

International Journal of Innovative Research in Science, Engineering and Technology

(An ISO 3297: 2007 Certified Organization)

Website: www.ijirset.com

Vol. 6, Issue 3, March 2017

An Overview of File Sharing and Copyright

Divyani Solanki¹

Department of Management, Galgotias University, Yamuna Expressway Greater Noida, Uttar Pradesh, India¹

divyani.solanki@Galgotiasuniversity.edu.in¹

ABSTRACT: The emergence of file sharing has significantly undermined successful defense of copyright. More than 60% of Internet traffic today is made up of users who share music, movies, books, and games. Yet file sharing has not eroded the incentives of writers to create new works, considering the success of the new technology. We say that, for three reasons, the influence of file sharing has been muted. The cannibalization of revenue due to the exchange of files is more moderate than many people believe. Empirical work shows that no more than 20% of the recent fall in revenue is due to sharing of music. The exchange of files raises the demand for supplements to protected works, increasing the demand for concerts and concert prices, for example. The selling of more costly supplements has contributed to the profits of musicians. Monetary rewards play a reduced role in encouraging writers to stay innovative in many creative industries. Data on the supply of new works is consistent with the fact that authors and publishers were not discouraged from file sharing. The production of music, books, and films has increased sharply since the advent of file sharing.

KEYWORDS: Copyright, Consumer Behavior, Digital Formats, Empirical Studies, File-Sharing, Market Demands.

I. INTRODUCTION

The advent of file-sharing technology has allowed consumers to copy music, books, video games, and other protected works at minimal cost on an unprecedented scale. In this essay, we question if the latest technology has eroded the incentives to develop, sell, and distribute new works for writers and entertainment companies. Although there is mixed empirical evidence of the impact of file sharing on sales, several studies suggest that music piracy can explain as much as one-fifth of the recent decline in sales in the industry. However, a displacement of sales alone is not enough to conclude that writers have weaker incentives for new works to be produced. The markets for concerts, electronics, and networking networks are often affected by file sharing. The technology, for example, raised concert rates, enticed artists to perform more often, and eventually increased their overall sales[1][2].

Data on the supply of new works is consistent with our claim that writers and publishers were not discouraged by file sharing. In 2002-7, the publishing of new books increased by 66 per cent. The annual release of new music albums has more than doubled since 2000, and feature film production worldwide has risen by more than 30 percent since 2003. Around the same time, empirical studies into file-sharing documents greatly improved consumer welfare due to the modern technology. Most countries have established their copyright laws in just one direction over the past 200 years: policymakers have repeatedly improved the legal rights of writers and publishers, increased costs for the general public and discouraged use. File sharing, seen against this backdrop, is a unique experiment that has dramatically eroded copyright rights. While some traditional business models in the creative industries, especially in music, have been disrupted by file sharing, there is little to indicate in our reading of the evidence that new technology has discouraged artistic output. Weaker defense of copyright, it seems, has benefited society[3][4].

➤ *Copyright and File Sharing:*

Lawmakers balance off the increased incentives to produce protected works and the higher costs that customers face when books, movies, and recordings must not be freely reproduced when determining copyright terms. As this definition indicates, the role of lawmakers is a daunting one. It needs an answer to two questions to set copyright terms in a way that benefits society. Second, we need to consider how much lower the incentives for producing new works

International Journal of Innovative Research in Science, Engineering and Technology

(An ISO 3297: 2007 Certified Organization)

Website: www.ijirset.com

Vol. 6, Issue 3, March 2017

will be under a more restricted copyright regime. Second, and equally significant, is the issue of how to respond to weaker incentives from producers. Should they sell fewer works or works of lower quality, perhaps? We explore what we know about these issues in this article, using the emergence of file sharing as our example of a technology that greatly undermined the protection of copyright for music, movies, books, and video games[5].

When it does not limit the incentives of artists and film companies to produce new works, weaker copyright is unambiguously desirable. In order to understand the effect of file sharing, we first need to know if the technology has actually reduced the viability of new works being produced, sold, and distributed. Of course, we know that, without compensating artists or entertainment industries, millions of users exchange billions of files. However, the fact that file sharing is common tells us nothing about the effect of technology on income in the industry. Many customers can download music and films at a price similar to zero that they would not have purchased at current rates. It is probable that this problem is important. The average player kept a collection of over 3,500 songs in a survey of 5,600 customers who were eager to share their iPod listening statistics. A full 64 percent of these songs had never been heard, making it unlikely that a decent portion of the music they owned would have cost a lot to these buyers. Although it is difficult to tell how representative this sample is, there is no question that when they treat any pirated copy as a missed sale, trade organizations such as the Business Software Alliance grossly exaggerate the effect of file sharing on industry profitability. The market for titles is not fully inelastic in terms of price[6].

If customers who have purchased a recording receive a free copy instead, weaker property rights will undermine industry profitability. The central issue, then, is whether consumers consider works that are protected and openly shared as near replacements. Substitutes are, as the name implies, goods that fulfill identical market demands. For two substitute items, a decrease in price for one leads to a decrease in demand for the other. For example, if we allowed mash-up artists to openly copy parts of an original album, buyers who perceive the derivative work to be a near replacement will be less likely to purchase the original. However, if customers learned from the mash-up to better understand the original, demand for the original work could potentially grow. In this case, the two versions of the song are complementary, two items for which a decrease in one's price leads to an increase in the other's demand. Music and iPods are a well-known example of two compliments. As the efficient price of music for a wide group of customers was undermined by file sharing, demand for MP3 players soared, enabling Apple to benefit from the increased willingness of consumers to pay for its product line[7].

➤ *Size of File-Sharing Action:*

It is difficult to quantify the magnitude of file sharing. To estimate the number of users, initial research relied on surveys, but this methodology is inaccurate because respondents are likely to understate their involvement in a potentially illegal operation. More worryingly, the degree of understatement is likely to differ over time on the basis of the legal environment and peer effects among adolescents. Surveys are often inaccurate because surveying a representative population of file sharers is difficult and because of recall problems. A stronger technique includes the detection of the packets that traverse computer networks. These studies use special hardware to distinguish messages, such as web traffic, e-mail, or file sharing, sent through networks by source. Due to the size of the operation (ISPs usually handle several gigabits per second), the modifications in the prevalent file-sharing protocol, and the recent shift to encryption, which renders packets unreadable to unauthorized observers, this method is taxing. In order to deal with these technical challenges, measurement studies employ three specific approaches: flow detectors, deep packet inspection, and direct interface with users who exchange files[8].

Does File Sharing Lessen the Trade of Copyrighted Resources?

A significant literature, both theoretical and empirical, has been the subject of the exchange of knowledge items such as music, movies, and books. Two conflicting intuitions about the consequences of file sharing have most frequently relied on theory. The first is obvious: copying damages manufacturers because it is now accessed for free by customers who might have bought a product. But there is a second influence that runs counter to that definition. Since consumers expect goods to be exchanged, their willingness to pay (and therefore producers' profits) will actually increase. A family may be able to purchase an expensive video game, for example, because the parents know that many kids would

International Journal of Innovative Research in Science, Engineering and Technology

(An ISO 3297: 2007 Certified Organization)

Website: www.ijirset.com

Vol. 6, Issue 3, March 2017

enjoy playing it. A variety of factors influencing the balance of these two effects have been successfully identified in the theoretical literature, including the relative cost of manufacturing and exchanging knowledge products, the difference in the size of groups sharing protected works, as well as the diversity of market valuations and the correlation of valuations within the sharing community. Theoretical modelling predicts that file sharing can either harm or benefit producers, depending on the significance of the related parameters[9].

➤ *Consumer Behavior:*

As especially important, three facts about user behaviour on file-sharing networks strike us: the narrow emphasis on a small collection of files, the genuinely global existence of file sharing, and the continued value of industry marketing efforts. Each of these we address in turn. On P2P networks, users exchange a wide range of files. Genres such as R&B, rap, and new artists, although there is very little country music, are overrepresented. It is striking to see how dominant the new alternative category is, looking at what users actually download. In this genre, almost one-half of all downloads are music transfers. The supply of music files in 2002, the stone age of file sharing, reflects the data. We do not know of any research that over time has systematically compared material changes[10].

II. CONCLUSION

Copyright security, mainly for music and software and increasingly for movies, games and books, has been greatly undermined by file-sharing technologies. The policy controversy surrounding file sharing has primarily centered on the legality of the new technology and the issue of whether file sharing is due to declining music sales. Although these are important questions, the discussion has been overly narrow in our opinion. In order to encourage creativity and the production of new works, copyright exists, in other words, to promote social welfare. Therefore, the question to ask is whether the new technology has eroded the incentives for entertainment to be produced, sold and distributed. The displacement of sales is a necessary but not sufficient condition for the incidence of damage. We will need to consider whether the revenue from complementary goods balances the decrease in copyrighted work revenue. And even though revenue has dropped, if artists do not respond to poorer monetary rewards, welfare does not suffer. The empirical evidence on revenue displacement is mixed, as our survey suggests. Although some studies find evidence of a substitution effect, other results indicate that piracy and music sales are largely unrelated, in particular the papers using actual file-sharing information. There is, on the other hand, ample evidence that revenue from supplements has improved in recent years. Concert sales have, for instance, risen more than album sales have fallen. Similarly, a proportion of sales of consumer electronics and expenses associated with the Internet are attributed to file sharing. We know nothing, sadly, about the distribution of these impacts. A field of inquiry that is largely unexplored in academic research remains how markets for complementary products have reacted to file sharing.

For the issue of how artists will react to weaker monetary rewards, the same applies. We see no indication that file sharing has prevented the creation of creative works by looking at aggregate performance, the sum of recordings, books, and films created every year. As with income from complementary products, however, it is important to view aggregate statistics with some care. Digital formats, for instance, not only enabled file sharing; digital technologies also decreased the cost of film and music creation, allowing artists to reach their audience in novel ways. In part, the observed increase in production is due to these changes. A second field that we would like to point out as important for future research is the response of artists to technology-induced changes in income.

REFERENCES

- [1] F. Oberholzer-Gee and K. Strumpf, "File sharing and copyright," *Innov. Policy Econ.*, 2009, doi: 10.1086/605852.
- [2] S. J. Liebowitz, "File sharing: Creative destruction or just plain destruction?," *J. Law Econ.*, 2006, doi: 10.1086/503518.
- [3] N. A. John, "File Sharing and the History of Computing: Or, Why File Sharing is Called 'File Sharing,'" *Crit. Stud. Media Commun.*, 2014, doi: 10.1080/15295036.2013.824597.
- [4] J. A. Pouwelse *et al.*, "TRIBLER: A social-based peer-to-peer system," *Concurr. Comput. Pract. Exp.*, 2008,

International Journal of Innovative Research in Science, Engineering and Technology

(An ISO 3297: 2007 Certified Organization)

Website: www.ijirset.com

Vol. 6, Issue 3, March 2017

- doi: 10.1002/cpe.1189.
- [5] R. Mansell and W. E. Steinmueller, "Copyright infringement online: The case of the Digital Economy Act judicial review in the United Kingdom," *New Media Soc.*, 2013, doi: 10.1177/1461444812470429.
 - [6] K. P. Gummadi, R. J. Dunn, S. Saroiu, S. D. Gribble, H. M. Levy, and J. Zahorjan, "Measurement, modeling, and analysis of a Peer-to-peer file-sharing workload," in *Operating Systems Review (ACM)*, 2003, doi: 10.1145/1165389.945475.
 - [7] C. Y. Huang, "File sharing as a form of music consumption," *Int. J. Electron. Commer.*, 2005, doi: 10.1080/10864415.2003.11044343.
 - [8] S. Larsson, M. Svensson, and M. De Kaminski, "Online piracy, anonymity and social change: Innovation through deviance," *Convergence*, 2013, doi: 10.1177/1354856512456789.
 - [9] S. Volda, W. K. Edwards, M. W. Newman, R. E. Grinter, and N. Ducheneaut, "Share and share alike: Exploring the user interface affordances of file sharing," in *Conference on Human Factors in Computing Systems - Proceedings*, 2006.
 - [10] J. Waldfoegel, "Digitization, Copyright, and the Flow of New Music Products," in *Handbook of the Economics of Art and Culture*, 2014.