



BITTORRENT¹

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1. INTRODUCTION

“And why are you complaining? Everything you get out of our network is free. You could always do the legal thing, and go buy the game, we suppose?”²

Striking a balance between incentive to create and public dissemination is crucial to the society. When the enacted laws fail to keep up with the technological advancements, the equilibrium is disturbed. Each new technology has inevitably provoked outcries from content owners. Such technologies include photocopiers, videocassette recorders (VCRs), digital tapes etc. Upon introduction to the public, each of these technologies faced and eventually triumphed over tremendous criticism, litigation, and proposed legislation. For instance, videotape recording technology was subject to suit and threatened abolition.³ Though unsuccessful in its attempts to outlaw VCRs, the entertainment industry ultimately embraced VCRs’ unique technological capabilities and created a \$ 250 billion VHS rental and sales market.⁴

The latest technological advancement that threatens the equilibrium between incentive to create and public dissemination is peer-to-peer⁵ networking. In short, this technology allows user across the world to share any type of file, irrespective of its size, without incurring any costs. NAPSTER first showed the world how to acquire music from millions of users free of charge. Today, programs such as BITTORRENT allow users to share virtually everything. As a consequence copyright infringement, or as it’s commonly known, *piracy*, is an epidemic running rampant across the world’s Internet networks. Every victory over Internet pirates is almost immediately followed by the development of new technologies that perpetuate the ability to illegally access copyrighted content without the consent or compensation of its owners.⁶ The seemingly endless growth of cyberspace and its trademark characteristic of user anonymity play a significant role in making Internet piracy such an

² Pirate Bay support e-mail to user.

³ **Sony Corp. of Am. v. Universal City Studios, Inc.**, 464 U.S. 420 (1984).

⁴ Damien A. Riehl, Comment, *Peer to Peer Distribution Systems: Will Napster, Gnutella, and Freenet Create a Copyright Nirvana or Gehenna?*, 27 WM. MITCHELL L. REV. 1761, 1762 (2001) Cited in Lisa J. Beyer Sims, *Mutiny On The Net: Ridding P2p Pirates Of Their Booty*, 52 EMORY L.J. 1907 2003.

⁵ Hereinafter P2P.

⁶ Annemarie Bridy, *Why Pirates (Still) Won’t Behave: Regulating P2p In The Decade After Napster*, 40 RUTGERS L.J. 565 2008-2009.



elusive enterprise. As the world increases its efforts to eliminate Internet piracy, pirates become more elusive in circumventing copyright laws and their enforcement.⁷

1.2 RESEARCH PLAN

1.2.1 Aims and Objectives

The Researcher through this study attempts to highlight the inadequacy of laws to balance P2P file sharing and interest of copyright holders. Further, the Researcher has discussed jurisdictional issues as it is one of the major hurdles in a world where laws are not harmonized. The consequences of such multiple-law regimes have also been noted. An important issue - the development of technology to circumvent the law is addressed by way of this paper. While, drawing from the development of law from the developed countries, suggestions have been made to strengthen the Indian system. A thorough review of scholarly literature is undertaken and major arguments made are addressed. An attempt has been made to chalk out best possible solution.

1.2.2 Scope and Limitations

The area of research is very broad. BITTORRENT encompasses almost 80% of the cyber problems. Therefore, this paper is restricted to the arguments proposed and the specific areas addressed below. While referring to cross jurisdictional issues stress is laid on US, Sweden and EU although around 10 jurisdictions are covered. More stress is laid on the impact on India. Further, chapter-wise scope and limitation are provided before each chapter.

⁷ Bernard A. Mantel, *The Google Police: How The Indictment Of The Pirate Bay Presents A New Solution To Internet Piracy*, 20 U. MIAMI BUS. L. REV. 77 2011.



2. BRIEF HISTORY

P2P systems are not that new of a technology, as companies and universities have been utilizing architectures for more than 40 years in what would today be labelled as peer-to-peer. In fact, the Internet was originally developed in the late 1960s to be a peer-to-peer system.⁸ However, when one thinks about file sharing over a P2P network, the name NAPSTER is the first thing that pops up. The NAPSTER software brought P2P and file sharing into the mainstream when the file-sharing blitz all began in June of 1999 by an eighteen-year-old college student, Shawn Fanning. It quickly amassed over eighty million registered users in just eighteen months of launch.⁹ It was no wonder that it took off like it did, all a person had to do was download the NAPSTER software, search for the file he or she wanted, and then watch his or her favourite songs filter down onto his or her machine. On this network, peers could communicate directly with other peers; there was no central server as in the typical “Client/Server” network model.¹⁰

It was a new frontier, completely lawless. A network user could get any song that he or she wanted without having to use the cover of night for protection while breaking into a music store. However, the party came crashing down. In the first major case to address the application of the copyright laws to file sharing over P2P networks, the Court ruled that NAPSTER could be held liable for contributory infringement of the copyrights held by the recording industry.¹¹ On remand, the court ordered Napster to monitor the activities of its network and to block access to infringing works when notified of the location of the works. It was unable to completely comply with the order and remained shut down until its pay service was up and running. However, that was not the end of the free-spirited ways of P2P networks as several other very popular equals popped up, such as AMISTER, GROKSTER, SCOUR, AUDIOGALAXY, GROKSTER, KAZAA, LIMEWIRE, and the ever increasing BITTORRENT technology.

⁸ Andrew James McGarrow, *The “Making Available” Theory And The Future Of P2p Networks: Does Merely Making Files Available For Further Distribution Constitute Copyright Infringement, And Is It Time For Congress To Act In Accordance With This Technology?*, 88 U. DET. MERCY L. REV. 155 (2010).

⁹ Adam V. Vickers, *Peering Beyond Today’s Internet File Sharing Concerns: The Future of BitTorrent Technology*, 8 TUL. J. TECH. & INTELL. PROP. 133 2006.

¹⁰ *Supra* n. 7.

¹¹ *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1014 (9th Cir. 2001).



The number of P2P users and the amount of P2P software applications have increased even in the face of serious litigation. P2P networks currently account for 35.6% of all data downloaded over the Internet.¹² This figure is very notable when it is contrasted with regular Internet surfing, which accounts for 31.6% of all downloaded data, or streaming media usage, which accounts for 17.9% of all downloaded data, and the figure shows how entrenched the use of P2P networks is in our society. In fact, BITTORRENT and associated protocols account for 75% of all Internet traffic.¹³ If these numbers are any indication of its importance and popularity, this appears to be a technology that the public wants and some sort of compromise must be made by all parties in this matter.

¹² Chao Zhang, et al., *Unraveling the BitTorrent Ecosystem*, 2 J MAR L COM 349.

¹³ *Ibid.*



3. BITTORRENT TECHNOLOGY

“BITTORRENT” refers to a number of distinct concepts. The BITTORRENT protocol dictates the technology’s operation. BITTORRENT clients implement that protocol. Since the technology was open source for the first years of its existence, there are a huge number of such clients. Several have been provided by BITTORRENT Inc., but mostly they’ve been made available by independent third parties.

3.1 BASICS

The BitTorrent distribution process is a lot like a jigsaw puzzle.¹⁴ Users seek to obtain parts of the puzzle from any number of others, and then they piece it together into a coherent whole once they’re all gathered. The process begins when the holder of a piece of content uses a BitTorrent client to divide it into a number of much smaller pieces and to create an associated “torrent” file.¹⁵ The torrent file contains metadata¹⁶ about the piece of content, but not the content itself. Torrent files are then commonly made available *via* internet. Any Web server is sufficient, but hosts commonly upload their torrents to one of a number of specialized torrent hosting websites in order to make them more easily locatable.¹⁷ Unlike NAPSTER, KAZAA, MORPHEUS and so on, BITTORRENT clients typically have no integrated search functionality. Instead, individuals must independently find a torrent associated with desired content, which they may do via dedicated torrent search engines¹⁸.

Once a torrent file has been obtained, BitTorrent client software uses the information within it to facilitate the distribution of the desired content amongst users. Users transferring content *via* BITTORRENT are categorized as either “seeds” or “leechers.” Seeds are users who continue uploading pieces of a resource to others, despite themselves already having a complete copy. Leechers are users that are attempting to obtain all or part of the file. Collectively, a group of seeds and leechers is known as a “swarm”.

¹⁴ Rebecca Giblin, *Physical World Assumptions And Software World Realities (And Why There Are More P2p Software Providers Than Ever Before)*, 35 COLUM. J.L. & ARTS 57.

¹⁵ Okechukwu Benjamin Vincents, *When Rights Clash Online: The Tracking of P2p Copyright Infringements Vs. the EC Personal Data Directive*, INTERNATIONAL JOURNAL OF LAW AND INFORMATION TECHNOLOGY VOL. 16 No. 3 (2007).

¹⁶ Data such as the number of pieces into which it was divided, and the order in which they should be pieced back together etc.

¹⁷ *Supra* n. 13.

¹⁸ This can be done using “Google” as well. Its implications are discussed in the later part of the paper.



3.2 SUPERIORITY OVER OTHER P2P TECHNOLOGIES

It is important to understand that unlike NAPSTER, GNUTELLA and FASTTRACK, BITTORRENT does not facilitate the creation of a single vast network to which every BITTORRENT user connects.¹⁹ Instead, each swarm effectively comprises a discrete peer network devoted exclusively to distributing a resource associated with a particular torrent. Communications within the swarm are traditionally facilitated by a tracker or trackers, which are BITTORRENT'S equivalent to NAPSTER'S central servers and FASTTRACK'S supernodes.²⁰ Their role is to maintain information about the users distributing a particular resource, including their IP addresses and a record of those pieces they already have and those they are yet to obtain. Using that information, trackers effectively act as a “rendezvous point” for those involved in distributing the resource associated with a particular torrent.²¹

Unlike most distribution systems, BITTORRENT'S performance actually improves as more users try to simultaneously download a particular piece of content. That is because once a leecher has obtained a piece of the resource from one source, it begins uploading or sending it to other users while it simultaneously downloads new ones.²² By spreading the distribution across all users, rather than concentrating it on the few that have the entire copy, popular content can be distributed very widely, very fast. When highly popular files are released *via* BITTORRENT, thousands or even tens of thousands of peers have been known to join swarms within hours.

The system is also extremely efficient. Bram Cohen designed it with a “*tit-for-tat*” algorithm to encourage peers to put their upload allocation to best use, and thus to achieve efficiency.²³ In the event that a particular peer does not reciprocate by sending data upstream in exchange for downloaded pieces, they can find themselves at the bottom of the priority list for the next piece of the file. Another clever element of the BITTORRENT distribution process

¹⁹ Joseph Storch & Heidi Wachs, *A Legal Matter: Peer-To-Peer File Sharing, The Digital Millennium Copyright Act, And The Higher Education Opportunity Act: How Congress And The Entertainment Industry Missed An Opportunity To Stem Copyright Infringement*, 74 ALB. L. REV. 313.

²⁰ *Ibid.*

²¹ *Supra* n. 13.

²² *Supra* n. 8.

²³ “Give and ye shall receive” was the motto behind Bittorrent. See Generally, Bob Rietjens, *Give and Ye Shall Receive! The Copyright Implications of BitTorrent*, (2005) 2:3 SCRIPT-ED.



is the protocol's policy of "rarest first."²⁴ If pieces of the resource were distributed randomly, it is more likely that a situation will arise where nobody in the swarm has one or more necessary pieces. However, the protocol enables peers to automatically request the rarest pieces first, thereby maximizing the life of the swarm. Still, swarms inevitably die out as peers stop sharing a particular resource or simply go offline. Leechers who are stranded with only part of the file when this occurs may never be able to complete their download.

²⁴ Kenneth J. Witherst, *"Ephemeral Data" And The Duty To Preserve Discoverable Electronically Stored Information*, 37 U. BALT. L. REV. 349 2007-2008.



4. INTERNATIONAL LEGAL FRAMEWORK

When we discuss problems arising out of P2P networks and file sharing using them, we inevitably have to consider trans-jurisdictional issues. As discussed in the previous chapters, there are various players involved in a P2P transaction, who might be in different jurisdictions and therefore are subject to different laws. This might be problematic. Therefore, let us first discuss the international legal framework, before considering laws of specific nations.

4.1 P2P AND LIABILITY REGIME

International copyright law has expressly addressed direct copyright infringement. However, it woefully lacks in its ability to bring legal action against secondary copyright infringers. Likewise, technological solutions and national solutions have failed to curb rampant file-sharing.²⁵ In order to allow international copyright law to continue to be effective and for copyright infringement through file-sharing to be stopped, secondary liability must be implemented on an international level in the form of a multi-lateral treaty.²⁶

If secondary copyright infringement is not adequately addressed, there are broader potential consequences, including the death of effective copyright protection. BITTORRENT and similar technologies enable copyright infringement to occur on a massive scale.²⁷ Despite the existence of copyright laws addressing direct infringement, it is incredibly difficult to enforce those laws against every infringer. Without international secondary liability laws in place, the facilitators of mass copyright infringement will likely not be stopped. If the facilitators of mass infringement are allowed to continue, copyright law will be left weakened on the whole, if not irrelevant.²⁸

²⁵ Scott Burger, *Eradication Of A Secondary Infringer's Safe Havens: The Need For A Multilateral Treaty Addressing Secondary Liability In Copyright Law*, 18 MICH. ST. U. COLL. L. J. INT'L L. 143 2009-2010.

²⁶ *Ibid.*

²⁷ Erik Vollebregt, *E.C. competition law aspects of peer-to-peer networking*, C.T.L.R. 2002, 8(3), 63-66.

²⁸ Michael Nwogugu, *Economics of digital content: new digital content control and P2P control systems/methods*, C.T.L.R. 2008, 14(6), 140-149.



4.2 TREATIES AND CONVENTIONS

The international law on the topic is basically governed by the following three documents:²⁹

1. The Berne Convention,
2. The TRIPS Agreement, and
3. The WIPO Copyright Treaty.

The Berne Convention, while not the first copyright treaty, is a landmark copyright agreement.³⁰ Berne Convention's most important contribution to international copyright law was the creation of national treatment for copyright. Berne established that "*the works mentioned in [Article 2] shall enjoy protection in all countries*" that sign and ratify it. However, until relatively recently, a number of nations did not assent to and ratify Berne, most notably the People's Republic of China and the Russian Federation. Due to these nations' refusal to accede to Berne, the Agreement on Trade-Related Aspects of Intellectual Property Rights³¹ was created in 1994 with hopes of bringing a larger number of nations into copyright law harmony. "*The substantive standards of Berne*³² *are incorporated directly into the TRIPs Agreement.*" Since TRIPs is associated with the World Trade Organization³³, enforcement mechanisms for implementing the treaty are already in place. The WTO already has a dispute settlement process in place, and it authorizes trade retaliation against uncooperative members, both of which streamline the transition to TRIPs.

Berne and TRIPs both provide a number of positive contributions to international copyright law, but are lacking in any provisions relating to secondary liability. The result of this simple fact is that torrent distribution websites are unaffected by any international

²⁹ See generally, Sara D. Marshman, *Giving A Country Of Pirates A Chance: Using The Three-Step Test To Accommodate The Shifting Of National Attitudes On Copyright Protection*, 43 Geo. Wash. Int'l L. Rev. 703 2011.

³⁰ *Berne Convention for the Protection of Literary and Artistic Works*, Sept. 9, 1886, as revised at Paris on July 24, 1971 and amended on Sept. 29, 1979, 25 U.S.T. 1341, 828 U.N.T.S. 221 [hereinafter Berne Convention].

³¹ *Agreement on Trade-Related Aspects of Intellectual Property Rights*, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex IC, 33 I.L.M. 1125, 1197 (1994) [hereinafter TRIPs].

³² Articles 1-21 and the Appendix.

³³ Hereinafter WTO.



agreement.³⁴ Plainly stated, Berne and TRIPs have not kept up with technological advances, especially internet advances.

While the aforementioned agreements were successful in establishing minimum rights “*within the traditional copyright categories of rights of reproduction and distribution, and of communication to the public,*” the World Intellectual Property Organization Copyright Treaty³⁵ of 1996 extended enforcement beyond traditional borders. Articles 11 and 12 of the WCT added a digital dimension to international copyright law. These provisions relate to Digital Rights Management³⁶, direct trafficking of copyrighted works, and expand upon the basis laid out by Berne and TRIPs, but they do little to provide a cause of action against torrent distribution websites. This is because torrent distribution websites do not traffic any copyrighted works directly.

International law completely lacks in the area of secondary liability, and therefore, fails to address the problem of mass copyright infringement through torrent distribution websites. There are, however, many individual nations with laws in place that do address the problem. But, these laws are inconsistent and in gross need of harmonization, as they span a broad spectrum of coverage from strict to lenient enforcement.³⁷ If these laws are not harmonized, copyright infringement may perpetually persist on an international scale through torrent distribution websites.

³⁴ *Supra* n. 24.

³⁵ *World Intellectual Property Organization Copyright Treaty*, Dec. 20, 1996, 36 I.L.M. 65, (1997) [hereinafter *WIPO Copyright Treaty*].

³⁶ Hereinafter DRM.

³⁷ Tim O'Shea, *BERR Consultation on legislative options to address illicit P2P file sharing*, ENT. L.R. 2009, 20(1), 30-33.



5. THEORIES OF LIABILITY

Although international law does not expressly render anyone liable for another's infringement, secondary liability has emerged as a common law doctrine and is established law. Secondary liability is categorized into: contributory infringement, vicarious infringement, and inducement. *"One infringes contributorily by intentionally inducing or encouraging direct infringement and infringes vicariously by profiting from direct infringement while declining to exercise a right to stop or limit it."*³⁸ Under the inducement theory, one who promotes the use of a tool to infringe copyright *"as shown by clear expression or other affirmative steps taken to foster infringement"*³⁹ is liable for the resulting infringement of their users.

5.1 CONTRIBUTORY INFRINGEMENT

A party *"who, with knowledge of the infringing activity, induces, causes, or materially contributes to the infringing conduct of another, may be held liable as a contributory infringer."* According to **Religious Technology Center v. Netcom On-line Communication Services, Inc.**⁴⁰, for contributory infringement, a plaintiff must demonstrate that the defendant had knowledge of the infringing activity on the defendant's site. In addition, a plaintiff must show substantial participation by the defendant to further the infringement. If the defendant knows or has reason to know of the presence of infringing materials on his system, yet does not remove them, he has satisfied this test. The Court designed a slightly different test in **Perfect 10, Inc. v. Amazon.com, Inc.**⁴¹, *"a computer system operator can be held contributorily liable if it has actual knowledge that specific infringing material is available using its system, and can take simple measures to prevent further damage to copyrighted works, yet continues to provide access to infringing works"*. Under this formulation of the test, an indexing website operator must have actual knowledge of specific links to infringing material, yet does not remove the links from the website. This

³⁸ Giancarlo F. Frosio, *Urban Guerrilla & Piracy Surveillance: Accidental Casualties In Fighting Piracy In P2p Networks In Europe*, 37 RUTGERS COMPUTER & TECH. L.J. 1 2011.

³⁹ *Ibid.*

⁴⁰ 907 F. Supp 1361 (N.D. Cal. 1995).

⁴¹ 508 F.3d 1146, 1162 (9th Cir. 2007).



seems to be the situation for the majority of indexing sites, which are specifically designed to facilitate access to copyrighted content.⁴²

5.2 VICARIOUS INFRINGEMENT

Vicarious infringement occurs when there has been a direct infringement and the defendant is able to control the direct infringer and also benefits financially from the infringement. In **Fonovisa, Inc. v. Cherry Auction**⁴³, a flea market operator was found to be a vicarious infringer because counterfeit recordings were being sold in his market. The Court reasoned that the operator could have policed the vendors but did not. He also profited directly from renting the booths and charging the attendees admission fees.

Indexing websites that benefit financially from banner ads on the website placed alongside the streaming video or by donations solicited for on their page may be in danger of vicarious liability.⁴⁴ Indeed, most indexing websites make money in these ways. However, the indexing websites have room to argue whether they have control over the direct infringement, which only occurs when a user clicks on the link or uploads a video to a hosting site. Unless there is a system to block users from clicking on the links, it does not seem as if they have “control”.⁴⁵

5.3 INDUCEMENT

Many indexing websites encourage visitors to upload content to third-party video hosting sites and then post the location of those files in the index.⁴⁶ Under the test in **MGM v. Grokster**⁴⁷, this could make the indexing websites liable for their users’ infringements. The *Grokster* court held that “one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement, is liable for the resulting acts of infringement by third parties.”

⁴² Nolan Garrid, *Contemporary And Historical Comparison Of American And Brazilian Legal Efforts To Corral Digital Music Piracy And P2P Software*, 16 ILSA J. INT’L & COMP. L. 675 2009-2010.

⁴³ 76 F.3d 259, 264 (9th Cir. 1996).

⁴⁴ Simon Olswang, *Accessright: an evolutionary path for copyright into the digital era?*, E.I.P.R. 1995, 17(5), 215-218.

⁴⁵ Michael A. Einhorn, *Swords Into Plowshares: A Convergence of Interests in P2P*, 24 ENT. & SPORTS LAW. 23 2006-2007.

⁴⁶ Edward Lee, *The Ethics of Innovation: P2P Software Developers and Designing Substantial Noninfringing Uses under the Sony Doctrine*, JOURNAL OF BUSINESS ETHICS (2005) 62: 147-162.

⁴⁷ 545 U.S. 913 (2005).



The high percentage of links to infringing content on the indexing websites is comparable to the situation in *Grokster*⁴⁸. The Court pointed to the fact that out of all the materials the service allowed users to download, the vast majority was copyrighted material. Users probably violate an author's copyright by streaming videos, and definitely infringe it by uploading content to a hosting site without authorization.⁴⁹ So, the indexing websites seem to actively encourage infringement by collecting links to copyrighted content and specifically requesting their users to submit links to movies and television programs that they have uploaded. Some sites even honour the users who post the most content.⁵⁰

⁴⁸ Laura Bielinski, *Post-Grokster Contributory Copyright Liability and Potential P2P Entitlement to the DMCA ISP Safe Harbors*, 6 VA. SPORTS & ENT. L.J. 209 2006-2007.

⁴⁹ Eric Waldman, *Going Straight: Whether P2p Technology Can Be Legitimized In The Wake Of The Grokster Decision?*, 15 SYRACUSE SCI. & TECH. L. REP. 1.

⁵⁰ David Harrison, *The P2p File Sharing War After Grokster: It Feels Like Belgium Over Here*, 32 J.C. & U.L. 681.



6. BITTORRENT BYPASSES THE LAW

If any BITTORRENT client provider were sued for the infringements of their users, it is unlikely they would be liable under existing formulations of contributory or vicarious infringement. Although the BITTORRENT distribution process has two points of centralization *i.e.*, the trackers and torrent hosting websites, the system is designed in such a way that providers of BITTORRENT software need not have control over either.⁵¹ That is, the trackers and torrent hosting websites can be completely independent of the software providers. Additionally, the system incorporates no internal search functionality, and creates no single network like that of NAPSTER, GROKSTER and other previous technologies.⁵² These design features combine to ensure that no BITTORRENT software provider could be liable for its users' infringements under the existing contributory or vicarious liability law.⁵³

To elaborate, any contributory liability analysis would be partly shaped by whether the technology was accepted as being capable of substantial non-infringing uses. This is likely to be controversial because its legitimate usages are significantly outweighed by those that are infringing and making it fall into a category of products for which the Courts were unable to agree on the proper treatment.⁵⁴ It would, however, be relevant to the analysis that the technology's current legitimate uses are varied and growing, and include the distribution of the enormously popular⁵⁵ World of Warcraft computer game, independent films, Linux operating systems and even data published by NASA.⁵⁶

Increasingly, it is also used to streamline data distribution within enterprise.⁵⁷ For example, after adopting BITTORRENT technology for rolling out software to its thousands of servers, Facebook became able to send updates hundreds of megabytes in size to tens of

⁵¹ Christian E. Mammen, *File Sharing is Dead! Long Live File Sharing! Recent Developments in the Law of Secondary Liability for Copyright Infringement*, 33 HASTINGS COMM. & ENT. L.J. 443 2010-2011.

⁵² Antionette D. Bishop, *Illegal P2P File Sharing on College Campuses – What's the Solution?*, 10 VAND. J. ENT. & TECH. L. 515 2007-2008.

⁵³ *Supra* n. 37.

⁵⁴ Rong-An Shang, et al., *Ethical Decisions about Sharing Music Files in the P2P Environment*, JOURNAL OF BUSINESS ETHICS (2008) 80:349-365.

⁵⁵ Thomas M. Dunlap & Nicholas A. Kurtz, *Electronic Evidence in Torrent Copyright Cases*, 8 DIGITAL EVIDENCE & ELEC. SIGNATURE L. REV. 171 2011.

⁵⁶ Xiwei Mu, *The Impact of File Sharing on the Entertainment Industry: Music, film and game market*, Royal Institute of Technology School of Computer Science and Communication 2010.

⁵⁷ Vincent J. Galluzzo, *When "Now Known Or Later Developed" Fails Its Purpose: How P2p Litigation Has Turned The Distribution Right Upside-Down*, 61 FLA. L. REV. 1165 2009.



thousands of machines in a single minute - a process that could take hours *via* more traditional distribution technologies. Engineers at Twitter similarly managed to use BITTORRENT to reduce the time it took to deploy code across its servers from forty minutes to a mere twelve seconds. Its efficiencies are such that even high profile content owners like Warner Brothers, Twentieth Century Fox and MTV have at various times gotten onboard the BITTORRENT Technology. If **Sony Corp. of America v. Universal City Studios**⁵⁸, does apply, the consequence is that contributory liability can only be made out if BitTorrent Inc. has sufficient actual knowledge of third party infringement. The Court in **Grokster** held that, to satisfy this element, actual knowledge must be held at a time that the defendant was contributing to the third party infringement or could do something to stop it.⁵⁹ This is something that no BITTORRENT software provider could satisfy, since the design of their software means that third party infringement is always outside their control.

However, the issue of whether **Sony** applies is something of a red herring. That is because, even if the knowledge element could be satisfied, BITTORRENT providers do not appear to have relevantly contributed to the third party infringement.⁶⁰ In accordance with the Court's reasoning in **Grokster**, the creation of software that facilitates connection to independent networks without any need for assistance or intervention from the defendants is not a sufficiently "material" contribution to any resulting infringement.⁶¹ Vicarious liability is also ruled out by the technology's design. Even if the defendants were found to have the requisite financial interest in the third party infringement, they nonetheless have no right and ability to supervise that infringement within the meaning of the existing law, and thus could not be held vicariously liable for it.⁶²

One of the most interesting aspects of BITTORRENT'S design is the way in which it disproves the belief that efficiency and liability resistance are mutually exclusive.⁶³ The evolution of GNUTELLA and KAZAA suggested that departing from NAPSTER'S centralized

⁵⁸ 464 U.S. 417 (1984).

⁵⁹ Paul Ganley, *Surviving Grokster: innovation and the future of peer-to-peer*, E.I.P.R. 2006, 28(1), 15-25.

⁶⁰ Rebecca Giblin-Chen, *Rewinding Sony: an inducement theory of secondary liability*, E.I.P.R. 2005, 27(11), 428-436.

⁶¹ Alvin Chan, *The Chronicles of Grokster: Who is the Biggest Threat in the P2P Battle?*, 15 UCLA ENT. L. REV. 291 2008.

⁶² Joshua S. Wattles, *Modernizing Sony-Betamax For The Digital Age: The Ninth Circuit Enables P2P*, 34 SW. U. L. REV. 233 2004-2005.

⁶³ Christopher Fazekas, *Vigilantes v. Pirates: The Rumble Over Peer-to-Peer Technology Hits the House Floor*, 2002 DUKE L. & TECH. REV. 20.



P2P model to eliminate liability-attracting control would result in less efficient ways of distributing content.⁶⁴

Thus, it was assumed that a P2P software provider could not design an optimally efficient distribution system without having a liability-attracting degree of control over it. If it did have control, it could be liable under the doctrines of contributory or vicarious infringement.⁶⁵ With BITTORRENT, Bram Cohen proved that it was possible to code a P2P distribution technology that achieves a high degree of efficiency even though the software provider has no control whatsoever over any of the networks formed when individuals attempt to distribute a piece of content.⁶⁶ BITTORRENT certainly has centralized points in the form of trackers and torrent hosting and indexing sites which help achieve these aims, but by design they can and do exist completely independently of BITTORRENT software providers.⁶⁷ The result is a technology that, contrary to all accepted wisdom, facilitates the fast, efficient and effortless transfer of data, and does so in a way that is powerfully protective of its provider's liability.⁶⁸

6.1 CURRENT PRACTICES

Current interpretations of *Sony* and *Grokster* seem to divert the copyright holder's attention away from BITTORRENT software developers and toward torrent Web site proprietors.⁶⁹ Even experienced intellectual property practitioners have admitted they cannot stop the technology. Executives are not looking to curb it either. It appears, however, that site owners could be targeted and held liable under the inducement doctrine for running sites containing links to illicit files.⁷⁰ They could also suffer liability under the Court's interpretation of the *Sony* rule.

⁶⁴ Mikko Manner, *A Bittorrent P2P network shut down and its operation deemed illegal in Finland*, ENT. L.R. 2009, 20(1), 21-24.

⁶⁵ Patricia Akester & Francisco Lima, *Copyright and P2P: law, economics and patterns of evolution*, E.I.P.R. 2006, 28(11), 576-579.

⁶⁶ Jason J. Lunardi, *Guerrilla Video: Potential Copyright Liability for Websites That Index Links to Unauthorized Streaming Content*, 19 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1077.

⁶⁷ *Ibid.*

⁶⁸ Luke M. Rona, *Off with the Head? How Eliminating Search and Index Functionality Reduces Secondary Liability In Peer-to-Peer File-Sharing Cases*, 7 WASH. J. L. TECH. & ARTS 27 2011-2012.

⁶⁹ Maureen Daly, *Life after Grokster: analysis of US and European approaches to file-sharing*, E.I.P.R. 2007, 29(8), 319-324.

⁷⁰ Simone Blakeney, *Peer-to-peer file sharing under assault*, C.T.L.R. 2006, 12(2), 55-57.



Even with the new avenue provided by the Court, efforts to eliminate infringement *via* Internet file sharing would probably prove impractical. With BITTORRENT developers likely out of reach for copyright owners, their only practical recourse would be to shut down Web site proprietors since they provide the central location for the torrent files, the “keys” to illicit copies.⁷¹

The possibility of extremely localized unauthorized trading, however, could allow proprietors to fly under the litigation radar. Indeed, many users host Web sites with two or three torrents. Moreover, the number of users hosting these small sites grows daily, which makes locating the central sites quite difficult.⁷²

One research group specializing in P2P file sharing has found that 10% of the torrent sites they identified had over 90% of the torrent files they found, indicating a very centralized current trading system.⁷³ This same group predicts torrent sites will grow more decentralized as word gets out and more users learn the ins and outs of file sharing.⁷⁴ Many of these sites will be invisible to copyright holders since they reside in various nooks and crannies on the internet that even a sophisticated Web crawler designed to locate them cannot uncover. In addition, BITTORRENT technology itself is progressing to even more decentralized methods of operation that do not utilize tracker logs.⁷⁵

⁷¹ James G.H. Griffin, *The “secret path” of Grokster and Corley: avoiding liability for copyright infringement*, COMMS. L. 2005, 10(5), 147-152.

⁷² Warren R. Shiell, *Viral online copyright infringement in the United States and the United Kingdom: the end of music or secondary copyright liability? Part I*, ENT. L.R. 2004, 15(3), 63-71.

⁷³ J.D. Constance Hawke, *The P2P File Sharing Controversy: Should Colleges Be Involved?*, 184 ED. LAW REP. 681.

⁷⁴ *Ibid.*

⁷⁵ Christine Pope, *Unfinished Business: Are Today’s P2p Networks Liable For Copyright Infringement?*, 2005 DUKE L. & TECH. REV. 22.



7. GOOGLE v. PIRATE BAY

This segment of the paper deals with a simple argument that is often put forth: If both GOOGLE and PIRATE BAY serve a similar purpose of returning search results requested by users, then how is it that one can be held liable for copyright infringement, while the other is not? The basic premise here is that pirate bay is a refined version of google which only returns torrent files, which can be done *via* google by setting the search parameter at “doctype:torrent”.

The Stockholm District Court’s decision⁷⁶ against Lundstrom, Warg, Neij, and Sunde⁷⁷ has a number of startling implications on how many countries ought to view and police the Internet, piracy, and copyright infringement. By 2008, The Pirate Bay alone had over twenty-five million active users. A new subculture based on free content has caused devastating financial losses in the music, film, television, and literary industries.

A number of striking similarities emerge between BITTORRENT websites and major search engines when focusing on the structure of the websites themselves, apart from the underlying peer-to-peer networks.⁷⁸ Some argue that torrent websites are *nothing more than search engines* that return more concentrated and refined results. This begs the question as to what, if any, responsibilities the larger and more generic search engines may or ought to bear in terms of filtering accessible illegal content on the Internet.⁷⁹ Applying the Court’s logic in **Sweden v. The Pirate Bay** to generic search engines such as Google and Yahoo! reveals that they can, and perhaps should, play a significant role in policing Internet piracy. As the most widely used search engine in the world, Google is in a unique position to help monitor and filter the public’s access to illegal material online.⁸⁰ The *Pirate Bay* ruling also suggests a possibility that the world’s leading search engines have a legal obligation to do so.

⁷⁶ Emma Barraclough, *Pirate Bay Operators Jailed for a Year*, NO. 189 MANAGING INTELL. PROP. 10 MAY 2009.

⁷⁷ All the four are co-founder of Swedish torrent website – Pirate Bay.

⁷⁸ Christopher Siebens, *Divergent Approaches to File-Sharing Enforcement in the United States and Japan*, 52 VA. J. INT’L L. 155 2011-2012.

⁷⁹ Bernard A. Mantel, *The Google Police: How The Indictment Of The Pirate Bay Presents A New Solution To Internet Piracy*, 20 U. MIAMI BUS. L. REV. 77 2011.

⁸⁰ *Ibid.*



A search engine is defined as, “a program for the retrieval of data from a database or network, especially the Internet.”⁸¹ The Pirate Bay, along with every other torrent website in the world, perfectly fits this definition. The Pirate Bay’s reply to the notices for infringement also suggests the same: “We get legal threats every day, or we used to... But we don’t have a problem with them – we’re just a search engine.”⁸² When searching for particular works, users enter phrases corresponding to the specific torrent files desired, and The Pirate Bay website retrieves this information by finding any existing torrent files that match those phrases. Once this information is retrieved, users are directed to connections and content that is “away” from The Pirate Bay’s website.⁸³

Similarly, users of conventional search engines such as Google or Yahoo! are able to enter phrases corresponding to specifically desired documents. The search engines also retrieve documents based on relevance and relation to the entered phrases.⁸⁴ Once a user finds the desired content, the user is directed away from the search engine itself, and becomes a visitor and user of a specific website, electronic publication, downloading service, etc.⁸⁵

Another noteworthy similarity between Google and The Pirate Bay is that both are generally known and accessible across the globe. Both websites have been translated into dozens of different languages, and both adapt and reflect nuanced differences based on the country in which users access them. As a result, both have the remarkable potential to influence the behaviour of millions of users.⁸⁶

Finally, another key similarity is that both Google and The Pirate Bay are able to block and remove content from their websites. The Pirate Bay creators conceded this capability during trial, and Google’s automated search mechanisms share this ability. Google also provides its users with a form to request removal of content from its search results.⁸⁷

⁸¹ *Id.*

⁸² Pirate Bay’s response to legal notice, which is openly displayed on the website to deter others from taking recourse to such a measure.

⁸³ Robert C. Piasentin, *UNLAWFUL? INNOVATIVE? UNSTOPPABLE? A Comparative Analysis of the Potential Legal Liability Facing P2P End-Users in the United States, United Kingdom and Canada*, 14 INT’L J.L. & INFO. TECH. 195 2006.

⁸⁴ *Ibid.*

⁸⁵ *Id.*

⁸⁶ Okechukwu Benjamin Vincents, *When Rights Clash Online: The Tracking of P2p Copyright Infringements Vs. the EC Personal Data Directive*, INTERNATIONAL JOURNAL OF LAW AND INFORMATION TECHNOLOGY VOL. 16 No. 3 (2007).

⁸⁷ *Supra* n. 67.



Still, only The Pirate Bay has been held responsible for failure to remove illegal content from its website.

This position might startle a layman. However, the answer is quite simple. The whole problem arises because of different positions of law in different countries and as both the websites are based out of different jurisdictions, such position is inevitable. This furthers the need to harmonize the laws. This is not to say that the argument made is invalid. The argument is very logical and may pose significant challenge to the evolution of law on the topic. It also ignites the debate with respect to the liability of giants such as Google.

8. INDIAN SCENARIO

India is one among the top 20 countries in the utilization of the Internet. Though it has a low Internet penetration percentage, India has become the software development hub of the world and has become a favourite destination in this area. The increase in the utilization of the Internet, problems in copyright protection related to digital transmission have become worse. It is a paradoxical situation. If India provides stronger legal protection for technological protection measures with limited fair use exceptions, it will end up in depleting public domain and harming public interest principle of copyright. If it does not provide for legal protection for technological measures, the Internet may create havoc in enforcement of copyright protection.⁸⁸

Indian Copyright Act, 1957⁸⁹ has kept track of international conventions, the current copyright law lags far behind the west. As India did not sign the “WIPO Internet Treaties” there is no equivalent legislation in India to the US DMCA or EU directive implementing the WIPO Internet Treaties. The Copyright Act of India does not have provisions regarding the ‘technological protection measures’ nor the protection of ‘electronic rights management information’. Some provisions of the Indian Penal Code, 1860⁹⁰ may suffice to provide for legal protection for technological measures. Section 23 of the IPC speaks of ‘wrongful gain or wrongful loss. This Section may be relied upon in the case of unauthorized access to the ‘protected work’. Section 28, which speaks of ‘counterfeiting’, may be effectively utilized to arrest the copying of protected works.

India enacted, the Information Technology Act, 2000⁹¹ to address problems created by ‘cyberspace’ regarding conduct of electronic commerce. The IT Act does not lay down any concrete framework for dealing with specific copyright violations of the Internet. There are provisions that may be construed to be seeking to address some aspects of copyrights as is obvious from the Section 43 which relates to penalty for damage to computer, computer system.

⁸⁸ Gunmala Suri, *IPR Management: Emerging Cyberspace Issues in Knowledge Society: A Critical Analysis*, available at http://www.csi-sigegov.org/critical_pdf/29_256-262.pdf (last visited on 5/11/2012).

⁸⁹ Hereinafter Copyright Act.

⁹⁰ Hereinafter IPC.

⁹¹ Hereinafter IT Act.



8.1 LEGAL FRAMEWORK

According to S. 51 of the Copyright Act, 1957, in case anyone does anything the exclusive right to do which is by this Act conferred upon the owner of the copyright, his acts amounts to infringement of copyright. S. 14 of the Copyright Act governs the domain of exclusive rights granted to copyright owners. Making copies of any work by using whatever medium, communicating the work to the public or issue copies of the work to public fall within the domain of exclusive rights of a copyright owner. So, if any person is running a network like NAPSTER in India, he could be liable for encroaching upon the exclusive rights of the copyrights owner as he is essentially facilitating the communication of the work to the public.⁹² Further, according to S. 51(1)(ii), in case a person permits profits for any place to be used for the communication of the work to the public where such communication constitutes infringement, shall be liable for infringement of copyright. The expression any place could very well be construed to mean a virtual place, like internet, as well.

In case he takes up an argument like NAPSTER that “*I am not making anything available, I just have a listing*”, even then he could be held responsible under S. 63 of the Act. In this case the person who runs such a system like NAPSTER could be held guilty of abetting the infringement, as without such a network it would have been virtually impossible for people to share copyrighted works.⁹³

As for the persons who actually make available and download copyrighted works, the law is very clear. S. 14 says that issuing copies of work or communicating the same to public amounts to infringement. So, a person who downloads software like NAPSTER and implements the same on his machine is making the copyrighted work available to any member of the public who has the corresponding software installed on his machine. The person who actually downloads the file containing copyrighted work is reproducing the work without the consent of the copyright owner and so is guilty of copyright violation as well.⁹⁴ S. 51(b)(ii) says that copyright is infringed is anyone distributes either for the purpose of trade or such an extent as to affect prejudicially the owner of the copyright. Any person making available copyrighted works over P2P network may not be trading in the same, but he is,

⁹² Ramam Mittal, *P2P Networks: Online Piracy of Music, Films and Computer Software*, J INTELLEC PROP RIGHTS, VOL 9, SEPTEMBER 2004, PP 440-461.

⁹³ *Ibid.*

⁹⁴ *Id.*



nevertheless, distributing such work which combined, could amount to gigantic proportions affecting prejudicially the interests of copyright owner.⁹⁵

Now for networks such as GNUTELLA or KAZAA, where there is no central server brokering the requests of people, it is rather hard to stop the system in one go. There is no one person or entity that is managing the affairs. The entire thing is managed by software and that is already out and lakhs of people have made copies of the same. You cannot really outlaw the installation and use of that software as it could legally be used for sharing files, which are not protected by copyright.⁹⁶ But individuals who use such software for sharing copyrighted works remain guilty under the above states provisions of Copyright Act. Catching them is rather difficult, though potential liability is made easier to document by the fact that P2P applications create long user sessions that present adequate opportunity to trace users back to point of origin.⁹⁷

It is very important to note here that the law is barely able to accommodate the claims against the first generation of P2P networks like NAPSTER. Further, as for the second generation P2P networks, it is suggested that the implementation part is very difficult because of the lack of resources. Now, one can only imagine the situation with respect to third generation P2P networks like BITTORRENT. This clearly highlights how far behind the Indian legal system is with respect to BITTORRENT and other third generation P2P networks.

8.2 LATEST DEVELOPMENTS

The legal and enforcement infrastructure in India is just beginning to come into place to address these challenges, but industry fears the response may not be as effective and expeditious as needed. There were several positive developments in 2011. First, industry has used John Doe orders⁹⁸, commonly used in India to target individual sellers and cable TV operators, to have ISPs disable access to infringing materials. In July 2011, a local Indian film studio (Reliance) in the process of releasing a major Indian film (*Singham*) in the market, and following up on a similar request by another film studio obtained an “Ashok Kumar” Order, allowing it to send cease and desist notices to disable access to its new film

⁹⁵ *Supra* n. 87.

⁹⁶ *Supra* n. 91.

⁹⁷ *Ibid.*

⁹⁸ Locally known as “Ashok Kumar” orders.



which was to be released two days later.⁹⁹ Shortly thereafter the ISPs started some limited disabling of access to various notorious sites including Megaupload.com, Mediafire.com, and Megavideo.com.

Other successful industry actions included one initiated in 2010 by Alliance Against Copyright Theft¹⁰⁰. In July 2011, the Mumbai Cyber Police arrested two suspected operators of the site *moviemax.in* in Gujarat, which was one of five locally based sites and the police have been helpful in ensuring those sites can be taken down as well. One court case may also be helpful in defining the contours of liability for intermediaries in the online space and fostering greater cooperation among ISPs and other intermediaries. In *Super Cassettes Industries Ltd. v. Myspace Inc. & Another*,¹⁰¹ decided in July 2011, the plaintiff was granted an interim injunction against the defendant whose social network was found to be secondarily infringing through allowing its “webspace” or “place” to be used for sharing infringing materials. The local Indian record industry has been involved in this legal action, as well as other complaints filed with the Mumbai Cyber Cell against 23 other websites.

The record is less stellar when it comes to voluntary notice and takedown. As a result of overall lack of voluntary cooperation, it has been difficult for right holders to locate or identify infringers and Internet content providers or pirate websites.¹⁰² The Indian music industry, for example, notified authorities of more than 200,000 songs and operated hundreds of detections for pirated materials online in 2011, yet little has been achieved with regard to voluntary removal of infringing content hosted on servers, particularly those located overseas that are supplying the Indian market. The International Federation of Phonographic Industries, the recording industry’s international affiliate, has been making requests for takedowns of overseas websites and content, but with only a 21.5% takedown rate in 2011, the problem has not been addressed effectively.¹⁰³

Where investigations reveal websites have a nexus to or contact details in India, the music industry is bringing criminal complaints. In particular, the domestic recording industry is working intensively with the Mumbai, Delhi and Hyderabad police on Internet piracy

⁹⁹ Similar enforcement was undertaken in August for the film *Bodyguard* and in December for *Don 2*.

¹⁰⁰ Hereinafter AACT. It is basically MPA allied with the local Hindi film industry.

¹⁰¹ High Court of Delhi, July 29, 2011, IA No.15781/2008 & IA No. 3085/2009 in CS (OS) No. 2682/2008.

¹⁰² International Intellectual Property Alliance (IIPA), India, Special 301 Report on Copyright Protection and Enforcement.

¹⁰³ *Ibid.*



issues. The film industry has also commenced criminal action against 99 pirate websites, seeking a remedy to disable access to these sites in India under the Copyright Act. *Moviemax* was one of these sites and two individuals suspected of operating the site were arrested in July 2011. Under the criminal laws of Maharashtra, the industry is hopeful that Magistrates there will issue interim site blocking orders to ISPs if the operators of the pirate websites fail to show at the criminal proceeding.¹⁰⁴

Though these developments are not specifically with references to P2P networks, they are still relevant as they provide a starting point to the problem of enforcement of laws. The efforts and resources required for regulating P2P networks are a bit more sophisticated than the ones discussed above.

8.3 P2P AND INDIA

No suit against an Indian P2P site has ever been filed. *DesiTorrents*, *DCTorrent*, and several other sites serving primarily Indian content are hosted outside India, conferring some protection from the relatively disorganized international enforcement efforts of Indian rights holders.

In part, this inaction relates to uncertainty regarding the liability of intermediaries for copyright infringement. Domestically, the Indian IT Act confers immunity on Internet Service Providers¹⁰⁵ and other online services if they are able to prove that they have followed relatively common, if also notoriously underspecified, standards of due diligence to prevent infringement.¹⁰⁶ This relatively broad safe harbour is complicated, however, by the priority accorded the Copyright Act, which does allow for intermediary liability in cases when the party has “*reasonable ground for believing*”¹⁰⁷ that infringement is occurring or “*knowingly infringes or abets the infringement*”¹⁰⁸. At present, there is considerable disagreement on the interpretation of these provisions, and the issue will have to await resolution in the courts.

¹⁰⁴ *Supra* n. 91.

¹⁰⁵ Hereinafter ISPs.

¹⁰⁶ Lawrence Liang & Ravi Sundaram, *Media Piracy in Emerging Economies: Chapter 8 – India*, Social Science Research Council.

¹⁰⁷ Section 51, the Copyright Act

¹⁰⁸ Section 63, the Copyright Act



Unlike in the United States, intermediary liability has not been developed further into a doctrine of “contributory infringement,” leaving file sharing sites in the same category as other search and service providers who may host or link to infringing content.¹⁰⁹ Among the major rights holders, T-Series has been the most aggressive in challenging these limits on liability in court, initially through a 2007 injunction against YouTube for infringing its music copyrights, and more recently with requests for injunctions against MySpace.¹¹⁰ Because both services host user content, these cases represent an effort to expand liability from the current *ex post* system, in which a service like YouTube must comply with rights-holder requests to take down infringing files, to an *ex ante* system of liability for any infringing content posted to the site. If the latter scenario prevails, “due diligence” will increasingly require services to make use of filters to pre-screen infringing content, however imperfectly.¹¹¹

Also distinct from US and much international law, Indian law does not provide for “counter-notification” in the event of a takedown, leaving no remedy if the request is unwarranted or frivolous.¹¹² Unlike YouTube and MySpace, P2P services do not host content. They are simply indexes or search engines for files hosted on and shared directly between users’ machines. T-Series’ recent suit against Guruji.com, a popular Indian search engine with a dedicated music-search feature, will test the scope of search engine immunity when simply linking to infringing files. A win against Guruji.com would significantly diminish the practical meaning of immunity under the IT Act and likely open the door to additional suits against BITTORRENT and other P2P sites.

¹⁰⁹ *Supra* n. 105.

¹¹⁰ *Supra* n. 101.

¹¹¹ *Supra* n. 105.

¹¹² *Ibid.*



9. SOLUTIONS

Since the inception of P2P networking, commentators have realized the legal challenges they would pose and have constantly proposed a host of solutions. An effort is made to categorize¹¹³ those solutions and discuss the pros and cons of each such solution keeping in mind the best interests of India. The following are the proposed solutions:

1. mass licensing,
2. compulsory licensing,
3. voluntary collective licensing,
4. voluntary contribution,
5. technological protection,
6. copyright law revision,
7. administrative dispute resolution proceeding, and
8. alternative compensation.

The problem with each of the above proposed solution is that each of them targets only part of the unauthorized copying problem. The best system for policymakers to adopt may therefore involve a combination of these proposals. For example, some countries combine the compulsory licensing model with the alternative compensation model by setting aside a certain percentage of the levy funds for specified social and cultural purposes and for the nurturing of new authors.

Firstly, there is no solution for the unauthorized copying problem. To reduce the economic threat posed by P2P technologies, all stakeholders in the copyright system industry, consumers, and policymakers must understand the different models and think hard about how best to apply them in light of their needs, goals, and interests. They must also take into account the decentralized nature of P2P networks, the evolving technology, and the ever-changing market structure and conditions. Instead of offering one solution, policymakers should consider a range of solutions.

A comprehensive solution to the unauthorized copying problem will include a set of solutions with a variety of characteristics. First, it will consist of a mix of measures to solve both short and long-term problems. Some of the above proposals are well suited to address immediate concerns but are unlikely to change social norms in the digital copyright

¹¹³ Peter K. Yu, *P2P And The Future Of Private Copying*, 76 U. COLO. L. REV. 653 2005.



world. Nevertheless, these proposals are worthwhile because they will pave the way for measures that require more time, effort, and resources to take effect, such as public education and market development.

Secondly, as many of the proposals are interim fixes that are likely to become obsolete as technology evolves, the industry must be prepared to migrate from one regime to another, or even to adjust to living with many different regimes at the same time.

As a consequence, policy makers should not make policy on the basis of technology in transition. They should make policy on the basis of where the technology is going. The question should not be, how should the law regulate sharing in this world? The question should be, what law will we require when the network becomes the network it is clearly becoming? That network is one in which every machine with electricity is essentially on the Net; where everywhere you are, you can instantaneously be connected to the Internet. Imagine the Internet as omnipresent as the best cell-phone service, where with the flip of a device, you are connected.

The “problem” with file sharing is one that will increasingly disappear as it becomes easier to connect to the Internet. It thus is an extraordinary mistake for policymakers today to be “solving” this problem in light of a technology that will be gone tomorrow. The question should not be how to regulate the Internet to eliminate file sharing. The question instead should be how to assure that artists get paid, during this transition between twentieth-century models for doing business and twenty-first-century technologies.

As technologies advance, the threat to copyright holders from P2P technology is likely to diminish. Mobile-to-mobile (“M2M”) technologies requiring only cellular telephones are already in place that will make file sharing more widely available to consumers, especially in less developed countries, where the cost of fixed-line telephone service is prohibitive. Moreover, technologies that allow individuals to transfer copyrighted works from one entertainment system to another are on the horizon. If policymakers focus on today’s technologies, they will always be behind and can only play catch-up, a game which they cannot win, given the sluggish pace of the legislative process.

The European Union has already learned this lesson of flexibility. **EU Directive 2001/29/EC** on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society takes into account the interim nature of legislative solutions and the



possibility of multiple solutions. Article 5.2(b) specifies that the calculation of the amount of fair compensation must take into account both “*the application [and] non-application of technological measures.*” This provision suggests a gradual phasing-out of levies on digital media or equipment, as digital rights management systems enable content owners to control private copying, and set conditions of private use, at their discretion.

Thirdly, in crafting the solution, the industry must take into account the Internet’s structural resistance to control and its immutable characteristics as a network. The architecture of the Internet can constrain illegal activities, but it can also make otherwise legal activities difficult, costly, or even impossible to conduct. For example, a proposal that imposes bandwidth levies based on usage volume will not necessarily reduce the cross-subsidization problem associated with collective licenses.¹¹⁴ Instead, it may create distortionary effects that favour the consumption of low-bandwidth media, such as text files, over high-bandwidth media, such as music or movie files. Such a proposal would also force those who share homemade movies with their friends to subsidize, at times heavily, those downloading copyrighted songs and videos.

Policymakers should also consider the changing social norms in the digital copyright world and create solutions that meet the changing needs of consumers to conduct activities in cyberspace that they used to conduct only in real space. NAPSTER succeeded because it supplied a market solution to an emerging demand. As one may recall, Shawn Fanning was inspired to create Napster by his college roommate’s frustration in searching for MP3s on the Web. Napster responded to the market instead of chasing it.

Further, flexible solutions may allow entrepreneurs to develop products and services that directly and efficiently capture the value of content uses which, under present copyright law, consumers pay for only indirectly and inefficiently. In economic terms, such changes may help to overcome the problem of “indirect appropriability”.¹¹⁵ Until the industry satisfies consumer needs, illegal online file trading, whether through existing P2P networks or the underground Darknet is likely to continue.¹¹⁶

¹¹⁴ Korrasut Khopuangklang, *Should ISPS In Thailand Act At The Behest Of The Entertainment Industry To Control P2P File Sharing?*, E.I.P.R. 2011, 33(10), 632-639.

¹¹⁵ *Supra* n. 112.

¹¹⁶ *Ibid.*



10. CONCLUSION

The law cannot provide a complete solution. Market forces, technological architectures, and social norms also play very important roles in crafting a comprehensive solution to the unauthorized copying problem. Regardless of which set of proposals policymakers ultimately adopt, the solution must meet the needs of consumers while taking into account the Internet's structural resistance to control, its immutable characteristics as a network, and the changing social norms in the digital copyright world.

Reducing copyright piracy is not easy, and the debate is likely to continue, expand, and escalate. It is time to start from first principles and rethink some of the fundamental questions about our copyright system: Will the current system make sense when consumers can store their entire music collections, or even DVD collections, in small, cheap, portable playback devices? Should the Parliament shorten the duration of the copyright term and switch to a format or medium based system in light of the increasingly short shelf-life of hardware and copyrighted products? Do entertainment companies have the needed rights to experiment with or switch to new business models? Should society rethink the industry structure and transform the role of intermediaries in light of our ability to distribute copyrighted works online? These questions have no easy answers, and the debate can only become more intriguing.

The current battles surrounding P2P file sharing are a losing proposition for everyone. The record labels continue to face lackluster sales, while the tens of millions of file sharers are made to feel like criminals. Every day the collateral damage mounts - privacy at risk, innovation thwarted, economic growth suppressed, and a few unlucky individuals singled out for legal action by the entertainment industry. And the litigation campaign against the file sharers has not put a paise into the pockets of artists or the copyright holders.

It is high time to acknowledge the fact that piracy cannot be stopped, however it can be reduced but blocking these sites is not the solution. Now users will use proxies to get past this blocking barrier and still download content. Therefore, steps must be taken to embrace P2P file sharing within the framework of copyright laws. An analogy can be drawn here, between the problem of P2P file sharing and alcohol prohibition. When nations across the globe tried and failed to control the problem of alcohol, they came up with regulating the same by imposing high taxes. This way, the government could also gain while regulating the use. A similar solution has to be chalked out with respect to P2P file sharing.



With respect to India, following are some of the measures that can be taken to start regulating P2P file sharing:

- Create a national anti-piracy task force with goals to reduce piracy, *inter alia*, by working with state Nodal officers, providing them with significantly increased resources; provide more accountability and power to the recently constituted task force by FICCI under the aegis of the Ministry of Human Resource Development (MHRD).
- Reinvigorate “IP cells” within the state police, provide them with significantly increased resources, and establish specialized IP prosecutors, to be more effective in addressing piracy, including Internet/mobile device piracy.
- Encourage judicial reform, including establishing IP courts or panels with expert judges and prosecutors, which will help in accelerating the adjudication process in criminal and civil cases, and imposing deterrent fines and imprisonment, and civil remedies, including statutory damages.
- Develop a national-level database to track IP criminal cases.
- Increase the number of *suo moto* raids, including against corporate end-user software piracy, and empower government tax inspectors, including external and internal auditors, to check and account for genuine software licenses inside organizations, whether public or private.
- Mandate management officials of companies to account for and declare genuine software licenses in their books of accounts and financial statements, including by providing a regulation under the existing Companies Act.
- Promote and require the use of legitimate (original) books and scholarly journals at educational institutions.
- Empower customs to effectuate *ex officio* seizures, followed by destruction, of pirate goods.

These measures should be considered as starting points and once the minimum infrastructure is in place, a meeting of all the stakeholders should be called to further strengthening the regulatory regime. It is time to embrace P2P file sharing.



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