

# Piracy of Digital Content



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## *Foreword*

This study covers the piracy of content, such as music, films and software that does not involve the use of physical media; in other words it essentially deals with piracy over the Internet. This represents Phase II of a three-phase project examining the Economic Impacts of Counterfeiting and Piracy ([www.oecd.org/sti/counterfeiting](http://www.oecd.org/sti/counterfeiting)). Phase I covered counterfeiting and piracy resulting in the production of tangible goods, while Phase III will cover other forms of counterfeiting.

The study was prepared by the Structural Policy Division of the OECD Directorate for Science, Technology and Industry. The main study was prepared by Piotr Stryszowski, while the case study was prepared by Danny Scorpecci. The study was carried out under the guidance of an informal expert advisory group composed of OECD member governments and industry representatives, and the study team wishes to acknowledge the valuable assistance provided by the advisory group.

The study was presented to the OECD Committee on Industry, Innovation and Entrepreneurship, which agreed to its public release. This study was also presented to the OECD Information, Computer and Communications Policy Committee and benefited from this committee's comments. The study was undertaken with the support of governments and industry associations, and the authors express their gratitude for the inputs provided.



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## Executive Summary

This study of digital piracy covers the infringement of copyrighted content (such as music, films, software, broadcasting, books, etc.) where the end product does not involve the use of hard media, such as CDs and DVDs. Piracy involving hard media was covered in Phase I of the overall study.<sup>1</sup>

The study highlights the unique market dynamics of digital piracy,<sup>2</sup> where the existence of a large number of suppliers willing to provide pirated content at virtually zero price pose new and difficult challenges to copyright owners and policy makers in combating that piracy.

### What is digital piracy?

While there are definitions of “pirated copyright goods”, there is currently no specific legal definition of digital piracy, which would be more accurately described as “digital infringement of copyright”.

This lack of a common definition is reflected in the different treatment of copyright infringement in different jurisdictions, which in varying degrees provide exceptions to the rights of the copyright owner, such as fair dealing, fair use and private and domestic use. What is illegal or criminal in one jurisdiction might not always be illegal or criminal in another.

### Digital market characteristics

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*Suppliers and consumers are sometimes one and the same*

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Even though technically the markets for pirated digital products are made up of suppliers and consumers, in many cases a single individual serves as both. For example, this can happen when suppliers expect future reciprocity, or in some peer-to-peer networks (such as Bit Torrents) where consumers can be simultaneous suppliers of digital content.

*In the digital piracy market the profit motive can be absent*

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This market is further complicated by the existence of a large number of suppliers whose principal objective is not profit, but who are driven by other non-market factors, such as gaining recognition within a peer group, or reciprocating free access to other users. This behaviour can be sustained because the marginal cost of reproduction and delivery of digital content is zero, or close to zero.

*This in turn has created unique market dynamics...*

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Unlike other markets, where owners of copyright affected by piracy have to contend with pirates who will supply similar content at a much lower price, in this market they also need to compete with suppliers willing to provide content at zero price. In this context, non-price factors (such as legality, availability and quality) become especially important in allowing suppliers that require payment to continue to operate in the market.

While the rationale for the existence of an illegal sub-market where pirated products are exchanged against a price seems counterintuitive (in the face of competition from legitimate providers and free pirates sites), they nevertheless do exist, probably by servicing niche markets. When they do operate, they are likely to enjoy exceptionally high profits by exploiting their low cost operations, especially if they are able to mislead users into thinking that they are legitimate, and can price their services accordingly.

*...with significant consequence for copyright owners and policy makers*

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A by-product of this new market dynamic is that the number of suppliers of pirated digital content (many of whom do not consider themselves as “pirates”) has exploded, making detection and response much more difficult and costly for copyright owners and law enforcers. This is compounded by the fact that “pirates” operate globally in different jurisdictions with different laws and regulations, which hampers the efficiency of enforcement and makes it more difficult and costly. Economies with strong copyright protection tend to report lower rates of piracy, but the risk of penalties without effective enforcement does not always seem to succeed as a strong deterrent. Moreover, the flexibility of digital piracy allows pirates to easily shift their activities to markets where legal regimes are weaker.

In addition, the large number of very diffuse suppliers and customers means that it is also difficult to increase the awareness of offenders of the negative short and long-term effects of their actions.

## **What factors shape digital piracy?**

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### *The low cost of reproduction and delivery is a major factor*

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Digital products are very much in demand, especially by younger people, and the ease and very low cost of reproduction and transmission of digital products makes these very attractive to share.

Those involved in the digital infringement of copyright also take advantage of a characteristic of this market where users often place convenience above the ultimate quality of the digital product, especially when immediacy is a factor (such as film premieres or the live broadcast of a sporting event).

### *Technology is a great facilitator*

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Computing power and the Internet facilitate the collection and transmission of digital content, and this lubricates exchanges between suppliers and customers. The global nature of the Internet means that the market is potentially huge.

In turn, this has spawned on-line services aimed at facilitating data exchanges over the Internet. For example peer-to-peer networks (P2P) facilitate the sharing of digital content, and most P2P networks encourage users to be both consumers and suppliers, as this increases the efficiency of the network. In these networks heavy uploaders are usually rewarded with better service. One-click and Warez sites also facilitate these exchanges, but without the need or opportunity to simultaneously be a supplier as well as a customer. However, it should also be recognised that not all of these services were created for the purpose of facilitating piracy, and it should not be presumed that all users of these services infringe copyright.

The recent increases in storage capacities, including web servers, local hard drives and other portable storage facilities are also factors driving both the supply and demand for pirated digital content, and the reduction in the cost of storage media can also act as a driver of digital piracy.

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*Source material is easy to find*

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Sources of digital material are easy to find, and can extend from local sources (such as family, fellow students or colleagues) to the Internet, and the ability of digital content to be transmitted with very little loss of quality means that even high quality source material can be easily obtained.

Live broadcasts (such as sporting events) can also be captured by simple video cards installed in computers, and then streamed virtually in real-time by using Unicast sites (streaming individually to end users) or P2P networks by joining a “swarm” with others interested in the content.

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*Digital piracy is not often perceived as unethical*

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Existing studies suggest that consumers of pirated digital products are mostly aware that digital piracy is illegal. However, the exchange of pirated digital products free of charge is rarely perceived as unethical, given consumers’ perception that no monetary profits are generated by the infringing parties from users.

In addition, many engaged in digital piracy are attracted to the possibility of being recognised within their peer groups, or for their technical capabilities, and it is status, rather than possible financial reward, that drives their activities. Collectivism within a group, and the desire to reciprocate for received digital content, also act as drivers. Lack of parental supervision was also identified as a factor contributing to the intensity in which younger individuals engage in digital piracy.

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*Security problems are not fully taken into account*

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Users that engage in digital piracy generally appear to be unaware of potential security risks associated with their file exchanging activities, which could leave them open to exposure to malicious software which is designed to infiltrate or damage a computer system. Even those that have some knowledge of potential security threats do not appear to consider these risks as significant.

## Institutional and industry responses

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*There are often no specific remedies for digital piracy*

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In general, national laws and regulations do not distinguish between digital and non-digital uses of copyrighted materials.<sup>3</sup> As such, available legal remedies, be they civil proceedings or action under public law, are those that exist for infringements of copyright more generally.

These remedies can sometimes not be appropriate; for example, in the instance of live broadcasting, the value of the product is greatest while it is being broadcast, while legal or technical remedies may not be able to be brought to bear in that short window of opportunity, which means that the initial loss cannot be prevented.

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*The global and ephemeral nature of digital piracy makes it difficult to combat*

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Unlike counterfeiting and piracy that results in physical goods, as a practical matter digital piracy generally cannot be detected at national borders. The flow of pirated digital products is more difficult to track by law enforcement agencies from sellers, via distributors, to producers, than the flow of physical goods. The large numbers of individuals involved, and the often observed absence of a monetary transaction, present further challenges for effective international co-operation amongst enforcement agencies. However, governments and law enforcement agencies worldwide have some successful examples of co-operation in multi-jurisdictional investigations and prosecutions of other Internet-related conduct.<sup>4</sup> There are likely to be lessons learned from those efforts.

### Issues for policy makers and industry to consider

The digital piracy market is very different from that of counterfeit and pirated physical goods. This creates special and unique problems for copyright owners and can multiply problems faced by policy makers and producers of digital products.

Existing laws and regulations may be too broad and general to deal adequately with the rapid technological developments that facilitate digital piracy, and policy makers may need to consider enacting some specific provisions to deal with these infringements.

Such provisions should not unduly impede legitimate digital communications, nor unreasonably impact on the Internet as an effective communications platform, commercial channel and educational tool – see the recommendation of the June 2008 Seoul Ministerial Declaration on the Future of the Internet Economy ([www.oecd.org/futureinternet](http://www.oecd.org/futureinternet)), which provides important context in this regard.

Where digital piracy affects copyright products of a highly perishable nature (such as the live broadcasting of sports events, pre-release or simultaneous release of creative content), policy makers may need to consider ways of improving the speed at which the legal system responds to these infringements.

Legal action against web sites that sustain or promote the illegal transfer of digital content and action against individuals infringing copyright could still bring some results, and still remain an important part of the overall approach to deal with Internet piracy. However, the overall efficiency of such actions will be diminished over time, because of the potentially very large number of actors involved in different jurisdictions, and who operate in a decentralised manner independent of any central hub. Thus, new ways of dealing with digital piracy may be required including new legal approaches and education. These new ways need to be fair and equitable for all parties and in particular, must reflect a balance between the interests of copyright owners, users and intermediaries.

Even if consumers involved in digital piracy are generally aware that it is illegal, it is not always perceived as un-ethical, so continued emphasis should be placed on education and consumer awareness to overcome this perception. Industry and some governments have instituted extensive campaigns toward this end, and these actions can be paralleled with enforcement campaigns to reduce the likelihood of piracy. Policy makers should consider the role that public education and consumer awareness outreach plays to help users understand what is legal and illegal. Industry and some governments have instituted extensive campaigns towards this end. The global nature of digital piracy means that international co operation between governments, enforcement agencies, industry and consumers is even more important (but more difficult) than in other sectors, especially in identifying and taking down web sites that encourage or promote the transfer of pirated digital content.

In some market segments, business models are already evolving to respond to new market dynamics brought about by the low cost of reproduction and distribution of digital content. Consumers, who are offered attractive legal options, have less incentive to use the illegal alternatives. In this context, factors such as legality, quality and ease of use are becoming key factors in attracting customers. However, the pervasiveness of and easy access to unauthorised content operate as significant limiting factors in efforts to fully develop a robust, legitimate marketplace. Moreover, the development of new business models and content services that meet consumers' expectations should not be overlooked when considering ways to address piracy.

## Notes

1. See [www.oecd.org/sti/counterfeiting](http://www.oecd.org/sti/counterfeiting).
2. In the context of this study, the term “digital piracy” (as opposed to “physical piracy”) refers to piracy that does not involve the use of hard media.
3. There are some significant exceptions, such as the US “No Electronic Theft” Act (NET).
4. The OECD Recommendation on Cross-Border Co-operation in Enforcement of Laws against Spam, and the OECD Recommendation on Cross-Border Co-operation in the Laws Protecting Privacy, are examples. See [www.oecd.org/sti/cultureofsecurity](http://www.oecd.org/sti/cultureofsecurity).





## Introduction

In response to rising concerns in government and the business community, the OECD has launched a project to assess the economic effects of counterfeiting and piracy. The objective of the project is to improve factual understanding and awareness of the effects that infringements of intellectual property rights, as described and defined in the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), have on governments, business and consumers in member countries and non-member economies.

The problem with counterfeiting and piracy is seen by governments, industry and affected labour groups as growing in complexity, and as well as the economic impacts there are often potentially serious health and safety consequences associated with an expansion in the quantity and range of fake products being marketed internationally. There is also increasing concern that criminal networks (including organised crime and terrorist groups) are among the principal beneficiaries of counterfeiting and piracy activities, with the proceeds from their activities being used to finance a range of illicit activities.

The project is being carried out in three separate phases. The Phase I report (OECD, 2008) published in June 2008 focuses on tangible products that infringe trademarks, copyrights, patents and design rights. Phase II partially covers digital piracy and Phase III will deal with all other infringements of intellectual property rights (IPR).

The objective of Phase II of the project on the Economic Impacts of Counterfeiting and Piracy is to assess the impact of piracy of digital content. The OECD Council mandate used the term “digital piracy” to mean piracy that did not involve the use of physical media (such as CDs, DVDs, and flash drives) as the means of passing music, film, and other content from pirate to consumer. “Physical” piracy was covered in Phase I of the project (see OECD, 2008).

## Structure of the study

This study is structured as follows. Chapter 1 presents markets for pirated digital products and discusses their economic properties. Chapter 2 explores factors that drive supply and demand of digital piracy. Chapter 3 presents industry actions against digital piracy and outlines institutional remedies to counter this phenomenon. The last chapter contains a case study of digital piracy affecting sports rights owners. This book has three annexes. Annex A outlines the legal foundations for copyright and their infringement. Annex B presents the 2004 OECD Council Recommendation on Broadband Development. Annex C contains the 2008 Seoul Declaration for the Future of the Internet Economy.

## Definitions and parameters

The precise definition of “digital piracy” is fundamental to this analysis as this term can be interpreted in a number of different ways. In this study the term “digital piracy” means copyright infringements that do not involve the use of physical media (such as CDs, DVDs, and flash drives) as the means of passing music, film, and other content from pirate to consumer.

There are four points related to this definition of digital piracy that should be kept in mind.

- First, in usual computer terminology the term “digital” generally applies to the format in which data is stored, used and manipulated in computers, CDs, DVDs, etc. In this context it is the opposite to the term “analogue” which is used to describe data stored in, for example, vinyl records. Therefore, while the use in this study of the term “digital content” refers to data presented and stored digitally, the term “digital piracy” is used in a very specific way that is unrelated to this general common usage and refers specifically to infringements of intellectual property rights, that *do not* involve the use of physical “hard media” (such as CD, DVD, flash drives, etc) for the reproduction and exchange of pirated material. Therefore, in the context of this study “digital piracy” covers only Internet and direct computer to computer transfers, LAN file sharing, mobile phone piracy and so on.
- Second, in the context of this study the term “piracy” is used to describe infringements of copyrights and related rights<sup>1</sup> only. While the IP rights described in the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) – which form the basis of the OECD’s work on counterfeiting and piracy, could

potentially cover the digital infringement of trademarks and industrial designs, this study focuses on digital infringements of copyrights and related rights, which parallels the way the term “piracy” is used in TRIPS.<sup>2</sup>

- Third, while the term “digital piracy” as defined earlier is used liberally in this study, there are some differences between economies as to what is considered as a copyright infringing activity and what can be considered to be fair dealing, fair use and private and domestic use. This is because copyright as a legal right is given effect through national laws. While these national laws have many similarities, either because they result from similar legislative interests that result in the establishment of copyright protection, or because they result from the international treaties on copyright that set minimum standards for that protection, as a general rule, countries are entitled to a certain level of flexibility in the implementation of their treaty obligations. Countries may provide a level of copyright protection that may exceed the treaty minimum. A more detailed review of legal foundations for copyrights, and acts constituting its infringement in different economies, is presented in Annex A.
- Last, to our knowledge legal jurisdictions do not offer a formal legal definition of “digital piracy”, so this term does not necessarily have a clear and unambiguous meaning outside of the context of this study. In particular, while in this study “digital piracy” should be synonymous with the “digital infringement of copyright”, it is arguable that outside of the context of this study there could be a distinction between the two concepts, at least from the legal perspective.

To reiterate, for the purposes of this study, “digital piracy” is taken to be, as defined earlier, the copyright infringing transmission in a form that does not utilise “hard media” of any copyrighted material including recorded music, motion pictures, software, books and journals as well broadcast and recorded performances covered by copyright.

## Notes

1. In other words, the rights of phonogram producers and performers.
2. See TRIPS, Article 61.

## Reference

OECD (2008), *The Economic Impact of Counterfeiting and Piracy*, OECD, Paris, [www.oecd.org/sti/counterfeiting](http://www.oecd.org/sti/counterfeiting).