

Analysing the Economics Effects of Online Piracy

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1 Abstract

One of the most controversial issues within the digital age is the topic of online piracy. With music artists and film industries being hit hard with online ‘pirates’ downloading free songs/movies, the profitability within the industry is decreasing at a large rate. As the availability to pirate media online has grown exponentially in the last few years, it is easy to see why the amount of people taking part in such activities with no evidence of it slowing down. This paper will assess the reasons why people associate themselves with online piracy, the methods used to do so, as well as the resultant global economic effects.

Online piracy is the act of unauthorised copying/redistribution of digital goods such as films, music and software. Within the last decade we have seen digital piracy become one of the largest talking points on a global scale covering many controversial topics such as online law and freedom of entertainment.

2 Understanding Piracy

As the world becomes a global network online allowing people to talk and share with each other from opposite ends of the globe, new problems arise that were non-existent as far as ten years ago. Online sharing platforms such as YouTube have attracted much media attention, much of it which has been negative, as their popularity increased. Since its release in 2005, YouTube has become the number one online platform for video content sharing with 72 hours of video being uploaded to the site every minute (YouTube 2013). As so much content is uploaded in such a short space of time, it is hard for the site to manage and regulate the content that has been uploaded. P.E. Chaudhry et. al. raises a question that concerns YouTube and other content sharing platforms directly, asking “given the current operational framework of video-sharing Internet sites, are owners of these sites liable for copyright infringement when copyright material is illegally posted by their users?” (Chaudhry et al. 2011). If the sites themselves are liable for the content posted, their popularity is likely to decrease drastically as the practicality of monitoring each upload for copyright infringement makes it near impossible for them to still function as a business. Some measures such as partnerships and official YouTube channels by

the music labels themselves have been used within recent years and have seen positive improvements as less content is being restricted. M. Peitz et. al. summarises the situation by stating that “end-user piracy is an important challenge for industries producing digital goods” (Peitz and Waelbroeck 2006).

Such freedom on the Internet is felt as a necessity to most, and attempts to interrupt that notion have generally failed by the large backlash from Internet users themselves. An example of this is the ‘Stop Online Piracy Act’, abbreviated to SOPA. The act itself would essentially give the United States government the ability to police the internet access within their country, which creates cause for concern globally as the majority of DNS servers available are situated within the US. Concerns regarding such acts were raised by V. Espinel et. al. who stated in 2012 that “We must avoid creating new cybersecurity risks or disrupting the underlying architecture of the Internet” (Espinel, Chopra, and Schmidt 2012).

3 Methods Used

One of the most popular programs used to illegally distribute content is BitTorrent. BitTorrent is a ‘peer-to-peer’ sharing client, which allows users to collectively upload a file so that others can download it. According to B. Danaher et. al. “by the end of 2004, BitTorrent, the most popular movie file sharing protocol, reportedly accounted for as much as 30% of all Internet traffic, with a very large portion of this dominated by video files” (Danaher and Waldfoegel 2012). These huge statistics in traffic represent the popularity of online piracy, and the development of these programs is summarised by F. Pasquale et. al. who said in 2002 that “the development of peer-to-peer (P2P) applications - Napster and its ilk - was a technological revolution, a significant innovation that demonstrated beyond a shadow of a doubt the exciting possibilities of networked technology and networked people” (Fagin, Pasquale, and Weatherall 2002). Even with relevant legislation in place within the US, it is clear that users are generally not discouraged to pirate content as “studies have shown that approximately 10 million consumers actively download digital music files from the Internet, and 49% of their online activities involve music or audio files” (Bhattacharjee et al. 2003). This lack of regard for the legislation in place is supported by La Roche et. al. who said just two years ago that “even with the threat of significant criminal and civil penalties, it is estimated that 57 million Americans are engaging in P2P file-swapping” (La Roche, Flanigan, and Marks 2011).

Even though BitTorrent is one of the most popular tools for distributing illegal content, it may not be fair to place the blame on those who created the tool. In 2013 BitTorrent refuted the claims that it was primarily a tool for illegal content distribution by saying that “BitTorrent was designed to move data. It was not designed for piracy.” (Mason 2013). With these claims from the developers in mind, we must turn to those who are exploiting the tools in order to break the law. The users are primarily the ones who are in the wrong within these situations, regardless of the platform used. More often than not the developers are being held responsible for the actions of their users, as previously mentioned within the YouTube example of people uploading pirated videos etc. Therefore if users are going to continually pirate content, regardless of the platform, the legal aspect

should be reconsidered from stopping the platforms being used to a more individualistic legal view, in that the only people involved with such lawsuits should be the person who is distributing the content and the content creator, not the owners of the platform used to break the law.

4 Reasoning

The availability of illegal content online is the biggest factor in the popularity of online piracy. As cited by D. Castro in 2011, “the Information Technology and Innovation Foundation (ITIF) has previously documented how Internet users can easily go online and, with just a few clicks, find pirated copies of full-length Hollywood movies or television programming to watch for free or software programs to use on their computers” (Castro and Senate 2011).

With content being so freely available with relatively no effort, it is clear to see why many people take the easy route to content delivery, thus cutting the profits available to content creators. This ease of use is a large factor in content delivery, and one that content creators have yet to adopt in such a fashion as online pirates. If the ability to download or view content was made as available as pirated content, we may see a drastic decrease in online piracy overall. This scenario is handled well by a company named Valve who produced a platform known as Steam. Steam is an online gaming platform that allows people to buy computer games and play them all in one environment with their friends. The integration of games with the social aspect of playing with friends combined with the ease of use allows Steam to be the market leader for computer gaming. The owner of Valve, Gabe Newell, has continually involved himself, somewhat controversially, in the debate against online piracy. In 2011, Newell stated that “Piracy is almost always a service problem and not a pricing problem” (Tufnell 2011). This bold claim accurately represents the points raised earlier in this paper regarding the ‘ease of use’. If users have the option of an easy to use platform that still pays the content creators, then they are more likely to use it, regardless of the cost. Newell goes on to say that “our goal is to create greater service value than pirates, and this has been successful enough for us that piracy is basically a non-issue for our company”.

5 Remedies

With Valve proving that piracy can be removed as an issue with the correct service availability, it is no surprise that many other companies have moved into the content distribution industry in order to supply just that.

Streaming is one of the most popular methods used to counter online piracy by following the ‘ease of use’ notion. Services such as Spotify allow users to instantly stream and listen to music without breaking the law. As Spotify has such a large music library by signing deals with various music labels, their popularity has grown so much so that in 2012 C. Halmenschlager et. al. wrote that “sales increased from £11.32m in 2009 to £63.16m

last year - more than two-thirds of which came from subscriptions” (Halmenschlager and Waelbroeck 2012).

These large profits prove that the availability of content are primarily what these users are looking for, and that users are resorting to piracy as it is the easiest option for content delivery as supported by P.E. Chaudhry in 2013 who said that “illegitimate distributors are increasingly turning to streaming to deliver works because it is faster cheaper and more convenient” (Chaudhry 2012).

6 Legislation

There is legislation within the US to combat online piracy to cover computer software, explained by S. Al Sharari in 2006 who cites that “The current Copyright Law No (22) of 1992 as revised in the Copyright Law No (9) of 2005 has software provisions. Under article 3 B.8, all forms of computer software are protected by copyright. Even an object code which can only be read by a machine is protected” (Sharari 2006). Such revisions in the copyright law that occurred in 2005 were likely the result of analysing the effect that online piracy had on the US economy, for example just three years earlier T. Hall researched that “an estimated 3.6 billion songs are illegally downloaded each month in the United States” (Hall 2002). However some may argue that the revisions made in 2005 took far too long to be put in place, as A. Berschadsky wrote six years earlier that “Unless copyright law was modernised, growth of the Internet would be hampered because ISPs could not constantly police the huge amount of information that is stored or passes through their networks” (Berschadsky 1999).

Further legislation is explained by S. Hinduja who cites the 1976 Copyright Act within the United States: “In the United States, copying software without appropriate authorisation is a violation of the Copyright Act of 1976 (17 U.S.C. 106), as amended by the Computer Software Act of 1980, which grants exclusive rights to reproduce, distribute, and modify programs to the authors of the package” (Hinduja 2007). Examining this quote we can see that the legislation in place is actively being modified throughout its existence, from as early as four years after its creation.

Referring back to earlier within this paper, the subject matter of people using a platform such as YouTube or BitTorrent to illegally distribute content was also considered within revisions to the Digital Millennium Copyright Act before the revisions made in 2005. As D. Lichtman et. al. stated in 2002, “the Digital Millennium Copyright Act answered these questions by establishing a safe harbor: if these Internet entities follow the requirements laid out by the statute—requirements that typically require the entity to act when a specific instance of infringement is either readily apparent or called to the entity’s attention by a copyright owner—they are immune from charges of vicarious liability and contributory infringement” (Lichtman and Landes 2002). Analysing these statements we can see that the necessary revisions to the legislation in place were taken care of, and that platform developers are no longer responsible for the way their users share across their platforms as long as the developers are complying with the DMCA’s requirements of acting against those who are engaging in copyright infringement.

7 Effects

The effects of online piracy are evident when analysing the trends of music sales within the US economy. As early as 2003 D. Bach et. al. researched that “Music sales are down for the fourth straight year. In 2003, CD sales were almost a quarter below their year 2000 level” (David 2004). D. Choi et. al. goes on to support these claims by stating in 2007 that “these losses were conservatively estimated to be worth around \$265B a year even before the turn of the century” (Choi and Perez 2007).

It is important to note that the effects of online piracy are not only evident within the US economy, as J.L. Marshall stated in 2005 that “commercial piracy’ of physical media accounts for approximately US\$ 4.5 billion in illegal sales world-wide” (Marshall 2005). Marshall then goes on to relate this to the US economy, saying that “estimated losses to the American copyright industry surpassed US\$ 1.8 billion”.

In more recent years we can see researchers not only focusing on the amount of revenue lost for the industry, but the rate of unemployment. In 2011 T.T. Moores et. al. noted that “The U.S. Immigration and Customs Enforcement (ICE) agency reports that global counterfeiting and piracy is estimated to cost the U.S. economy \$200\$250 billion a year, with the subsequent loss of some 750,000 jobs” (Moores and Esichaikul 2011). Looking specifically at digital media, Moores explains that “The Institute for Policy Innovation (IPI) estimates that global music piracy costs the U.S. economy \$12.5 billion, while the Motion Picture Association of America (MPAA) estimates that \$18 billion is lost each year due to global movie piracy”, however Moores does not include America even in the top four list of offenders for piracy, stating that “Brazil, Russia, India, and China tend to be the most prevalent offenders”.

Further research into the unemployment rate caused by online piracy was performed by A. Pawlisz et. al. during 2010-2011 who claims that online piracy specifically “costs American workers 373,375 jobs and \$16.3 billion in earnings” (Pawlisz 2010). Looking at these figures we can see that the amount lost to American workers is the hardest affected aspect when it comes to online piracy with a loss nearly ten times the amount of losses to the industry just five years ago as stated by J.L. Marshall et. al. earlier in this paper.

8 Conclusion

After analysing the economic effects that online piracy results in, be it directly through revenue losses or indirectly through job losses, we can see that more efforts than legislation are required to discourage those currently involved in online piracy from continuing. Researching how companies such as Valve execute the Steam platform shows that piracy can be dealt with to the point that it is a ‘non-issue’ for a company. With the correct platform in place then users appear to be more than willing to pay for content, but when piracy becomes the easiest option for content delivery then it is often their first choice.

The legislation currently in place within the US looks promising to stop people from involving themselves with online piracy, however there is only so far that the legislation

can go. As companies cannot be sued for users abusing their platforms in order to illegally distribute content, the blame turns to the individual users, at which point legally pursuing their content's target audience becomes less viable from a monetary standpoint to the company, as their resources are much better used to develop content and create a platform that users are willing to pay for.

The main argument that many researchers point out is that the consumer is ultimately looking for an easy to use platform in order to deliver their content. With examples such as Steam allowing users to download and play games with their friends and Spotify allowing users to stream their entire music library with no hassle of downloading files, we can see that companies are capable of creating platforms that are incredibly popular and are perhaps the next step in online content delivery; it is simply the choice of the content provider whether to adopt these platforms and allow users to pay the money that they are willing to pay in order to enrich themselves with the content that these companies are known for producing.

References

- YouTube (2013). *YouTube - Statistics*. URL: <http://www.youtube.com/yt/press/statistics.html>.
- Chaudhry, Peggy E et al. (2011). "Piracy in cyber space: consumer complicity, pirates and enterprise enforcement". In: *Enterprise Information Systems* 5.2, pp. 255–271.
- Peitz, Martin and Patrick Waelbroeck (2006). "Piracy of digital products: A critical review of the theoretical literature". In: *Information Economics and Policy* 18.4, pp. 449–476.
- Espinell, Victoria, Aneesh Chopra, and Howard Schmidt (2012). "Combating Online Piracy while Protecting an Open and Innovative Internet". In: *The White House. Web*. <https://petitions.whitehouse.gov/response/combating-online-piracy-whileprotecting-open-and-innovative-internet>.
- Danaher, Brett and Joel Waldfogel (2012). "Reel Piracy: The Effect of Online Film Piracy on International Box Office Sales". In: *Available at SSRN 1986299*.
- Fagin, Matthew, Frank Pasquale, and Kim Weatherall (2002). "Beyond Napster: using antitrust law to advance and enhance online music distribution". In: *BUJ Sci. & Tech. L.* 8, p. 451.
- Bhattacharjee, Sudip et al. (2003). "No more shadow boxing with online music piracy: strategic business models to enhance revenues". In: *System Sciences, 2003. Proceedings of the 36th Annual Hawaii International Conference on*. IEEE, 11–pp.
- La Roche, Claire R, Mary A Flanigan, and Melanie B Marks (2011). "Online Music Piracy: Are Lawsuits The Best Approach?" In: *Journal of Business & Economics Research (JBER)* 2.9.

- Mason, Matt (2013). *Reports Of Our Death Have Been Greatly Exaggerated*. URL: <http://blog.bittorrent.com/2013/05/06/reports-of-our-death-have-been-greatly-exaggerated/>.
- Castro, Daniel and US Senate (2011). “The Problem of Digital Piracy”. In:
- Tufnell, Nicholas (2011). *Interview: Gabe Newell*. URL: http://www.tcs.cam.ac.uk/story_type/site_trail_story/interview-gabe-newell/.
- Halmenschlager, Christine and Patrick Waelbroeck (2012). *Fighting Free with Free: Streaming vs. Piracy*. Tech. rep. Working paper.
- Chaudhry, Peggy E (2012). “Curbing consumer complicity for counterfeits in a digital environment”. In: *J. Bus. & Tech. L.* 7, p. 23.
- Sharari, Saleh A (2006). “Intellectual Property Rights Legislation and Computer Software Piracy in Jordan”. In: *Journal of Social Sciences* 2.1, p. 7.
- Hall, Tia (2002). “Music Piracy and the Audio Home Recording Act”. In: *Duke Law & Technology Review* 1.1, pp. 1–8.
- Berschadsky, Ariel (1999). “RIAA v. NAPSTER: A Window onto the Future of Copyright Law in the Internet Age”. In: *J. Marshall J. Computer & Info. l.* 18, p. 755.
- Hinduja, Sameer (2007). “Neutralization theory and online software piracy: An empirical analysis”. In: *Ethics and Information Technology* 9.3, pp. 187–204.
- Lichtman, Douglas and William Landes (2002). “Indirect liability for copyright infringement: an economic perspective”. In: *Harv. JL & Tech.* 16, p. 395.
- David, Bach (2004). “The double punch of law and technology: Fighting music piracy or remaking copyright in a digital age?” In: *Business and Politics* 6.2, pp. 1–35.
- Choi, David Y and Arturo Perez (2007). “Online piracy, innovation, and legitimate business models”. In: *Technovation* 27.4, pp. 168–178.
- Marshall, Jolene Lau (2005). “Online Music Piracy: Can American Solutions Be Exported to the People’s Republic of China to Protect American Music”. In: *Pac. Rim L. & Pol’y J.* 14, p. 189.
- Moores, Trevor T and Vatcharaporn Esichaikul (2011). “Socialization and software piracy: A study”. In: *Journal of Computer Information Systems* 51.3, p. 1.
- Pawlisz, Ashley S (2010). “Bill of Unintended Consequences: The Combating Online Infringement and Counterfeit Act, The”. In: *DePaul J. Art Tech. & Intell. Prop. L* 21, p. 283.