

# The Impact of Internet on IPR – A Case Study of Music Industry in Croatia

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## ABSTRACT

*According to the International Telecommunication Union (ITU) there is a trend of rapid growth of Internet users in EU-candidate countries (Croatia, Romania, Bulgaria and Turkey), according to ITU reports, the number of Internet users has tripled since the year 2000. Nowadays, Internet is affecting and changing almost every industry in transitional countries. The impact is most obvious in industries which deal with goods that can be easily digitalized and distributed online. Due to a large number of Internet users, network effects and accessibility of different easy-to-use software tools both for digitalization and distribution, music seems to be most exposed to Internet theft and piracy. In this paper the case of Croatian music industry will be discussed together with the legal framework regarding the issue of digital music.*

**Keywords:** IPR, Internet, digital music, Croatia, legal framework, copyright

## Introduction

Since the early eighties, digital revolution has been taking place and has affected every aspect of human life. It has changed existing industries, brought new ones, and developed new types of human behaviour. The possibility of music digitalization and its digital distribution has placed several legal issues in the focus. This paper will discuss the interference between technological changes and the legal framework that regulates IPR in music industry. The Croatian music industry and changes in the Croatian legal system regarding issues of music trade and sharing will be placed in the centre of interest.

The first part of the paper will describe the historical development of technology enabling digital music creation and distribution and sequential changes in the global music industry. The second part will discuss the value chain of music industry and its key components and it will provide a description of the key players and of the current situation in the Croatian music industry.

Consecutive parts will be dedicated to legal aspects of technological change. The third part will provide the historical perspective of copyright protection on the global level, especially in the EU. The fourth part will present the process of implementation of existing IPR regulation regarding music industry into Croatian legal system. The process of harmonization of Croatian laws with the *aquis communautaire* will be stressed out.

Finally, the fifth part will discuss the legal problems which are the result of technological development and e-copyright issues will be particularly discussed both globally and in Croatia.

## **1 A Brief History of Digital Music and Changes in the Global Music Industry**

The production of music as a saleable product is a relatively recent phenomenon. The market for music began with the sale of music sheets in the nineteenth century, but it was fully developed in the twentieth century when music was sold stored in the form of vinyl records (LPs), cassettes and so on (Graham et al., 2004).

Since 1982, the music industry on the global level is in the process of digital transition. Digital transition started with the introduction of audio CD standards and their adoption in everyday use. According to Recording Industry Association of America (RIAA) Reports, the total sales of music CDs in 1988 exceeded the sales of LP recorded music for the first time, all due to the numerous advantages of the CD technology.

Digital transition continued with the idea of a computer as a reproduction device. This realization has developed since 1985, through incorporating CD-ROM devices into the standard PC configurations. Despite the fact that CD-ROMs were primarily aimed to distribute computer software, including games and multimedia applications, CD-ROM devices incorporated standards for playing music directly out of audio CDs. The question that was asked was: «Can one create an audio CD backup on the hard disc and play it afterwards?» The software for ripping audio files was developed soon after that. Ripping allowed users to listen to music directly from their hard discs. A large number of ripping software tools also allowed users to rip only songs (tracks) that they are in favour of.

In 1988, Philips and Sony invented a CD-R (Compact Disc-Recordable) standard and

produced the first CD-R discs. CD-R discs are compatible with Audio CD and CD-ROM discs. CD-R computer units can read media stored on CD, CD-ROMs and CD-R discs, but they also allows users to write data, audio or other files on CD-R discs. The process of writing (storing or recording) is called burning. From now on users can transfer music from audio CD on hard disc and from hard disc on CD-R disc creating as many CD-R copies as they want. Moreover, they can create customized CD-Rs with selected songs. Although, creating a backup of purchased media is legal in some countries, many legal issues regarding music ripping and burning have emerged, but legal questions and legal framework will be described in following parts of the paper.

During early nineties, the music industry was concentrating. Thus, in 1994 there were 6 big companies that controlled over \$30 billion of sales in the record industry globally. They were: Philips, Sony, Matsushita, Thorn-EMI, Time Warner and Bertelsmann. The trend of concentration continued and in 1999 there were 5 big companies which nowadays control approximately 80% of global record selling. These are: Universal, Sony Music, Bertelsmann, Time Warner Music and EMI.

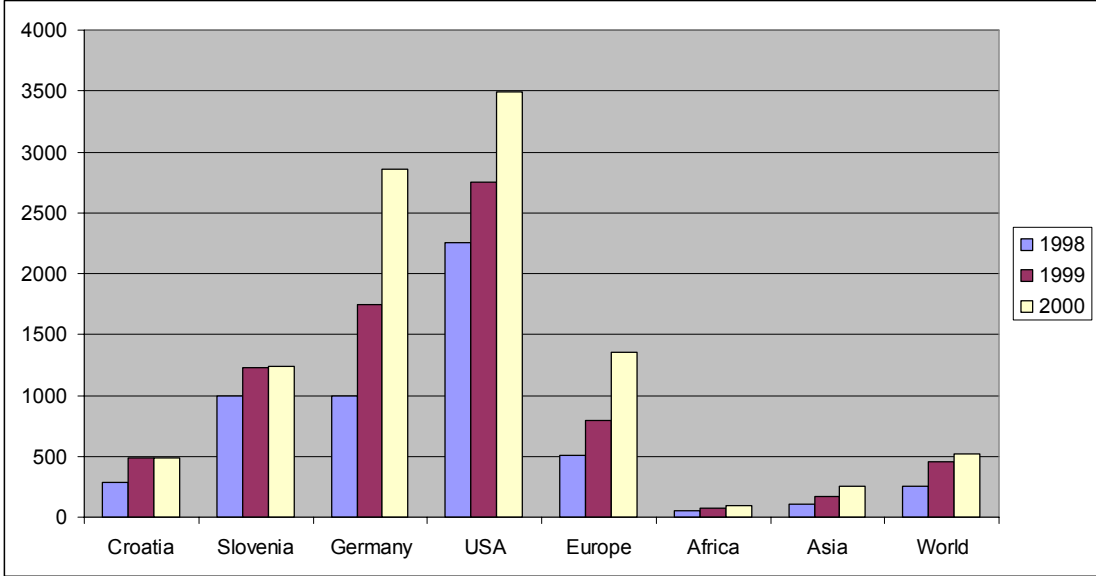
There has been an attempt by the recording industry to make audio CDs unplayable on computer CD-ROM drives, to prevent the copying of music. This is done by introducing errors onto the disc that the stand-alone audio CD players can automatically compensate for, but which may confuse CD-ROM drives. As of October 2001, consumer rights advocates are pushing to introduce warning labels to inform consumers which discs do not enable a fair use of CD content. Another copy protection measure is that manufacturers of CD writers (CD-R or CD-RW) are encouraged by the music industry to ensure that every drive they produce has a unique identifier, the RID or Recorder Identification Code which will be encoded by the drive on every disc that it records.

The digital revolution has continued through the development of new formats for storing music. In 1989 MP3 standard was invented and patented by Fraunhofer Institut (Erlangen, Germany). The MP3 is a software compression standard which enables digital audio to be compressed to the approximate size of one tenth of the original audio CD with almost no loss of audio quality. The MP3 format uses some peculiarities of human hearing in order to eliminate sounds that the human ear cannot hear. By 1998 there were a lot of applications that allowed users to reproduce songs stored in MP3 audio format or to make their own MP3s by

creating new songs or encoding existing ones from purchased CDs. By applying MP3 encoding, a user can store up to 200 songs in audio CD quality on a standard 700 MB CD-R medium.

In step with the development of new music formats, and due to the constantly increasing number of Internet services (such as: the world wide web, e-mail, Usenet, chat, FTP) and their potential usefulness in everyday life, the popularity of the Internet and its usage has been rapidly growing (see Figure 1). Users started to use the Internet for an extremely wide range of purposes, from everyday communication, entertainment, education to conducting business online. The quantity of documents and the variety of digital formats transferred over the Internet have also increased. Users started transferring texts, pictures, datasheets, graphs, links, but also audio and video files.

Figure 1: Number of Internet users per 10000 inhabitants



Data source: ITU Internet Usage Report, June 2001

The main obstacle to efficient data transfer is the speed of the network. The network speed is determined by the speed of the network equipment. The speed of modems has played an important role for the Internet. By 1984, modems were able to transmit 9.6 kbps, in 1991 the modem speed increased to 14.4 kbps, in 1994 it doubled to 28.8 kbps and very soon increased to 33.6 kbps and 56 kbps. Nowadays broadband high-speed Internet access allows users to access the Internet and Internet-related services at very high speeds which are measured in several Mbps. Figure 2 shows the calculated time needed for transfer of 30 MB file and of 3

MB file at different network speed.

By comparing given downloading times (Figure 2) it became obvious that, even at a lower modem speed, music stored in MP3 format is much more suitable for online transfer than music stored in audio CD format. Therefore, the popularity of MP3 format continued to grow. Users started to share songs stored on MP3 with their friends by using web sites, FTP sites, or Usenet groups in a constantly increasing number. This fact has broadened legal questions regarding music file sharing which will be discussed in the fifth part of the paper.

At the same time, an increasing number of shared MP3 files consumed memory and network resources of their Internet Service Provider (ISP), therefore most of ISPs started to discover users sharing music and close such sites. Thanks to their size and quality, but also due to an increased exchange of MP3 songs via Internet, by the 2003 number of portable MP3 players exceeded the number of portable CD players.

Figure 2: Download time at different network speed

Speed	file size 30 MB			file size 3 MB		
	hr	min	sec	hr	min	sec
14.4 K	4	51	16	0	29	7
33.6 K	2	4	49	0	12	28
56 K	1	14	53	0	7	29
ISDN 64 K	1	5	32	0	6	33
ISDN 128 K	0	30	47	0	3	4
Wireless 144 K	0	29	7	0	2	54
DSL 640 K	0	5	45	0	0	34
Bluetooth 728 K	0	2	40	0	0	16
T1	0	0	5	0	0	0
T3	0	0	4	0	0	0

In 1999, a new kind of Internet service started to grow rapidly: P2P (peer-to-peer) network for sharing music. P2P networking represents direct Internet-based communication or collaboration between two or more agents (such as PCs or devices) that bypass the centralized computer server (Panian, Z, 2005)

The leader in the field of P2P music sharing networks was Napster. Napster was the service for MP3 music exchange and it was designed as a search engine which allowed its users to view and download the contents of MP3 directories from other Napster users' hard drives. The

search engine was user friendly. The user had to type in the artist and/or song, start the search and as a result receive a list, compiled by Napster's servers, of all files matching his request which are currently available for downloading. By double-clicking on a song name, the download of a song would start.

It was estimated that, by October 2000 Napster's software was installed on 30% of all PCs worldwide, and it continued to grow. In February 2001 Napster had 26.4 millions users worldwide. Some researches showed that the average user in March 2001 was spending more time using Napster then browsing any music-related web site (Jupiter Research: MMXI At-Home Panel, 3/2001).

Although Napster did not charge a fee for its service and MP3 files were not stored on Napster's servers, the Recording Industry Association of America (RIAA) denounced Napster as copyright infringement software and filed a law suit against it. On March, 2001 Napster was ordered to prevent trading of copyrighted music on its network and on June, 2001 Napster shut down its network. Moreover, it agreed to pay \$26 mil. to creators and music owners for the lapsed period. In September 2002, Napster declared bankruptcy and was liquidated. Napster is presently striving to become a respectable subscription service for legal music distribution.

Nevertheless, the Napster case showed several issues to be considered by major players in the music industry:

- Internet file sharing is an inevitable fact and a rapidly increasing trend.
- People enjoy to trade music and to download favourite songs at zero cost.
- People prefer to download individual songs, not entire albums.
- People are searching for popular music but also for music that is difficult to obtain in offline music stores (for example old songs and regional music).
- Digital music industry is not immune to theft within recording companies (for instance some songs were released trough Napster months prior to their commercial release, such as Mettallica's "I Disappear" and Madonna's "Music").

Recently, more powerful P2P software with anonymous applications has appeared, such as Gnutella and Freenet. Both of them are open, decentralized P2P systems that allow authors

and readers to remain anonymous and ensure secrecy of information on real storing location of exchanged files. So by definition they are true P2P without any centralized control that allow individuals to trade files without the existence of a central server. This results in a “no one to sue” legal situation, so one could say that they are out of range of current legislation (Dong et al., 2002).

All technologies mentioned above led to the rise of music piracy both through Internet and via CD piracy. If we analyze RIAA Annual Reports we can observe that CD retail revenues have been declining since 2000 till today (Figure 3). The main reason for such a situation is the increased piracy rate. In 2004 the global piracy industry was estimated to be worth \$4.8 bil. (Reece, 2004). For the present music industry, piracy is an extremely important issue because if consumers can download music for free, no one will buy music and no one in the industry will be able to cover production and distribution costs (not artists, nor recording labels, or music retailers). Therefore, major recording companies tried to establish their own online sales services, but not very successfully. They changed their strategy towards new partners – specialists for online music distribution (Graham et al., 2004).

Figure 3: CD Retail Revenues

Year	Units sold	Value (mil. \$)	Units Change	Value Change
2000	942,5	13214,5		
2001	881,9	12909,4	-6,40%	-2,30%
2002	803,3	12044,1	-8,90%	-6,70%
2003	746	11232,9	-7,10%	-6,70%
2004	767	11446,5	2,80%	1,90%
2005	705,4	10520,2	-8,00%	-8,10%

Data Source: RIAA, 2005 Year-End Statistics

Specialists for online music distribution have proliferated in services which offer A-la-carte music downloads (or pay-per-download) and subscription services. Currently, Apple iTunes Music Store (iTMS) is the most known pay-per-download provider. It has a large music catalogue and offers music in AAC file format that can be digitally protected from unauthorized use. In July 2004 iTMS exceeded 100 mil. downloads. Apart from iTMS service, other popular pay-per-download services are Music Match Store, RealPlayer Store, MSN Music and so on. All of them are charging \$0.99 per song download and are distributing music in formats that can be copy protected (such as AAC or WMA).

On the other hand, subscription-based services charge a monthly fee to access and download music. Most of these services (such as new and legal Napster, then Music Match, RealRhapsody, etc) offer access at \$9.95 per month and offer catalogues with more than 700.000 songs (in digital format which is copy protected). Users can download songs for playback on up to three computers. In order to be successful online distributors, their catalogues have to hold music from five major recording labels plus many independent ones. In 2005, the RIAA reported (RIAA: 2005 Year-End Statistics) that revenues in singles downloads reached \$363 mil. and in album downloads \$135.7 mil. with the annual growth rate of above 160%.

## **2 The Structure of the Croatian Music Industry**

The music industry has got three principal segments or revenue streams: industry for purchase of recorded music, industry for broadcasting recorded music and industry for attending live performances (Hull, 1998).

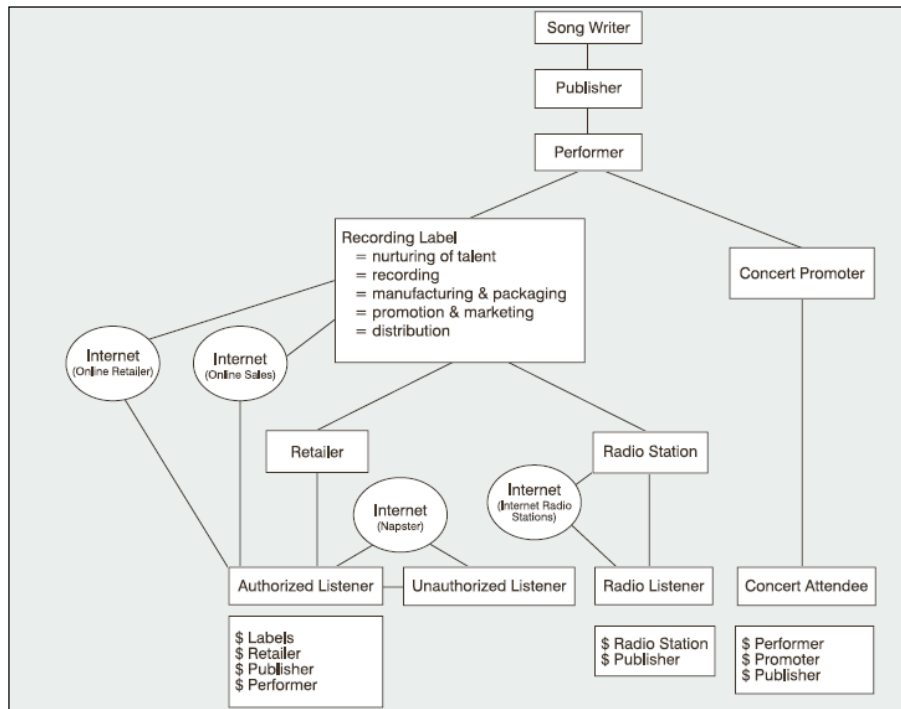
A simplified value chain (Figure 4) for the music industry can be described as follows. The revenue stream begins with a composer and a lyricist writing a song. Performers play the song either in a recording studio for the purpose of recording it, or live in front of an audience. Despite the low cost modern technology, a big number of music authors (lyricists, composers and performers) make use of the expertise of recording companies. Cooperation between a recording company and a performer is regulated through a contract specifying obligations of each counterpart including payment to the performer for each recording sold and reimbursement for the recording company for marketing and distribution costs (Hull, 1998).

The recorded music is then distributed to consumers via retail distribution networks, but also via online distribution services. The value chain may continue if the consumer (authorized listener) shares his/her recordings giving them to unauthorized users (Meisel et al., 2002).

On the other hand, radio stations often receive free copies of the music directly from recording companies, but they have an obligation to pay royalties for playing songs and this is usually done through performing rights organizations (Hull, 1998).

The third revenue stream constitutes live performances. Revenues gathered from selling tickets to concert spectators are distributed among the performer, the concert promoter and the music publisher according to special contracts regulating organized concerts.

Figure 4: Value chain for the music industry



Source: Meisel et al., 2002, p.18

From the given description of the value chain for the music industry we can distinguish among several interest groups or key players in the value chain. They are:

1. music creators (authors) and/or artists: lyricists, composers and performers
2. record companies
3. distribution companies – music retailers and online distributors
4. broadcasters
5. rights organizations
6. consumers

The value chain for the Croatian music industry includes all mentioned interest groups and it is similar to the one described in the referred literature. In order to get a better picture, research on the content of each interest group was performed. Here are some of the findings: in Croatia there are approximately 810 song writers, 640 composers and 780 performers

(singers and bands) active in the field of popular and folk music (data is collected out of several web sites: www.crorec.hr, www.menart.hr, www.hitrecords.hr, www.diskografija.com and www.tamburica.net; data are based on information available on covers of published albums in the past 3 years and does not include artists without recently published material).

Just as there are 5 big recording companies that play an important role on the global level, there are 5 most important companies in the Croatian music industry and they hold more than 85% of the Croatian music market. They are: Croatia Records, Aquarius Records, Dancing Bear, Menart and Hit Records. Figure 5 shows revenues and profits gained in top 5 recording labels in Croatia.

Figure 5: Financial indicators of key recording labels in Croatia

<b>Company</b>	<b>Revenue (mil. EUR)</b>	<b>Annual change revenues</b>	<b>Profit (000 EUR)</b>	<b>Annual change profits</b>	<b>Share of domestic trade (revenue)</b>
Croatia Records	5,5 – 5,6	1%	60-70	9%	67%
Aquarius Records	1,8 – 1,9	6%	120-130	14%	64%
Dancing Bear	1,7 - 1,8	-8%	50-60	-56%	77%
Menart	1,6 – 1,7	-6%	40-50	5%	91%
Hit Records	0,41 – 0,42	174%	7,2	196%	87%
<b>TOP 5 TOTAL</b>	<b>11,01 – 11,42</b>	<b>-</b>	<b>277,2–317,2</b>	<b>-</b>	<b>-</b>

Data source: Business Croatia 2005, ZAPI, Zagreb, 2005

Note: In columns «Revenue» and «Profit» approximate value range is given based on data provided in annual financial statements for the year 2004.

The top 5 Croatian recording labels make total revenue between 11,01 and 11,42 mil. EUR and gain total profits between 277.000 and 317.200 EUR. The major proportion of revenues is gained on the domestic marketplace. A publication Business Croatia gives a five year trend in revenues. When analyzed, it can be concluded that the mentioned companies had a growth in revenues till 2002, and after that their revenues have stagnated or declined (with the exception of Hit Records which was founded in 2003, and in 2004 it had a rapid growth in its revenues). This trend can be connected with growing popularity of MP3 sharing over the Internet.

In the domain of music broadcasting there are 135 Croatian radio stations (data source: Croatian Journalists' Association). Approximately 54% of the radio stations broadcast their program online allowing listeners to listen to a live stream of music without the possibility for its download. But, according to some analyses (Zagreb Caterers' Association and Metro Express, August 2006) a large portion (70%) of broadcasting revenues come from caterers

(coffee bars, restaurants, night clubs and so on), discotheques and clubs.

Since 1998 there are four large music rights organizations in Croatia: HDS (Hrvatsko Društvo Skladatelja; in English: Croatian Composers' Society), HUZIP (Hrvatska udruga za zastitu izvodjackih prava; in English: Croatian Performers' Rights Collecting Society), HGU (Hrvatska glazbena unija; in English: Croatian Musician Union) and HUOKU (Hrvatska udruga orkestralnih i komornih umjetnika; in English: Croatian Association of Orchestral and Chamber Musicians). The main purpose of those organizations is to inform their members about music property rights and trends in the music industry and to help their members in case of legal abuses of their property rights.

## **2.1 Development of Internet in Croatia and Its Impact on Music Industry Value Chain**

According to ITU (International Telecommunication Union) reports the number of Internet users in Croatia has tripled since the year 2000 and there is an ongoing rapid growth of Internet users. Like all Internet users all over the world, Croatian users have started to use the Internet in a large scope of activities including sharing music over the Net. Currently, there are 1,3 mil. Internet users in Croatia what means that 29,2% of Croatian population uses Internet ([www.internetworldstats.com](http://www.internetworldstats.com)).

But, Croats have problems getting popular Croatian music on traditional P2P networks such as Napster, Gnutella and Freenet because there are not many Internet users which store and share songs of Croatian authors. Therefore, exchange over Usenet groups or directly via e-mail is more widely spread than using traditional P2P networking.

The problem of piracy in Croatia is extremely large. The approximation of piracy market share is at least 50% which is lower than in Bulgaria and Romania (80%), but ten times higher than in Austria, Germany, Italy or England ([www.zamp.hr](http://www.zamp.hr)). If we analyze official data on confiscated pirate CDs, we can see that there is a trend of rapid growth of piracy in Croatia. For instance, according to the Ministry of Internal Affairs, 8413 pirated CDs were confiscated in 1999, 30425 in 2000, 72477 pirated CDs were confiscated in 2002.

Another problem that the Croatian music industry faces are music sharing portals located in

Ex-Yugoslavia countries such as [www.nostalgija.com](http://www.nostalgija.com) that can be called “Ex-Yu Napster” because it contains over 15000 songs which can be downloaded for free (35% of available songs are produced by Croatian authors).

Currently, the Croatian recording labels and some ISP companies are searching for new models of legal music distribution. One solution is found the so called “kiosk retailing”. This business model establishes a strategic alliance between a daily newspaper and a recording label and buyers can purchase popular audio CDs together with the daily newspaper at a price which is 60% lower than in regular retail outlets. Due to economies of scale, this model brings high profits to the recording label.

The second model is selling music directly through a portal. For instance, Croatia Records tried to sell their own recorded music allowing users to create customized CDs containing his/her favourite songs of authors that are publishing in cooperation with Croatia Records. But, the model was not so successful.

Nowadays several portals have developed for selling CDs online and they sell CDs from all major players in the industry. On the other hand, one of the most popular information portals have recently opened its online music shop allowing users to listen to songs prior to purchase, while user pays the same amount of money per song download as in western Europe (the shop is located at <http://mdp.tportal.hr> and the fee per song is 0,99 EUR payable in the Croatian currency Kuna).

It is necessary to point out that there is a strong and well-developed alternative music scene in Croatia which uses Internet to distribute music for free or under Creative Commons licence renouncing its intellectual property rights in order to speed up market penetration (an example is portal [www.demobands.com](http://www.demobands.com)).

### **3 A Brief History of Copyright Legislation**

A copyright may be broadly defined as a form of intellectual property that provides legal protection against unauthorized copying of the producer's original expression in fields such as art, music, books, articles, software and other (Khan, 2006). As in other forms of intellectual property, copyright protects cultural creations that are nonexclusive in their nature.

In the past three centuries there have been great debates about granting of property rights to authors, the dilemma being the extension of such rights, with the primary emphasis on the provision of copyright protection through the formal legal system.

Authors of various works throughout the ages tried to make works permitted to copy once they have been disclosed to the public. The first authors that were concerned with the recognition of copyright were the scholars of Ancient Greece and the Roman Empire, but copyright protection was practically non-existent until the late fifteenth century, and the historic invention of printing. Until then books and other written material became part of the public domain at the moment of their publishing. But the notion of "public domain" has to be taken in a strict sense – in fact, if you think about it in a historic perspective one can imagine these works were mainly copied and disseminated through religious institutions (predominantly monasteries) and orders of European royal courts, since the majority of people were illiterate and only privileged members of the society had access to written classical works.

Two major developments in the fourteenth and fifteenth centuries have provoked the development of modern copyright. The expansion of mercantile trade in major European cities and the appearance of secular universities helped produce and educate a class interested in gaining classical and daily knowledge. Then Gutenberg's development of movable type and the development and spread of the printing press made mass reproduction of printed works quick and much easier than ever before. Before printing, the process of copying a work was nearly as labour intensive and expensive as creating the original, and was largely relegated to monastic scribes. It seems that publishers, rather than the authors, were the first to seek restrictions on copying printed works.

In the fifteenth century, granting book privileges originated in the Republic of Venice, a practice which was soon prevalent in a number of other European countries. However, authorship was not required for granting a privilege. Printers and publishers thus obtained monopolies over existing books as well as new works. Grantors included religious orders and authorities, universities, political figures, and representatives of the Crown. These privileges were granted on a case-to-case basis, with no common time duration, scope or coverage.

In 1498, the French introduced their privilege system that developed until the sixteenth century. The system granted privileges under the auspices of the monarch, generally for a brief period of two to three years. Petitioners paid formal fees and informal gratuities and the courts sometimes imposed limits on the rights conferred, in the form of stipulations about the prices that could be charged. This was property that could be assigned or licensed to another party, and their infringement was punished by a fine and at times confiscation of all the output of "pirates".

England similarly experienced a period during which privileges were granted, such as a seven year grant from the Chancellor of Oxford University for a 1518 work. However, the modern concept of limited duration copyright originated in 1710 with the passing of the Statute of Anne (Khan, 2005), which was the first Copyright Act in the world to deal with this issue. It introduced two new concepts - an author being the owner of a copyright and the principle of a fixed term of protection for published works. Its intent was to restrain the publishing industry and destroy its monopoly power. But due to territorial loopholes the Act did not extend to all British territories resulting in many reprints of British copyrighted works being consequently published both in Ireland and in North American colonies, without requiring any license from the copyright holder.

Concepts of roles of copyright law, the author and the publisher all interacted in this period of copyright development. Authors regarded patronage as a legitimate way of supporting their creative work. But the notion of individual genius was becoming more common during the 1770's, and being a fairly paid author therefore became more accepted.

The debate related to the nature of copyright and the breadth of rights granted to authors continued in the eighteenth century, until 1886 when the Berne Convention brought multilateral unification and transparency in this legal term among sovereign nations. Under the framework of the Berne Convention for the Protection of Literary and Artistic Works, copyrights for creative works did not have to be asserted or declared, as they were automatically in force at creation. As soon as a work is written or recorded on some physical medium, its author is automatically entitled to all copyrights in the work, and to any derivative works unless and until the author explicitly disclaims them, or until the copyright expires. The Berne Convention resulted in foreign authors being treated equivalently to domestic authors, in any country signed onto the Convention, meaning final multilateral

recognition of copyright.

Thus the issue of copyright legislation began to be harmonised within sovereign states, leading to the signing of many international treaties related to copyright protection. The World Intellectual Property Organisation (WIPO) is a specialised agency of the United Nations, which is responsible for administering 23 international treaties that cover the issue of copyright and intellectual property.

In 1952 the Universal Copyright Convention and Protocols 1, 2 and 3 were passed, forming the present day legal body of 95 member states. It was last revised in 1971 obligating every member state to provide adequate and effective protection of the rights of authors and other copyright proprietors.

The Rome Convention of 1961 legally protected performers, producers and the broadcasting organisations, counting 69 member states. Similarly, the Geneva Convention which was signed in 1971 granted protection against unauthorised duplication of phonograms.

In 1995 the World Trade Organisation started to apply the TRIPS Agreement to all of the members. The obligations regarding intellectual property protection came into effect for developed countries in 1995, for the developing ones in January 2000, and are being applied for the least-developed since January 2005. Generally, the TRIPS Agreement require all members to comply with the provisions of the Berne Convention, mirroring the Rome Convention protections against unauthorised copying of sound recordings, with the purpose of authorising or prohibiting commercial rental of works.

The three WIPO treaties are:

1. The Copyright Treaty which complements the Berne Convention, connecting computer programmes' similarity to literary works, stressing the importance of authors to provide access to protected works;
2. The Performers and Producers of Phonograms Treaty ; and
3. The Databases Treaty which is a new, *sui generis*, instrument for database protection, which encourages their commercialisation.

#### **4 Implementation of Intellectual Property Rights Protection in the Croatian Legal System**

As to copyright protection in the Republic of Croatia, it is important to state that starting with the Hungaro-Austrian Copyright Act, there has been a historical legal tradition of intellectual property and copyright protection and enforcement of these measures starting with the Austro-Hungarian Copyright Act, which means that the idea of protecting authors' rights cannot be put into question in the Croatian legislation.

In 1929 the Copyright Protection Act was passed together with forming the organisational structure of what will nowadays be known as the Croatian Composers' Society. In 1940 Croatian authors from all intellectual and creative fields formed the Croatian Author's Society which organised the payment of fees and tariffs to both domestic and international authors. After the Republic of Croatia gained independence and became a member of the United Nations, the Croatian Composers' Society became an internationally recognised organisation and a key institution for the Croatian modern cultural development. In 1993, the Croatian Composers' Society became a member of the International Confederation of Authors and Composers Societies and the international organisation representing mechanical rights societies – the BIEM.

Being a country in transition, and facing great economic and political challenges, the Republic of Croatia has put much effort in explaining, both to the general and to the expert public, the importance of a higher level of protection of authors and their work. As the EU candidate country, Croatia has harmonized its copyright legislation with the *acquis communautaire*. In October 2003 the Croatian Copyrights and Related Rights Act was passed.

In 2005 the Government of the Republic of Croatia adopted The National Strategy for the development of the system of intellectual property (Nacionalna strategija razvoja sustava intelektualnog vlasništva Republike Hrvatske 2005-2010). This Strategy is based on

- 1) experience, work and strategic documents of appropriate national organizations and institutions which deal with questions of intellectual property rights, especially the National Institute for Intellectual Property and the Ministry of Science, Education and Sport;

- 2) results and recommendations of CARDS 2001 program - Strategy and Action Plan for the Implementation and Protection of Intellectual Property Rights;
- 3) results and recommendations of other program documents and working materials in the framework of different strategic initiatives on a national and international level.

The Strategy includes recommendations and policies of relevant organs and forums on an international and regional European level. This primarily concerns the Declaration on Intellectual Property and other strategic WIPO documents, as well as the results of a strategic discussion on the future of the European patent (EPO) system which takes place in the European parliament with the participation of the Republic of Croatia in its status of observer. For the purposes of this Strategy, the Government of the Republic of Croatia defined its measures as short- term (till the end of 2005), medium-term (for a period between 2006 and 2007) and long-term (for the period until the end of 2010).

Experts of the regional CARDS 2002 project gave their review of the intellectual property area when they said that the Republic of Croatia has the highest experience in battle against the abuse of intellectual property in practice in the whole region. They stated that the Republic of Croatia has passed the first period of institutional development and has accomplished harmonization with TRIPS and has harmonized its legislation in the area of intellectual property with the *acquis communautaire*. Because of the continuous presence of carriers of intellectual property rights on local markets, institutions have been put on probation and that way they gained huge experience. Institutions have begun to recognize that they have to put bigger efforts in mutual connection and attainment of effective cooperation. They have begun a stage of specialization by establishing separate departments for intellectual property protection. But, the biggest problems are in the area of jurisdiction and criminal law protection of intellectual property rights. There is insufficient connection between the actors, absence of common planning, application and control of the measures for improving national system of intellectual right. Technical and human resources are insufficient and there is a lack of programs for their provision and development.

Croatia established a system where organizations provide protection of intellectual rights not only to national but also to all international property owners. The object of protection against users does not only constitute individually enumerated works but the entire world repertoire. Organizations in the common system of consumers collect a single fee for the rights of

authors, artists, performers and producers of phonograms. The collected sum of money is divided among national and foreign owners of intellectual property rights that are publicly broadcasted according to information that is stored in the international database.

The legal framework is harmonized with the *acquis communautaire* and other international regulations. A great effort has been put in harmonization of laws and associated regulations in the area of intellectual property. An international expert team has rated Croatian legislation in this area basically harmonized and completed. That analysis has perceived certain inconsistencies that shall be eliminated through changes and amendments to the Croatian legislation in the future.

The National Strategy Document defines measures for improvement of legislative and institutional framework in this area. As institutions and regulations already exist, the most important role for successful application of the Strategy are long-term plans of growth and development especially the Long-term Plan of the State Intellectual Property Institute 2005 - 2010.

Recently, the Republic of Croatia has finished the Brussels screening for the intellectual property right Chapter, an enormously important area for the industry based on intellectual property right because 6 % of the Gross Domestic Product in the EU is based on this right (data is collected out of official web site of the Ministry of Foreign Affairs and European Integration: [www.mvp.hr](http://www.mvp.hr)).

We can assume that the Republic of Croatia has harmonized its legislation in this area. The only uncoordinated parts are those that have to be harmonized in time when Croatia will enter in EU. On the other hand, there is still a lot of work to be done on the implementation procedure. Croatian experts in this area stress that legislative harmonization in the area of intellectual property would not have any negative implications on the Croatian industry and market. It will help Croatia to sell its products because it concerns product-based exports that are the intellectual property of Croatian producers.

This conclusion was also affirmed during the last assessment of the European Commission in 2005. It stated that the Republic of Croatia has mainly harmonized its legislation in this area through reforms from 2003. In the future, Croatia will have to improve its system of

application of its laws concerning piracy and falsification. Also, Croatia has to improve its department for intellectual property rights by The State Institute for Intellectual Property and its Department for patents as it has a big backlog in analyzing application forms for patents (Bruxelles March, 1<sup>st</sup> 2006).

The application of this legislation implies a lot of state institutions like state attorneys, the judiciary, customs, police and the state inspectorate. Other problems in application could be termed as “physical deficiencies” like the deficiency of space etc.

Also, qualification for fast authentication is very important because of the protection of intellectual property carriers, but also of persons who legally import authors’ products. The Republic of Croatia has resolved the problem with fees for products that are protected by intellectual property in accordance with the *aquis*, but it has not yet started its application.

## **5 Copyright and E-copyright in Music Industry**

The emerging digital technology, the increasing use of computers, the communication technology and their convergence into integrated information technology have given rise to challenging legal issues for copyright and many more are expected in the future. The ease of distribution, altering digital information and the proliferation of computer networking raise concerns about copyright. Copyright was designed for three basic reasons: to reward creators for their original works; to encourage availability of the works to the public; and to facilitate access and use of copyrighted works by the public in certain circumstances (Rao, 2006).

There is no real difference between copyright and electronic copyright (or e-copyright). The distinction lies in the way the material has to be decoded or read by the user. Works that are published in electronic format are protected as their printed equivalents. The users of printed information have allowances for copying and distribution under special fair dealing arrangements. No such privileges exist for electronic information or e-information. E-copyright first came into the public consciousness with the rise and fall of Napster, a peer-to-peer file-sharing service that enabled consumers to illegally distribute digital music files. E-copyright refers to the right to copy music, movies, text including Web content, etc. In the USA copyright conferral is automatic; the instant one completes a manuscript, one holds the copyright. If one does not hold the copyright to something, copying it, posting it on a web

site, making it available for download or including it in an e-mail or bulletin board, means breaking the law (Rao, 2006).

In multimedia, different categories of copyright protected works are used. The creation types and corresponding right owners can be classified as: audio: composers, lyricists and arrangers; music publishers; performing artists and phonogram producers (Rao, 2006).

There is a widespread myth that the Internet is free for all in using vast available resources. In the public domain, material found on the Internet may be copied freely only if the information is created by the federal government or the copyright has expired or been abandoned by the holder. Any work published on the Internet is not automatically placed in the public domain. Material provided by others and used with permission, does not entitle anyone to claim copyright to the material in question (Rao, 2006).

Early signs of response to copyright threat and the associated existing business model on the part of the music industry include searching for technological solutions to prevent piracy, going to court to sue for copyright infringement, offering their own authorized online distribution joint ventures, and expanding industry rights through new legislation, all in attempts to preserve their power in the market (Meisel et al.,2002).

Today all music is distributed in the digital mode. In the last decade, a new method of digital distribution has become very popular: transmission through the Internet and storage on home-based computers without using traditional sources. Music that is distributed in that way is mostly performed through home stereo systems that are connected to computer or through portable devices with analog “walkman” devices ([www.zamp.hr](http://www.zamp.hr)).

As described earlier, the music industry has got three principal segments: music retail, broadcasting industry, and industry for live performances organization. The revenue stream begins with a composer and a lyricist writing a song. In some cases the songwriters` will self-publish the music. Alternatively, the rights may be held or purchased by another party. Performers then play the song, at which point the value chain splits between performances that are made in a recording studio, for the purpose of recording, and those performed live, in front of an audience.

The Internet effect on music retail segment occurs in two instances. First, the Internet allows an alternative distribution method, allowing the labels to bypass traditional retailers, or for that matter all retailers. As retailers appropriate a significant portion of the total revenue generated in this segment, labels are especially interested in ways to capture this portion of the value chain.

The second way in which the Internet affects this segment is through the illegal distribution of music to unauthorized consumers. Again, in the past, this consisted of small operations or occasional sharing among friends. However, technological advancements in compression protocols and high-speed Internet connections have made possible for this illegal sharing to proceed on a much larger scale. The innovation originating with Napster, providing free software and a centralized directory listing songs available for sharing from the hard drives of registered users' personal computers, was warmly welcomed by users and at one point registered an estimated 60 million Internet users. Of course, the horror to the music industry was that Napster facilitated widespread free sharing of copyrighted music for which no royalties were being paid. The huge interest in the Napster service indicates that the record industry had to find a new business model and perhaps, a way to relax the current set of copyright laws that govern the industry. The value to users from Napster's innovation was more than it being for free; it also allowed access to virtually any song you desire to hear, the convenience of that access, and the flexibility in the listening experience accompanying that access.

The second source of revenue in the music industry comes from playing recorded music by radio stations. Although radio stations sometimes purchase the recordings they often receive free copies from the labels. The labels view these as a promotion, and anticipate that the station's listeners will purchase the recording. Radio stations do, however, pay a licensing fee to the publisher for the right to play the song (Meisel et al., 2002).

Through litigation, the industry has challenged and continues to challenge the use of digitalized music in new formats which they maintain not to respect existing copyright laws. The fact is that the combination of digital technology and the Internet enables consumers to easily make and distribute copies of music. Disputes have arisen because music listeners now have the ability to listen to songs that are stored in music files on various types of hardware, using the MP3 standard on their computers (Meisel et al., 2002).

This method of distribution of music became very popular and accessible after the development of MP3 format for compressing music. MP3 allows music to be distributed faster and to be saved much more easily with minimum loss in quality. MP3 technology is especially well accepted by two groups of consumers. The first group are musicians who couldn't get adequate contracts with bigger music companies and realised that for a small sum of money they could record their materials in MP3 format and make them available on the Internet. The other group are students and scholars who realised that they can provide MP3 copies of creations of their favourite musicians through Internet. Unfortunately, the majority of these works are copied without the approval of the owners of intellectual property rights and neighbourhood rights.

Digital distribution has its advantages and disadvantages. It brings economic and social advantages, but it also has unwanted side effect: it undermines the chance for earnings for its creators. Whereas MP3 format is totally unprotected from copying, it enables the person who once provides a copy of a recording (with or without permission) to easily produce a lot of other copies. On the other hand, as opposed to digital recording on common cassette recorders/players, digital technology produces perfect copies without quality losses. As a result, the Internet is full of perfect free MP3 copies of protected music.

If this situation continues, consumers will suffer biggest losses. If the music industry wins many cultural and social advantages that are connected with Internet digital distribution of music will be lost. On the other hand if it loses, we could have a lot less music that we want.

An acceptable resolution would have to satisfy two things: to allow free digital distribution, and to assure adequate financial fees for the authors and performers. Some possibilities are: 1) creating an association of Internet distributions selling their work or 2) changing legislation by implementing taxes and amends. This second system should comprise: MP3 players and recorders, Internet access, hard discs and home computers whose system requires good logistic. That system would assure income for authors and performers, it would assure all cultural and social advantages of Internet distribution, download wouldn't be illegal any more, and users wouldn't have to screen their reproduction of MP3 recording, which would lead to fairer and simpler allocation of collected fees. On the other hand it would have some disadvantages like iniquity between small consumers who use this system rarely or never, and big users who use it frequently. Small users would pay much more than big users. This allocation of expenses would finally lead to an end to the use of some technologies, and too

much use of others. Also, because Internet has no borders, it would be hard to stop escape of ISP in countries that have no such fees ([www.zamp.hr](http://www.zamp.hr)).

## **5.1 The Croatian Legislation in This Area**

According to the Croatian “Law on Intellectual Property and Neighbourhood Rights” intellectual property right is a right which regulates attitude between author, authors’ work and third parties. The intellectual property right includes ownership rights and moral rights that are given to authors (producers) of literary, scientific, artistic and other works in the area of intellectual creation. With intellectual property right all the native authors and their heirs are protected. The authors have exclusive rights to use and allow other persons to use their work under contract circumstances. The author can forbid or allow: copying of his work in different forms, public performance of his work, recording, performing, translation or adaptation of his work. Intellectual property rights are limited in time and they last during the author’s lifetime, and 70 years after his death.

A work of music belongs to its author from the moment of creation. The authors, as the only owners of music, have exclusive right of control of public performance of their work. Anyone who makes music accessible to the public and gains an advantage from it has to have permission from the author and pay a related fee for it. Frequent users of music in public are television and radio stations and other electronic media, concerts organisers, discos, hotels, etc. Public performing of music is every music performance in a public place, indeed in every place that is accessible to the public or a place where many people can be grouped. Term “public performing” refers to every aim and every media that performs music in a place accessible to the public, performing for pleasure or profit, in vivo or through mechanical means for performing music.

In Croatia, buying an original music CD does not allow to play it in public. As an item, a music CD constitutes private ownership, but its musical content does not. That is especially indicated on every musical CD where it is stated that all intellectual property rights of producer and owner of recorded act are agreed upon, and every unauthorized copying or public performing is forbidden.

The Croatian “Law on Intellectual Property and Neighbourhood Rights” does not distinguish recording of backup copies, copies for personal use from other pirate recordings. It concerns

every recording of music and their copying or transforming in different digital formats without the approval of the author is considered illegal (according to the article 30 of “Law on Intellectual Property and Neighbourhood Rights”. That legal option may cause different problems, especially in MP3 industry and other digital ways of transforming music that differ from this consideration. It is difficult, if not impossible to control this article.

## **Conclusions**

Technological development in the past two decades has brought several major inventions which have affected the music industry value chain both on the global marketplace and in transitional countries such as Croatia. Digital storage and distribution of music together with the rapid growth of Internet popularity caused turbulences in the music industry, changing the way in which people buy, listen and trade music. As a result, the problem of pirated music and existence of parallel free but illegal market brought copyright issues to the focus of interest of the music industry.

As a form of intellectual property, copyright is generally directed to the protection of cultural creations that are nonexclusive in their nature. The debate related to the nature of copyright and the width of rights of this form of legal protection continued until the signing of the Berne Convention bringing multilateral unification and transparency to this legal term. The issue of copyright legislation has recently begun to be harmonized within sovereign states, leading to the signing of many international treaties related to copyright protection.

In May 2001, the European Parliament and the Council of the European Union adopted a Directive on the harmonization of certain aspects of copyright and related rights in the information society. The Directive contains a number of important provisions to implement the Treaties, including those concerning the application of the right of reproduction in the digital environment and of temporary reproduction.

As an EU candidate country, Croatia has harmonized its copyright legislation with the *acquis communautaire*. In October 2003, the Croatian Copyrights and Related Rights Act was passed. Being a transitional country, and facing great economic and political challenges, the Republic of Croatia has nevertheless put much effort in explaining both to the general and expert public the importance of a higher level of protection of authors and their works.

The Croatian legal frame is harmonized with the *acquis communautaire* and other international regulations. According to the Croatian “Law on Intellectual Property and Neighbourhood Rights”, the intellectual property rights include ownership rights and moral rights that are given to authors. With intellectual property rights all the native authors and their heirs are legally protected. In 2005 the Croatian National Strategy for the development of the system of intellectual property defined measures for improvement of the legislative and institutional frame in this area. The European Commission's assessment in 2005, found the Croatian intellectual property to be fully harmonized with the EU perspective.

The only uncoordinated parts are those that have to be harmonized in time when Croatia will enter the EU. On the other hand, there remains a lot to be done in the field of implementation procedure. Croatian experts in this area stress that harmonization of law in the area of intellectual property would not have any negative implications on the Croatian industry and market. This will help Croatia sell its products because the intellectual property of Croatian producers is mainly exported.

With Croatia's national sovereignty, the Croatian Composers' Society became an internationally recognized organization and a key institution for the Croatian modern cultural development. Although the rights of music producers are highly protected through the legal system and existing institutional framework which abides by the contemporary protection in western countries, Croatia will in the future have to improve its system of law enforcement with regard to piracy and falsification. Like most other developed and transitional countries, Croatia must provide adequate and effective legal remedies against the circumvention of technical protection measures and the deliberate deletion or alteration of information management rights.

This paper has used secondary data in order to describe current situation in the Croatian music industry. Further research phases should include a detailed survey together with the analysis of collected data in order to get detailed information on major changes and ongoing trends directly from the Croatian top 5 companies in the industry, but also from music users in order to find out how the Internet and digital music are changing their behavior regarding music purchases.

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