

An Approach to Digital Piracy

With the relatively recent arrival of the information age and the global spread of the internet, the sharing of content has never been as easy as it is today. The illegal sharing of intellectual property, known as digital piracy, continues to be an issue around the world despite legislative attempts to mitigate the prevalence of digital piracy (Karaganis i). Controversy arises as a result of the ownership rights that morally entitles the creator to their share of each distributed copy for the given product/service, yet people across the world infringe upon copyright laws in order to access digital experience goods such as software, music, and movies (Gopal & Sanders 381). The prevalence of digital piracy has produced a noticeable impact on sales and legal consumption of intellectual property, causing significant economic consequences. Efforts to quantify the economic impact have all estimated “retail revenue losses” to be at billions of US dollars (“Piracy Statistics - Piracy by the Numbers”). With such an extensive economic impact, it is necessary to find a manner in which digital intellectual property rights are protected while still enabling equitable access to digital experience goods. In order to maximize legal distribution of digital media while still enabling equitable access, political reform, new economic tactics, and modified social ideas must be cooperatively implemented in order to appease both producers and consumers.

Digital piracy involves an array of entities who are linked together by one common interest: digital experience goods. Record labels, motion picture firms, and other online distributors of intellectual property stand to benefit economically from an increase in legitimate sales and downloads (Scott & Brown 218, Ma et al. 10-11, Tyler 2102). Collectively, this group of interests is the strongest advocate for combatting digital piracy. The original creators of intellectual property can have their profits limited by fewer legitimate sales, but they can also

obtain more exposure through piracy thus increasing their legitimate sales (Tyler 2103). Their stance on digital piracy remains more intermediary because of a combination of benefits and consequences from digital piracy. The general populace, comprised mainly of consumers, remains staunchly against stricter measures to reduce digital piracy for a mixture of reasons. With so many factions invested in digital piracy, the task of finding a resolution becomes significantly more convoluted.

Historical Perspective

First, it is necessary to understand the evolution of piracy. As the world has entered the 21st century, increased attention has been put on copyright because the act of piracy, especially digital piracy, has been thriving. As Steven Lysonski, a business professor at Marquette University, points out, in the era before the internet, the only way to obtain intellectual property was to buy a hard copy in the form of a CD/tape (Lysonski & Durvasula 2). However, as intellectual property has been converted to digital forms, increases in technology's speed, loopholes, and illegal file sharing sites "such as Kazaa, Grokster, Edonkey, and Bit-Torrent" have made downloading "free" intellectual property an almost instantaneous process (Lysonski & Durvasula 2). The growth of digital piracy in the 21st century is exemplified by the increase of bandwidth usage that infringes upon copyright. The company Envisional, hired by NBC Universal, estimated that 23.76% of bandwidth usage "across all areas of the global internet" was infringing upon copyright (Envisional 2). With so much of the global internet devoted to illegal access of intellectual property, digital piracy extensively impacts the economy in multiple industries.

Economic Perspective

Digital piracy includes the theft of a range of intellectual properties that include software. Worldwide, \$90 billion dollars of software was installed, yet only \$59 billion dollars of software was legitimately purchased (Scott & Brown 219). The Business Software Alliance (BSA) appointed the International Data Corporation (IDC) in 2004 to analyze the economic impact of software piracy. With the information technology (IT) sector having a significant dependence on the software industry, a 35% software piracy rate severely inhibits the economic potential of the IT sector by negating 2.4 million jobs, \$400 billion in revenue, and \$67 billion in tax revenue, subsequently reducing the size of the IT sector (Scott & Brown 217). Countries such as the United States, China, and India all suffer significantly from software piracy (Scott & Brown 221). Consequently, software piracy has a detrimental economic impact on a global scale. However, digital piracy is not limited to software.

Digital piracy also includes the theft of music and movies. The Motion Picture Association of America reported that \$6.1 billion of potential revenue were lost as a result of pirated copies that were available on the Internet (Karaganis 27). Professors at Carnegie Mellon University performed an empirical analysis of “pre-release movie piracy on box-office revenue” by collecting data on major movies released between 2006 and 2008 and developing regression equations that modeled the changes in revenue (Ma et al. 3). Pre-release piracy decreases box-office revenue by “20% on average compared to an environment where piracy happened after the theatrical release” (Ma et al. 24). With numerous movie releases annually, a 20% difference results in substantial losses that have a widespread impact on the movie industry.

Furthermore, as music continually integrates with the Internet, with purchases reaching 117.7 million albums and 1.66 billion songs in 2012, digital piracy rates continue to rise (Tyler 2111). Despite an increase in online movie sales, the profits of the music industry have gradually

declined since 1999. The music industry claims p2p file-sharing systems have initiated “a 25% decline in music sales” (Goel et al. 6). Albany University professors investigated the validity of this claim by examining how stock prices of major music firms responded to changes in approaches to countering piracy. Then, the changes could be utilized to analyze if digital piracy is an impediment to the music industry. The investigation concluded that music firms do suffer from digital piracy, but the extent to which they are affected is often exaggerated (Goel et al. 26-27).

Digital piracy has an apparent economic impact, but there are difficulties in accurately quantifying digital piracy’s economic impact. Efforts to quantify the economic impact have produced figures ranging from \$25 billion—according to the U.S. Congressional International Anti-Piracy Caucus - to \$58 billion—based on the Institute for Policy Innovation (Sprigman & Raustiala). The disparity between figures highlights the presence of methodological issues in digital piracy studies. *Media Piracy in Emerging Economies* discussed errors in methodological issues as a part of its compilation of the research of thirty-five people over three years into media piracy primarily in the developing world. The two major errors that were found were inaccuracies in substitution effects —“the likelihood that a pirated copy substitutes for a legal sale”- and countervailing benefits. Countervailing benefits refers to analyzing both sides of the market: the industry and the consumer (Karaganis 13). These errors limit the accuracy of figures that quantify the impact of digital piracy. However, the magnitude of the inaccuracy does not significantly alter the estimates (Karaganis 14). Therefore, digital piracy still has a pervasive economic impact that accounts for billions of dollars in lost revenue.

Social and Ethical Perspectives

People still continue to illegally obtain digital goods for a multitude of reasons despite the apparent economic impact. The decision to partake in digital piracy is a combination of ethical decisions, social conditions, and economic standing. Within each individual is a moral intensity that makes them aware of the moral implications of an action. The moral intensity of a person in relation to digital piracy is represented by the following factors: risk of illegal pirating, magnitude of consequences, social consensus, probability of effect, temporal immediacy, proximity, and concentration of effect, cumulatively creating the determining factor in their willingness to give in to the urge of free media. Benjamin Tan, in his ethical study of digital piracy, says that the, “higher the moral intensity of the customers, the lower is their intention to purchase pirated software” (99). The decision to pirate is not a simple decision as indicated by the various components that contribute to the decision.

Piracy has also evolved into a social norm. As a result, digital piracy’s standard as a social norm enables consumers to justify their actions as harmless (Budde-Sung 346). People throughout society see one another illegally obtaining digital media so frequently without any consequences that the feeling of harm associated with digital piracy becomes absent to both consumers and producers who view or release such material (Budde-Sung 346). The economic well-being of consumers maintains an influential role in the prevalence of digital piracy. *Media Piracy in Emerging Economies* analyzed digital piracy in developing regions of the world. In their dissection of digital piracy in India, digital piracy was said to be prevalent because consumers do not have the economic means to legally obtain the digital goods that they wish to experience. Consequently, consumers violate intellectual property rights to obtain the newest items (Karaganis 344). The practice of digital piracy is a complex institution that is the result of

ethical concerns, social conditions, and financial circumstances thus helping to explain why previous political and legislative attempts to halt digital piracy have been inadequate.

Political Perspective

Many governments and companies have attempted to institute Digital Rights Management (DRM) laws and policies that mitigate illegal sharing of media. However, these regulatory acts have failed to have a meaningful impact on the prevalence of digital piracy. One of the more recent attempts in 2011, the Anti-Counterfeiting Trade Agreement, or ACTA, was met by protests throughout Europe, both by the general populace and even leaders in Slovenia and Romania. Earlier in 2011, the United States' Stop Online Piracy Act (SOPA) and Protect Intellectual Property Act (PIPA) caused some of the largest websites on the internet (such as Wikipedia, Reddit, and Twitter) to "blackout" for a day in order to generate mass support amongst their users. In turn, the vote on PIPA was cancelled and the official discussion of SOPA was indefinitely postponed (Farrar 542). ACTA, SOPA, and PIPA were fiercely opposed by so many people largely because of overly vague rules and the harsh penalties for breaking these poorly defined regulations (Yoder 379). General consumers were suspicious of legislation that was excessively favorable to businesses while negating the needs of consumers. Because of the divide between consumer and industry, many DRM reform attempts do not make meaningful progress. Even when regulatory acts are passed, their effectiveness is severely inhibited by a lack of enforcement, allowing digital piracy to prosper.

Advances in technology have "made it easier than ever before to download illegal software" covertly. Additionally, it is extremely difficult to sufficiently monitor illegal downloads and access (Nill, Peltier, Schibrowsky 132). As a result, violations of DRM laws often go unnoticed and unpunished. In addition to technological hindrances to the enforcement of

intellectual property laws, the enforced punishment associated with digital piracy is not severe enough to warrant enough fear to deter digital piracy. On paper, “[v]iolations of copyright laws are very serious and can have penalties ranging anywhere from \$500 - \$150,000 depending on the severity and damages caused by the violation” (Armstrong). In reality, so few people are prosecuted due to seemingly nonexistent enforcement that the general populace does not worry about being caught for digital piracy. Furthermore, the task of enforcement is projected to become increasingly difficult as “access and piracy are expected to grow more pronounced” (Nill, Peltier, Schibrowsky 132). The inadequacies in efforts to curb the rate of digital piracy highlight the need for a modernized approach to digital piracy.

Resolution

Previous endeavors to limit digital piracy have been focused in the political realm (Armstrong). However, digital piracy is a complex issue that permeates a multitude of domains. These domains can best be surmised as follows: politically, economically, and socially. Accordingly, any resolution to digital piracy must sufficiently counter digital piracy in regards to each of the domains that it affects and also appease industry and consumer. Exclusion of unclear wording and needlessly severe consequences in political reform, more compromising pricing tactics, and altering of consumer mindsets towards digital piracy are necessary to increase legal distribution of digital goods while still enabling equitable access for the general populace.

Politically, digital piracy regulatory acts must move away from unclear wording and excessively harsh penalties in order to balance the interests of all producers and consumers. The protests against ACTA, SOPA, and PIPA demonstrated how unclear legalese and unreasonable consequences generated significant opposition to DRM laws (Yoder 379). Furthermore, these laws unfairly threatened the survival of legitimate sites such as YouTube and Google. The laws

of SOPA were so vague that even Google could be shut down for its advertising, if it happened to be from online pharmacies with illegal drugs (Farrar 542). In order to reduce digital piracy, political reform must institute precise wording that clearly explains what is legal and implements reasonable punishments for the magnitude of the crime. Therefore, severe punishments on the level of SOPA would only be instituted to disable large sharing sites whose sole function is to disseminate digital goods illegally.

Economically, new pricing strategies should be implemented to minimize the prevalence of digital piracy. The best deterrent to intellectual property infringement would be to lower the price of goods with low unit costs or lower perceived quality and maintaining the cost of higher quality goods (Chellapa & Shivendu 14, Khouja & Park 111). University of Southern California professors and University of North Carolina at Charlotte professors individually developed regression equations based on pertinent factors such as quality, price, and ethical considerations to determine the best pricing tactics for digital retail goods under the threat of piracy. Both studies ascertained similar conclusions, heightening the likelihood of success. Economic changes serve primarily to target consumers' wishes if they are to legally purchase digital goods, but they also enable producers to maintain their revenue, a consideration included in the studies.

The social and ethical dimensions of a digital piracy resolution, which focus on the consumers' mindset as it relates to the theft of intellectual property, are extremely interrelated. Social norms that justify digital piracy must be rectified. Created as a result of the extent of digital piracy, the social norm that illegally obtaining intellectual property is harmless is detrimental to attempts to lessen digital piracy (Budde-Sung 346). Therefore, the general populace must understand the wrongdoing and injustice that is created through digital piracy. In the technological age of 2015, the best method to enhance awareness of the consequences of

digital piracy is to launch a widespread social media campaign in order to target the most likely digital pirates. Trevor T. Moores, a professor at the University of Nevada – Las Vegas who investigated the ethical process underlying software piracy, highlighted the need to increase consumers' moral intensity if digital piracy is to be reduced (Moores & Chang 176). Through an awareness campaign, the rationale that justifies digital piracy in consumers' mindset, aided by social norms and a low moral intensity, should be minimized.

Futuristic Perspective

A multifaceted resolution to digital piracy should maximize the benefits of digital media while balancing the interests of producers and consumers. A reduction in digital piracy would significantly impact the global economy. The global economy would be stimulated by the additional revenue that is obtained from more legitimate sales. The additional revenue would then be used by each industry to expand thus creating new jobs ("Piracy Statistics - Piracy by the Numbers"). With new jobs, people contribute to other economic sectors which enables the global economy to mature, a process initiated by the revenue arising from reduced piracy. However, the degree to which the global economy is still unknown. Estimates on the potential benefits show some inaccuracy because of a lack of consideration for substitution effects and countervailing benefits, a trend seen in numerous digital piracy studies (Karaganis 13). Nonetheless, a lack of consideration for substitution effects and countervailing benefits is highly unlikely to negate all the potential economic benefits. Thus, it is still necessary to pursue digital piracy reform.

A complete eradication of digital piracy would also not be entirely beneficial. For creators such as musicians, there is an unquantified benefit that arises from digital piracy. Digital piracy increases the dissemination of creators' work, so they consequently attain greater exposure (Tyler 2104). To what extent this exposure translates into income is unknown.

Undoubtedly, creators lose revenue because of digital piracy, but a drastic reduction could be even more devastating to their income if their exposure is significantly inhibited. For creators, it is in their best interest to advocate for a modest reduction to digital piracy which maximizes both revenue and exposure.

There are also consumers in lower-income areas that are opposed to more stringent digital piracy laws since their only feasible method to digital goods is through digital piracy. These consumers should still be permitted to have equitable access to digital media. To ensure that every member of the general populace has equitable access, more reasonable pricing should be implemented. As mentioned above, this tactic will balance the interests of consumers and industries. It would be unfair to completely eliminate consumers' opportunity to access digital media goods in order to satisfy industrial appetites for money, but neither can digital piracy be allowed to proliferate freely.

Conclusion

The advent of technology has catalyzed the growth of digital piracy into a global phenomenon that is estimated to represent billions of lost dollars ("Piracy Statistics - Piracy by the Numbers"). The proliferation of digital piracy requires a resolution that fairly addresses the issue across all aspects in regards to both industry and consumer. Otherwise, the problems associated with previous attempted reform will become recurrent. In order to protect intellectual property rights while still enabling equitable access to digital goods, it is necessary to remove unclear wording and needlessly severe punishment from political reform, institute mutually efficient pricing tactics, and amend consumer mindsets towards digital piracy. With a significant overhaul to the global program towards digital piracy, the rate of digital piracy should decline, but it is naïve to expect that digital piracy will become extinct. Record labels, movie producers,

and other distributors will obtain billions in additional revenue, yet there will still be consumers who practice digital piracy for economic or ethical reasons. Digital media industries may harp about the lost revenue, but their survival is never jeopardized by digital piracy.

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Works Cited

Armstrong, Vince. "Copyright Laws." *EzineArticles*. N.p., 16 Sept. 2010. Web. 21 Jan. 2015.

Budde-Sung, Amanda. "The Invisible Meets The Intangible: Culture's Impact On Intellectual Property Protection." *Journal of Business Ethics* 117.2 (2013): 345-359. *Business Source Complete*. Web. 22 Jan. 2015.

Chellappa, Ramnath K., and Shivendu Shivendu. "Managing Piracy: Pricing and Sampling Strategies for Digital Experience Goods in Vertically Segmented Markets." *Information Systems Research* (2003): 400-17. *Social Science Research Network*. Web. 17 Jan. 2015. <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=422100>.

Envisional. "An Estimate of Infringing Use of the Internet." *Envisional Ltd* (2011): 1-56. Web. 26 Jan 2015.

Farrar, Lauren Gray. "Is IP Law Modernization Possible? Assessing Approaches in ACTA, SOPA and Bill C-L 11." *Georgia Journal of International & Comparative Law* 42.2 (2014): 521-556 *Legal Collection*. Web. 9 Jan. 2015.

Goel, Sanjay, Paul Miesing, and Uday Chandra. "The Impact Of Illegal Peer-To-Peer File Sharing On The Media Industry." *California Management Review* 52.3 (2010): 6-33. *Business Source Complete*. Web. 17 Jan. 2015.

Gopal, Ram D.and G. Lawrence Sanders. "International Software Piracy: Analysis of Key Issues And Impacts." *Information Systems Research* 9.4 (1998): 380-397. *Computer Source*. Web. 3 Feb. 2015.

"History." *Online Piracy*. N.p., n.d. Web. 21 Jan. 2015.

- Karaganis, Joe, ed. "Media Piracy in Emerging Economies." (2011): 1-440. *Social Science Research Council*. Social Science Research Council. Web. 17 Jan. 2015.
<<http://piracy.americanassembly.org/the-report/>>.
- Khouja, Moutaz and Sungjune Park. "Optimal Pricing of Digital Experience Goods Under Piracy." *Journal of Management Information Systems* 24.3 (2007): 109-141. *Business Source Complete*. Web. 17 Jan. 2015.
- Lysonski, Steven, and Srinivas Durvasula. "Digital Piracy of Mp3s: Consumer and Ethical Predispositions." *Journal Of Consumer Marketing* 25.3 (2008): 167-178. *Business Source Complete*. Web. 3 Feb. 2015.
- Ma, Liye, Alan L. Montgomery, Param Vir Singh, and Michael D. Smith. "An Empirical Analysis of the Impact of Pre-Release Movie Piracy on Box Office Revenue." *Information Systems Research* 25.3 (2014): 590-603. *Computer Source*. Web. 17 Jan. 2015.
- Moore, Trevor. "An Analysis of the Impact of Economic Wealth and National Culture on the Rise and Fall of Software Piracy Rates." *Journal of Business Ethics* 81.1 (2008): 39-51. *Business Source Complete*. Web. 22 Jan. 2015.
- Moore, Trevor T., and Jerry Cha-Jan Chang. "Ethical Decision Making In Software Piracy: Initial Development and Test of a Four-Component Model." *MIS Quarterly* 30.1 (2006): 167-180. *Business Source Complete*. Web. 3 Feb. 2015.
- Nil, Alexander, John Schibrowsky, and James W. Peltier. "Factors That Influence Software Piracy: A View from Germany." *Communications of the ACM* 53.6 (2010): 131-134. *Business Source Complete*. Web. 22 Jan. 2015.

- "Piracy Statistics - Piracy by the Numbers." *DGA - Directors Guild of America*. Directors Guild of America, Spring 2010. Web. 17 Jan. 2015. <<http://www.dga.org/Craft/DGAQ/All-Articles/1001-Spring-2010/Internet-Issues-Piracy-Statistics.aspx>>.
- Scott, Beth and Duncan Brown. "Expanding the Frontiers of Our Digital Future: Reducing Software Piracy To Accelerate Economic Benefits." *International Review of Law, Computers & Technology* 20.1/2 (2006): 217-228. *Computer Source*. Web. 17 Jan. 2015.
- Sprigman, Chris, and Kal Raustiala. "How Much Do Music and Movie Piracy Really Hurt the U.S. Economy?" *Freakonomics RSS*. Freakonomics, 12 Jan. 2012. Web. 17 Jan. 2015.
- Tan, Benjamin. "Understanding Consumer Ethical Decision Making With Respect To Purchase Of Pirated Software." *Journal Of Consumer Marketing* 19.2/3 (2002): 96-111. *Business Source Complete*. Web. 3 Feb. 2015.
- Tyler, Neil S. "Music Piracy And Diminishing Revenues: How Compulsory Licensing For Interactive Webcasters Can Lead The Recording Industry Back To Prominence." *University Of Pennsylvania Law Review* 161.7 (2013): 2101-2150. *Business Source Complete*. Web. 17 Jan. 2015.
- Yoder, Christian. "A Post-SOPA (Stop Online Piracy Act) Shift in International Intellectual Property Norm Creation." *Journal of World Intellectual Property* 15.5/6 (2012): 379-388. *Business Source Complete*. Web. 24 Jan. 2015.