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Online piracy, innovation, and legitimate business models

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Abstract

This explorative paper examines the impact of online piracy on innovation and the creation of new, legitimate businesses. While viewed only as a legal matter, online piracy has shown to be an important source of technological and strategic innovation to both industry incumbents and newcomers. This paper briefly describes the evolution of pirate technologies and the associated online communities. Then, it examines the processes by which pirate technologies and communities have stimulated innovation and the creation of pirate as well as legitimate business models. The paper concludes with some suggestions by which incumbents and entrepreneurs may deal with and take advantage of piracy.

Keywords: Online piracy; Internet; Innovation; Business models

> …Lawsuits against new technologies provide…opportunities for little minds…to usurp the gains of genuine inventors…and under the smug protest of righteousness, work a hold-up game in the most approved fashion.—Henry Ford, 1911.
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> From my view, suing your customers is not good business.—Senator Norm Coleman, Minnesota, 2005.

1. Introduction

Online piracy refers to the unauthorized use or reproduction of copyrighted or patented (electronic) material, such as music or software files.[1] Piracy is unquestionably unethical and illegal. Nevertheless, many of today's businesses, strategists, and academics who view online piracy only as a legal matter, or dismiss it altogether as a nuisance, may miss out on one of the most important developments in the media and technology industries.

The potential impacts of online piracy on the broad media and software sectors are both alarming and profound. Piracy has already incurred serious financial losses to business and society (Marshall, 1999; Straub and Nance, 1990). These losses were conservatively estimated to be worth around $265B a year even before the turn of the century (Trembly, 1999). With the increased popularity of the Internet, piracy has become even more widespread. Several information-intensive industries including software and media are most severely affected. Informa Telecoms & Media estimates that in 2004, illegal downloads cost Hollywood roughly $860 M, or 4% of box office receipts. A wide range of companies in content development (e.g., record companies, film studios, and game developers), distribution (including cable and satellite companies), infrastructure technology (e.g., Tivo), and Internet entertainment are likely to have their business models severely challenged by new developments in online piracy.

Historically, piracy has had little to do with legitimate business. While piracy-related copyright infringement has led businesses and societies to take measures towards greater security and content-protection, it was not identified

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[1]Piracy is prohibited by the Computer Software Copyright Act of 1980, 17 U.S.C. sec. 117 (amended by 17 U.S.C. sec. 117, 1980), as follows: "Any exact copies prepared in accordance with the provisions of this section may be released, sold, or otherwise transferred, along with the copy from which such copies were prepared, only as part of the lease, sale or other transfer of all rights in the program."

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for its ability to spur legitimate businesses or economic value creation. In recent years, however, piracy has had a profound impact on innovation and the emergence of new business models that have alarmed industry incumbents. In general, the more successful the incumbents are, the more severe the damage piracy can have on their business.

Our analysis of recent history of online piracy shows that it has affected innovation and legitimate business creation through a four-step process. First, online piracy has pioneered the use of new technologies. For example, it has made a significant impact in the evolution of file-transfer technology that has created breakthroughs in information distribution for both illegal and legal uses.

Second, pirate communities have been a source of valuable market insight. As consumers of pirated music, game, or software files tend to be early adopters, they have served as a useful source of emerging market trends. By researching pirate communities, perceptive businesses and entrepreneurs have been successful in identifying needs that legacy businesses were not adequately addressing.

Third, online pirates have contributed to new market creation. Often, communities that were once based on the illegal use of copyrighted materials have migrated to become customer bases of legitimate businesses. For example, many of the former Napster pirates have migrated to iTunes and the legal version of Napster as paying customers. Today's piracy communities—4 million strong—may become a legitimate consumer bloc as businesses catch up to meet their demands (Economist, 2005).

Lastly, online piracy has directly and indirectly spurred the creation of legitimate and innovative business models. In some cases, these businesses were technology companies entering the converging market to take advantage of new opportunities. Other cases involved incumbents shrewdly (sometimes reluctantly) finding ways to adapt their business models to the new market environment. In all cases, successful business models took advantage of new technologies, market insights, and installed bases created by the pirate communities.

This pattern of piracy pioneering new market insight, market communities, and business models appears to repeat with each generation of new pirate technology. We observe that companies who understand this pattern and take advantage of the innovation offered by piracy have created substantial economic value.

This paper begins with a brief review of the literature. Then, it briefly explores the evolution of pirate technologies and their associated online communities, starting with the early days of the Internet through the recent Napster and BitTorrent phenomena. In particular, we analyze the influence of the recent peer-to-peer (P2P) technologies and communities on innovation and the creation of new business models in the media sector.

2. Literature review

Online piracy is an area of significant interest and concern in the media and technology industries (Kaplan, 2005; Smith and Rupp, 2004; Delaney et al., 2003; Goodman and Brenner, 2002; Lichtman, 2004; Chmielewski, 2005; Cullen, 2003). Nevertheless, very little academic research exists in the area of online piracy in management literature.

Most of the management-related discussions have been in the popular press in the form of newspaper or magazine articles. Most have been descriptive in nature. For example, Chmielewski (2005) describes the "world of file sharing," while Cullen (2003) reports on the comeback of Napster. Some articles have been more analytical and have attempted to examine the lasting impacts of piracy on the media industry. Pesce (2005) analyzes the potential impact of video piracy on broadcast television, while the Economist (2005) discusses online piracy's impact on the overall entertainment industry.

Much of the academic work has been legal or ethics-related in nature, i.e., published in law or ethics journals. For example, Kaplan (2005) and Smith and Rupp (2004) explore the legal impact of piracy on the entertainment industry, while Delaney et al. (2003) discuss the measures for deterring copyright piracy. Goodman and Brenner (2002) examine the criminality of piracy, and Lichtman (2004) writes about holding Internet Service Providers accountable for Internet piracy.

Leonard et al. (2004) investigate factors that influence ethical behavior intentions related to piracy, while Kruger (2003) discusses how discussing cyber-ethics with students is critical. Easley (2005), on the other hand, raises different kinds of ethical questions—those arising from businesses' responses to innovations that are perceived to be threatening, in particular with respect to music piracy. He argues that it may be reasonable to ask if it is ethical for recording companies to sue their own customers in an attempt to slow down or stop an innovation that is likely to bring about a social good, especially given their history of legal troubles.

Connor and Rumelt (1991) provide one of the first studies that present a positive dimension of piracy. It notes that piracy can expand the size of a product's installed base by giving gifts of free software to "multiplier" recipients. The authors argue that piracy can be an extreme efficient "gift-giving" method because all of the costs of the gift are borne by the consumer rather than by the producer. Piracy also assures that the "gift" actually goes to someone who will use it (e.g., compared to the alternative of mailing free copies to all computer owners). Easley et al. (2003) present evidence supporting the notion that exposure to music piracy actually played a role in pushing record labels to adopt Internet technologies (those exposed to piracy were more likely to be early adopters of internet technology); create richer and more fully featured web sites; and experiment with electronic forms of distribution that are either proprietary or in other ways non-threatening (e.g., short clips of songs).

We believe that our paper is one of the first attempts within management or entrepreneurship literature to