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## The Formation of Digital Piracy Management Business Models in the Music Records Industry

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### ABSTRACT

Over the past two decades due to the rapid expansion of the Internet and content products (music, movies, books and software) digital distribution, the number of users copying and distributing these products without the legal consent of their authors is increasing - a phenomenon known as digital piracy. This poses new challenges to the creative content industry seeking to protect itself against the loss of income and copyright infringement. This problem is particularly relevant to the recorded music industry, as it has the large scale of digital piracy related to very convenient reproduction and distribution of illegal music records. The widespread practice of record use in the digital space is not favorable to traditional business models based on the distribution of music in physical format. An increasing variety of digital piracy forms and decreasing technical limitations at the same time create new opportunities to manage digital piracy through the use of new technical, legal or economic decisions. This creates need to discuss the relevance and theoretical aspects of digital piracy management in the recorded music industry, and to analyze and compare most widespread digital piracy management business models of in the recorded music industry.

**Key words:** Digital piracy, digital piracy management, music industry, new business models.

JEL classification: L10, L11, L82, L86.

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### 1.0 Introduction

Intensive digitalization related to web development, new software and technical content sharing tools, as well as changing consumer behavior inevitably leads to increasing attractiveness of digital piracy.

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This poses new challenges to the creative content industry seeking to protect itself against the loss of income and copyright infringement. This problem is particularly relevant to the recorded music industry, whose products can be very conveniently distributed in the digital space, have a very short life cycle and the need for continuous renewal. An increasing variety of digital piracy forms and decreasing technical limitations also create new opportunities to manage digital piracy through the use of new technical, legal and economic decisions.

A rapid spread of digitalization and associated changes in the recorded music consumption habits create the need to develop new business models of record sale. Traditional models used so far are becoming less effective, as they cannot compete with new content distribution methods formed in the digital space. After participants of the recorded music business realized that the availability of digital piracy highly restricts their possibilities to generate income, new business models of record distribution started to emerge. They seek to prompt consumers to choose legal rather than pirated products and generate revenue through new channels at the same time.

Different attitudes to the damage of digital piracy and its harmful effects on the creative content industry lead to differences in perception of the appropriateness of digital piracy management measures and solutions. Therefore, digital content authors rather frequently believe that new business models intended for the management of digital piracy and generation of revenue from it are inappropriate alternatives restricting their possibilities to receive a maximum possible return on their products. However, information technology advancements, which make illegal digital content more easily accessible, prompt digital content creators to revise their principal money-making strategies and adapt to new market conditions.

This article discusses the relevance of the management of digital piracy in the recorded music industry and its theoretical aspects to develop the nature of empirical business models of digital piracy management in the recorded music industry. The most widespread business models of digital piracy management in the record industry are presented and their comparative analysis is produced.

## **2.0 Relevance of digital piracy management in the recorded music industry**

Even though music is intangible and intended for listening, the main products of the music industry business are material. Creative work is also sold as a material product (cassette, compact disc). Artists frequently go on live tours that are an additional source of income, but the biggest share of income comes from the sale of records. Thus, mass production and distribution are the main features of traditional business models in the entertainment industry (Vaccaro and Cohn, 2004). According to (Anderson, 2008), a record industry product is in part material (such as a compact disc) and in part not (a song), and the latter, the non-material part is much more important. Much effort and creativity are needed to make a record valuable, as well as a sense helping to identify the product that can be sold well. Usually, 80% of records are unsuccessful, whereas the remaining 20%, which can turn into hits, bring enough profit to make music production a successful business.

Record companies that operate in the music industry and seek profit must invest rather big assets in the creation of a piece of music, its recording and distribution in physical format, including marketing activities prompting the purchase of a particular record. Thus, success of a record label highly depends on the economies of scale: the costs of creating and distributing recorded music are relatively stable, while earnings are directly dependent on the number of records sold. That is why digital piracy, which is spreading rapidly due to the development of digital equipment and Internet industries, is one of the biggest threats reducing income of the music industry.

People who analyze the causes and effects of the spread of digital piracy point out various factors that condition the existence of the illegal digital content market, its viability and spread. OECD (2007) thoroughly characterized these factors. From the point of view of illegal content suppliers and consumers, they were classified into three fundamental groups:

- Market / item factors that define the presence of demand and supply of pirated digital content and their interaction.
- Production, distribution and technology / consumption factors that determine the attractiveness of restoring and sharing digital content, as well as interest in its use.
- Institutional factors that determine favorable legal-political environment for digital piracy activities.

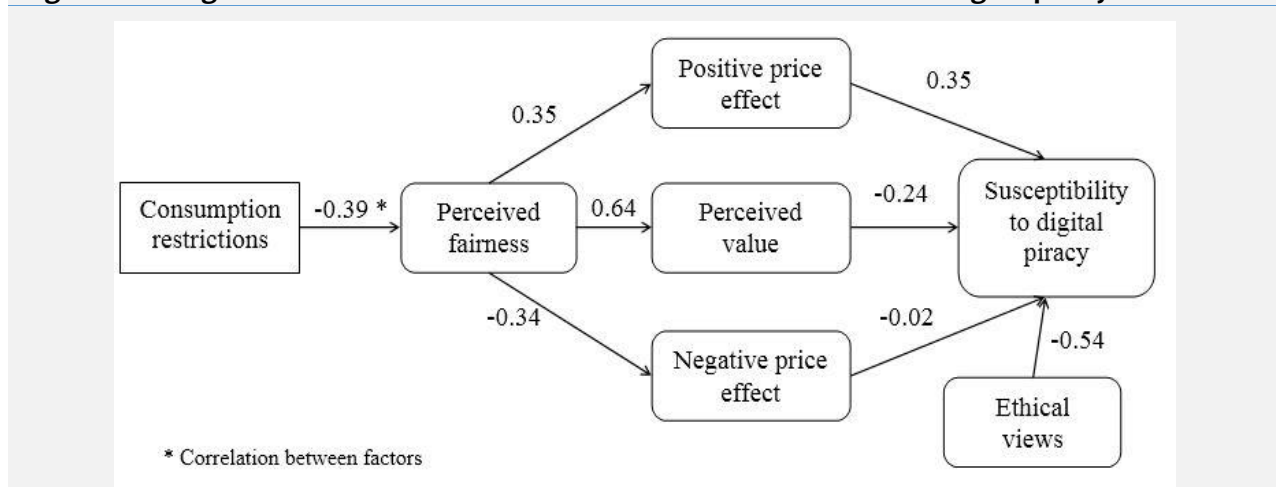
**Table 1. Factors that prompt digital content piracy**

Factors that prompt digital pirated content supply	Factors that prompt digital pirated content consumption
Market factors: High profitability per product unit; Large potential market; Power of authentic brand.	Item factors: Low prices; Acceptable quality; Possibility to conceal the fact of piracy.
Production, distribution and technology factors: Moderate need for investments; Moderate technological requirements; Non-problematic distribution and supply; Favourable possibilities to hide trade operations; Easy to trick consumers.	Consumption factors: No health problems; No safety problems; Personal financial constraints; Low attention to protection of intellectual property rights.
Institutional factors: Low detection risk; Legal and regulatory regime; Weak control by law enforcement agencies; Non-deterrent sanctions.	Institutional factors: Low detection and prosecution risk; Small or inexistent fines; Wide availability and easy purchase; Socio-economic factors.

Source: OECD (2007). *The Economic Impact of Counterfeiting and Piracy*. Secretary-General of the OECD.

Kampmann (2010) conducted a study on the interconnection between factors that determine consumer susceptibility to digital piracy in the Dutch market. It suggests that positive price effect and perceived value are the most common factors affecting the decision to use pirated digital content. An overall positive effect of the two factors outweighs a considerably strong negative factor of ethical views (Fig. 1).

**Figure 1. Strength of the interconnection between factors that determine digital piracy**



Source: Kampmann (2010). *Online Piracy and Consumer Affect: To pay or not to pay*. Netherlands: University of Twente.

In turn, perceived benefits of the use of pirated digital content mostly arise from the strong interconnection between this factor and perceived fairness of the use of pirated digital content, which is formed by the content use restrictions emerging in cases when there are no possibilities to use digital content (for instance, distribution restrictions, the need for additional effort to purchase the wanted content etc).

Perceived fairness that derives from consumption restrictions creates greater positive rather than negative price effect of pirated digital content. Together with the perceived value of such content use, it also stimulates digital piracy.

When analysing the management of digital piracy, it is important to assess the role of the Internet as the most favourable environment for the spread of digital content in the field of digital piracy. OECD (2007) lists the following factors that lead to a more intensive use of the Internet for piracy and copying:

- *Anonymity*. The Internet allows to easily conceal identities of consumers and distributors of pirated digital content, as well as cover the facts of such content distribution.
- *Flexibility*. Distributors of pirated digital content can easily migrate across various geographic regions by setting up pirated content distribution hot spots in various countries or simply on different servers. This helps them to protect themselves from both legal sanctions of a specific country and the threat of the liquidation of their pirated content storages.
- *Market size*. The number of Internet users continues to rise, the use of the Internet is getting more intensive and new forms of online content dissemination are emerging (such as mobile Internet). Therefore, the Internet is becoming one of the most attractive places not only to legal retailers, but also to the distributors of illegal content.
- *Market accessibility*. Today, nearly all markets of the world are accessible via the Internet, whereas the simplicity of digital content transfer ensures easy access for consumers, as it is not confined to geographical boundaries.
- *Fraud possibility*. Distributors of pirated digital content have a possibility to deceive consumers by creating online shops that seem reliable and trade in legal content, thereby distributing pirated content alongside legal content. In such cases, the consumer becomes a user of illegal copies of digital content without knowing it.

Experience shows that the current digital piracy trends witnessed in the industry of creative content primarily affect the recorded music industry. Thus, the need for a more detailed look at the extent of digital piracy in the record industry and its management possibilities emerges. It is therefore important to analyse empirical models of digital piracy management, as well as the principles of their operation in the record industry.

### **3.0 Comparative analysis of empirical models of digital piracy management in the recorded music industry**

Intensive digitalization led to the need for the formation of new business models focused on the management of digital piracy. They are aimed at prompting potential consumers of pirated music to use legal copies and generate income to participants of the recorded music industry.

One of the first attempts to make money from recorded music migration to the digital space was Napster, the system of peer-to-peer digital content sharing. It sought personal economic benefits by providing consumers with a possibility to share digital content (Bergman, 2004). According to (Madden, 2009), since Napster was incompatible with copyright protection requirements, its existence was rather short-lived. Despite the fact, it gave the start to digital content sharing and distribution business. Madden (2009) also emphasizes that Napster raised the record industry's concern over

copyright protection in the digital space and forced it to focus on the search for new business models of digital music distribution to consumers.

iTunes and Amazon MP3, which are based on the distribution of individual paid records, were probably the first significant digital music distribution models to satisfy requirements for copyright protection (Hammond, 2012). Aguiar and Martens (2013) write that these models replaced the widespread practice of selling records in the form of albums and enabled consumers to buy a single song instead of paying for the entire album. Waldfogel (2010) claims that the modern consumer found this solution attractive, because music users who have a possibility to acquire pirated records nearly without restrictions are not willing to buy the albums of artists or bands that may only contain one or several songs they like. From the financial point of view, an entire album is naturally more expensive than a single song. Therefore, the purchase of a full album means larger expenses to consumers, which is an especially sensitive issue in the context of digital piracy. An increasing supply of recorded music by different artists and rapidly changing music trends (i.e. decreasing life cycle of a hit song) are reducing the attractiveness of buying an album. Due to these changes, the business models chosen by iTunes and Amazon MP3 should be considered attractive in the present-day market. This is confirmed by their factual performance indices. Currently, Amazon MP3 offers over 20 million music records (Amazon, 2013), whereas iTunes, which offers more than 26 million songs, films and TV episodes (Apple, 2013), is often named as an exemplary model of the contemporary music distribution (Aguiar and Martens, 2013).

The business models of iTunes and Amazon MP3 are based on the principle that consumers have to pay for every record downloaded to their digital devices. The charges applied are not high as compared with the ordinary price of music albums (for instance, iTunes offers to purchase records at the cost of €0.69, €0.99 or €1.29 (Apple, 2013), but they still mean additional expenses and a smaller range of music recordings to consumers. Waldfogel (2010) maintains that higher-earning consumers are less inclined to choose pirated records, but a considerable share of them are still guided by economic motives and use illegal music, though perhaps at a smaller extent.

A slightly different business model is used by other players of the digital recorded music industry. YouTube and Spotify focus on the supply of free content to consumers and the generation of income from advertising or subscription fee.

YouTube, which is primarily a video sharing system, is mostly focused on receiving income from advertising. Videos unprotected by copyright, including music videos, films or other recorded content, are the foundation of the digital content available on the system. As noted by (Aguiar and Martens, 2013), it means that the possibilities of charging consumers are very limited. Consequently, YouTube has faint possibilities of paying commercial music authors and is in principle not interested in developing commercial record distribution activity.

In contrast, Sweden's Spotify was created with the aim of receiving commercial benefits from records and seeks to attract consumers who tend to use pirated music (Kafka, 2012). Spotify offers three music listening options (Spotify, 2013):

- Free Spotify: free music, limited range of songs and advertisements.
- Unlimited Spotify: €3.49 subscription fee, unlimited music and no advertisements.
- Spotify Premium: €6.99 subscription fee, unlimited music, no advertisements and a possibility to download the wanted music on all devices and play it offline.

As pointed out by (Ek, 2012), unlimited music for free or at a rather small monthly fee becomes an attractive alternative for consumers who favors pirated music. The use of Spotify creates nearly no additional inconveniences as compared with pirated records (Free account users must listen to advertisements, while non-Premium users cannot stream music offline). Moreover, it ensures high-quality sound and offers exact titles of tracks, as well as additional information about songs and artists,

which is not always possible with various pirated music distribution instruments. A study on the extent of recorded music piracy carried out in Sweden in 2011 showed that Spotify had a positive effect on the decrease in music piracy. Since 2010, Spotify has been the most popular music streaming system among consumers aged 17-74 (Media Vision, 2013).

The business models of digital music distribution discussed above provide consumers with different possibilities of accessing legal music. However, changing consumer needs may pose a risk that the attractiveness of these models will decline. For instance, iTunes and Amazon MP3 are likely to be the most financially appealing to a consumer with the need for a small number of records (3-5 per month) that would be available on any digital device and any time. Meanwhile, Spotify would be more appealing to a consumer who wants access to a large number of high-quality records from leading record companies. Likewise, a consumer who negatively assesses any expenses related to music listening and wants to hear both the records from leading companies and the works of new artists (usually distributed for free) may find YouTube more attractive.

Apart from benefits to consumers, these business models offer various benefits to the rights holders of records. According to (Kafka, 2012), this is the area that creates practically the biggest disagreements in developing new music distribution models, because new models change the rules of benefit distribution among the intermediaries of record distribution and artists. Different systems for paying music authors condition their uneven perception of the attractiveness of the discussed business models. The economic risk assumed by the models varies as well.

Ek (2012) claims that iTunes and Amazon MP3 are based on probably the simplest economic solution. Their users pay a fixed price for every music record bought and authors receive a pay for every music record sold. Intermediaries who control the business model take a margin (the difference between the income received from consumers and the money paid to authors), which should be enough to cover the fixed costs of a business model. Economic risk in this case is associated with two major elements (Waldfogel, 2010; Hammond, 2012):

- Volume of record demand. When the demand is smaller than expected, intermediaries may not find the planned margin sufficient. As a result, the need to increase record prices (which may lead to an even greater fall in demand) or reduce payments to authors (which may reduce the business model's appeal to authors and they may decide to withdraw from it; this would lead to the decreasing range of records) may occur.
- Need for uneven pay to different authors. More popular authors who make more money from concert tours and album sales are likely to expect a larger pay per every song sold as compared with less famous authors. A risk that consumers will pay distributors less for the most popular tracks than distributors are obliged to pay authors emerges. It means that negative margin will be compensated from the sale of records of the authors who accept smaller pay. If this happens, the range of music records may be balanced improperly and distributors may receive smaller factual economic benefits than planned.

YouTube and Spotify business models are more complex in terms of balancing economic flows, because there is no direct dependence between the income received from consumers and the distributor's financial commitments to authors. Hammond (2012), Kreits and Niemela (2010) stress that neither YouTube nor Spotify get marginal revenue: listening to additional track does not generate additional revenue. In part, such marginal revenue can be produced with the help of advertisements (on the condition that additional record meant additional advertisement showed: a company that orders the ad pays for it, but this dependence is not entirely direct). However, this does not bring additional revenue per every track listened by consumer.

Both business models get considerably stable income. To take Spotify, it depends on the number of consumers paying subscription fees, whereas YouTube's income is generated by an overall intensity of listening to tracks available on the system, regardless of whether they are more or less popular.

However, the business models of YouTube and Spotify vary in terms of payouts to authors. Rights holders receive a predetermined, fixed payment from YouTube, while Spotify offers payments for every play. Therefore, neither authors nor a distributor find the attractiveness of a played track important, as the crucial thing is to increase the intensity of overall record listening (because greater intensity means greater revenue from advertising). As for YouTube, the distributor's payouts to authors (predetermined sums of money) are stable and the revenue received by the distributor varies depending on the volume of record listening. Thus, greater intensity of record listening increases the benefits received by the distributor.

Meanwhile, Spotify makes stable earnings from consumers, and the distributor's payouts to authors vary depending on the streaming volume. As a consequence, the distributor becomes interested in limiting an overall intensity of streaming, so that payouts to authors did not exceed the revenue received from consumers, as the minimum margin necessary to maintain the distributor's operations needs to be taken into account (Kafka, 2012).

A comparison of the discussed business models and their economic benefits is produced in the Table 2.

**Table 2. Comparison of the business models of digital recorded music distribution from the point of view of economic benefits**

Business model	Revenue from consumers	Payouts to authors	to	Major risk to economic benefits
iTunes	Proportional to records bought.	Proportional to records sold.		Insufficient margin for covering fixed costs.
Amazon MP3	Proportional to records bought.	Proportional to records sold.		Insufficient margin for covering fixed costs.
YouTube	Revenue from advertising, (depend on overall intensity of track playing).	Fixed, predetermined costs.		Overall intensity of track playing is smaller than planned, which leads to falling revenue.
Spotify	Fixed revenue from subscription fees (depend on consumer number) and advertising (depend on overall intensity of streaming).	Proportional to number of streams.		Intensity of streaming is larger than planned, which leads to increasing payouts to authors.

Source: Compiled by author.

The comparison provided above shows that Spotify's business model has the greatest risk of revenue-cost imbalance. However, it may become the most attractive alternative for consumers who prefer piracy and do not find iTunes or Amazon MP3 economically attractive, whereas YouTube does not ensure the assortment and quality they need. Therefore, Spotify has the biggest potential for increasing the number of consumers and becoming the leading business model in the digital music market.

#### 4.0 Conclusions and recommendations

Intensive digitalization prompts changes in the habits of recorded music consumers and the spread of recorded music channels. Digital content distribution methods that are convenient for consumers limit the possibilities of the recorded music industry to protect copyright by restricting the spread of illegal music. Therefore, digital piracy is becoming one of the most relevant issues in the recorded music industry.

The widespread practice of record use in the digital space is not favorable to traditional business models based on the distribution of music in physical format. This creates the need for the new

business models to form. They should be focused on the management of digital piracy and allow the recorded music industry to earn income.

The presented digital piracy management business models offer various benefits to the customer and to the records rights holders. But, because new models change the rules of benefit distribution among the intermediaries of record distribution and artists, it becomes the area that creates practically the biggest disagreements in developing and growth of these new music distribution models.

The digital piracy management models present in the music industry at the moment can be divided into two major groups: those focused on income generation from consumers for listening to music, and those focused on income generation from the third parties by urging consumers to choose the music they offer. These two groups of business models have different money flow management and expansion risks, but it can be difficult to identify their advantages and development possibilities in the long run, because the legal music distribution sector is currently at the stage of intensive transformations.

Despite that Spotify's business model has the greatest risk of revenue-cost imbalance, Spotify has the biggest potential for increasing the number of consumers and becoming the leading business model in the digital music market- it may become the most attractive alternative for consumers who prefer piracy and do not find iTunes or Amazon MP3 economically attractive- whereas YouTube does not ensure the assortment and quality they need.

It is important and recommended to develop new possibilities of managing digital piracy through the use of new business models in music industry. The digital piracy management models must take into consideration the digital piracy users' motivation, preferences and needs, as well as to ensure the appropriate benefit gain to the content creators and artists.

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