

## “Music distribution in the Internet”

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In order to understand the present and future of the music industry in the Internet, it is very important to focus first on the situation the music industry is right now in the “real world”.

The sales of records all over the world have been going down in the last years. This is caused mainly because of piracy. The standard used to carry the music is the CD, a format created years ago and which is a master of the recording itself. In its design, no security systems were involved, and with the introduction of computer CD-R “toasters” in the mass-market, perfect CD copies are widespread. Until recently, music couldn’t be copied with exactly the same quality (in the 80’s pirated tapes didn’t sound as good as the “legal” ones). In our country this phenomenon is notorious, and pirated CDs can be bought easily in the streets. The music industry would easily allow the duplication of CDs among friends (what could be described as a possible “fair use”), but it is (of course) against the massive duplication of CDs set up by organized criminal bands that control this “black market”.

But piracy is not the only thing that has caused record sales loses... Another important cause, as some analysts and music industry executives point out, is that leisure expending money options in our society are very broad. The main buyers of records are teenagers, who must decide now where they expend the money that (usually) their parents give them. And they have a lot of possibilities: mobile phones, videogames, cinema, comics, clothes... Some decades ago, the only option was music, basically.

Also, that the main buyers of records meet the population segment with (usually) less incomes explains why the industry is so endangered by piracy.

The music industry is trying to solve these problems in the following ways:

- 1) Releasing CDs with copy protection mechanisms. The usual way these mechanisms (for example, key2audio from Sony or the Midbar patent Cactus) work is preventing the playing in computers (which are the machines normally used to copy the CDs). This, of course, causes a modification of the original Red Book standards that Philips stated for the CD. And in some cases, original CDs can’t be played in some Hi-Fi or car audio systems. And this is something that makes music fans who have bought these CDs furious.

I think this strategy is totally wrong: The music industry already has a very bad reputation in society. Most people think that labels have “devilish” contracts with artists, so that the only winners are labels execs, not the artists; and that the industry earns already a lot of money (this also explains why CD piracy in the streets, in daylight, is so accepted in our society)

Using these mechanisms, the industry also gets their most loyal consumers angry.

And we must not forget that these protection systems are not perfect, and that massive copies are still possible (and easy to do)

- 2) The industry is trying to release new formats (DVD-Audio or Super CD) in which copying is not allowed. The problem is that, for years, the industry has been convincing users that CDs were the best possible audio format. And the CD format has already widespread. The new formats are still expensive, and they offer a best quality which most users cannot appreciate.

I think these formats could succeed (in the long run) if they lower their prices. They are fully compatible with the new standard (DVD Video), and they offer users more multimedia possibilities (not only a better sound). For example: pictures, lyrics, video, Internet exclusive access...

- 3) Given that young audiences buy less and less records (or pirate them), the music industry is trying to focus now in more adult audiences, that have more incomes. This is why the music industry is releasing catalogue records (also, of course, because they are cheaper to produce, and the benefits are higher) and working with artists not so “fresh and revolutionary”. This explains also the “creativity desert” we have experienced for the last few years (at least, in most of the majors releases)

We must have in mind this surround, as I explained before, to understand the way the music industry has been dealing with the Internet.

At the beginning (only 3 or 4 years ago), the music industry sensed the Net was only useful as a “mouth to ear” communication medium, in which “viral marketing” campaigns were highly effective.

At that time, their worries about “real world” problems, lack of knowledge of the new medium, and high earning pretensions led to the inexistence of music legal services in the Net.

Then, suddenly, a 19 year-old created a new system that put upside down the “status quo” of the industry. A compression format (the MP3) allowed songs to “weight” only a few megabytes, so that they could be sent through the Internet, and with this teenager invention (Napster), users from all over the world could easily share the music they have compressed in their computers. The new “peer to peer” (P2P) mechanism proved the strength of the Net: The value (and threat, as we’ll see) was in the union of all those users.

The mechanism proved also that intellectual property rights regulation was not prepared for something like this. Technology has moved ahead from society and regulation. What can be described in a few words as “the revolution had come”...

Our *Intellectual Property Law* protects the copyrighted music works in all possible media, also in the Internet<sup>1</sup>, but the regulation is very difficult in a international and decentralized medium, as the Internet is.

The *WIPO* (World Intellectual Property Organization) created a couple of treaties<sup>2</sup> which tried to regulate the way copyrighted goods should be used in the Internet.

The *WIPO Performance and Phonograms Treaty* begins with the following *Recognizings*: “Recognizing the need to introduce new international rules in order to provide adequate solutions to the questions raised by economic, social, cultural and technological developments and recognizing the profound impact of the development and convergence of information and communication technologies on the production and use of performances and phonograms”<sup>3</sup>.

The countries belonging to this organization (in February 2002, 178 members<sup>4</sup>) had to adapt then their law mechanisms to implement these treaties. And this is why, the United States created the so-called *Digital Millennium Copyright Act*, and the European Community created some time later the *European Parliament and Council Directive 2001/29/EC of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society*.

It is important to point out what the *European Directive* states in its 29<sup>th</sup> *Having regard*: “The question of exhaustion does not arise in the case of services and on-line services in particular. This also applies with regard to a material copy of a work or other subject-matter made by a user of such a service with the consent of the rightholder. Therefore, the same applies to rental and lending of the original and copies of works or other subject-matter which are services by nature. Unlike CD-ROM or CD-I, where the intellectual property is incorporated in a material medium, namely an item of goods, every on-line service is in fact an act which should be subject to authorisation where the copyright or related right so provides”<sup>5</sup>.

This has an important result: The distribution right is no longer present in the Internet. We must remember that in the “real world” intellectual property has three rights: distribution, public performance and reproduction, which can be defined as follows:

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<sup>1</sup> The 10<sup>th</sup> article of the *Spanish Intellectual Property Law*, published in the B.O.E in April 1996: “all original literary, artistic or scientific creations expressed by any medium or support, physical or virtual, now known or discovered in the future are of intellectual property concern” (translated by the author from the Spanish text: “son objeto de propiedad intelectual todas las creaciones originales literarias, artísticas o científicas expresadas por cualquier medio o soporte, tangible o intangible, actualmente conocido o que se invente en el futuro [...]”)

<sup>2</sup> The *Copyrights Treaty* and the *Performances and Phonograms Treaty*, published in December 1996.

<sup>3</sup> From the *Preamble* of the *WIPO Performances and Phonograms Treaty*, which can be found in: <http://www.wipo.org/eng/diplconf/distrib/95dc.htm>

<sup>4</sup> From “Member States”, which can be found in <http://www.wipo.org/members/members/index.html>

<sup>5</sup> From the *European Parliament and Council Directive 2001/29/EC of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society*, which can be found in [http://europa.eu.int/smartapi/cgi/sga\\_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=EN&numdoc=32001L0029&model=guichett](http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=EN&numdoc=32001L0029&model=guichett)

- Distribution is, according to the *Spanish Intellectual Property Law*, “to give access to users to the original or copies of the work, by its selling, hiring or any other method”<sup>6</sup>.
- Public performance is “understood in all situations where a group of people is able to have access to the work without the previous distribution of copies of it to each of them”<sup>7</sup>.
- Reproduction is “the settlement of the work in a medium that enables its communication and the possibility of making copies of all or part of it”<sup>8</sup>.

In the Internet, as there is no “material medium”, the distribution right clearly doesn’t apply. This certifies the transformation the music has suffered (as we’ll explain later): The music is no longer a product, it is now a service.

We do find the reproduction right (when a song is converted to an MP3 file, for example), and the public communication one (when the songs are streamed through the Net, for example)

And we can now understand the legal differences between the *streaming* and *downloading* of music in the Internet.

In the first case, the music arrives to the user’s Net access equipment, so that he/she is able to listen to it (but can not host a physical copy of the music in his/her equipment). Reproduction right was involved to convert the song to a *streamable* file, but then, only public communication was necessary to get to the user (we could maybe consider a “volatile reproduction” right in the user’s equipment)

Of course, a question arises: What happens with the copies made of parts of the file in the routers between the user and the server?

Common sense clearly leads us to judge not these copies (which are necessary from a technological perspective) under a reproduction right scope.

And this is exactly what the *European Directive* states: “The exclusive right of reproduction should be subject to an exception to allow certain acts of temporary reproduction, which are transient or incidental reproductions, forming an integral and essential part of a technological process and carried out for the sole purpose of enabling either efficient transmission in a network between third parties by an intermediary, or a lawful use of a work or other subject-matter to be made. The acts of reproduction concerned should have no separate economic value on their own. To the extent that they meet these conditions, this exception should include acts which enable browsing as well as acts of caching to take place, including those which enable transmission systems to function efficiently, provided that the intermediary does not modify the information and does not

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<sup>6</sup> Translated by the author from the 105<sup>th</sup> article of the *Spanish Intellectual Property Law*, published in the B.O.E in April 1996, which states: “Se entiende por distribución la puesta a disposición del público del original o copias de la obra mediante su venta, alquiler, préstamo o de cualquier otra forma”.

<sup>7</sup> Translated by the author from that article of the *Spanish Intellectual Property Law*, which states “Se entenderá por comunicación pública todo acto por el cual una pluralidad de personas pueda tener acceso a la obra sin previa distribución de ejemplares a cada una de ellas”.

<sup>8</sup> Translated by the author from that article of the *Spanish Intellectual Property Law*, which states “Se entiende por reproducción la fijación de la obra en un medio que permita su comunicación y la obtención de copias de toda o parte de ella”

interfere with the lawful use of technology, widely recognised and used by industry, to obtain data on the use of the information. A use should be considered lawful where it is authorised by the rightholder or not restricted by law”<sup>9</sup>.

If the file is downloaded to the user’s equipment, we’d find that a reproduction right is used there.

The regulation, as we note, is necessary in the new medium. The Internet is a “new world”, and the laws regulating it should be similar to the ones that apply in the “real world”. If things like terrorism, child abuse or robbery are prosecuted in “that” world, they should be also prosecuted in “this” world. And author rights regulation is, of course, present in the “real world”.

As we have seen, the *WIPO* and its member states are doing their best to protect the intellectual property rights in the Internet. And they feel that these rights can’t be protected only by the law. Technology must do its best to protect them (these are the so called the digital rights management systems). The law will then enforce this technology.

This is exactly what the 11<sup>th</sup> article of the *WIPO Copyright Treaty* states: “Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law”.

The *European Directive*, nevertheless, includes an exception to this enforcement in one of its *Having regards*: “Such legal protection should be provided in respect of technological measures that effectively restrict acts not authorised by the rightholders of any copyright, rights related to copyright or the sui generis right in databases without, however, preventing the normal operation of electronic equipment and its technological development. Such legal protection implies no obligation to design devices, products, components or services to correspond to technological measures, so long as such device, product, component or service does not otherwise fall under the prohibition of Article 6. Such legal protection should respect proportionality and should not prohibit those devices or activities which have a commercially significant purpose or use other than to circumvent the technical protection. In particular, this protection should not hinder research into cryptography”<sup>10</sup>.

Article 6 states, among other things, that: “Member States shall provide adequate legal protection against the circumvention of any effective technological measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that he or she is pursuing that objective.

Member States shall provide adequate legal protection against the manufacture, import, distribution, sale, rental, advertisement for sale or rental, or possession for commercial purposes of devices, products or components or the provision of services which:

- are promoted, advertised or marketed for the purpose of circumvention of,
- have only a limited commercially significant purpose or use other than to circumvent, or
- are primarily designed, produced, adapted or performed for the purpose of enabling or facilitating the circumvention of,

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<sup>9</sup> From the 33<sup>rd</sup> *Having regard* of the *European Parliament and Council Directive 2001/29/EC of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society*.

<sup>10</sup> From the 48<sup>th</sup> *Having regard* of the *European Parliament and Council Directive 2001/29/EC of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society*.

any effective technological measures”<sup>11</sup>.

This is a very important point which sets the United States apart from the European Community. In the USA, this exception doesn't exist, and the mere investigation of the technological protection measures could be fined. On the contrary, the European Community tries to allow the investigation of these measures, because it understands that it is the only way to build better protection mechanisms.

This is something which the Technical Correspondent of MP3.com pointed out regarding the creation of the security standard SDMI, along with other two guiding rules that music industry executives should bear in mind<sup>12</sup>:

1) “There’s no security in obscurity”

Relying exclusively or mainly on the secrecy of the anti-copy mechanisms doesn't guarantee a success. What has happened with the protection mechanism of the DVD is a very good example. Some hackers tried to develop a player in Linux (an open source operating system, developed freely by programmers all over the world) of the DVDs launched by the motion pictures industry. They had to “fight” with the system, because the DVD code was closed, and the industry didn't develop a player for this O.S. Finally the hackers made it, but they also found the way these DVDs prevented the copy, and the way they enabled the view in different world zones. Now, home DVDs with multizone capabilities can be easily bought, and there is a “standard” (DIVx) to copy DVDs in computers, compress them, and then even share them in the Internet.

2) “You can't sue all the Internet”

Even if Justice is on your side, the prosecution of hundreds of thousands of people doing something illegal is not feasible. This clearly applies to P2P systems: Music industry is not able to sue the users of these systems. The most they can do is to go against the system itself (the one which enables users to share the songs). Anyway this is more and more difficult, because new systems are decentralized (Naspter had a central server with relevant users' info, but the new P2P generation systems, as Kazaa, FreeNet, GNUtella and so on, don't include this central server, which is something that, on the other hand, notoriously slows down the search process)

3) “The consumer is not the enemy”

The actions of the music industry should try to satisfy their consumers' demands, not try to limit their desires. If consumers want to enjoy music in the Internet, the industry should feed this demand, not try to limit it. And the same rule applies to the consumers' demand to listen the music in their computers (and another reason why actual protection mechanisms in the CDs shouldn't be used)

When the industry decided to “jump” to the Internet, and try to provide users with music, illegal services were spread. And the worst of all was that netsurfers had already got used to

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<sup>11</sup> From the 6<sup>th</sup> article of the already cited *European Directive*.

<sup>12</sup> From the article “SDMI: Shape up or ship out”, published by WiredNews on April 28<sup>th</sup>, 2000. It can be found in <http://www.wired.com/news/print/0,1294,35966,00.html>

getting the music for free. The industry had now to convince these consumers to use their music providing services, and to pay for them.

MusicNet and pressPlay were born at the end of last year. The five major labels (BMG, EMI, AOL Time Warner, Sony and Universal) decided to offer their songs from two different subscription platforms.

I think these two models have two enormous disadvantages that won't enable them to have a commercial success:

- 1) They do not have all the songs on earth (EMI was the only one to license its catalogue to the two platforms, the other majors are offering their songs from only one of the platforms). Anyway, the majors may have been aware of this problem, and the two platforms have declared that they would like to offer their services to other providers, so that all the songs can be obtained from only one destination. Bertelsmann (the BMG owner) now controls Napster, which can be used for this purpose. Universal has also admitted that it plans exactly the same for MP3.com
- 2) The service offered by these platforms is too restrictive. Consumers are already used to "ripping" a song in the MP3 format, and use it however they want. This is the logical continuation to the use of the music until now. CD buyers have always had the impression that they "owned" the music they bought (even the legal notes in the CDs don't agree too much on this issue<sup>13</sup>)

But now, digital right management systems are possible. And the industry, of course, is trying to avoid the distribution of perfect copies of "bought" songs in the Internet, which would endanger the commercial success of these platforms.

The point is that users must become convinced that music has suffered an important change: Until now, music was another product they could buy (because it was included in a physical medium), but now, music has transformed itself in a service. Users buy the right to listen to the music (but they don't really own the music)

Anyway, music industry and users must find a meeting point between the two points of view. Now, it's a fact that the rights in the downloaded songs from these platforms are too limited. In MusicNet, users can't even enjoy these songs in a CD-R ("toast" them to enjoy them in the Hi-Fi or car audio systems) or transfer them to electronic portable devices.

These two serious disadvantages may be not so important if commercial success is not the objective of these platforms. Some analysts think that the music industry has finally set up these platforms to shut up those who criticized the way the industry licensed its music.

In U.S.A. some politicians thought that the music industry was rejecting all licensing requests from the Internet firms which tried to enable this kind of business models. They thought this was caused because the music industry wanted such high benefits that these firms couldn't afford. We must remember that only a couple of years ago, the Internet was a great "bubble", and it was thought that all businesses in the Net would be extremely

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<sup>13</sup> We can find, in any CD, the following text "All rights of the producer and the owner of the work reproduced reserved. Unauthorized copying, hiring, lending, public performance and broadcasting of this record prohibited".

lucrative in the near future. The music industry also tried to take advantage of this situation, and maybe too because they wanted to provide its music in its own to the final consumers (and therefore, didn't allow others to do it)

This group of politicians<sup>14</sup> wanted the Government to apply a statutory license to the music uses in the Internet (which is something that can be found in its uses in radio or TV, where it is administered by collective rights associations)

The two subscription platforms, nevertheless, show that the music industry enables business models in the Internet, and that they include (in the pressPlay case) some of the users' demands (as, for example, the possibility to "toast" some of the songs in a CD-R), and consequently, the threat of the Government taking care of the licensing scheme is now gone.

But, if the music industry wants to develop commercially successful subscription services in the future, they shouldn't be obsessed (as they are now) with the security (and possible piracy) of the service. The industry should be aware of the different types of users they will encounter<sup>15</sup>:

- 1) Users that are looking for value and commodity, and who won't employ time or efforts to attack the system, but wouldn't doubt taking advantage of security problems in the system. Most users belong to this type.
- 2) Users that try to get rid of security measures in the system to get the contents without cost, and to do this, they don't hesitate to spend a lot of efforts. This is a very reduced group.
- 3) The "hackers" who attack the system to give away their technical knowledge to users of the last two groups. "Hackers" are a very reduced group of users, but raise the threat of the first ones.
- 4) "Hackers" who get the control of the system, establishing an alternative way to access it (and which, of course, they bill to users interested in its use). This is the major threat, and it must be defeated legally and technologically.

The service should resist these threats. So, its design should follow these rules:

- 1) The service must be very easy to use in a legitimate way, but very complicated if illegitimate. This is very important in a scenario where users of the first type are the majority.
- 2) The illegitimate use must be easily discovered, so that its legal prosecution is easy.

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<sup>14</sup> The U.S. Congress members Rick Boucher and Chris Cannon wrote down the *Music Competition Act of 2001*, that tried to establish a statutory licensing system for the music in the Internet. From the article "Music a Pol can subscribe to", which can be found in <http://www.wired.com/news/print/0,1294,49266,00.html>

<sup>15</sup> From *Music on the Internet and the intellectual property protection problem* by Jack Lacy, James H. Snyder and David P. Maher, AT&T Labs. It can be found in <http://www.a2bmusic.com/technology.asp>

- 3) The design of the security measures of the service must assure that the cost of a successful attack is not worth the obtained benefits.

I think a successful subscription service will be necessarily very “user-friendly”. There will always be pirates in the Internet, but as the legal prosecution continues, it will be more and more difficult to circumvent the protection systems. And most users won’t bother trying to get something for free, if they can get it in a much more convenient way paying an affordable price.

Another convincing point in these services will be the inclusion of “bonus” which can’t be found elsewhere. For example, discounts in the concerts tickets, artists’ merchandise, information, lyrics, album covers...

In any case, we must have in mind that these services won’t replace the CDs (or other physical media to sell music) in a near future. First, the population access to the Net must be much more expanded, its bandwidth must increase (so that the music quality, if it is “streamed”, is higher), and different equipment to access the Net must be developed (because actual computers are not designed for listening music to)

In a scenario as the one described before, we can think of very successful subscription services: Hearing the music we want, when we want and where we want, would be, without doubt, a “killer application”... and this future may be not so far from us...

We can establish a parallelism between the situation of music industry nowadays and the motion pictures industry in the 40s.

In those years, that industry lived tough times because a “competitor” was born (the TV), and the studios tried to sell tickets for the cinema, as they always had done before.

They tried to offer spectacular experiences to the audience, which the TV couldn’t offer (it was B/W then). The studios created Todd-AO, Technicolor, Cinemascope, Panavision... different systems to display larger and more colorful pictures.

The studios were also based in the so called “star system”, and then, motion pictures were expensive because of the high salaries of its main actors and actresses.

Years later, studios discovered that TV was not a substitute for the cinemas, but something complementary, which allowed them to exploit their films in a “sliding window scheme”: Films are first released in cinemas, then on cable/satellite TV, later on video/DVD rental, then on video/DVD selling, and finally in commercial TV.

The studios now offer a broader selection of films to their audience, and the size and number of cinemas have been reduced.

Also, they make profits with everything that surrounds the film (George Lucas was one of the first directors to sense this, when he licensed all kind of possible items related with his “Star Wars” saga)

Maybe the Internet can be a catalyzer for the music industry, as the TV was for the motion pictures industry.

Music industry should think very carefully about its “size” and its models. Maybe it no longer makes sense to try to sell million copies of only some CDs, and to make profits only selling CDs. Maybe the music industry should try to sell fewer copies of many different CDs, try to “jump” in different business models (merchandise profits are exclusively from artists and managers nowadays, and they are not very active in this arena either). It should

try to use the Internet to start exploiting its works in a “window sliding mechanism” (songs first released on CD, then on a paid subscription service in the Internet and then on a commercial (free for the user) service.

And we shouldn't forget that the music industry is so shaken by the Internet because its works can be easily compressed and distributed in the Net... but the way laws regulate the system and the way technology is used to protect copyrighted works, will mainly determine the future uses we'll be able to make in the Internet of other copyrighted works. In the moment, music industry is the victim... but in a near future, motion pictures industry will follow its steps.

That's why I'm confident the society will establish technological and legal mediums to protect copyrighted works, at the same time that possible new models to enjoy these works are implemented in the Net.