

# CAN PEER-TO-PEER INTERNET BROADCAST TECHNOLOGY GIVE FANS ANOTHER CHANCE? PEER-TO-PEER STREAMING TECHNOLOGY AND ITS IMPACT

*Chia-heng Seetoo\**

## I. INTRODUCTION

Overseas fans of the National Basketball Association (“NBA”) find themselves in a difficult predicament. Consider, for example, a die hard Memphis Grizzlies fan, born and raised in Memphis, but currently living in Taiwan. The local broadcast television and cable stations in Taiwan only broadcast NBA games pursuant to licenses from NBA Entertainment, Inc. or from local United States sports channels like Fox Sports Net. As a result, excluding playoff games, a total of one Grizzlies’ game is shown on local television every season. Satellite television services like Dish Network and DirecTV have not been established in Taiwan, and the NBA does not provide online video broadcasts of games like those provided by Major League Baseball on MLB.TV.<sup>1</sup> Before the advent of the Internet, the average NBA fan living outside the United States had few means to follow his favorite teams. Now, thanks to a new genre of technology, commonly referred to as peer-to-peer Internet television (“P2PTV”),<sup>2</sup> fans abroad have access to more live video broadcasts of American sports games and can potentially even record the games they like on their personal computer.

Most P2PTV technology is used to redistribute television channels on the

---

\* J.D., University of Illinois College of Law, 2007; M.B.S. Industrial Economics, National Central University (Taiwan) 2003; B.A. Economics, National Taiwan University, 2000.

1. Ryan Naraine, *MLB.TV Puts Live Games Online*, INTERNETNEWS.COM, Mar. 11, 2003, <http://www.internetnews.com/ec-news/article.php/2107831> (indicating that Major League Baseball began to launch its own on-demand and live access to pay-per-view video feeds in early 2001).

2. Some sources call this new technology “peer-to-peer streaming TV” or “p2p streaming TV.” Geoffrey A. Fowler & Sarah McBride, *Newest Export From China: Pirated Pay TV*, WALL ST. J., Sep. 9, 2005, at B1. Others call it P2PTV. E.g., *P2PTV*, WIKIPEDIA: THE FREE ENCYCLOPEDIA (Oct. 3, 2007), <http://en.wikipedia.org/wiki/P2PTV> [hereinafter *P2PTV*]; *PPstream—P2P TV Streaming that Rocks!*, <http://www.liquidx.net/blog/2005/09/28/> (Sept. 28, 2005). Throughout this Note, this genre of technology will be referred to as “P2PTV”.

Internet without a proper license.<sup>3</sup> Sports media companies and associations are just now realizing the problem and trying to prevent this copyright theft.<sup>4</sup> Although the majority of available P2PTV networks broadcast mainly Asian television stations, TVUPlayer carries a number of North American stations like ESPN, ABC, Fox, CBS, and some premium pay-per-view channels like HBO or NBA TV that were formerly only available via satellite television services.<sup>5</sup>

The example of the Grizzlies fan in Taiwan is not an isolated case. The decision of *Metro-Goldwyn-Mayer Studios v. Grokster*<sup>6</sup> by the United States Supreme Court did not deter computer engineers and business people throughout the world from exploiting peer-to-peer (“P2P”) file-sharing and broadcast technology. About 50,000 simultaneous P2P viewers on one of the P2PTV services watched an NBA game featuring Chinese star Yao Ming; additionally, thousands of British soccer fans have been using P2PTV to watch “pirated” broadcasts of live matches during Saturday blackout periods since May 2005.<sup>7</sup> Traditionally, income generated through broadcasting contracts has been an important source of revenue for professional sports leagues.<sup>8</sup> Local television blackouts are usually adopted to protect local game gate receipts.<sup>9</sup> However, the growing global interest in professional sports coupled with the emergence of P2PTV are likely to undercut the potential broadcast revenue generated by television contracts.

The emergence of P2PTV technology is a good example of “convergence” in telecommunication law, the phenomenon that various types of media services can now be delivered over a single platform—the Internet.<sup>10</sup>

---

3. P2PTV, *supra* note 2.

4. Fowler & McBride, *supra* note 2.

5. P2PTV, *supra* note 2. Currently, ESPN and ESPN2, as well as some other premium pay-per-view channels are no longer available on TVU player. *TVUnetworks*, WIKIPEDIA: THE FREE ENCYCLOPEDIA (Nov. 8, 2007), <http://en.wikipedia.org/wiki/TVUPlayer> [hereinafter *TVUnetworks*, WIKIPEDIA].

6. 545 U.S. 913, 937-40 (2005).

7. See Fowler & McBride, *supra* note 2 (“England’s FA Premier League began investigating reports that thousands of British soccer fans were using P2P systems to watch pirated broadcasts of live matches during a Saturday blackout period.”).

8. For example, the NBA signed one contract with TNT worth \$2.2 billion and another with ABC/ESPN for \$2.4 billion for a six-year term starting from the 2002-03 season. InsideHoops, NBA TV Contracts, <http://www.insidehoops.com/nba-tv-contracts.shtml> (last visited Nov. 17, 2007). The 1999 version of the NBA collective bargaining agreement can be obtained at Nat’l Basketball Players Ass’n, NBPA Collective Bargaining Agreement, <http://www.nbpa.com/downloads/CBA.pdf> (last visited Nov. 17, 2007).

9. Sharing of gate receipts varies among the leagues; usually the home team can retain a larger portion of the gate receipt. Market Segment Specialization Program, <http://www.irs.gov/businesses/page/0,,id=7095,00.html#RevShare> (last visited Oct. 3, 2007). Judge Grim first addressed the negative correlation between televised home games and home game attendance in *United States v. National Football League*, 116 F. Supp. 319, 325 (D.C. Pa. 1953). However, recent empirical studies suggest that media broadcast of professional sports may have a positive impact on home attendance. See James J. Zhang, Dale G. Pease & Dennis W. Smith, *Relationship Between Broadcasting Media and Minor League Hockey Game Attendance*, 12 J. SPORT MGMT. 103, 107 (1998) (discussing the idea that television coverage has a positive impact on fan consumption of sports by increasing interest in attendance). See generally James J. Zhang & Dennis W. Smith, *Impact of Broadcasting on the Attendance of Professional Basketball Games*, 6 SPORT MKTG. QUARTERLY 23 (1997) (discussing the positive relationship between broadcasting and attendance in home games).

10. See Douglas C. Sicker & Lisa Blumensaadt, *Misunderstanding the Layered Model(s)*, 4 J. ON

Traditionally, telecommunication law differed depending on the type of media, creating different sets of regulations and subject matter jurisdictions, and even varying levels of First Amendment protection in terms of content regulation.<sup>11</sup> As the Internet and digital technology continue to grow, different media like telephone services, music and video distribution, and real-time music and video streaming will “converge” and become available on the Internet.<sup>12</sup> This phenomenon poses significant challenges to current regulatory schemes of communication, as well as copyright law. If copyright law is the appropriate law governing the convergence of media on the Internet, what problems are exposed by the rise of P2PTV technology? What is the right balance between protecting creative expression and fostering technological advancement? Additionally, what should be the appropriate compensatory scheme; how should the authors of creative expressions be compensated? Finally, is there a need for international collaboration to set a universal standard?

These are important questions which cannot be comprehensively addressed by this Note. Therefore, the purpose of this Note is to sketch some viable ways of preserving the future prospect of technologies like P2PTV, while striking a balance between public interests and copyright holders. Part II of this Note will provide background information on the history of peer-to-peer file sharing technology, describe the current development of P2PTV services, and discuss the economics of broadcasting professional sports games. Part III will analyze the current United States law on the balance between the protection of creative expressions, the advancement of new technology, and the public interest in wide dissemination of creative expressions. Part IV will discuss the application of United States copyright law on the legality of P2PTV. Because most P2PTV computer programs are developed in China and it is possible for future litigation regarding the legality of P2PTV to take place there, a brief glance on the current copyright law in China will be explored in Part V. In Part VI, this Note will first argue that these P2PTV services have greater positive social and economic potential, and second, suggest some possible legal and business solutions of keeping P2PTV available to users.

## II. THE HISTORY OF P2PTV AND THE ECONOMICS OF PROFESSIONAL SPORTS BROADCASTING

Understanding the impact of P2PTV requires an exploration into its brief history. P2PTV on the Internet is clearly an emerging trend in professional sports broadcasting, and it will continue to be a major economic factor in this

---

TELECOMM. & HIGH TECH. L. 299, 304 (2006) (“Services are said to ‘converge’ onto a single superstructure that could ride over all existing physical infrastructures—the Internet Protocol (IP) environment.”).

11. Kevin Werbach, *Breaking the Ice: Rethinking Telecommunications Law for the Digital Age*, 4 J. ON TELECOMM. & HIGH TECH. L. 59, 68 (2005) (“Newer communications networks, including cable television, cellular telephone, and satellite communications, were each given their own set of tailor-made rules.”).

12. Sicker & Blumensadt, *supra* note 10. Some scholars suggested that because of the phenomenon of convergence, the telecommunication regulatory scheme should be shifted to regulate “functionally similar services in the same way regardless of the underlying platform.” Philip J. Weiser, *Toward a Next Generation Regulatory Strategy*, 35 LOY. U. CHI. L.J. 41, 41 (2003).

industry.

### A. *The Brief History of P2P Technology*

The history of P2P technology and its use to swap computer files over the Internet is recent. In the traditional client-server model of transferring files over the Internet, such as Hypertext Transfer Protocol (“HTTP”) or File Transfer Protocol (“FTP”), a central server possessing the file sends the file to each client that requests it, but the clients never communicate with each other.<sup>13</sup> Inefficiency arises when a very large or popular file is requested. Such situations require a great deal of bandwidth and server resources to distribute the file to each client.<sup>14</sup> This allocation of bandwidth creates a significant burden on server resources and is a noteworthy shortcoming of this traditional client-server model.<sup>15</sup>

The first widely used P2P file-sharing software is generally believed to be Napster, created by Shawn Fanning in 1999.<sup>16</sup> When a prospective user downloaded a copy of the Napster software, registered a username, and designated the directories on their computer containing music files that they wished to share with other users of the Napster network, the new files became part of the P2P network.<sup>17</sup> A centralized index server maintained by Napster kept track of all the files currently contained on all of the computers connected to the Napster network. To search for a particular music file on the network, the user connected to the Napster network and typed in keywords of the music files that he or she sought. The search request was then sent to the central index to locate the file and the computer housing that file.<sup>18</sup> To download a copy, the user clicked on the file name and the Napster server provided her computer with the Internet protocol address of the host computer where the file was located, enabling the user’s computer to download a copy of the file directly from the host.<sup>19</sup> At no point in this process does the Napster server maintain any files. It only acts as a search engine and facilitates connections between users, hence the name “peer-to-peer.”<sup>20</sup>

Next generation P2P networks like KaZaA, eDonkey,<sup>21</sup> Gnutella, and

---

13. Brian Dessent, Brian’s BitTorrent FAQ and Guide (May 10, 2003), <http://dessent.net/btfaq>.

14. *Id.*

15. *Id.*

16. *See Napster*, WIKIPEDIA: THE FREE ENCYCLOPEDIA (Nov. 13, 2007), <http://en.wikipedia.org/wiki/Napster> (noting that although other file sharing media already existed, Napster’s focus on music and easy interface resulted in a very popular system).

17. WILLIAM W. FISHER III, PROMISES TO KEEP: TECHNOLOGY, LAW, AND THE FUTURE OF ENTERTAINMENT 111 (2004) (pointing out also that Napster software was free to download by users).

18. *Id.*

19. *Id.*

20. *Id.*

21. On September 15, 2005, the RIAA sent out letters to seven popular file-sharing networks demanding they block copyrighted content or face legal action from the RIAA, and eDonkey was one of the recipients. Nate Mook, *P2P Future Darkens as eDonkey Closes*, BETA NEWS, Sept. 28, 2005, [http://www.betanews.com/article/P2P\\_Future\\_Darkens\\_as\\_eDonkey\\_Closes/1127953242](http://www.betanews.com/article/P2P_Future_Darkens_as_eDonkey_Closes/1127953242). As a result, MetaMachine, the startup company behind eDonkey, was reportedly required to pay \$30 million to the RIAA and shutdown eDonkey. Nate Anderson, *No More “Hee Haw”: eDonkey Taken to the Glue Factory*, ARS

Direct Connect permit ordinary Internet users to trade files by directly connecting one-to-one.<sup>22</sup> Even though the burden on bandwidth when downloading popular and large files is somewhat mitigated by the number of peers offering such a file, other common problems like the unavailability of partially downloaded files or the limits on the number of peers a given user can reach, continue to plague these P2P networks.<sup>23</sup>

Another example of a P2P protocol designed for transferring files is BitTorrent, an application designed so “users [can] connect to each other directly to send and receive portions of the file.”<sup>24</sup> In light of the increasing burdens on server resources, the BitTorrent protocol is designed to use bandwidth more efficiently. To do this, it uses a central server called a “tracker” that coordinates the action of all the peer users, permits a user to obtain a file by combining different pieces from different sources at the same time, while uploading what has already been downloaded to the network.<sup>25</sup> The result is an innovative approach to the P2P model.

### *B. The Emerging Trend of P2PTV on the Internet*

Though previous examples showed P2P networks sharing unique files stored on user host computers, P2PTV generally “refers to [P2P] software applications designed to redistribute video streams,” typically originating from television stations around the world.<sup>26</sup> As a result of their potential to make any television channel widely available, these applications can be quite popular.<sup>27</sup> The benefit of using P2P technology for video stream application is that each user simultaneously uploads and downloads content, resulting in an overall increase in available bandwidth.<sup>28</sup> The video quality of the channels typically depends on how many users are watching such that video quality improves as the number of users increases.<sup>29</sup>

The *Wall Street Journal* reported that China has already become a hotbed for emerging software that is capable of retransmitting copyrighted materials.<sup>30</sup> Chinese P2PTV software clients on the Internet include PPStream, PPLive, TVUplayer, and CoolStreaming.<sup>31</sup> However, not all software is developed in

---

TECHNICA, Sept. 13, 2006, <http://arstechnica.com/news.ars/post/20060913-7733.html>.

22. See Dessent, *supra* note 13 (stating that BitTorrent is peer to peer because “users connect to each other directly to send and receive portions of the file”).

23. *Id.* (referring to “the significant protocol overhead for passing search inquiries amongst . . . peers”).

24. *Id.*

25. *Id.*

26. *P2PTV*, *supra* note 2.

27. *Id.*

28. *Id.*

29. *Id.*

30. Fowler & McBride, *supra* note 2.

31. Not all official Web sites for these programs have English versions. For example, the official Web site of PPStream does not have an English version. PPStream, <http://www.ppstream.com> (last visited Nov. 10, 2007) [hereinafter PPStream Homepage]. On the other hand, PPLive maintains a relatively simple English version of its official Web site. PPLive, <http://www.pplive.com/en/index.html> (last visited Nov. 17, 2007). However, if a user inputs the names of these programs into an Internet search engine like Google, he or she can still find various guides and FAQs in English on how to use these programs.

China. For example, the service, Cybersky, was originally developed in Germany.<sup>32</sup> In early 2007, Niklas Zennström and Janus Friis, the Swedish entrepreneurs and founders of Skype—an Internet telephone software using the Voice over Internet Protocol technology—announced a new P2PTV program called Joost, currently in the beta stage of development.<sup>33</sup> In the United States, the closest thing to the aforementioned software products is Miro (formerly known as Democracy Player) developed by the Participatory Culture Foundation, a non-profit organization located in Massachusetts.<sup>34</sup> However, the interface of Miro resembles that of Apple's celebrated iTunes client and the operation of Miro is more like a platform for video podcasts, meaning that viewers subscribe to the available "channels" and download episodes of video programs onto the viewer's personal computer.<sup>35</sup> Despite the fact that all these programs can be properly pooled under the label of "P2PTV Service," the specific methods of operation vary widely.

### *1. TVUplayer: Reproducing the Concept of Cable Television over the Internet*

The interface of the TVUplayer software is relatively simple. The program provides the user with a window containing a complete list of television channels currently available for viewing.<sup>36</sup> With the channel list window located left of the viewing screen, and the volume controls at the bottom, users have very little discretion in terms of customizing the technical configuration of the program, likening the experience to watching a normal television.<sup>37</sup>

In addition to the standard TVUplayer service, the official Web site allows registered users to have access to "TVU Broadcaster," a program that allows a user to broadcast video feeds.<sup>38</sup> In its frequently asked questions page, TVU Network states that the purpose releasing TVU Broadcaster is to "democratize broadcasting—enabling existing television channels to find a global audience, and allowing you to create new channels that mirror your interests."<sup>39</sup> TVU Network also noted that there are no charges for amateur broadcasters using the downloadable software to broadcast.<sup>40</sup> As to the critical legal issue of content policy, TVU Network states that, first, broadcasters should affirm that they have the legal right to broadcast the material showing

---

32. Andreas Tzortzis, *People's Television*, NEWSWEEK, Dec. 14, 2004, at 49. Cybersky was named after the inventing software engineer Guido Ciburski. *Id.*

33. Joost, About Us, <http://www.joost.com/about.html> (last visited Nov. 17, 2007).

34. Participatory Culture Foundation, <http://participatoryculture.org/> (last visited Nov. 17, 2007).

35. Based on the nature of Miro, it will not be treated as one of the P2PTV services for the purpose of this Note. Its implications will be discussed again *infra* Part IV.C.

36. TVU Network Corporation, <http://pages.tvunetworks.com/channels> (last visited Nov. 17, 2007). Users can even set up their own "favorite" channels for quick viewing. *Id.*

37. *Id.* The above description of the program interface is based on TVUplayer version 2.2.0, released on Aug. 4, 2006, but subsequent versions do not materially alter the interface. *Id.*

38. TVU Network, TVU Broadcast FAQ, [http://pages.tvunetworks.com/doc/Broadcast\\_FAQ.html](http://pages.tvunetworks.com/doc/Broadcast_FAQ.html) (last visited Nov. 17, 2007).

39. *Id.*

40. *Id.*

on TVUplayer and second, broadcasters are not permitted to broadcast any adult content; violation of these rules may cause shutdown by TVU Network.<sup>41</sup> Currently, the vast majority of channels available on TVUplayer are major commercial channels from North America and China.<sup>42</sup>

## 2. PPStream/PPLive/Cybersky: The Concept of “Sharing Live Feeds”

The biggest difference between PPStream/PPLive/Cybersky and the aforementioned TVUplayer is the list of available channels. The available channels on these software clients are “program-oriented” rather than “channel-oriented.” Software such as PPStream operates by connecting to the server, retrieving a list of available channels, and sorting them according to popularity.<sup>43</sup> Most of the channel descriptions are in simplified Chinese.<sup>44</sup> These channels are the currently available live video feeds, and the names of these feeds refer to specific programs, as opposed to channels.<sup>45</sup> The PPStream client classifies these live video feeds into different genres such as entertainment, Chinese movies, television drama series, animation, and sports, making it easy for users to search for desired programs.<sup>46</sup> Users can also search for desired programs using key words.<sup>47</sup> Most of the live feeds are supplied by individual users of the PPStream broadcaster client. There are also some repeatedly-played programs supplied by well-known Chinese “superstations” like Phoenix Chinese Channel.<sup>48</sup> The interface of PPLive client is similar to that of PPStream, but the Cybersky client is much less user-friendly and requires users to be more technically savvy.

In both concepts, a viewer client allows the users to watch live, high-quality video feeds and accelerates the transmission of data through P2P technology. For those who are interested in starting their own stations or initiating live video feeds, a broadcaster tool is available for them to instantaneously share video streams on the Internet. The only difference visible to users is the way shared content is presented.

### C. The Economics of Broadcasting Professional Sports

Televising professional sports games has a long history in the United States. The National Broadcast Company (“NBC”) telecasted its first Major League Baseball game on August 26, 1939 at a time when radio dominated the

---

41. *Id.*

42. *TVUnetworks*, WIKIPEDIA, *supra* note 5 (including FOX News, and several Chinese CCTV channels, although many of the originally distributed channels are no longer available).

43. ppStream – P2P based Streaming Media (P2P Internet TV), <http://www.mydigitallife.info/2005/10/20/ppstream-p2p-based-streaming-media-p2p-internet-tv> (last visited Nov. 18, 2007).

44. PPStream Homepage, *supra* note 31.

45. *Id.*

46. *Id.*

47. *Id.*

48. Phoenix Television, Company Overview, <http://www.phoenixtv.com/phoenixtv/77406718107058176/20040721/12578.shtml> (last visited Sept. 7, 2007).

broadcasting of professional sports.<sup>49</sup> As the ownership of television sets became more common, the proportion of sports programming on major broadcast networks and cable networks increased.<sup>50</sup> At the beginning of the decade, up to forty hours of professional team sports were beamed to home television sets per week by the major networks, and hundreds of hours more were provided by cable networks throughout the nation.<sup>51</sup> When the New York Yankees signed their first broadcast contract in 1946, radio and television revenues combined contributed only three percent of the total revenue of Major League Baseball.<sup>52</sup> Currently, a considerable portion of professional sports revenue is generated by broadcast licenses with over-the-air broadcasters, cable channels, and pay-per-view programmers. In the case of football, basketball and baseball, revenue generated by broadcasting deals amounts to approximately one-half of their total revenues.<sup>53</sup>

Professional sports have special characteristics which make them uniquely vulnerable to P2PTV technology. First and foremost, sports fans watching live broadcast games not only care about the final results or the box scores of these games, but also the progression of a game, as the progression and outcome are often unpredictable. Sports fans are far less interested in watching yesterday's games of which the results are already known. Viewers of other forms of entertainment—movies, television dramas, and educational programs—usually do not have such a strong demand for live-broadcasts.

Like most other digitized, copyrighted audio-visual works, once a sports program has been produced, the marginal cost of making it available to additional viewers is approximately zero.<sup>54</sup> Thus, with the exception of pay-per-view broadcasts in which the technology allows the broadcaster to exclude some viewers, sports broadcasts fit the economist's definition of a public good (zero marginal cost plus non-excludability).<sup>55</sup> Sports broadcasting content is protected by intellectual property laws, which are usually read during a broadcast.<sup>56</sup> Because of these characteristics, professional sports teams and leagues rely on intellectual property laws to cure what economists call the "free-rider"<sup>57</sup> problem. The profitability of selling advertising time depends upon the enforcement of legal restrictions imposed on access.<sup>58</sup>

Broadcasting deals by professional sports leagues in the United States experienced significant growth in recent decades. For example, the national

---

49. MLB Pressbox, MLB History – Broadcast Firsts, [http://pressbox.mlb.com/pressbox/about\\_mlb/history.jsp?content=broadcast\\_firsts](http://pressbox.mlb.com/pressbox/about_mlb/history.jsp?content=broadcast_firsts).

50. *Id.*

51. *Id.*

52. *Id.*

53. *Id.*

54. *Id.*

55. ROBERT SANDY ET AL., *THE ECONOMICS OF SPORT: AN INTERNATIONAL PERSPECTIVE* 128 (2004).

56. *Id.* ("This copy of ESPN broadcast of National Basketball Association game may not be retransmitted, reproduced, or rebroadcast without the express written consent of the National Basketball Association.")

57. For a discussion of the free rider problem in the context of copyright law, see Williams M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 328-33 (1989).

58. SANDY ET AL., *supra* note 55.

television package of the National Football League was worth \$900 million per year in 1990-93. Starting in 2006, the NFL receive \$3.1 billion per year from CBS, FOX, NBC and ESPN.<sup>59</sup> Adjusting for inflation, this means the real growth of television revenue for the NFL approximately doubled from 1990 to 2006. Major League Baseball and the National Basketball Association also experienced similar growth during this period of time.<sup>60</sup>

One can argue that in the United States, the ability of the professional sports leagues to sell broadcast rights was reinforced by the Sports Broadcasting Act of 1961, codified as 15 U.S.C. §§ 1291-1295, which grants an exemption to the federal antitrust law, allowing the leagues to pool their games together as packages and to sell these packages to national broadcasters.<sup>61</sup> In addition, television blackout in the home territory on the day when a home game is played is also permitted.<sup>62</sup> From judges to commentators, almost all agree that the Sports Broadcasting Act was a piece of special interest legislation aimed at permitting the NFL to bundle the broadcast rights of all games together and to sell them to television networks as a single package.<sup>63</sup> Local television blackouts have been used by professional sports teams to protect home game receipts. As a result, fans have tried to circumvent the blackout.<sup>64</sup> Thus, the emergence of P2PTV technology threatens the profitability of professional sports franchises, leagues, and television networks (cable or satellite). However, it may also represent a new opportunity for networks and professional sports organizations to reach more viewers throughout the world.

---

59. *NFL on Television*, WIKIPEDIA: THE FREE ENCYCLOPEDIA (Nov. 15, 2007), [http://en.wikipedia.org/wiki/NFL\\_on\\_television](http://en.wikipedia.org/wiki/NFL_on_television).

60. From 1994 to 1998, NBC paid an annual average of \$187.5 million and TBS/TNT paid an annual average of \$87.5 million to obtain the right to carry NBA games on their networks. Soonhwan Lee & Hyosung Chun, *Economic Values of Professional Sport Franchises in the United States*, 5 *SPORT. J.* (2002), <http://www.thesportjournal.org/2002journal/Vol5-No3/economic-values.asp>. In the NBA's current television deal with ABC/ESPN and AOL Time Warner, these companies paid an annual average of \$400 million and \$366.5 million respectively, to the end of 2007-08 season, which represents a four-fold increase. *Id.*

61. Section 1291 states that certain antitrust laws will not apply to any joint agreement selling or transferring the sponsored telecasts of professional baseball, basketball, football or hockey games entered into by such sports organizations. 15 U.S.C. § 1291 (2000).

62. The statutory language of section 1292 reads:

Section 1291 of this title shall not apply to any joint agreement described in the first sentence in such section which prohibits any person to whom such rights are sold or transferred from televising any games within any area, except within the home territory of a member club of the league on a day when such club is playing a game at home.

15 U.S.C. § 1292 (2000).

63. *Chi. Prof'l Sports Ltd. P'ship v. Nat'l Basketball Ass'n*, 961 F.2d 667, 671 (7th Cir. 1992) ("The Sports Broadcasting Act is special interest legislation, a single-industry exception to a law designed for the protection of the public.").

64. One such attempt is illustrated by *Nat'l Football League v. Cousin Hugo's, Inc.*, 600 F. Supp. 84, 87 (E.D. Mo. 1984), in which the League obtained temporary restraining orders to stop bar owners in St. Louis from intercepting transmission of live telecasts involving a local professional football team.

### III. THE RELEVANT LAW IN THE UNITED STATES

This next section will explore case law that is relevant to the legality of P2PTV, the differences within the existing case law, and exemptions under copyright law and communication law.

#### A. *The Legality of P2P Software from Sony to Grokster*

The legality of P2P video streaming technologies, which has not been litigated in courts, will be discussed in light of the United States Supreme Court's decisions in *Sony Corp. v. Universal City Studios, Inc.*<sup>65</sup> and *MGM Studios, Inc. v. Grokster*.<sup>66</sup>

##### 1. *Sony Corp. v. Universal City Studios, Inc. as a Landmark Case*

*Sony* is a landmark case in copyright law for two reasons. First, it demonstrated the application of the "fair use" doctrine, codified as a part of the 1976 Copyright Act.<sup>67</sup> Second, it discussed the secondary liabilities of producers of new technical devices that may be capable of both non-infringing and infringing uses.<sup>68</sup> The trial record demonstrated that the average user of video tape recorders ("VTR") principally records a program that cannot be viewed as it is being televised, instead choosing to watch it once at a later time—a practice known as "time-shifting," which is unlikely to result in any harm.<sup>69</sup> In fact, a considerable percentage of VTR use is to record sports events, and the major professional sports leagues had no objections to the recording of their televised events for home use.<sup>70</sup>

When determining whether Sony was liable for contributory or vicarious copyright infringement, the first inquiry was whether there had been substantial direct infringements by the users of the equipment.<sup>71</sup> The Court borrowed the "staple article of commerce" doctrine from patent law,<sup>72</sup> and

65. 464 U.S. 417, 456 (1984).

66. 545 U.S. 913, 936-37 (2005).

67. 17 U.S.C. § 107 (2000). Courts consider four factors to determine whether the use of a work is a fair use:

(1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work.

*Id.* Additionally, "[t]he fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors." *Id.*

68. See *Sony*, 464 U.S. at 420 (discussing the lower court's ruling, *Universal City Studios, Inc. v. Sony Corp. of Am.*, 480 F. Supp. 429 (C.D. Cal. 1979)).

69. *Id.* at 421.

70. *Id.* at 424 ("[Sony's] survey indicated that 7.3% of all Betamax use is to record sports events, and representatives of professional baseball, football, basketball, and hockey testified that they had no objection to the recording of their televised events for home use.").

71. *Id.* at 440.

72. *Id.* at 440-41 ("[patent law] expressly provides that 'the sale of a staple article or commodity of commerce suitable for substantial non-infringing use' is not contributory infringement."). The rationale behind this rule is that a finding of contributory infringement would be the equivalent of holding that the

pointed out that if the alleged infringer buys an article of commerce to infringe a patent, then that item must be “unsuited for any commercial non-infringing use.”<sup>73</sup> The Court indicated that the staple article of commerce doctrine must strike a balance between a copyright holder’s legitimate demand for effective protection and the rights of others to freely engage in unrelated areas of commerce.<sup>74</sup>

The Court then went on to discuss the issue of fair use, and whether time-shifting could be characterized as fair use under the criteria in section 107,<sup>75</sup> because someone “who makes a fair use of a copyrighted work is not an infringer of the copyright with respect to such use.”<sup>76</sup> The Court discussed the issue of authorized time-shifting and unauthorized time-shifting separately.

Relying on the record developed in the district court, the Court found that a significant number of broadcasts were authorized or might have potential for future authorized copying.<sup>77</sup> On the issue of unauthorized time-shifting, the Court mainly focused on the first and the fourth factors in section 107, namely, “the purpose and character of the use including whether such use is of a commercial nature or is for nonprofit educational purposes” and “the effect of the use upon the potential market for or value of the copyrighted work.”<sup>78</sup> The Court noted that the findings below had established that time-shifting for private home use must be characterized as a noncommercial, nonprofit activity.<sup>79</sup> Based upon the district court’s findings of fact, the Court held that the respondent, Universal City Studios, failed to prove by a preponderance of evidence that home time-shifting would cause some meaningful likelihood of future harm.<sup>80</sup> In the end, the Court concluded that Sony’s sale of the video tape recorder to the general public did not constitute contributory infringement of respondent’s copyrights.<sup>81</sup>

## 2. MGM v. Grokster: *The Undercurrent of a Unanimous 9-0 Vote Result*

*MGM v. Grokster* marked the first time that the United States Supreme Court spoke to the general issue of the legality of P2P file-sharing software.<sup>82</sup>

---

disputed article is within the monopoly granted to the patentee, and courts need to be very careful not to allow patentees to extend his monopoly beyond the limits of his specific grant. *Id.*

73. *Id.* at 441 (quoting *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176, 198 (1980)).

74. *Id.* Additionally, the seller of copying equipment is not liable for contributory infringement if the equipment is widely used for legitimate, unobjectionable purposes. *Id.*

75. *Id.* at 448-50.

76. *Id.* at 433.

77. *Id.* at 444-46 (referring to the testimony of both John Kenaston, the manager of local educational station, and Fred Rogers, the owner and producer of a popular program carried on public television stations).

78. 17 U.S.C. § 107 (2000).

79. *Sony*, 464 U.S. at 449.

80. *Id.* at 451.

81. *Id.* at 456.

82. *MGM Studios, Inc. v. Grokster*, 545 U.S. 913, 919-20 (2005). A series of litigation between A&M Records and Napster, which represented the first generation of P2P file-sharing networks, resulted in two reported appellate opinions in the Ninth Circuit. In 2001, the Ninth Circuit held that the record company plaintiff was entitled to the preliminary injunction, but the scope of injunction was overbroad. *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1027-29 (9th Cir. 2001). The following year, the Ninth Circuit affirmed

In this unanimous opinion, the Justices agreed that the distributor of a dual-use technology may be liable for the infringing activities of third parties where he or she actively seeks to advance the infringement.<sup>83</sup> On the issue of contributory and vicarious infringements, the Court held that one who intentionally induces or encourages direct infringement would have contributory liability, and vicariously infringes if he or she profits from direct infringement, while declining to exercise a right to stop or limit access.<sup>84</sup> The Court noted that in *Sony*, because there was no evidence of stated or indicated intent to promote infringing uses, the only conceivable basis for imposing liability was on a theory of contributory infringement arising from its sale of video cassette recorders to consumers with knowledge that some would use them to infringe others' copyrights.<sup>85</sup> After looking at patent law's traditional staple article of commerce doctrine, however, the Court indicated that the theory of imputing intent would only work if the instrumentality of the article is good for nothing other than infringement.<sup>86</sup>

The Court criticized the Ninth Circuit's interpretation of *Sony*, pointing out that *Sony* barred secondary liability based on presuming or imputing intent to cause infringement solely from the design or distribution of a product capable of substantial lawful use, which the distributor knows is in fact used for infringement.<sup>87</sup> The Court then noted that nothing in *Sony* requires lower courts to ignore other evidence of intent if such evidence exists, and *Sony* did not mean to foreclose rules of fault-based liability derived from the common law.<sup>88</sup> This time, the *Grokster* Court borrowed the rule on inducement of infringement, which is codified in patent law,<sup>89</sup> just as the *Sony* Court borrowed the staple article of commerce doctrine from patent law. In the end, the Court announced that anyone distributing 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 [will be] liable for the resulting acts of infringement by third parties."<sup>90</sup>

By applying the rule of inducement for infringement, the Court noted that there were three factors in the evidence developed below that indicated unlawful intent by *Grokster* and *StreamCast*.<sup>91</sup> First, both companies were aiming to satisfy the need of former Napster users, a known source of demand for copyright infringement.<sup>92</sup> Second, MGM showed that neither company attempted to develop filtering tools or other mechanisms to diminish the

---

the district court's modified preliminary injunction against Napster. *A&M Records, Inc. v. Napster, Inc.*, 284 F.3d 1091, 1099 (9th Cir. 2002).

83. *Grokster*, 545 U.S. at 949 (Breyer J., concurring).

84. *Id.* at 929-30.

85. *Id.* at 931-32.

86. *Id.* at 932.

87. *Id.* at 934.

88. *Id.* at 934-35.

89. *Id.* at 936, n.11. For further discussion of the doctrine of inducement, see 5 DONALD S. CHISUM, CHISUM ON PATENTS §17.01 (2004).

90. *Grokster*, 545 U.S. at 936-37.

91. *Id.* at 939.

92. *Id.*

infringing activity.<sup>93</sup> Third, StreamCast and Grokster made money by selling advertising space, directing ads to the screens of computers running their software clients.<sup>94</sup> The Court argued that because larger advertisement revenue comes from the wider use of their software, which consists of infringing activities, this evidence would justify an inference of unlawful intent in the current context.<sup>95</sup> Ultimately, the Court concluded that the unlawful objective was “unmistakable” and reversed the summary judgment in favor of Grokster and StreamCast.<sup>96</sup>

### 3. *The Difference Between the Two Grokster Concurring Opinions*

The *Grokster* plurality opinion did not reach the *Sony* issue or whether the Grokster product is “capable of ‘substantial’ or ‘commercially significant’ non-infringing uses.”<sup>97</sup> However, two concurring opinions, authored by Justice Ginsburg and Justice Breyer respectively, demonstrated the potential disagreement on what constitutes “substantial or commercially significant” non-infringing uses, or even the bigger question of whether the *Sony* standard should be strictly interpreted or modified.<sup>98</sup>

The Ginsburg and Breyer concurrences diverge on two fundamental issues. First, what constitutes “substantial or commercially significant” non-infringing uses? Justice Ginsburg believed that even if the absolute number of non-infringing files copied using the Grokster and StreamCast software is large, that does not mean that the software is put to substantial non-infringing use, rendering Grokster/StreamCast not liable, because “the number of non-infringing copies may be reflective of, and dwarfed by, the huge total volume of files shared.”<sup>99</sup> Justice Breyer disagreed by pointing out that in *Sony*, only 9% of the actual taping by Sony VTR users was referred to as authorized by the *Sony* Court.<sup>100</sup>

Second, would Grokster and StreamCast have satisfied the burden of proof under the *Sony* standard? Justice Ginsburg noted that, “in finding the . . . software products capable of substantial non-infringing uses, the District Court and the Court of Appeals” apparently have relied heavily upon declarations submitted by Grokster and StreamCast.<sup>101</sup> Justice Ginsburg then criticized the quality of these declarations and concluded that “[t]hese declarations [did] not support summary judgment in the face of evidence, proffered by MGM, of overwhelming use of [the software products] for infringement.”<sup>102</sup> On the

---

93. *Id.*

94. *Id.* at 939-40.

95. *Id.*

96. *Id.* at 940.

97. *Id.* at 949 (Breyer, J., concurring) (quoting *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 (1984)).

98. *Id.* at 956 (Breyer, J., concurring).

99. *Id.* at 948 (Ginsburg, J., concurring).

100. *Id.* at 950-51 (Breyer, J., concurring).

101. *Id.* at 945 (Ginsburg, J., concurring).

102. *Id.* at 947. Justice Ginsburg described the content of these declarations as containing “mostly anecdotal evidence, sometimes obtained secondhand, of authorized copyrighted works or public domain works

other hand, Justice Breyer suggested the evidence before the Court demonstrated that Grokster passed the *Sony* test on the issue of “whether the company’s product [was] capable of substantial or commercially significant non-infringing uses.”<sup>103</sup> Justice Breyer also emphasized the potential growth of non-infringing uses among Grokster users.<sup>104</sup>

Even though the plurality opinion did not reach the *Sony* question, Justice Breyer went to some length to advocate preservation of the current *Sony* rule and its application. According to Justice Breyer, the *Sony* rule has four benefits: (1) the clarity of the rule “allows those who develop new products that are capable of substantial non-infringing uses to know, *ex ante*, that distribution of their product will not [cause] massive monetary liability[;]”<sup>105</sup> (2) the *Sony* rule is strongly protective of technology because it was deliberately designed to “[make] it difficult for courts to find secondary liability” when new technological products emerge;<sup>106</sup> (3) the *Sony* rule is forward-looking because the word “capable” indicates a plausible likelihood that non-infringing uses will be found over time;<sup>107</sup> and (4) the *Sony* rule would save judges from deciding difficult questions of technical details and business prospects.<sup>108</sup> Justice Breyer also argued that a heightened burden of proof under the *Sony* rule makes it harder for potential defendants to earn *Sony*’s shelter, and the additional risk and uncertainty as to how a court would evaluate evidence would mean additional chilling of technological development.<sup>109</sup>

### B. Other Exemptions under Copyright Law

17 U.S.C. § 110(5)(A)(ii) has an exemption for communication of a transmission by the public reception, but that is not applicable if “the transmission thus received is further transmitted to the public.”<sup>110</sup> The purpose of this exemption was to shield owners of restaurants and bars from copyright infringement liability when they turn on the television or radio at their business premises and let the patrons receive the content of the transmitted programs.<sup>111</sup>

When Congress amended the Copyright Act in 1976, it added section 111 in order to address the problem of compensation between cable systems and broadcast stations.<sup>112</sup> Pursuant to two decisions made by the Supreme Court in 1968 and 1974 respectively,<sup>113</sup> the cable television industry has not been

---

available online and shared through [P2P] networks, and general statements about the benefits of peer-to-peer technology.” *Id.* at 946.

103. *Id.* at 952 (Breyer, J., concurring).

104. *Id.* at 955.

105. *Id.* at 957.

106. *Id.*

107. *Id.* at 958.

108. *Id.*

109. *Id.* at 958.

110. 17 U.S.C. § 110(5)(A)(ii) (2000).

111. H.R. REP. NO. 94-1476, at 86-87 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5701.

112. *Id.*

113. *Teleprompter Corp. v. Columbia Broad. Sys., Inc.*, 415 U.S. 394, 412-15 (1974); *Fortnightly Corp.*

required to pay copyright royalties for its retransmission of over-the-air broadcast signals.<sup>114</sup> Believing that it would be burdensome and impracticable for every cable system to negotiate with every copyright owner whose work was transmitted by a cable system, Congress decided to set up a complex and detailed scheme of compulsory copyright license for the retransmission.<sup>115</sup>

Section 111 carves an exemption from copyright infringement liability for certain secondary transmissions from liabilities of copyright infringement.<sup>116</sup> Subsection (f) of section 111 defines “secondary transmission” as the further transmission simultaneously with the primary transmission, or non-simultaneously with the primary transmission, if by a cable system not located in the continental United States.<sup>117</sup> A “primary transmission” is defined as “a transmission made to the public by the transmitting facility whose signals are being received and further transmitted by the secondary transmission service.”<sup>118</sup> A “cable system” is defined as:

[A] facility . . . [which] receives signals transmitted or programs broadcast by one or more television broadcast stations licensed by the Federal Communication Commission, and makes secondary transmissions of such signals or programs by wires, cables, microwave, or other communications channels to subscribing members of the public who pay for such service.<sup>119</sup>

Section 111(b) also provides that if the primary transmission is intended for a particular group of the public and not the general public, then the exemption would still be unavailable, unless: (1) the primary transmission is made by a licensed broadcast station; (2) the secondary transmission is required by FCC regulations; and (3) the signal is not altered by the secondary transmitter.<sup>120</sup> If the secondary transmitter is a cable system, then it is subject to a detailed statutory licensing scheme provided in section 114(d).<sup>121</sup>

### C. Other Exemptions: Communication Law

Unauthorized interception of “communication by wire or radio” may sometimes be allowed under 47 U.S.C. § 605(b).<sup>122</sup> This section<sup>123</sup> had been

---

v. United Artists Television, Inc., 392 U.S. 390, 401-02 (1968); see discussion *infra* Part VI.A.

114. H.R. REP. NO. 94-1476, at 88.

115. *Id.*

116. 17 U.S.C. § 111(a) (2000).

117. *Id.* § 111(f).

118. *Id.*

119. *Id.*

120. *Id.* § 111(b).

121. *Id.* § 111(c)-(d).

122. 47 U.S.C. § 605(b) (2000).

123. The language of section 605(a) reads as follows:

Except as authorized by chapter 119, title 18, no person receiving, assisting in receiving, transmitting, or assisting in transmitting, any interstate or foreign communication by wire or radio shall divulge or publish the existence, contents, substance, purport, effect, or meaning thereof . . . . No person not being entitled thereto shall receive or assist in receiving any interstate or foreign communication by radio and use such communication (or any information therein contained) for his own benefit or for the benefit of another not entitled thereto.

used by a group of bar owners in St. Louis to challenge the NFL blackout policy, but the result was not successful.<sup>124</sup> In addition, 47 U.S.C. § 553(a) prohibits unauthorized interception, receipt, or assistance in intercepting or receiving services.<sup>125</sup> Congress intended that section 553(a)(2) be “primarily aimed at preventing the manufacture and distribution of so-called ‘black boxes’ and other unauthorized converters which permit reception of cable service without paying for the service.”<sup>126</sup> The drafters of section 553 did not intend for it to “be used as a bar to the development of competition for equipment used in the reception of services by subscribers of a cable system.”<sup>127</sup> Therefore, the legislative intent behind section 553(a) is in accord with the purposes and goals of the codified fair use doctrine in the Copyright Act and the *Sony* rule, which attempts to balance the interests of content providers and copyright owners with the interests of inventors of new technologies.

#### IV. THE GENERAL IMPLICATION OF P2PTV SOFTWARE IN THE UNITED STATES

##### A. *The Legality of P2PTV Software in Light of Sony and Grokster*

This section will discuss the legality of P2PTV software after *Sony* and *Grokster* focusing on problems of secondary copyright infringement liability and the problems of fair use.

##### 1. *The Problem of Secondary Copyright Infringement Liabilities*

The legality of P2PTV software under copyright law in the United States, if viewed in light of *Sony* and *Grokster*, depends upon two factors: first, whether the software producer intended or encouraged the users to use the

---

*Id.* § 605(a). Exceptions in section 605(b) read:

The provisions of [§ 605(a)] shall not apply to the interception or receipt by any individual . . . of any satellite cable programming for private viewing if –

- (1) the programming involved is not encrypted; and
- (2)(A) a marketing system is not established under which –
  - (i) an agent or agents have been lawfully designated for the purpose of authorizing private viewing by individuals, and
  - (ii) such authorization is available to the individual involved from the appropriate agent or agents; or
- (B) a marketing system described in subparagraph (A) is established and the individuals receiving such programming has obtained authorization for private viewing under that system.

*Id.* § 605(b).

124. *Nat’l Football League v. Cousin Hugo’s, Inc.*, 600 F. Supp. 84, 87 (E.D. Mo. 1984). The court held that the NFL and its teams established likelihood of success on a claim of copyright infringement, and temporarily enjoined bar owners in the St. Louis area from intercepting the satellite or any other transmission of a live telecast of a particular football game. *Id.*; see *Nat’l Football League v. Alley, Inc.*, 624 F. Supp. 6, 9-10 (S.D. Fla. 1983) (finding that the NFL and member clubs demonstrated irreparable injury and were entitled to permanent injunction enjoining owners of public restaurants and lounges from intercepting and divulging private satellite transmissions of live football games, including blacked-out games).

125. 47 U.S.C. § 553(a) (2000).

126. H.R. REP. NO. 98-934, at 84 (1984), as reprinted in 1984 U.S.C.C.A.N. 4655, 4721.

127. *Id.* at 83-84.

software for the purpose of copyright infringement, as may be demonstrated from the language of advertisement, among other things; and second, if the answer to the first inquiry is “no,” then whether the software is capable of substantial non-infringing uses.<sup>128</sup> Some of the P2PTV software may survive this two-prong inquiry if it was created by a non-profit organization or a technical team proclaiming not-for-profit status, if it did not put up advertisements soliciting potentially copyright infringing use, or if its main appeal was to encourage users to produce their own materials for Internet broadcast as an alternative to the mainstream media systems for the public to voice their opinions.

The legality of programs like PPStream or PPLive is less certain. Michael Cowpland’s ZIM Corporation, after forging a partnership with PPLive, reached a deal with Ottawa-based Cinerio Entertainment to distribute Cinerio’s children’s animation and children’s learning products over PPLive’s peer-to-peer Internet television platform, suggesting that PPLive is now making a good faith attempt to distribute television programs legally.<sup>129</sup> Also, PPStream recently announced that it will cooperate with ESPNStar—a major Asian sports channel created by the joint venture between ABC/ESPN—and Rupert Murdoch’s News Group to broadcast live European soccer games on PPStream network.<sup>130</sup>

Furthermore, the official Web sites of PPLive and PPStream list broadband service providers, some Chinese cable channels, and production companies like the aforementioned ZIM Corporation as “official co-operation partners.”<sup>131</sup> Some movies and video feeds available on these software products were said to be provided by these “official co-operation partners,”<sup>132</sup> suggesting that PPLive and PPStream actually carry a greater portion of lawful content than the threshold suggested by Justice Breyer in his *Grokster* concurrence.

## 2. *The Problem of Fair Use*

It is difficult to perceive how P2PTV could cause *any* negative effect upon traditional over-the-air broadcasters like ABC, CBS, NBC and FOX. The major income source of these channels is advertising revenue.<sup>133</sup> If someone chooses to view these channels on P2PTV software like PPLive or TVUplayer, it only represents a shift from one form of receiver (television set

---

128. *MGM Studios, Inc., v. Grokster, Ltd.*, 545 U.S. 913, 940-41 (2005); *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 (1984).

129. *ZIM Adds Children’s Content to P2P TV Platform*, OTTAWA BUS. J., Sep.14, 2006, <http://www.ottawabusinessjournal.com/287032786838765.php>.

130. PPStream, UEFA Championships, [http://club.ppstream.com/diss/zt/euro2006\\_index.html](http://club.ppstream.com/diss/zt/euro2006_index.html) (last visited Nov. 20, 2007) (webpage in simplified Chinese). This announcement also indicates the possibility of reaching a win-win solution among all relevant parties.

131. PPStream Homepage, *supra* note 31; The Official Website of PPLive, <http://www.pplive.com/zh-cn/index.html> (last visited Nov. 20, 2007) [hereinafter PPLive Homepage].

132. PPStream Homepage, *supra* note 31; PPLive Homepage, *supra* note 131.

133. *Television in the United States*, WIKIPEDIA: THE FREE ENCYCLOPEDIA, (Nov. 18, 2007), [http://en.wikipedia.org/wiki/Television\\_in\\_the\\_United\\_States](http://en.wikipedia.org/wiki/Television_in_the_United_States).

with antenna) to another form (computer with Internet access). P2PTV would even permit overseas viewers to watch programs that may not be available on local television services, increasing the viewer base and hence the advertising revenue. If this is true, then perhaps over-the-air broadcasters should pay the P2PTV re-transmitters for increasing the accessibility.

A viewer may have cable subscription service at home but still be unable to view some of the desired programs because he or she is not at home. In years past, the VTR permitted “time-shifting” which was held to be a type of fair use in *Sony*. Now with the increasing availability of wireless Internet access, the viewer can achieve “space-shifting.”<sup>134</sup> The viewer can now watch the program he or she would have intended to watch on a different form of media. A corollary to this proposition would be that this viewer may be liable for copyright infringement only she is using the P2PTV software to view programs without permission, provided that a market system of the contents/services was available by subscription. However, as the holdings of *Sony* and *Grokster* suggest, the fact that some viewers are engaging in infringing uses does not render the manufacturers secondarily liable.

### B. Treating P2PTV as a Secondary Transmitter?

What if P2PTV software could be treated as a kind of secondary transmitter pursuant to 17 U.S.C. § 111? The statute was written almost thirty years ago and focused on the “brick-and-mortar” cable television system, but the language provided that “any carrier” who has no control or selection over the content of primary transmission, or over the particular recipients of the secondary transmission, and only provides tools for the use of others, is exempt from copyright infringement.<sup>135</sup> Depending upon the different interfaces of P2PTV software, it is not improbable for manufacturers of such software products to claim this statutory safe harbor. In the “sharing live feeds” model, such as PPLive or PPStream, most video feeds come from individual users who use television receivers attached to their computers to transform the television signal into a digital stream and then broadcast the stream to other users.<sup>136</sup> In this sense, PPLive and PPStream software clients are merely a passive conduit and can arguably be free from secondary infringement liabilities (assuming the *Grokster* inducement rule is not invoked). The purpose of exempting passive carriers would operate in a

---

134. The concept of “space-shifting” was raised by the defendant MP3.com in *UMG Recordings, Inc. v. MP3.Com, Inc.*, 92 F. Supp. 2d 349, 351 (S.D.N.Y. 2000), but the defense was rejected by the court because the copy on the defendant’s server was an unauthorized derivative work. However, despite the unfavorable treatment of the courts, it can still be argued that “space-shifting” can be used as a defense for the users—contrasted with manufacturers—of these new services and products. *In re Aimster Copyright Litig.*, 334 F.3d 643, 652-53 (7th Cir. 2003) (rejecting a time-shifting argument under the circumstances, but listing instances where fair use or time-shifting arguments may be successful).

135. 17 U.S.C. § 111(a)(3) (2000).

136. Jessica Wong, *Analysys International Says Clean Business Model of China’s P2P Streaming Market Will Take Shape in Two Years*, PR NEWswire, Jan. 19, 2006, [http://www.pnnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/01-19-2006/0004263420&EDATE=.](http://www.pnnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/01-19-2006/0004263420&EDATE=)

similar fashion under the *Sony-Grokster* analysis because of the underlying principle of balancing the interests between copyright owners and inventors.

In contrast, for so-called “Internet TV” models like TVUplayer, where some big-name channels are constantly available, it is not always clear who is continuously relaying the content of these channels. Assuming that somebody in TVU Network Corporation was relaying these contents, TVU would then be liable for copyright infringements because it did so without prior permission.<sup>137</sup> Beyond that it is difficult to judge without more evidence that can only be discovered in a full trial.

### C. Striking the Right Balance

In some respects, a copyright has never been treated like tangible property; what copyright holders have enjoyed under the law is more closely analogous to “contract rule” than “property rule.”<sup>138</sup> For example, the duration of a copyright is limited and does not last forever.<sup>139</sup> Also, the existence of the fair use exemption allows people to take limited portions of others’ copyrighted works for some qualified uses without prior permission.<sup>140</sup> There are also compulsory licenses in radio broadcasts and cable television systems.<sup>141</sup> This was purposefully designed to address the tension between the public interest in increasing the storehouse of knowledge and the author’s interest in obtaining compensation to secure pecuniary returns for his efforts.<sup>142</sup>

In the final part of his concurring opinion in *Grokster*, Justice Breyer discussed the difficult question of balancing between the gain of a positive copyright impact and any technology-related loss.<sup>143</sup> Justice Breyer suggested that, as *Sony* demonstrated, the law leans in favor of protecting technology, and the evidence currently available does not make a sufficiently strong case for change.<sup>144</sup> Based on some scholarly writings, he suggested that the music industry’s loss of revenue is not substantial, and technological advances also help to curb unlawful infringement, as well as making cheaper lawful copying available to the public.<sup>145</sup>

---

137. Currently, major American sports channels like ESPN, ESPN2, and NBA TV have been removed from the channel list of the TVUplayer software. *TVUnetworks*, WIKIPEDIA, *supra* note 5. It is likely that TVU Network Corporation received written notices from these channels, because TVU Network Corporation has an obligation under 17 U.S.C. § 512(c) (2000) to remove allegedly infringing content after receiving written notice from the copyright owners.

138. See FISHER, *supra* note 17, at 8-9 (noting that, historically, copyright has not been treated as tangible property in spite of claims to the contrary made by record companies).

139. See 17 U.S.C. § 302 (2000) (noting that a copyright is not an infinite monopoly).

140. See *id.* § 107 (illustrating that a fair use exemption allows even copyrighted works to be utilized by someone other than the copyright-holder).

141. See *id.* § 111(d) (specifying the compulsory license rate of secondary transmissions by cable systems).

142. Alexander Peukert, *A Bipolar Copyright System for the Digital Network Environment*, 28 HASTINGS COMM. & ENT. L.J. 1, 3 (2005).

143. *MGM Studios, Inc., v. Grokster, Ltd.*, 545 U.S. 913, 960 (2004) (Breyer, J., concurring).

144. *Id.*

145. *Id.* at 961-62.

However, by looking at the origin of this wave of P2PTV services, one could postulate that current law is not as friendly to new technology as Justice Breyer believes. With the exception of Cybersky,<sup>146</sup> almost all of these P2PTV software products were created in China, a country notorious for intellectual property piracy in general and copyright piracy in particular.<sup>147</sup> The manufacturer of TVUplayer, TV Unlimited Networks Corporation (Shanghai), represents itself on its Chinese Web site as a wholly-owned Chinese subsidiary of its American parent, TV Unlimited Networks Corporation.<sup>148</sup> Assuming that this piece of information is true, it could mean that cases like *Napster* and *Grokster*—along with American media industry’s generally hostile attitude towards new Internet technology and the risk of expensive litigation—could begin to drive innovators and venture capitalists out of the United States.<sup>149</sup> The “conservative” technology employed by the Democracy Player, and the fact that its creator, Participatory Culture Foundation is a tax-exempt organization,<sup>150</sup> further demonstrate the point that new technological innovations are at the brink of being deterred by excessive protection granted to copyright holders.

From the perspective of federal antitrust and communication laws, it has been difficult to challenge professional sports leagues’ decisions to blackout local television broadcasts.<sup>151</sup> If the local fans want to use P2PTV software to avoid such blackouts by receiving live feeds from out-of-territory viewers who transform the cable/satellite signal into streaming video over the Internet, then these local fans—as well as the out-of-territory fans—will face sanctions of copyright law and communication law unless they can characterize their conduct as fitting into a legal exemption. Commentators and courts alike have pointed out that the statutory exemption for television blackouts was the result of special interest legislation,<sup>152</sup> and empirical analysis suggests that the

---

146. Cybersky, a German product, also found itself hampered by litigation. A German district court in Hamburg lifted the temporary injunction against Cybersky-TV in June of 2006, and Guido Ciburski was permitted to distribute programming starting Sept. 1, 2006. *Cybersky-TV Kommt Trotz Verbot auf den Markt, Premiere Hat Nicht Bezahlt*, VOIP-INFO.DE, Aug. 18, 2006, [http://www.voipinfo.de/news/newsartikel\\_1889.php](http://www.voipinfo.de/news/newsartikel_1889.php).

147. The Office of the U.S. Trade Representative reported that “inadequate IPR enforcement is resulting in infringement levels at 90 percent or above for virtually every form of intellectual property . . . .” OFFICE OF THE U.S. TRADE REPRESENTATIVE, 2005 SPECIAL 301 REPORT, at 16 (2005), [http://www.ustr.gov/assets/Document\\_Library/Reports\\_Publications/2005/2005\\_Special\\_301/asset\\_upload\\_file195\\_7636.pdf](http://www.ustr.gov/assets/Document_Library/Reports_Publications/2005/2005_Special_301/asset_upload_file195_7636.pdf).

148. TVU Networks, Corporate Profile, <http://pages.tvunetworks.com/cn/about/index.html> (last visited Nov. 20, 2007).

149. Some commentators have warned of the possibility of deterring technological innovations. See, e.g., Mark A. Lemley & R. Anthony Reese, *Reducing Digital Copyright Infringement Without Restricting Innovation*, 56 STAN. L. REV. 1345, 1388-89 (2004) (arguing that new technologies are much more vulnerable to legal challenge because the ultimate value may not yet be clear to society).

150. Participatory Culture Foundation, *supra* note 34.

151. See *Nat’l Football League v. Cousin Hugo’s Inc.*, 600 F. Supp. 84, 87 (E.D. Mo. 1984) (granting the National Football League a temporary restraining order preventing a bar owner from intercepting transmission of blacked out football telecasts).

152. See *Chi. Prof’l Sports Ltd. P’ship v. Nat’l Basketball Ass’n*, 961 F.2d 667, 671 (7th Cir. 1992) (limiting the scope of the special interest legislation to the lobbyists’ objective); see also Bradley W. Crandall, Note, *The DirecTV NFL Sunday Ticket: An Economic Plea for Antitrust Law Immunity*, 79 WASH. U. L.Q.

benefit gained by a particular team from blackouts may be outweighed by the loss utilities of local fans.<sup>153</sup>

## V. COPYRIGHT LAW IN CHINA: A BRIEF GLANCE

The U.S. sports and entertainment industries may find themselves needing to challenge the legality of P2PTV software in China because China is the origin of these software products, but it is not very clear whether PPStream or PPLive could be held for contributory or vicarious infringements under Chinese copyright law.

### A. *The Scope of Fair Use under Chinese Copyright Law*

The current version of the Copyright Law in China, as amended in 2001 to comply with international treaties, gives more latitude in the scope of fair use.<sup>154</sup> On top of the permissible fair uses listed in Article 22 of the Chinese copyright law allows for the “use of a published work for the purposes of the user’s own private study, research or self-entertainment.”<sup>155</sup> There are another eleven different and specific circumstances in which a work can be exploited without permission from—and without payment of remuneration to—the copyright owner, and as a matter of statutory interpretation, the specificity of other circumstances makes the first paragraph of “private study, research or self-entertainment” look like a fall-back and catch-all provision.<sup>156</sup> Other

---

287, 313 (2001) (discussing the NFL Commissioner Pete Rozelle’s testimony before Congress in support of the legislation).

153. See generally James J. Zhang et al., *Relationship Between Broadcasting Media and Minor League Hockey Game Attendance*, 12 J. SPORT MGMT. 103 (1998) (indicating that broadcasting in various forms is positively related to game attendance).

154. Article 22 of the Chinese Copyright Law defines circumstances in which “a work may be exploited without permission from, and without payment of remuneration to, the copyright owner” upon the condition that the copyright owner’s moral rights be respected, and plays similar roles to the codified fair use doctrine in America. Compare 17 U.S.C. § 107 (2000) (fair use provisions), with SIPO English, Copyright Law of the People’s Republic of China, art. 22 (Apr. 16, 2002), [http://www.sipo.gov.cn/sipo\\_English/laws/relatedlaws/200204/t20020416\\_34754.htm](http://www.sipo.gov.cn/sipo_English/laws/relatedlaws/200204/t20020416_34754.htm) [hereinafter Copyright Law of China] (listing when a work may be exploited without permission and payment).

155. Copyright Law of China, *supra* note 154.

156. Circumstances two through twelve are:

(2) appropriate quotation from a published work in one’s own work for the purposes of introduction to, or comments on, a work, or demonstration of a point; (3) reuse or citation, for any unavoidable reason, of a published work in newspapers, periodicals, at radio stations, television stations or any other media for the purpose of reporting current events; (4) reprinting by newspapers or periodicals, or rebroadcasting by radio stations, television stations, or any other media, of articles on current issues relating to politics, economics or religion published by other newspapers, periodicals, or broadcast by other radio stations, television stations or any other media except where the author has declared that the reprinting and rebroadcasting is not permitted; (5) publication in newspapers or periodicals, or broadcasting by radio stations, television stations or any other media, of a speech delivered at a public gathering, except where the author has declared that the publication or broadcasting is not permitted; (6) translation, or reproduction in a small quantity of copies, of a published work for use by teachers or scientific researchers, in classroom teaching or scientific research, provided that the translation or reproduction shall not be published or distributed; (7) use of a published work, within proper scope, by a State organ for the purpose of fulfilling its official duties; (8) reproduction of a work in its collections by a library, archive, memorial hall, museum, art gallery or any similar institution, for the purposes of the display, or preservation of a copy, of the work; (9) free-of-charge live performance of a published

official publications like *Implementing Regulations of the Copyright Law of the People's Republic of China*,<sup>157</sup> issued by then-Prime Minister Zhu Rongji, and *The Interpretations of the Supreme People's Court Concerning Several Issues on Application of Law in Hearing Correctly the Civil Copyright Case*<sup>158</sup> issued by the Supreme People's Court do not elaborate on the permissible scope of personal use of "private study, research or entertainment." Because of the limited availability of adjudicated cases, it is difficult to predict how the Chinese judiciary would rule on the issue of fair use with respect to the users of PPStream, PPLive and TVUplayer. In practice, courts in China might even refer to the rules and applications in the *Sony* decision to determine the proper scope of personal use for "private study, research or entertainment."

### B. Broadcasting by Radio or Television Stations

Article 44 of the Chinese Copyright Law gives a radio or television station the right to prohibit without authorization a rebroadcast of its originally broadcasted material.<sup>159</sup> Article 42 also provides that a radio or television station which broadcasts a published work created by another person is only required to pay a compulsory license fee without obtaining prior permission.<sup>160</sup> As a domestic matter, television stations can stop individual users and software companies like PPStream and TVUplayer from rebroadcasting on the Internet if such rebroadcasts do not fall within the scope of Article 22 fair use provisions. It remains to be seen whether PPStream and TVUplayer can make a straight-faced argument that they can be characterized as radio or television stations. If that argument was accepted, PPStream and TVUplayer, would only have had to pay compulsory license fees.

## VI. RECOMMENDATION

Users' ability to access paid content for free via P2PTV presents a set of challenges to license-holders. This section will argue that a compulsory license scheme in combination with a global clearinghouse for payments to license holders will provide tangible benefits for all parties.

---

work and said performance neither collects any fees from the members of the public nor pays remuneration to the performers; (10) copying, drawing, photographing or video recording of an artistic work located or on display in an outdoor public place; (11) translation of a published work of a Chinese citizen, legal entity or any other organization from the Han language into any minority nationality language for publication and distribution within the country; and (12) transliteration of a published work into Braille and publication of the work so transliterated.

*Id.*

157. Implementing Regulations of the Copyright Law of the People's Republic of China, <http://www.chinaiprlaw.com/english/laws/laws13.htm> (last visited Nov. 20, 2007).

158. The Interpretation of the Supreme People's Court Concerning Several Issues on Application of Law in Hearing Correctly the Civil Copyright Case, <http://www.chinaiprlaw.com/english/laws/laws14.htm> (last visited Nov. 20, 2007).

159. Copyright Law of China, *supra* note 154, art. 44.

160. *Id.* art. 42.

A. *Compulsory License or Compulsory Negotiation?*

Professor Lawrence Lessig provided an interesting historical account on the notion of “piracy,” stating that, “[i]f ‘piracy’ means using the creative property of others without their permission . . . then the history of the content industry is a history of piracy. Every important sector of ‘big media’ today—film, records, radio, and cable television—was born of a kind of piracy so defined.”<sup>161</sup> In 1948, when cable television enterprises were first starting up, most companies refused to pay broadcasters for the content that they retransmitted to their customers.<sup>162</sup> Not surprisingly, broadcasters and copyright holders, as well as some legislators, fiercely criticized the cable companies’ acts of piracy.<sup>163</sup> The copyright owners sued the cable companies twice, and both times the Supreme Court held that the copyright owners were not entitled to a remedy.<sup>164</sup> In the case of radio stations, when a radio station plays the recording of a particular song, the current law only requires the station to pay the composer of the song but not the recording artist.<sup>165</sup> This illustrates that the current copyright and media law does not always follow the logic of if-right-then-value, permitting radio stations to get something for nothing.<sup>166</sup>

The favorable holdings to cable television operators in *Fortnightly* and *Teleprompter Corp.* caused Congress to rewrite the statutory rules on secondary transmissions in the 1976 Copyright Act.<sup>167</sup> The Act basically requires cable systems that carry secondary transmissions of a performance embedded in a primary transmission made by a broadcast station be subject to statutory licenses,<sup>168</sup> and prescribes details as to how royalties would be distributed among the relevant parties.<sup>169</sup>

Pirated pay-TV outside the United States—for example, viewers in China watching channels like MTV, ESPN, or TNT, that are only available through U.S. domestic cable/satellite services—should only be an economic concern for media companies like MTV or ESPN, since these companies experience increased difficulty in promoting their programming on local cable operation services and other traditional, legal methods of distribution.

However, the major difference between P2PTV technology and traditional cable/satellite services is that P2PTV is not limited by geographic conditions. P2PTV is able to pool fragmented audiences with a specialized viewing interest scattered throughout the world to achieve the minimum

---

161. LAWRENCE LESSIG, *FREE CULTURE: HOW BIG MEDIA USES TECHNOLOGY AND THE LAW TO LOCK DOWN CULTURE AND CONTROL CREATIVITY* 53 (2004).

162. *Id.* at 59.

163. *Id.* at 60.

164. *Teleprompter Corp. v. Columbia Broad. Sys., Inc.*, 415 U.S. 394, 412-15 (1974); *Fortnightly Corp. v. United Artists Television, Inc.*, 392 U.S. 390, 401-02 (1968); LESSIG, *supra* note 161, at 61.

165. 17 U.S.C. § 110(5)(B) (2000); LESSIG, *supra* note 161, at 58-59.

166. LESSIG, *supra* note 161, at 53, 58-59.

167. 17 U.S.C. § 111(d) (providing a statutory license for secondary transmissions by cable systems).

168. *Id.* at § 111(c)(1).

169. *Id.* at § 111(d)(1)(B).

economic scale. Without this technology, the interest of these small groups of viewers would be neglected by local content providers. A compulsory license scheme similar to that under 17 U.S.C. § 111(c) would compel ESPN, MTV, or TNT to treat these P2PTV services as another legitimate platform for the dissemination of their content, resulting in win-win resolutions with P2PTV service providers. In light of the recently announced deal between PPLive.com and ZIM Corporation, this option may be practicable.

### *B. Global Clearing Mechanism*

The case of P2PTV is yet another example of the global reach of P2P services over the Internet, and it demonstrates the need of a global clearing mechanism for new service providers to engage in negotiations with copyright owners over the distribution of potential gains. These problems led one commentator to propose the formation of a Worldwide Internet Collecting Society ("WICS").<sup>170</sup> Traditionally, nation-based collecting societies operate under the principle of blanket licensing in which the user pays a flat fee which allows the user to access all of the works in the society's repertoire.<sup>171</sup> The use of blanket licenses stems from the potentially high transaction costs of correctly estimating the frequency with which the works are performed.<sup>172</sup> The distribution of royalties to copyright owners is based on sampling or self-reporting from the licensees.<sup>173</sup> To solve this problem, Alan R. Kabat proposed that WICS be housed and administered by the World Intellectual Property Organization.<sup>174</sup> The proposed WICS would provide a non-binding arbitration procedure to resolve disputes, a choice-of-law provision to facilitate litigation should the arbitration fail, and would authorize the World Trade Organization to impose trade sanctions.<sup>175</sup> The proposed WICS would also provide one-stop licensing for all possible uses of all copyrighted works, regulate the permissible amount of fair use, and monitor and meter the online uses of copyrighted works through technological measures.<sup>176</sup> The problem of measuring and metering the usage of copyrighted material over the Internet can be solved by new technology like deep packet inspection, which uses specialized high-speed hardware and software that can identify different network packets in real-time, allowing control over logical-layer applications based on ownership of the underlying physical infrastructure.<sup>177</sup>

Preserving the balance between protection of a copyright owner's interests and an individual's creative freedom is more difficult. Different types

---

170. Alan R. Kabat, *Proposal for a Worldwide Internet Collecting Society: Mark Twain and Samuel Johnson Licenses*, 45 J. COPYRIGHT SOC'Y U.S. 329, 330 (1998).

171. *Id.* at 331.

172. *Id.* at 331-33.

173. *Id.* at 333.

174. *Id.* at 341.

175. *Id.* at 341-42.

176. *Id.* at 342-49.

177. See Werbach, *supra* note 11, at 92-93 (noting that deep packet inspection overcomes the limitations of measuring and metering the use of copyrighted materials on the Internet).

of tax/levy systems have been suggested, the most famous of which is the noncommercial use levy (“NUL”) proposed by Professor Netanel.<sup>178</sup> The basic idea is that individual users would enjoy the legal privilege to use P2P file-sharing services for exchanging and using certain types of digitalized copyrighted material for non-commercial purposes,<sup>179</sup> and the NUL would be imposed upon commercial providers of all consumer products and services whose value is substantially enhanced by P2P file sharing.<sup>180</sup> Other proposals would utilize a tax scheme or a compulsory license.<sup>181</sup> However, as one commentator pointed out, NUL and other similar compulsory license schemes are not panacea—wide-spread use of tax/levy system like NUL might be in conflict with international copyright conventions like the World Intellectual Property Treaty (“WIPO Treaty”), the Agreement on Trade Related Aspects of Intellectual Property Rights (“TRIPS Agreement”), and the Berne Convention, which suggest the tax/levy system should be limited or, in exceptional cases, not utilized at all.<sup>182</sup> This conflict may be a major constraint before any such scheme can be incorporated into a global clearing mechanism like the aforementioned WICS.

A detailed description of the operation of any global clearing mechanism is beyond the scope of this Note. One thing can be certain: international collaborations will become more important in the area of copyright law and telecommunication law, and the role of Internet service providers will be more critical than ever before.

### C. *Spontaneous Resolution?*

Is it possible for all the relevant parties—P2PTV service providers, professional sports leagues throughout the world and traditional broadcast, cable and satellite channels—to reach an all-win resolution without too much intervention from the law or excessive use of strategic litigation? Anecdotal evidence suggests that an all-win resolution is possible or even reachable in the near future.

First, there is an incentive for traditional television and radio broadcasters to take advantage of P2PTV service to develop a broader audience base that was previously unreachable because of the technical limitation of over-the-air transmission. All these broadcasters need to do is send the digitalized signal through the broadcast client program provided by the P2PTV businesses.

---

178. See Neil Weinstock Netanel, *Impose a Noncommercial Use Levy to Allow Free Peer-to-Peer File Sharing*, 17 HARV. J.L. & TECH. 1, 35-44 (2003) (discussing noncommercial privileges such as copying, distribution, streaming, derivative creations, excluded content, and imposition of the NUL).

179. *Id.* at 37-40.

180. *Id.* at 43.

181. See FISHER, *supra* note 17, at 9 (suggesting that the government should compensate copyright owners through a tax imposed on devices and services that consumers use to access digital entertainment); see also LESSIG, *supra* note 161, at 254-55 (arguing that file sharing should be empowered by recognizing a similar system of compulsory licenses as in the case of cable retransmission, and the fee should be set by a policy maker).

182. See Peukert, *supra* note 142, at 32-35 (discussing the notion that a levy cannot cure a conflict with normal exploitation, even if it compensates the holder’s losses).

Second, for professional sports leagues throughout the world, P2PTV gives them an opportunity to promote their product to new audiences overseas. Because there is an ultimate upper limit for gate receipts generated by actual attendance, the new overseas audiences developed through P2PTV represent an untapped source of revenue for sports leagues. Finally, the expansion of traditional cable and satellite services is still subject to geographical limitations. The agony of cable and satellite operators over the phenomenon of pirated pay-TV can only be justified on the ground that some people within the service area of these operators may freely enjoy the content that would otherwise require a valid subscription.

But one should not forget that the *Sony* fair use rule and other telecommunication statutes ought to be interpreted in an innovation-friendly manner.<sup>183</sup> Maybe after all the litigation about P2P networks concerning copyright infringement liability, it is time for everybody to realize that innovation will not be easily deterred, and finding a cooperative and mutually beneficial resolution is a superior approach to legal confrontation.

## VII. CONCLUSION

P2PTV programs use a combination of P2P file-sharing technology and digital media streaming to achieve the goal of transmitting high quality digital audio-video in an instantaneous fashion. Sports fans throughout the world use P2PTV programs to watch games not being telecasted in their home territories. This pirated pay-TV may pose a threat to the ability of professional sports leagues to derive substantial revenue from television contracts, but it also presents new opportunities for leagues and broadcasters to reach a broader audience than ever before. After examining relevant copyright and telecommunication laws in the United States and China, it is clear that the balance of different interests should lean toward promotion of technological progress, as demonstrated by the *Sony* decision and the laws regulating secondary transmitters.

In light of the trend of growing globalization in the development of new dissemination technology and the transmission of copyrighted content, a global clearing mechanism incorporating a certain type of compulsory license consistent with the current international copyright treaties like the TRIPS Agreement and the WIPO Treaty may be a viable long-term solution. By making good faith efforts to forge cooperative relationships, P2PTV manufacturers and content providers are giving viewers around the world hope that spontaneous all-win situations are not only possible, but highly probable.

---

183. See *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 456 (1984) (declining to apply “laws that have not yet been written” in the context of innovative technology).