanying notes 63-65.

16. Bruce G. Joseph, *Copyright Issues on the Internet, the DMCA and Technological Protection Measures*, *in* ADVANCED SEMINAR ON COPYRIGHT LAW, at 483, 509 (PLI Patents, Copyrights, Trademarks, & Literary Property, Course Handbook Series No. 6127, 2005) (quoting H.R. REP. NO. 105-551, at 63 (1998)).

17. *Id.*

18. Council Directive 2001/29, cl. 15, 2001 O.J. (L 167) 0010-0019 (EC), *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32001L0029:EN:HTML.

work that supports the development of an information society in Europe, explaining that copyright and related rights play an important role in this project by protecting and stimulating new products.[19] Thus, technology that restricts interoperability, and therefore the development of new products and services, at first appears contrary to the EUCD's objectives. Clause 54 of the EUCD seems to address this concern as it emphasizes the importance of interoperability to the development of the digital marketplace.[20] However, protection of DRM is nonetheless consistent with the EUCD's objectives. To begin with, the EUCD does not *require* interoperability; rather, it states that interoperability "should be encouraged."[21] Unlike the DMCA, the EUCD is not a statute that member states must codify word-for-word. Instead, it is a series of common principles that member states are required to adapt and refine. Moreover, clause 2 of the EUCD promotes the development of new products, but only under the tenet that copyright and related rights are essential to the development of the global digital marketplace.[22] Products must receive protection in order to exist in the first place. Like their American counterparts, copyright and related rights in Europe exist as an incentive to progress.[23] It is not entirely certain from the EUCD whether intellectual property rights are valued more highly than the promotion of interoperability, but it is possible that without protection, the development of creative works would slow. In sum, without a diversity of products, interoperability would not be an option.[24]

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19. *Id.* cl. 2.

20. *Id.* cl. 54.

21. *Id.*

22. *Id.* cl. 2.

23. *See* S. REP. NO. 105-190, at 8 (1998); *see also* Council Directive 2001/29, cl. 2, cl. 54.

24. Protecting works against illegally-created interoperability is crucial to the development of the market according to clause 56 of the EUCD, which modifies clause 55:

> There is, however, the danger that illegal activities might be carried out in order to remove or alter the electronic copyright-management information attached to it, or otherwise to distribute, import for distribution, broadcast, communicate to the public or make available to the public works or other protected subject-matter from which such information has been removed without authority. In order to avoid fragmented legal approaches that could potentially hinder the functioning of the internal market, there is a need to provide for harmoni[z]ed legal protection against any of these activities.

Council Directive 2001/29, cl. 56.

C. Legislative History of Dadvsi

Bringing French copyright law up to speed with the European digital marketplace, Dadvsi represents France's implementation of the EUCD.[25] Dadvsi struggled through the legislative process, largely because reconciling intellectual property holder's rights with consumer rights proved difficult. When the bill was introduced in France in November 2003,[26] France already faced possible European Commission sanctions for its delay in implementation. For this reason, Dadvsi was reviewed under a "declaration of urgency," meaning it needed only be examined once by each house of Parliament (the National Assembly and the Senate) before proceeding to President Chirac to be signed into law.[27]

Dadvsi was argued in two stages before the National Assembly—first between December 20 and 22, 2005, and then again between March 7 and 21, 2006—consuming more than eighty hours of debate in the first reading of the bill alone.[28] Although the bill was approved by the National Assembly on March 21, 2006 and by the Senate on May 10, 2006, the definitive text was not officially adopted by both houses of Parliament until June 30, 2006.[29] Significantly, the version of Dadvsi finally passed would have forced Apple to disclose FairPlay's source code for purposes of interoperability.[30] Apple had dubbed the bill "state-sponsored piracy" when it was passed by the National Assembly in March, and so the bill's adoption by Parliament represented a huge win for consumer rights groups.[31] At that point, Apple's status in France was uncertain. Because less than two per-

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25. *Loi du 1er août 2006 Relative au Droit d'Auteur et aux Droits Voisins dans la Société de l'Information*, VIE PUBLIQUE.FR, http://www.vie-publique.fr/actualite/panorama/texte-vote/loi-du-1er-aout-2006-relative-au-droit-auteur-aux-droits-voisins-societe-information.html [hereinafter *Loi du 1er août*] ("Le point de départ du projet de loi est la transposition d'une directive européenne du 22 mai 2001 sur le droit d'auteur.").

26. *Loi du 1er août, supra* note 25 ("[Le projet de loit a été] [p]résenté en Conseil des ministres le 12 novembre 2003 . . . .").

27. *See* Winston Maxwell & Julie Massaloux, *French Copyright Law Reform: French Supreme Court Upholds Legality of DVD Anti-Copy Measures*, ENT. L.R. 2006, 17(5), 145, 147 n.5; *Loi du 1er août, supra* note 25.

28. *Observations du Gouvernement sur le Recours Dirige contre le Lois Relative au Droit d'Auteur et aux Droits Voisins dans la Societe de l'Information*, Jul. 18, 2006, section I.B.1 or p. 2, *available at* http://www.conseil-constitutionnel.fr/decision/2006-/2006540/obs.htm.

29. *See Loi du 1er août, supra* note 25.

30. Jean Philippe Hugot, *The Dadvsi Code: Remodeling French Copyright Law for the Information Society*, 17 ENT. L. R. 139, 144 (2006).

31. Elinor Mils, *Apple calls French law 'state-sponsored piracy,'* CNET NEWS.COM, Mar. 22, 2006, http://news.com.com/Apple+calls+French+law+state-sponsored+piracy/2100-1025_3-6052754.html.

cent of Apple's iPod and iTunes business is generated in France, analysts speculated Apple would rather abandon the French market than disclose the source code to its DRM.[32] Subsequently, more than one hundred members of the National Assembly demanded that the bill be reviewed by the Constitutional Council (*Conseil Constitutionnel*).[33] This move had a striking affect on the interoperability debate in France.

In July 2006, the Constitutional Council reviewed Parliament's version of the Dadvsi statute and struck down several of its major provisions.[34] The Council's findings referenced the 1789 Declaration on Human Rights, holding that the bill violated constitutionally protected property rights.[35] Notably, the Council found that because DRM is protected under French intellectual property law, DRM owners should receive a fair compensation if compelled to publish their DRM source code.[36] The Council also eliminated the reduction of penalties for consumer file sharing passed by Parliament, which had amounted to little more than a parking fine.[37] In response to the Council's decision, the consumer rights group UFC-Que Chosir declared: "UFC-Que Choisir is concerned about the consequences of the [Council's] decision, which censured the provisions . . . most favorable to consumers, reinforcing the unacceptable, 'all-repressive' logic of the bill."[38]

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32. *Id.*

33. *See* Crampton, *supra* note 3. The Constitutional Council is composed of nine members—three appointed by the President, three by the National Assembly, and three by the Senate. It serves primarily two functions. First, it oversees national elections. Second, it reviews statutes for constitutionality before they are enacted. Stéphane Cottin & Jérôme Rabenou, Researching French Law, http://www.llrx.com/features/french.htm (last visited Oct. 27, 2006).

34. Crampton, *supra* note 3.

35. " [Article 17 of the 1789 Declaration states] 'Property being an inviolable and sacred right, no one can be deprived of it, except when the public necessity, legally defined, obviously requires it, and under the condition of just compensation in advance.'" CC decision no. 2006-540DC, July 27 2006, J.O. 178, para. 14, *available at* http://www.conseil-constitutionnel.fr/decision/2006/2006540/2006540dc.htm.

36. CC decision no. 2006-540DC, July 27 2006, J.O. 178, para. 41; *see also* Crampton, *supra* note 3.

37. *Id.*

38. In French, «L'UFC-Que Choisir s'inquiète des conséquences de la décision du Conseil constitutionnel qui a censuré les dispositions du texte les moins défavorables aux consommateurs, ce qui aboutit à renforcer la logique inadmissible du 'tout répressif' du projet de loi.» *Décision du Conseil Constitutionnel sur le Projet de Loi DADVSI : De pire en pire* . . . , UFC-Que Chosir, July 28, 2006, http://www.quechoisir.org/Position.jsp;jsessionid=F58502A610CAAABF12F37A7C900C47D9.tomcat-21?id=Ressources:Positions:4FB82D871CF4428BC12571B900391935&catcss=LOI302&categorie=NœudPClassement:5BC62046FC35E798C1256F0100348ED8.

Following the Constitutional Council's review, Dadvsi was not returned to Parliament due to the Declaration of Urgency. When President Jacques Chirac signed the bill on August 1, 2006, the version of Dadvsi amended by the Constitutional Council became official law in France.[39]

D. Dadvsi's Effect on DRM

The antagonism between the promotion of interoperability and the desire to end illegal circumvention and unauthorized copying explains why France struggled to enact Dadvsi. It also explains why Dadvsi's interoperability provisions are not entirely clear as to the state of interoperability. A balance between the two objectives, if possible is not easy to achieve. How can government impose limitations on interoperability without enabling illegal file sharing? How can it uphold copyright by forcing companies to disclose the source code to their DRM? At the same time, how can it promote progress without promoting interoperability? Under Dadvsi, as noted above, individuals may now request that the government compel the disclosure of DRM source code for purposes of interoperability. This Section details Dadvsi's interoperability provisions, beginning with the establishment of a regulatory authority to oversee interoperability. It then explains the procedures for requesting disclosure of DRM source code and for avoiding source code disclosure. Finally, it notes Dadvsi's effect on the private-use exemption.

1. The Regulatory Authority

Article 14 of Dadvsi establishes guidelines for a new regulatory authority ("the Authority") to mediate requests for DRM source codes from individuals who want to make their programs interoperable; to order companies to disclose source codes, but only if they do not satisfy the requirements for keeping the source code confidential (discussed further below in Section I.D.3); and to impose fines against copyright infringers, including individuals for distributing information on how to circumvent DRM.[40] Larger fines (€ 3,750) apply for those who circumvent DRM technology for reasons other than research;[41] the largest fine (€ 300,000)—plus up to three years imprisonment—applies for circulating software specifically designed for the unauthorized distribution of copyrighted works.[42] The Authority is to be composed of six representatives:

39. Law No. 2006-961 of Aug. 1, 2006, Journal Officiel de la République Française [J.O.] [Official Gazette of France], Aug. 3, 2006, p. 11529, *available at* http://www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=MCCX0300082L.

40. Law No. 2006-961, art. 17.

41. *Id.* art. 22.

42. *Id.* art. 21.

(1) a representative of the State; (2) a member from the Council of State; (3) a member from the French Supreme Court (*La Cour de cassation*); (4) a member from the Court of Auditors; (5) a member of the Academy of Technologies; and (6) a member of the High Council of Literary and Artistic Property.[43] The members will serve on the Authority for six years, and their terms will be neither renewable nor revocable.[44]

2. Requests for Source Code

The establishment of a procedure for requesting the disclosure of source code is Dadvsi's most influential, and controversial, contribution to interoperability.[45] It is, in essence, government-enforced interoperability.[46] Per Article 14, clause 2:

> any software publisher, manufacturer of a technical system or owner of an internet service may, in the event of being refused access to information essential for interoperability, ask that the Authority . . . [ensure] the interoperability of the systems and existing services . . . and obtain from TPM rights holders the information required for [interoperability].[47]

The Authority may compel disclosure of source code and inflict a monetary penalty that is proportional to the damage caused by non-disclosure if the DRM owner refuses to comply.[48]

3. Keeping Source Code Confidential

Clause 4 of Article 14 limits clause 2, providing that parties may avoid publication of their source code if they can show that publication would seriously undermine the security and effectiveness of the DRM.[49] Dadvsi

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43. *Id.* art. 17.

44. *Id.*

45. *See supra* text accompanying notes 30-38.

46. Indeed, this provision in particular was the target of Apple's comment about "state-sponsored piracy." *See supra* text accompanying note 31.

47. *Id.* art. 14, L. 331-7.

48. *Id.*

49. *Id.*

> Le titulaire des droits sur la mesure technique ne peut imposer au bénéficiaire de renoncer à la publication du code source et de la documentation technique de son logiciel indépendant et interopérant que s'il apporte la preuve que celle-ci aurait pour effet de porter gravement atteinte à la sécurité et à l'efficacité de ladite mesure technique.

Id.; *see also* Porter & Swindells, *supra* note 3, at 21. Clause 1 of article 14 may contain a loophole for DRM holders, enabling them to avoid disclosure of source code if they can show that prevention of interoperability was expressly authorized by the work's copy-

thus places the burden on the entity imposing technical protection measures. Combined with the Constitutional Council's decision that companies cannot be forced to share their source code without receiving fair compensation, this provision most likely gives DRM holders an advantage over consumers.[50]

4. Private Copy Exception

Dadvsi leaves the private copy exception mostly intact, stating that the implementation of DRM must not deprive consumers of the private copy exception and other exceptions granted in the Intellectual Property Code, and permitting personal use by an individual and his or her close relations of a "reasonable number" of legally acquired copies.[51] However, Dadvsi does place two limitations on private copying: first, the user must be legally entitled to access the work; and second, the exception must not interfere with the normal exploitation of the work or other protected device or cause unjustified damage to the interest of the work's author.[52]

Dadvsi establishes a Regulatory Authority to oversee enforced disclosure of DRM source code for interoperability, limits disclosure of DRM source code where disclosure would make the DRM ineffective, and preserves the private copy exception but only where it does not interfere with the author's right.

II. THE INTEROPERABILITY DEBATE

The key development post-Dadvsi with respect to interoperability is that DRM holders can be forced to disclose their DRM source code, but can avoid disclosure upon a showing that publication of the source code would seriously undermine the safety and effectiveness of the DRM. This Part discusses the interoperability debate in more depth, which will help explain why forced disclosure of DRM source code is important to DRM holders and consumers. Specifically, this Part details the major legal developments involving Apple and consumers in France, Scandinavia, Germany, and the Netherlands and introduces their arguments concerning interoperability.

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right owner. This is because clause 1 calls for the Authority to prevent the use of TPMs for purposes *other than* those expressly approved by the copyright holder. *See* Law No. 2006-961, art. 14, L. 331-6; Porter & Swindells, *supra* note 3, at 21.

50. *See* Law No. 2006-961, art. 14; CC decision no. 2006-540DC, July 27 2006, J.O. 178, para. 39-41; Crampton, *supra* note 3.

51. *See Loi du 1er août 2006*, *supra* note 25.

52. Law No. 2006-961, art. 14, cl. 8; *see also* Maxwell & Massaloux, *supra* note 27, at 146.

A. Background and Major Developments of the Debate in France

From the standpoint of technology corporations such as Apple, Sony, and Microsoft, the primary purpose of DRM is to prevent illegal copies by allowing only authorized devices to play protected material.[53] Yet the question remains: is the real purpose of DRM really to prevent unauthorized copies, or is it to enable companies to limit the interoperability of their products? In February of 2005, UFC-Que Choisir sued Apple and Sony, claiming their DRM technology limits consumer choice.[54] According to UFC-Que Choisir, "The total absence of interoperability between DRM removes not only consumers' power to independently choose their purchase and where they buy it from but also constitutes a significant restraint on the free circulation of creative works."[55] This lawsuit was not the first time Apple's policies had come under fire: several months earlier, in late 2004, French downloading site VirginMega sued Apple under competition law.[56] The case was dismissed by France's Competition Council (the *Conseil de la Concurrence*), which found that "access to [Apple's] FairPlay DRM isn't indispensable to the development of legal platforms for the downloading of online music."[57] Stated another way, the council found that the attractiveness of the pay-to-play system to consumers was not dependent on interoperability; many different factors played a part.[58] Furthermore, it held that although lack of interoperability limits consumer choice, such limitations are normal in the information technology sector and do not necessarily fall under competition restrictions.[59]

In another recent French decision known as the *Mulholland Drive* case, the French Supreme Court (*La Cour de Cassation*) confirmed the legality of certain anti-copy protection measures on DVDs.[60] The plaintiff purchased a DVD of David Lynch's film *Mulholland Drive*. After disco-

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53. *See* Steve Jobs, *Thoughts on Music*, APPLE.COM, Feb. 6, 2007, http://www.apple.com/hotnews/thoughtsonmusic; Porter & Swindells, *supra* note 3, at 21.

54. Jo Best, *Apple, Sony sued over DRM in France*, CNET NEWS.COM, Feb. 14, 2005, http://news.com.com/Apple,+Sony+sued+over+DRM+in+France/2100-1027_3-5575417.html.

55. *Id.*

56. *See* Estelle Dumout, *French court won't force Apple to open up iTunes*, CNET NEWS.COM, Nov. 10, 2004, http://news.com.com/French+court+wont+force+Apple+to+open+up+iTunes/2100-1027_3-5447124.html?tag=nl.

57. *See id.*

58. François Lévêque, *Is Online Music Locked in by Leveraging?*, 63 COMMUNICATIONS & STRATEGIES 1, 8 (2006) (on file with author).

59. *See* Dumout, *supra* note 56.

60. Cass. 1e civ., Feb. 28, 2006, Bull. civ. I, No. 05-15824; *see also* Maxwell & Massaloux, *supra* note 27, at 145.

vering that he could not copy the film onto VHS in order to watch it at his mother's house, he sued the production company and distributor for allegedly violating the private copy exception in Art.L.122-5 of the Intellectual Property Code.[61]

Reversing the decision of the Paris Court of Appeals, the French Supreme Court found that the private copy exception did not apply in this case. It held that the Court of Appeals should have applied a three-step test from the EUCD before finding the anti-copy protection illegal.[62] Also contained in the Berne Convention, the EUCD's test provides that the exceptions to the *droit d'auteur* "shall only be applied [1] in certain special cases which [2] do not conflict with a normal exploitation of the work . . . and [3] do not unreasonably prejudice the legitimate interests of the rightholder."[63] It is important to note that because the EUCD is an EU directive as opposed to an EU regulation, member states are only required to implement its general principles rather than adopt it word-for-word. The *Mulholland Drive* case decided that France's Intellectual Property Code should be interpreted according to the three-step test so that French law would be consistent with the EUCD.[64]

In effect, Dadvsi codifies the test applied by the French Supreme Court in this case: the private copy exception must not interfere with the normal exploitation of the work or other protected device, or cause unjustified damage to the rights of the author of the work.[65] When it applied the test, the French Supreme Court also based its decision on a derivative factor, namely, whether the private copy exception took priority over the author's right to insert anti-copy protection in his or her digital work.[66] In overturning the Court of Appeals ruling, the Supreme Court explained that the pri-

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61. *See* Maxwell & Massaloux, *supra* note 27, at 145-46.

62. *See id.* at 146.

63. Council Directive 2001/29, cl. 2, 2001 O.J. (L 167) 0010 - 0019 (EC), *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32001L0029:EN:HTML; *see also* Cass. 1e civ., Feb. 28, 2006, Bull. civ. I, No. 05-15824; Maxwell & Massaloux, *supra* note 27, at 146.

64. *See* Maxwell & Massaloux, *supra* note 27, at 146.

> The court was able to interpret French law 'in light of' the Directive, and to apply the Directive's three-step test directly, pursuant to the theory of 'compliant interpretation' (théorie de l'interprétation conforme). This legal theory requires Member State courts to interpret provisions of national law in a way that would make them consistent with the clear and unambiguous provisions of a Directive.

Id.

65. Law No. 2006-961, art. 17, cl. 8; *see also* Maxwell & Massaloux, *supra* note 27, at 146.

66. *See* Maxwell & Massaloux, *supra* note 27, at 146.

vate copy exception was not an absolute right, but merely an exception to the author's right.[67] Like all exceptions under French law, the Court explained, the private copy exception must be strictly construed.[68] Because the private copy impaired the normal exploitation of the work, in light of the risks inherent in the digital environment and the economic significance of DVDs to the motion picture industry, the private copy exception did not apply.[69] Thus, the French Supreme Court found that interests of intellectual property rights holders trumped the private copy exception.

The *Mulholland Drive* holding can be understood by the music industry as an indication that DRM in France, such as Apple's FairPlay platform, will be upheld over the consumer interest in interoperability. Like the private copy exception, interoperability is not an absolute right. Indeed, interoperability is not even a codified "exception" to intellectual property rights. This conclusion is undoubtedly one reason why Dadvsi provides for limitations on source code disclosure. Both *Mulholland Drive* and Dadvsi's limitations on forced disclosure of source code reflect a trend towards upholding DRM holders' rights, fueling consumer unrest.

B. The European Debate

The consumer outcry in France has developed into a legal battle spanning much of Western Europe. The united consumer action was initiated by the Scandinavian countries in 2006 under the tenet that Apple's FairPlay platform is contrary to consumer rights in violation of Scandinavian law.[70] Consumers there threatened to take Apple to court and seek an injunction banning iTunes from their marketplace.[71] Apple produced a fifty-page response in which it claimed that it intends to meet the interests of consumers and to work with Scandinavian regulators to perhaps reach an agreement over iTunes use.[72] While Apple said it was unwilling to license

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67. Cass. 1e civ., Feb. 28, 2006, Bull. civ. I, No. 05-15824 ("Après avoir relevé que la copie privée ne constituait qu'une exception légale aux droits d'auteur et non un droit reconnu de manière absolue à l'usager, retient que cette exception ne saurait être limitée alors que la législation française ne comporte aucune disposition en ce sens.")

68. *See* Maxwell & Massaloux, *supra* note 27, at 146 ("[The court was] asserting that the private copy was not an absolute right for consumers, only an exception to an author's rights—an exception which, as all exceptions under French law, should be strictly construed.").

69. *See* Maxwell & Massaloux, *supra* note 27, at 146.

70. Eric Bangeman, *Apple, Scandinavian Consumer Ombudsmen Talk iTunes*, ARS TECHNICA, Aug. 24, 2006, http://arstechnica.com/news.ars/post/20060824-7580.html.

71. Jaime Espantaleon, *Apple Defends iTunes Restrictions, But Norway Not Swayed*, USA TODAY, Aug. 2, 2006, http://www.usatoday.com/tech/news/techpolicy/2006-08-02-apple-norway_x.htm?csp=34.

72. *Id.*

FairPlay to competitors, it agreed to consider modification of the iTunes license agreement and clarification of the terms and conditions under which consumers browse its iTunes Music Store.[73] Apple contends that the prevention of interoperability does not illegally limit consumer choice when consumers have the choice of buying other devices and using other music sources. Yet to many of the major consumer organizations in Europe, a choice with limitations is no choice at all.[74]

In January 2007, UFC Que Choisir of France partnered with the Federation of German Consumer Organizations and the Consumer Ombudsmen of Norway and Finland in an effort to improve consumer conditions for iTunes users throughout Europe.[75] The organizations were soon joined by the Dutch Consumer Ombudsman, who filed a complaint with the newly created Dutch Consumer Authority (*ConsumentenAutoriteit*) as well as the Dutch antitrust agency.[76] The leader of the German Consumer Federation declared: "'Interoperability and more flexibility in using downloaded content [are] key for the further development of the legal music download market."[77] In addition, the joint statement issued by the original four organizations proclaimed: "Consumers entering into a contract with iTunes should be able to rely on the consumer protection rules according to the law of the country in which they live."[78] The organizations believed that joining forces would enable them to achieve a stronger negotiation position vis-à-vis Apple, as well as to strengthen the negotiating position of iTunes vis-à-vis the music labels.[79]

Meanwhile, on January 24, 2007, the Norwegian Consumer Ombudsman ruled that iTunes' DRM is illegal.[80] The Norwegian Consumer Council, Forbrukerradet, had previously lodged a complaint with the Consumer

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73. Bangeman, *supra* note 70.

74. *See supra* text accompanying note 55.

75. *Forbrukerombudet, European Consumer Organisations Join Forces in Legal Dispute Over iTunes Music Store*, FORBRUKEROMBUDET, Jan. 22, 2007, http://www.forbrukerombudet.no/index.gan?id=11037079 [hereinafter European Consumer Organizations].

76. Jan Libbenga, *Dutch Consumer Chief Puts Apple Through the Mill*, THE REGISTER, Jan. 25, 2007, http://www.theregister.co.uk/2007/01/25/dutch_out_of_tune_with_apple.

77. European Consumer Organizations, *supra* note 75.

78. John Oates, *France and Germany Join Anti-iTunes Crusade*, THE REGISTER, Jan. 23, 2007, http://www.theregister.co.uk/2007/01/23/itunes_slagged_again.

79. European Consumer Organizations, *supra* note 75.

80. OUT-LAW.COM, *Apple DRM Illegal in Norway: Ombudsman*, THE REGISTER, Jan. 24, 2007, http://www.theregister.co.uk/2007/01/24/apple_drm_illegal_in_norway.

Ombudsman on behalf of Norwegian consumers.[81] According to a senior advisor to Forbrukerradet,

> Fairplay is an illegal lock-in technology whose main purpose is to lock the consumers to the total package provided by Apple by blocking interoperability. . . . [T]his means that iTunes Music Store is trying to kill off one the most important building blocks in a well functioning digital society, interoperability, in order to boost its own profits.[82]

The Consumer Council believes that Apple has three options: licensing FairPlay to competing manufacturers, developing open-source platforms with other companies, or abandoning DRM.[83] The Ombudsman approved the Council's claim that FairPlay goes beyond merely protecting unauthorized copies, agreed that it violates Norwegian contract law, and set an October 1, 2007 deadline for Apple to revise its conditions.[84]

In response to the European legal action against FairPlay, Steve Jobs issued a bold statement on Apple's website in which he attempted to shift all blame for iTunes' use of DRM to the record labels.[85] Jobs argued that the "big four" music companies—Universal, Sony BMG, Warner, and EMI—from whom Apple licenses the majority of its music, require strong DRM to prevent illegal copying.[86] After decrying the alternative of licensing FairPlay's DRM (it would be too easy for DRM code to leak), Jobs called on consumers to lobby the Big Four for the removal of DRM.[87] Moreover, he attempted to debunk allegations that FairPlay locks consumers into the iPod. He explained that the iPod is capable of playing not only iTunes, but any music that is DRM free and encoded in an "open" format, such as MP3 or AAC.[88] He pointed out that less than three percent of music on the average iPod is purchased from the iTunes store, meaning that the vast majority of music on iPods comes from other sources, such as CD's.[89] Jobs argued that "it's hard to believe" consumers are locked into

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81. *Id.*

82. *Id.*

83. *Id.*

84. *Id.*; Jan Libbenga, *Dutch Consumer Chief Puts Apple Through the Mill*, THE REGISTER, Jan. 25, 2007, http://www.theregister.co.uk/2007/01/25/dutch_out_of_tune_with_apple.

85. Jobs, *supra* note 53.

86. According to Jobs, the Big Four music labels control seventy percent of the world's music. *Id.*

87. *Id.*

88. *Id.*

89. *Id.*

the iPod when so little of their music comes from iTunes; because non-iTunes music must be DRM-free in order to play on the iPod, ninety-seven percent of music on the average iPod is playable on any device.[90]

Although many would agree that DRM should be eliminated, Jobs' critics responded to his statements with skepticism. The Norwegian Consumer Council, Forbrukerradet, stated that although the record companies carry their share of responsibility, Apple is still the party selling the music and is responsible for offering the consumer a fair deal under Norwegian law.[91] Another group of critics, the staff at DRMWatch.com, predicted Jobs' statements would have little market impact.[92] Instead, they felt Jobs had revealed Apple's vulnerability: "[B]y asking his customers in Europe to petition record companies to drop DRM, Jobs has now made it clear that Apple is truly concerned about the mounting European legal opposition to the closed iTunes/iPod system."[93]

Regardless of the earnestness of Jobs' statement on DRM, it indicated that the removal of DRM is not an impossible dream. Yet it is surely an idealistic one. It ignores the fact that copyright owners and the music labels that work with them have a real, legitimate interest in controlling the dissemination of their product.

III. EVALUATION OF THE CONSUMER RIGHT TO INTEROPERABILITY

Clearly the European consumer movement has made progress, most notably with the Norwegian Consumer Ombudsman. However, the French and American governments have taken actions that cast doubt on the consumer right to interoperability. This Section first evaluates the consumer right to interoperability under Dadvsi and then analyzes whether Apple's FairPlay platform creates consumer lock-in, relating the discussion to Dadvsi's goal of the development of the digital marketplace. Finally, it discusses two additional actions by consumers that may help define interoperability's legal justifications and its place in digital copyright law.

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90. *Id.*

91. John Oates, *Norwegian Regulator Gives Steve Jobs Cool Response*, THE REGISTER, Feb. 7, 2007, http://www.theregister.co.uk/2007/02/07/norway_on_jobs_letter.

92. DRM Watch Staff, *Steve Jobs Speaks Out Against DRM for Music*, DRM WATCH.COM, Feb. 8, 2007, http://www.drmwatch.com/drmtech/article.php/3658821.

93. *Id.*

A. The Consumer Right to Interoperability Under Dadvsi

The consumer argument for enforced disclosure of DRM source code is that DRM is motivated not by copyright protection but by a desire to "maximi[z]e . . . market share by enforced customer loyalty."[94] Additionally, consumer groups argue that the interoperability of iTunes would deter them from infringing activity by granting them access to a wider, superior choice of products and services.[95] As reflected in the EUCD, Dadvsi's regulation of source code disclosure is intended to address the consumer argument, but source code disclosure is ultimately not guaranteed. This Section discusses the consumer right to interoperability under Dadvsi, concluding that Dadvsi is likely to uphold intellectual property rights over consumer rights.

Under Dadvsi, parties may bring their cases for interoperability before the Authority to compel disclosure. Yet owners of DRM may avoid disclosure of source code by demonstrating that disclosure would render the DRM ineffective. This is akin to a defense to "violating" interoperability.[96] It remains to be seen whether companies will win with this defense. Undoubtedly the answer depends on the Authority's interpretation of "effectiveness," and whether the Authority may weigh the promotion of interoperability in a specific case against the interests of DRM protection and decide that, regardless of any evidence of ineffectiveness, the interest of interoperability outweighs the interest of the DRM.

On its face, Dadvsi does not give a final answer as to whether intellectual property rights to TPMs or the consumer's right to interoperability takes precedence. Nevertheless, from what we know about French intellectual property law, the *droit d'auteur* should take precedence over interoperability. Otherwise, the interoperability interest, not traditionally part of French intellectual property law, would infringe on the copyright owner's exclusive rights. Moreover, Dadvsi's limitation of disclosure of DRM source code where disclosure would seriously undermine the system's effectiveness is consistent with French copyright law, which provides deference to the author's right. As established by the French Supreme Court in the *Mulholland Drive* case, the EUCD's three-step test for copyright exceptions, and Dadvsi's limitation of the private copy exception, the exceptions to the author's right are to be strictly construed so that they do not interfere with the legitimate interests of the author of the work.[97]

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94. Porter & Swindells, *supra* note 3, at 21.
95. *Id.*
96. *See supra* Section I.D.3.
97. *See supra* Section II.A.

Ultimately, because "interoperability" is not a codified "exception," it is likely to be emphasized even less than exceptions like the *copie privée*. Until France chooses to codify the consumer right to interoperability as an "exclusive right," it is unlikely to outweigh the intellectual property rights of DRM holders. If, for example, a consumer requests interoperability in order to make use of the private copy exception, the DRM owner could argue that publication of source code would seriously undermine the effectiveness of the DRM, leaving the copyrighted material unprotected (contrary to the legitimate interest of the author of the work who authorized the DRM). In light of the EUCD, the *Mulholland Drive* case, and the fact that DRM owners have the final move in the Authority's proceedings (avoiding publication by proving necessity for effectiveness), the Authority will no doubt interpret Dadvsi as giving preference to intellectual property rights.[98] For that reason, the Authority can be expected to liberally construe the proof required to demonstrate that disclosure of source code would seriously undermine the DRM system's effectiveness.

B. FairPlay and Consumer Lock-In

The issue of whether FairPlay creates consumer lock-in is directly related to whether Dadvsi's enforcement of interoperability, and limitations on source code disclosure, are necessary and justifiable. If DRM such as FairPlay does not create consumer lock-in, then Dadvsi's provisions for avoiding source code disclosure uphold intellectual property rights without unjustly burdening consumers. This Section discusses developments related to Apple and competition law in the France and the United States. Further, it analyzes whether consumers are in fact locked into the iPod by FairPlay. It concludes that because the goal of the EUCD and Dadvsi is the development of the digital marketplace, DRM that affects consumer choice but that does not create complete lock-in is granted significant leeway in order to provide for a diversity of products in the long-run.

In addition to its justifications in intellectual property law, the reach of Apple's DRM also appears consistent with competition law in France despite the ongoing consumer movement there. According to the French Competition Council's finding discussed above,[99] Apple's FairPlay does *not* violate competition law by preventing interoperability and refusing to license FairPlay to competitors.[100] According to the Council, although lack of interoperability limits consumer choice, such limitations are normal in

98. *See* Cass. 1e civ., Feb. 28, 2006, Bull. civ. I, No. 05-15824; *see supra* Sections I.D.2-3.

99. *See supra* Section II.A.

100. *See* Dumout, *supra* note 56.

the information technology sector.[101] This decision preceded the Norwegian Consumer Ombudsman's finding that FairPlay is illegal in Norway.[102]

In addition to surviving the scrutiny of French competition law, in September 2006, FairPlay obtained a vote of confidence from the United States Department of Justice. The Assistant Attorney General for the Antitrust Division, Thomas Barnett, advocated a laissez-faire approach to Apple's iTunes and iPod development.[103] He criticized governments and regulators for attempting to force Apple to make iTunes interoperable with rival devices.[104] Significantly, he dismissed complaints that Apple's music platform creates consumer lock-in.[105] "[T]his type of business model has been criticized in the past because the cheap product was the one that was sold first—think cheap razors and expensive replacement blades or cheap printers and expensive replacement ink," he said.[106] He continued, "Apple's model is the opposite: consumers buy the expensive iPod device first, then have the option—not the obligation—to use the free iTunes software and buy the cheap iTunes songs."[107] Furthermore, he explained, while FairPlay ensures that the first copy of a song downloaded from iTunes can only play on an Apple device, consumers are free to re-record the song in an MP3 format and play it on other devices.[108]

This raises a crucial point: consumers have legal options for creating compatibility. First, although FairPlay blocks consumers from playing the primary copy of the song they download from the iTunes Music Store on a rival device, FairPlay permits users to copy songs from iTunes to a CD.[109] The resulting CD is free of DRM. This means that consumers can convert these CDs into MP3 format and play the song on a rival device or plat-

101. *See id.*

102. OUT-LAW.COM, *Apple DRM Illegal in Norway: Ombudsman*, THE REGISTER, Jan. 24, 2007, http://www.theregister.co.uk/2007/01/24/apple_drm_illegal_in_norway.

103. Siobhan Hughes, *Apple Gets Vote of Confidence For iTunes From Antitrust Chief*, WALL ST. J., Sept. 14, 2006, at B5; *see also* Thomas O. Barnett, Assistant Att'y General, Dept. of Justice Antitrust Div., Interoperability between Antitrust and Intellectual Property, Presentation to the George Mason University School of Law Symposium: Managing Antitrust Issues in a Global Marketplace (Sept. 13, 2006), *available at* http://www.usdoj.gov/atr/public/speeches/218316.htm.

104. Hughes, *supra* note 103.

105. "One theory is that consumers are locked into buying songs only from the iTunes service and that they will have to pay too high a price for iTunes songs." Barnett, *supra* note 103, at 11; *see also* Hughes, *supra* note 103.

106. Barnett, *supra* note 103, at 11.

107. *Id.*; Hughes, *supra* note 103.

108. Barnett, *supra* note 103, at 10-11.

109. *See id.*

form.[110] Second, using the opposite technique, consumers can burn songs bought on a rival platform onto a CD, rip them onto their computer with iTunes, and play them on the iPod.[111] Third, as the iPod plays *any* DRM-free song in an open format like MP3 or AAC, consumers may load songs from other sources such as CDs to their iPods.[112] As Steve Jobs pointed out in his statement on DRM, the vast majority of songs on the average iPod were not purchased from the iTunes Music Store.[113]

Notwithstanding the European consumer arguments to the contrary, the availability of legal avenues to interoperability indicates that consumers are not locked in.[114] Although iTunes' lack of interoperability costs consumers time and money (basically the cost of a CD), consumers are not forced to use Apple's products. Rather, they have the *option* to use them. Of course, converting iTunes to MP3 format can affect the sound quality of the file. Furthermore, less technology-savvy consumers are unlikely to be aware of these techniques. Thus, while consumers are not completely locked into the iPod, FairPlay still affects their use of Apple's products with rival products. For many consumers, this limited freedom is not sufficient.[115]

While many consumers attack DRM under the freedom of choice theory, other DRM critics argue that DRM does not actually control consumer choice at all.[116] They contend consumers will do whatever is necessary to access and use information. Consumers will decide how and when DRM is effective by choosing which products to buy, when to pirate, and when to design around DRM platforms.[117] Under this theory, too many restrictions will merely drive consumers to the pirated product.[118]

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110. *See infra* note 114.

111. *See* Lévêque, *supra* note 58, at 6; Jobs, *supra* note 53.

112. Jobs, *supra* note 53.

113. *Id.*

114. *See supra* Section II.B; *see also* Barnett, *supra* note 103, at 11.

115. The consumer organizations of France, Norway, Finland, and Germany who united in negotiations against Apple conceded in a joint statement that "iTunes allow their consumers to make the songs playable on other devices through re-ripping burnt CDs containing songs downloaded from iTunes." Yet they maintain that "this will not serve as a long-term solution," adding, "[w]e thus urge Apple to make substantial progress towards full interoperability until the end of September 2007." *European Consumer Organisations Join Forces in Legal Dispute Over iTunes Music Store*, FORBRUKEROMBUDET, Jan. 22, 2007, http://www.forbrukerombudet.no/index.gan?id=11037079.

116. *Symposium, Panel II: Licensing in the Digital Age: The Future of Digital Rights Management*, 15 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1009, 1031-32 (2005).

117. *Id.* at 1032.

118. *Id.*

The above argument is problematic because it ignores the reality that creators require incentives.[119] If creators know they will not be able to control their intellectual property because government regulation will force them to share it, they are less likely to create in the first place.[120] This principle underlies Dadvsi, the EUCD, and the DMCA. Technical protection measures receive significant leeway under all three regulatory regimes because the goal is development of the global digital marketplace. Even if FairPlay affects consumer choice by making alternatives to the iPod more difficult to use, protecting the FairPlay source code from public disclosure will aid consumers in the long run. In the face of digital piracy, the success of iTunes has boosted the sale of legal downloads, growing the marketplace for legal online music platforms.[121] In a word, granting creators control over their intellectual property benefits consumers by providing for superior products and services.

C. The Future of the Consumer Right to Interoperability

Because iPod users have viable alternatives for achieving interoperability, Apple's FairPlay arguably does not create consumer lock-in. If France and the United States continue their position that FairPlay does not lock consumers in, consumers will need to seek other legal justifications for the right to interoperability. This Section discusses the recent efforts of consumers in the United States to curb Apple's market power, decode FairPlay, and legalize access to programs enabling the interoperability of iTunes. Eventually, these efforts may shed light on the legal basis of the right to interoperability and its place in digital copyright law.

In January 2005, consumer Thomas Slattery brought suit on behalf of himself and all other consumers "similarly situated" in the Northern District of California.[122] Slattery alleged Apple held monopoly power over the digital music market with iTunes Music Store.[123] He filed several claims relating to anticompetitive conduct, including that Apple foreclosed iTunes music from being played on any device other than an iPod, forcing consumers to purchase music and portable digital music players from Apple rather than from competitors.[124] The court denied Apple's motion to

119. *See* Barnett, *supra* note 103, at 11-12; Hughes, *supra* note 103.

120. *See* Barnett, *supra* note 103, at 11-12; Hughes, *supra* note 103.

121. Hughes, *supra* note 103.

122. Slattery v. Apple Computer, No. 5:05-CV-00037, 2005 WL 2204981 (N.D. Cal. Sept. 9, 2005).

123. *Id.* at *1

124. *Id.* Specifically, Slattery alleged violation of the Sherman Act, California's Cartwright Act, California's unfair competition law, common law monopolization, and common law unjust enrichment. *Id.*

dismiss with respect to several claims of federal antitrust, monopolization, and unfair competition.[125]

Slattery also alleged that Apple prevented competitor RealNetworks from selling online digital music to customers.[126] In 2004, RealNetworks decoded FairPlay and released a program called Harmony intended to enable songs from its RealPlayer Music Store to be played on the iPod.[127] It began selling music files compatible with the iPod for forty-five cents per song (less than half of the price of an iTunes song of ninety-nine cents).[128] In response, Apple changed its software code, making Harmony ineffective.[129] Slattery claimed Apple's actions prevented consumers from accessing cheaper music files.[130] On August 17, 2006, the district court granted plaintiffs' motion to file a Second Amended Complaint, which, according to the plaintiffs, differs from the original complaint only in that it names different plaintiffs, Slattery having encountered a conflict of interest preventing his participation in the case.[131] This case is still pending in the district court.[132]

In the most recent installment of the Apple saga in the United States, Norway native and San Francisco resident Jon "DVD Jon" Lech Johansen cracked FairPlay's DRM.[133] Johansen plans to "license" the code to Apple's competitors through his company, DoubleTwist Ventures.[134] Johansen's new program "wraps" songs with code that mimics FairPlay, enabl-

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125. *Id.* at *6.

126. *Id.* at *2.

127. Robert Levine, *Jon Johansen Hacks FairPlay, the Apple iTunes Closed System*, CNNMONEY.COM, Oct. 30, 2004, http://money.cnn.com/magazines/fortune/fortune_archive/2006/10/30/8391726/index.htm.

128. *Slattery*, No. 5:05-CV-00037, 2005 WL 2204981 (N.D. Cal. Sept. 9 2005) (order granting in part, denying in part defendant's motion to dismiss).

129. Levine, *supra* note 127.

130. *Slattery*, No. 5:05-CV-00037, 2005 WL 2204981 at *2 (N.D. Cal. Sept. 9 2005) (order granting in part, denying in part defendant's motion to dismiss).

131. Charoensak v. Apple, No. 5:05-CV-00037, 2006 WL 3190513 (N.D. Cal. Oct. 30, 2006) (denying Apple's motion to dismiss the Second Amended Complaint).

132. The most recent filing was *Charoensak v. Apple*, No. 5:05-CV-00037, 2007 WL 500179 (N.D. Cal Jan. 19, 2007).

133. BBC News, *iTunes Copy Protection Cracked*, BBC NEWS, Oct. 25, 2006, http://news.bbc.co.uk/2/hi/technology/6083110.stm. At the age of fifteen, Johansen garnered media attention for creating and distributing a program capable of cracking the encryption codes on DVDs, thereby permitting DVDs to be copied and played on any device. *Id.* Johansen created the DVD program with the help of two other hackers. *See id.* Johansen distributed that program online for free, but he intends to capitalize on his current project with the help of his new company. *Id.*

134. *Id.*

ing iTunes to be played on other devices.[135] Yet he intends to steer clear of legal ramifications under the DMCA. Johansen claims that he reverse-engineered FairPlay and that his code avoids DMCA restrictions by *adding* protection rather than removing it.[136] He argues his actions are covered by the DMCA's reverse-engineering exemption, § 1201(f).[137] Because the law is relatively untested in this area, it remains to be seen whether Johansen and his program are actually in line with the DMCA.[138]

The outcome of *Slattery* and Johansen's reverse engineering of FairPlay will help define whether there is a legally justified consumer right to interoperability, and, if so, how to reconcile that right with digital copyright law. If *Slattery* is decided in the plaintiffs' favor, it will indicate that the right to interoperability lies in antitrust law, despite the Assistant Attorney General's position that FairPlay does not create consumer lock-in.[139] A decision for the plaintiffs would be consistent with the position of the European consumer organizations and Norwegian Consumer Ombudsman that Apple's DRM violates their countries' competition laws.[140] The problem is that even if antitrust law can be used to create a consumer right to interoperability, we are left with the question of how to reconcile interoperability with copyright law. This is where Johansen's actions become important. If he can demonstrate that promoting interoperability by "adding protection" to FairPlay does not violate the DMCA, he might reveal a way to promote interoperability within the confines of digital copyright law.

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135. Levine, *supra* note 127.

136. *Id.*

137. 17 U.S.C. § 1201(f) (2000).

138. In a seminal pre-DMCA case, *Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992), Accolade disassembled and modified the computer object code in Sega's videogame cartridges in order to create a competing product. *Id.* By reverse engineering Sega's product, Accolade generated computer files containing modifications of Sega's computer object code. *Id.* at 1518. The Ninth Circuit found that Accolades' actions constituted fair use. *Id.* at 1527-28. It held, "where disassembly is the only way to gain access to the ideas and functional elements embodied in a copyrighted computer program and where there is a legitimate reason for seeking such access, disassembly is a fair use of the copyrighted work, as a matter of law." *Id.* Thus, under *Sega*, Johansen may be protected so long as he can demonstrate "a legitimate reason" for reverse engineering FairPlay. However, *Sega* is important to an analysis of Johansen's actions under the DMCA due to *Sega's* holding that reverse engineering is justified where there is a legitimate reason. This holding may shed light on whether "adding protection" to FairPlay not only constitutes an action consistent with the DMCA, but an action justified by the "legitimate reason" of product interoperability.

139. *See supra* text accompanying note 105.

140. *See supra* text accompanying note 80.

IV. CONCLUSION: PROPOSALS FOR THE FUTURE

Thus far, both the United States and France have granted DRM holders a great deal of freedom. Yet the Johansen saga and the European consumer movement raise questions about the effectiveness of government regulation of DRM. While legal penalties hopefully deter digital copyright violations, the internet enables a massive number of users to immediately transfer and receive information, making it easy for violators to avoid surveillance. This difficulty explains why companies have taken matters into their own hands, applying DRM as a "private" security guard, and why governments have willingly conceded that role to companies.

Regulating unauthorized copying would be more difficult if individuals like Johansen were permitted to control product interoperability. However, governments might consider a registration process for these efforts, requiring such individuals to demonstrate how their code, while establishing interoperability, does not interfere with the original DRM's effectiveness. This would be the reverse of the burden-shifting process established under Dadvsi's Authority. Individuals who circumvented the code would bear the burden of proof rather than DRM holders. Requiring registration would maintain government regulation of interoperability and hopefully deter illegal circumvention and unauthorized copying.

One problem with the registration approach is that it is unclear how individuals would establish that interoperability does not interfere with the DRM's effectiveness. No doubt Johansen would argue his program does not prevent FairPlay's effectiveness because it does not remove FairPlay's protection; instead, it adds *new* protection. Yet how does "adding" protection not interfere? So long as adding protection impedes the purpose of the DRM, it manipulates the system's effectiveness. In other words, if preventing interoperability prevents the unauthorized distribution of copyrighted works, then enabling interoperability, even through "added protection," interferes with the DRM's effectiveness. Both France and the United States would do well to define specifically what DRM holders can do with their DRM, which in turn would help define what third parties like Johansen are permitted to manipulate. Can DRM be effective without preventing interoperability?

Hopefully, the purpose and limits of DRM will be defined over time. If it becomes clear that interoperability does not enable piracy to a dangerous degree, governments might consider offering companies like Apple (or the music labels) business incentives to invest in and adapt to interoperability.[141] Yet empowering companies to regulate the interoperability of their

141. *See* Porter & Swindells, *supra* note 3, at 22.

product through DRM is perhaps the most powerful business incentive available. Government-subsidized incentives might not be sufficient to encourage companies to invest in the digital marketplace, as companies would have no control over downstream/future use of their products. Lack of control would arguably translate to lack of profit.

In sum, Dadvsi and the interoperability debate reflect the struggle to define the proper scope of government regulation of DRM. Intellectual property rights and the consumer interest in interoperability are challenging to reconcile. In order to foster the development of the digital global marketplace, both France and the United States have granted DRM holders a great deal of leeway. While granting creators and distributors freedom encourages the development of new products, limiting consumer choice could stifle the market for competitors.

Though Dadvsi does not give a final answer as to whether the rights of DRM holders outweigh the interoperability concerns of consumers, its interoperability provisions undoubtedly give DRM holders the upper hand. As consumers continue to push for limits on DRM holder's rights, governments should explore new ways of regulating interoperability. With time, the needs of the marketplace, creators, and consumers will become more obvious. Still, governments will only be able to balance these competing interests successfully if they create law that is flexible. Because the internet enables the instantaneous exchange of information, it also causes abrupt shifts in competing interests. Ironically, in the end, Dadvsi's lack of clarity on interoperability may prove to be just the sort of adaptable law the digital age requires.