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**Masters Degree in Management for the Creative Industries**



**Online distribution of digital cultural products:  
Are legal distributors strong enough against piracy?**

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## Summary

In 2012, the music industry is showing positive growth for the first time in fifteen years. The same year, *Game of Thrones* is declared the most pirated TV series with an average of 4.28 million illegal downloads for each episode. Ever since the creation of Napster in 1998, online piracy became a common practice which is weakly reprehended socially-speaking.

The starting point for our work was Gabe Newell's idea that piracy is not a matter of price but a problem of service rendered to customers. Such an opinion orientates our work towards finding a solution against piracy thanks business.

To find this possible solution we started with the evolution of open source software because the concept and its history brings us to the notion of copyleft and the creation of the Creative Commons. These ideas translate to new ways of sharing intellectual property. But to understand these notions correctly we need to explain how cultural works are protected by the law. Which is why we introduce author rights and copyrights in several countries.

When we know how the law works and the tools that have been developed to simplify them, we can start giving examples of businesses which are distributing digital cultural products legally. But a comparison between both legal and illegal offers is necessary to explain why customers choose piracy. Thus, in addition to the market study of legal offers, we also study pirate offer.

Such comparison showed that several factors make customers willing to break the law to access cultural products. With our study we analyze the factors that might help in justifying this choice.

**Keywords: copyright, author right, online piracy, Open Source, Creative Commons, copyleft, business, competition, copyright infringement.**

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## 1 Introduction: a fast communicating world

The butterfly effect has never been as true as it is today. An earthquake hits Haiti and billions of people go reach their wallets to donate millions for the reconstruction of the country. Mark Zuckerberg gives a speech and millions of Facebook users hold their breath waiting to know what will happen to their personal information. With the increasing speed of information and data transfer and the ease to reach them, the global villagers<sup>1</sup> have opened up to a fast interconnected world; what is happening in this moment can be shared within seconds with the entire world. We are living in a digital age: distances, data, processes, even work are dematerialized and do not mean the same as they did only 10 years ago. Nowadays about a third of the world's population is connected to the Internet, meaning that the number of connected people increased by 566% between 2000 and 2012 (Miniwatts Marketing Group, 2012). This is today's way of living. Over the Internet people find jobs, culture, production tools and other connected people. A cyberspace has developed alongside the real world and with it, new and very accessible ways of producing, consuming, relating to others and relating to knowledge.

When it comes to culture, the fast sharing postulate is also true. Museums are a click away from people and while watching century-old paintings on a screen may not be the same as looking at them “face to face” it is not necessary anymore to travel and enter a museum to have a glimpse of masterpieces. With other medium like film, music or photography, the same difference between a live or a home experience<sup>2</sup> exists but with these we can see a greater exposure to piracy<sup>3</sup> due to how easy it is to share them on the Internet<sup>4</sup>. Indeed, people retrieve cultural works from the Internet without authorization but the means are in their hands, which makes us wonder if the industries have adapted to today's new ways of consuming culture.

A trend coming from computer science boosted the idea of “re-thinking intellectual property”: the Open Source movement. We will see what it consists of later on in this work, but to sum it up, the idea of Open Source comes from the “Real Programmers<sup>5</sup>” (Raymond, 2001), and their collaborative way of working toward a good product, as exposed in *The Cathedral and the Bazaar: Musing on Linux and Open Source by an accidental revolutionary* (2001), a book considered as a reference in the understanding of Open Source development and its community. The author, Eric Raymond, is a programmer, the leader of the Fetchmail project<sup>6</sup> and a leading figure of the Open Source movement. This way of working – collaboration towards the best product possible – in the software industry has been in practice

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1 In *The Gutenberg Galaxy: the making of typographic man*, first published in 1962, the philosopher and communication theorist, Marshall McLuhan, describes the Earth as a global village, a contracted place, thanks to the electric energy and the speed of information transfer.

2 For instance a concert or opera vs. playing a CD, a movie watched in a theater vs. television.

3 We shall define piracy in chapter 1.2.

4 In order to launch Google Art Project, Google signed partnerships with museums in order to access the art pieces and take high quality pictures of these, whereas with our examples, to gaining access to a CD or DVD one only need to step in a shop or order it from an online shop.

5 Expression used to designate the first people to work on computers.

6 Fetchmail is a Mail Retrieval Agent – MRA. Its role is to retrieve e-mails from a server and bring them to the user's system (Raymond, 2001).

since the beginning, in the mid-1940's, and evolved throughout the years. The term Open Source was used for the first time in the late 90's, with the opening of Netscape – more on Netscape in the second chapter of this work – and a massive advertising campaign.

*The Cathedral and the Bazaar's* afterword, entitled *Beyond software?*(Raymond, 2001 pp.193–194) it is said that the author was often asked if Open Source could apply to music, book content, electronic hardware design and other creative disciplines. To this he answered that “[...] there are many questions about other kind of creative work and intellectual property that the Open Source phenomenon raises, but does not really suggest a good answer for.”(Raymond, 2001, p.193). That affirmation dates back to 2001 and Raymond was referring to the Open Source model strictly for software: a bazaar model based on massive collaboration, which analysis was founded on Linux<sup>7</sup> and applied to the Open Source software programs ever since. And even though one of the leading figures of the movement was not willing to let it spread to the aforementioned disciplines, it did and went even further.

## **1.1 Opening up the world**

Eleven years after *The Cathedral and the Bazaar* and Raymond's doubts, Open is more than a development model or ideology for software, it turned into a concept. An agreeable definition of this current notion of Open is given by Don Tapscott during a TED<sup>8</sup> conference in 2012. In his intervention Tapscott identifies *Four principles for the Open world* (2012), collaboration, transparency, sharing and empowerment which individually may also be considered as synonyms of “Open”.

### **1.1.1 The current notion of Openness**

While illustrating what he considers to be the first principle of an Open world – collaboration – Tapscott tells the story of his neighbor, Rob McEwen, a gold miner, who bought a mine and hired geologists to tell him where to find gold. After a few years of research and a substantial amount of money invested, geologists could not find gold, so McEwen decided to organize the Goldcorp Challenge, a contest open to individuals as well as professional regardless of their area of expertise. On the Goldcorp website, the 400 megabytes worth of geological data gathered throughout the years were shared and the question was “Where should we mine to find gold?”. The \$575,000 prize went to two Australian teams who collaborated on a 3 dimensional model of the mine but never set a foot in Canada, where the mine is located. Here collaboration is illustrated on different levels as several teams from several areas of expertise worked toward the same goal and reached it (Tischler, 2002) and their collaboration was based on the geological data Goldcorp shared.

The second principle, transparency, is exemplified as organizations giving relevant and pertinent informations to their stakeholders. With the easy access to the news and tools such as Wikileaks or Médiapart<sup>9</sup>, stakeholders have a way to find all kind of information, so in

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7 More on Linux and Open Source in the second chapter of this work

8 “TED is a nonprofit organization devoted to Ideas Worth Spreading. It started in 1984 as a conference gathering people from three worlds: Technology, Entertainment, Design.” (TED, n.d.).

9 Wikileaks is an online international non-profit organization which goal is to publish documents that were not supposed to reach the media. Médiapart is an online paying newspaper which revealed several scandals involving French politicians among others.

order to build trust, institutions should willingly and truthfully give information away. The principle of transparency is as important as it means that institutions are communicating about their values. Transparency and communicating about values are entirely about building trust between an organization and all its stakeholders.

Sharing, the third principle, differs from transparency as it relies on sharing or giving away assets, such as intellectual property. During the conference Tapscott gave the example of both record labels and the pharmaceutical industry. The former did not anticipate technology advances and found itself fighting piracy instead of thinking of new ways of music distribution. The latter is about to “fall off the patent cliff”(Four Principles for the Open World, 2012): not a lot of innovations are in the pipelines and a majority of pharmaceutical patents is going to enter the public domain. So for both industries a reinvention of their current business models may be necessary to survive.

The fourth and last principle of the Open world is empowerment. It is based on the postulate that knowledge and intelligence bring power. Tapscott gives the example of the Tunisian revolution of 2010. During strikes, snipers associated with the regime started to shoot at unarmed students. Witnesses shared the information about the shootings on social networks, thus allowing the military to triangulate the positions of the snipers: social medias became a tool of self-defense. Sharing these informations about the position of snipers, allowing the military to take down snipers shooting at students was a part of what brought the Tunisian regime down. Knowledge and intelligence permitted the distribution of power amongst opponents to the regime.

Even though Tapscott explains at length what openness is during his conference, it is not the term's first occurrence throughout his work. Indeed, in *Wikinomics: How mass collaboration changes everything* (2010), Tapscott and Williams expose openness as a pillar of collective intelligence alongside with peering – which, in the bazaar model of software we shall study later on, corresponds to peer reviewing – sharing and acting globally.

Collective intelligence, according to the MIT Center for Collective Intelligence, founded and directed by Thomas W. Malone<sup>10</sup>, consists of “groups of individuals doing things collectively that seem intelligent” (Malone, 2006). It is what families or companies have been doing since the beginning of times; works or decisions so intrinsically collaborative that they cannot be granted to only one element of the group<sup>11</sup>. With access to a tool such as the Internet the notion of collective intelligence extended not only to much larger groups but also to any human discipline necessitating a group of people – a crowd.

The first discipline to open up after software programs was electronic hardware which makes sense considering the proximity between hardware and software. So it is possible to find on the Internet blueprints for electronic devices, from the smaller ones, like the Arduino<sup>12</sup>, to the bigger ones like an Open Source car<sup>13</sup> designed for developing countries, and due to its widespread popularity, we shall introduce the former.

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10 The Patrick J. McGovern Professor of Management at the MIT Sloan School of Management

11 Collective intelligence is not inherent to human beings, it is widely observed amongst animal populations, for instance with colonies of ants, and even at a deeper biological level – for example with bacteria.

12 <http://www.arduino.cc/>

13 <http://www.theoscarproject.org/>



### 1.1.2 Openness: hardware and crowd-funding

Arduino is an international project which started in 2005 and an “Open Source electronics prototyping platform based on flexible, easy-to-use hardware and software. It's intended for artists, designers, hobbyists, and anyone interested in creating interactive objects or environments”(Arduino, n.d.). There are two ways to get an Arduino device: order it on the project's website, or build it from the blueprints available on the project's web page, granted that the person possesses the material and the knowledge required to assemble it. In his TEDTalk *How Arduino is open-sourcing creativity* (2012) Massimo Banzi, co-founder of the Arduino project, lists dozens of projects using an Arduino board, from car toys to a cat feeder to Geiger counters. Banzi talks about “scratch[ing] your own itch” and behind this expression, which has been used by programmers long before, lays a good explanation of both Open Source software and hardware: do what fits your needs and make it as it best fits them.

We have seen that Open depends on the presence of a crowd, no matter which expression Openness takes (software, hardware, cultural products or charity) or what it requires from its crowd (its knowledge, ideas or money). We shall consider crowd-funding as an Open way of making business as, for an organization, taking the decision of crowd-funding a project means appealing to “billions of connected individual [who] can now actively participate in innovation, wealth creation and social development” (Tapscott and Williams, 2010 p.3). To make the idea of crowd-funding clearer, we can sum it up as follows: instead of going to the bank for a loan, entrepreneurs address a call for financial help directly to the public. Crowd-funding is not a new concept as the pedestal for the Statue of Liberty was partly crowd-funded in 1884<sup>14</sup> but we believe that the financial crisis of 2008 benefited the spread of the concept, and the Internet allowed fast and easy access to both users and organizations.

Respectively in 2008, 2009, 2010 and 2011 the United Kingdom saw the birth of 8%, 15%, 29% and 46% of all its crowd-funding platforms, or an evolution from less than 20 platforms in 2008 to nearly 75 in 2011 (pleasefund.us, 2011). Worldwide, we note a predicted increase of nearly 570% between 2007 and 2012, which brings us to an estimate of 530 crowd-funding platforms by the end of 2012 (Richard, 2012). The crisis was a boost for crowd-funding as entrepreneurs faced difficulties to finance their projects. Accessing bank loans became next to impossible and in order to survive companies needed to keep innovating.

All platforms seem to be working the same way. Whether it is a well established institution or a start up, the organization in need for funds releases information about the project in development, its costs and how the money pledged would be used. Then, depending on these informations, backers<sup>15</sup> decide whether or not they wish to see that project come to an end and give it money. Generally speaking, if the funding campaign does not reach its goal

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14 When Bartholdi, sculptor of *Liberty Enlightening the World*, was about to ship the Statue of Liberty to the USA, the construction of the pedestal was not over and went over budget. To keep the Statue of Liberty in New York City Joseph Pulitzer, journalist, launched an appeal to funds in the newspaper the *New York World* for an additional \$100,000. New York citizens answered this challenge and their contribution enable the completion of the pedestal. (McNamara, n.d.)

15 A backer is a person pledging money in crowd-funded projects.

the payment shall not be withdrawn from the backers' accounts. If the funding is successful, backers are rewarded for helping the project.

The type of reward depends on a plan defined by the organization and consists in one of the three models of crowd-funding : lending, investing and donating which respectively represent 15%, 14% and 71% of the offer (pleasefund.us, 2011). Lending is similar to the banking system, one lends money for a set amount of time at a set interest rate. With investing, also known as the equity model, backers buys shares of the company thus becoming shareholders. Last but not least, donation, does not rely on financial return but on a reward system whether they are tangible (merchandise, end products, ...) or intangible (news, credits, ...) (Seeding Factory, 2012). Regardless of the reward system, there is always one reward that goes beyond commercial value, crowd-funding allows anyone to be part of something they like or believe in: it gives people a feeling of belonging.

To exemplify the current success of crowd-funding platforms, we shall introduce Kickstarter, the American based website and best known platform. It is divided in 13 categories<sup>16</sup> and when the website released its 2012 overall review it showed that Music was the category with the most funded projects (5 067 projects) and Games the category that raised the most money with \$83 million (Kickstarter, 2013). It is also noted that Art, Film, Publishing and Theater each counts over 1 000 projects successfully funded. Among all these funded projects one caught our eyes; Musopen which we shall talk about at length in Chapter 4.

## **1.2 Piracy: criminals and victims.**

With these examples we have shown how collaboration and sharing at a large scale may improve the everyday life of many. But these same principles and means of collaboration and sharing brought copyright and author rights infringement also known as online piracy on the Creative Industries. According to the Oxford dictionaries, piracy is the “unauthorized use or reproduction of another's work” but it goes further. When an author externalize his/her work, it is automatically protected by author rights or by copyrights and the author is then granted a set of rights over this externalized work. In chapter 2.2.1 we shall go deeper into these rights, but we shall already say that they consist of the rights for the author to decide how when and what for his/her work is going to be used (Miléu, 2012). In other words, the author is the one who is deciding how the work is going to be copied, distributed and communicated. This means that if a digital copy of one's work is made available to the public without the author's consent we are talking about piracy, no matter whether that copy is sold or licensed – even if the licensing is free of charge. Piracy consists in the violation any of these rights. In the scope of this work, we are obviously excluding private copies, which are allowed uses of a protected work within the family circle, and copies which fall under the area of fair use, which consists of authorized use of protected under some circumstances<sup>17</sup>.

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16 Art, comics, dance, design, fashion, film & video, food, games, music, publishing, technology and theater.

17 Educational use, critics, news broadcast or investigation for instance. The exhaustive list of fair uses may be found in article 75 and following of the Portuguese *Code of author rights and neighboring rights*, or in article L122-5 of the French *Code of author rights*.

With each new medium came new ways of copying<sup>18</sup>, and each medium of copying had its detractors<sup>19</sup> but the scale on which it is now possible to share copies has greatly increased thanks to the Internet. The Motion Picture Association of America (MPAA) declares an economic loss of \$58 billion per year due to content theft (Reid, 2012) and the Independent Film and Television Alliance (IFTA) estimates a job loss of at least 370 jobs each year (De Coninck, 2012)<sup>20</sup>. These numbers largely explain why the major associations and companies of the entertainment industry fight against content theft. But downloading<sup>21</sup> and streaming<sup>22</sup> habits spread so much that “it is now accepted by the norm by young people.” (Weikel, 2009, p.20). It is indeed so accepted that in *From coding to community* (Weikel, 2009), the author uses Larry Lessig's terms to explain that an “un-winnable war [over piracy] has criminalized an entire generation.” (Weikel, 2009, p.20). Lessig explains his use of the term war as “a license for policy change and political and economic action” and he is talking about a war that is “not the “war” on copyright “waged” by “pirates” but the “war” on “piracy,” which “threatens” the “survival” of certain important American industries.” (Lessig 2008). This so-called war is un-winnable meanly because it is “pointless [as] there are peaceful means to attain” all the objectives set by the people who started the war, the most important being: to stop piracy.

### 1.2.1 Crime

With this work, we wish to find these peaceful ways to “de-criminalize” a generation of pirates and by pirates, for this work, we mean all those who enables unauthorized copies and distribution: people providing platforms, people uploading material and people downloading these materials. By doing so we would hope that we shall prevent the next generation to become criminals too. And we believe that at least of these peaceful means is good business. While making research on the latest legislative attempts to eliminate piracy, SOPA, PIPA, CISPA and ACTA – see section 2.2.3 for further study – we came across an opinion we found valuable and gives us an additional reason for the development of piracy than the popularity of the Internet.

During an interview for the *Cambridge Student Online*, Gabe Newell, co-founder and managing director of Valve Corporation, a video game development and distribution company, was asked about his opinion about DRM – Digital Rights Management<sup>23</sup>. His

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18 Copies of vinyls could be made out of wax or resin. Using an original disc, a mold of the disc was made and by pouring and letting wax or resin dry on the mold, one has a playable wax vinyl (SynthGear, 2010). Tapes were also copied as tape player regularly were tape recorders too. As such it was possible to play a tape and let the machine record it on new one.

19 Copyist monks were strongly against the press printer. Sony and its VCR was brought to court by The Walt Disney Company as the later considered home recording as copyright infringement. The U.S. District court ruled in favor of Sony recognizing home recording as fair use (History.com, n.d.).

20 These figures will be further reviewed in section 2.2.8 of this work.

21 Downloading consists of “copy[ing] (data) from one computer system to another or to a disk” (Oxford Dictionaries, n.d.)

22 In computing, streaming is “a continuous flow of video and audio material relayed over the Internet” (Oxford Dictionaries, n.d.)

23 “Typically, a DRM system protects intellectual property by either encrypting the data so that it can only be accessed by authorized users [...] so that the content can not be freely distributed.” (Webopedia, 2013)

answer was that “piracy is almost always a service problem and not a pricing problem. For example, if a pirate offers a product anywhere in the world, 24/7, purchasable from the convenience of your personal computer, and the legal provider says the product is region-locked, will come to your country 3 months after the US release, and can only be purchased at a brick and mortar store<sup>24</sup>, then the pirate's service is more valuable.” (Newell, 2011). But why shall that pirate service be more valuable? Why people would download cultural contents when they know it is illegal?

### 1.2.2 Victims

As we are talking about “de-criminalization” we are saying that there is a crime and thus there are victims. The list of victims of copyright infringement is provided by the World Intellectual Property Organization – WIPO – in its *Guide on Surveying the Economic Contribution of the Copyright-Based Industries* (2003) and more precisely in the first annex of this document: *List of the Copyright-Based Industries* (WIPO, 2003, pp.73-75). This list is divided amongst four categories; core copyright, interdependent industries, partial copyright industries and non-dedicated support industries.

As we wish to focus our work on cultural products retrievable from the Internet we shall focus only on the first category – core copyright (see Illustration 1) – from which we shall exclude “advertising services” as the artworks produced for advertising can be ranked under one or several of the other listed industries and “copyright collecting societies” as even though they make a living out of copyrights or author rights, they do not generate protected material.

The second category, interdependent industries, is solely composed of hardware, from computers to musical instruments, which would not exist without the core copyright industries and some may even fall under the industrial property category which does not interest us here.

The partial copyright industries category includes mainly designing activities such as apparel, furniture, toys or architecture and even though we have observed with Open Source hardware that plans or blueprints can be shared the end product cannot be dematerialized and acquired through the Internet. The acquisition of such end products through the Internet implies either a lawful sale or the sale of counterfeit products which is a different matter and does not file under our initiative: better online distribution services may be the key to the de-criminalization of online pirates.

To finish, the last category, non-dedicated support industries, includes general wholesale and retailing, general transportation, telephony and Internet, so only its last part could interest us as a distribution channel but we shall not go through Internet providers business models.

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24 Brick and mortar is an expression “used to denote a business that operates conventionally rather than (or as well as) over the Internet” (Oxford Dictionaries, 2013)

Main groups of Industries	Subgroups
Press and literature	Authors, writers, translators <sup>25</sup> – Newspapers – News and feature agencies – Magazines/periodicals – Book publishing – Cards and maps, directories and other published material – Pre-press, printing, and post-press of books, magazines, newspapers, advertising materials – Wholesale and retail of press and literature (book stores, newsstands, etc.) - Libraries
Music, theatrical productions, operas	Composers, lyricists, arrangers, choreographers, directors, performers and other personnel – Printing and publishing of music – Production/manufacturing of recorded music – Wholesale and retail of recorded music (sale and rental) – Artistic and literary creation and interpretation – Performances and allied agencies (bookings, ticket agencies, etc.)
Motion picture and video	Writers, directors, actors etc. – Motion picture and video production and distribution – Motion picture exhibition – Video rentals and sales, video on demand – Allied services
Radio and television	National radio and television broadcasting companies – Other radio and television broadcasters – Independent producers – Cable television (systems and channels) – Satellite television – Allied services
Photography	Studios and commercial photography – Photo agencies and libraries
Software and databases	Programming, development and design, manufacturing – Wholesale and retail prepackaged software (business programs, video games, educational programs etc.) – Database processing and publishing
Visual and graphic arts	Artists – Art galleries, other wholesale and retail – Picture framing and other allied services – Graphic design
Advertising services	Agencies, buying services
Copyright collecting societies	

*Illustration 1: Core copyright industries (WIPO, 2003)*

With this work we would like to verify Newell's postulate: piracy is a service problem (2011). In order to do that we shall divide this work as follows:

First we will go through the main evolutions of the software industry to know what led us to the Open Source and to the notion of Openness that we have already seen. This notion is important as it led to the birth of copyleft and the Creative Commons – which both shall also be reviewed in this work.

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25 In countries under Author Rights laws, writers and translators are considered as authors.

Online distribution of digital cultural products: Are legal distributors strong enough against piracy?

Second we shall overview the main lines of both copyright and author rights to globally understand the law frame surrounding cultural products. This review shall help us understand how cultural works are protected and thus how they can be globally and locally licensed and how these licenses may help our purpose, it shall also bring us to the definition of copyleft. From then we shall elaborate on opinions and works concerning intellectual property showing that either there is a need to change the ways of making business or that the current law frame may be outdated. To conclude the second chapter of this work we shall explain the main methods used to share cultural content.

To finish we shall give examples of businesses, from a variety of countries, granting legal access to cultural productions, thus allowing artists to make a living out of their works and providing a good service for users to chose over piracy. These examples shall be sorted by core copyright industry.

Throughout this work, we shall see that the limitations of such models are in the perceived price and artists choice. Concerning the perception of the price two suggestions already come to mind, on the one hand if access to cultural productions were to be free, it would still have to be paid on some level in order to compensate their authors. On the other hand if the dematerialized products were too cheap, the risk would be to desensitize customers to the price of cultural products. About the second limitation, the way to distribute his/her work is a choice that belongs to the artist. But questions like this one: "who would have imagined that Midwestern grandmothers would be pirating needlepoint instructions over the Internet?" (Torvalds and Diamond, 2002, p. 212) reinforces our idea that something has to be done.

## 2 A culture of Free and a Free culture

Here we shall see what the software industry offered to the cultural domain and what led to the current notion of Open. So we will start where it all began; with computer sciences. We do not want to be technical about computer development, but we think that the following chronology is important to understand the beginning and the evolutions of the Open (Source) concept. After that overview we shall focus on the leaders of the free culture, what their arguments are and how they translate to making a new offer of cultural products. To finish, still without being too technical, we shall see how data are transferred through the Internet.

### 2.1 *The Source of it all*

We shall not go through the development of hardware but software. What is important to know is that at the beginning computers were reserved to an “elite” that Eric Raymond calls “real programmers” or “hackers”<sup>26</sup> (2001) and were meant as working tools. Indeed mostly researchers whether in universities, in laboratories or in the military worked on computers. These machines were far from what we know today; they had neither graphical interface nor easily usable software programs. In 1969, in order to ease communication and data exchange between researchers, students and the army, the ARPAnet (Advanced Research Projects Agency Network) was founded by the Defense Department of the United States of America. The ARPAnet is “very much the precursor of the Internet as we know it today” (Hiltzik, 2012). As a consequence we may say that the very purpose of the Internet is collaborative work and sharing knowledge.

#### 2.1.1 The shift to proprietary software

In 1983 two very important factors affected the computer's world. Before that, was a time during which programmers developed their projects together looking toward the best product possible. But a shift happened in the software's world as it turned into an industry. Personal Computers started to spread causing the market for software to grow, therefore revealing a new opportunity for profit. In 1983, today's giants, Microsoft Corporation and Apple Inc. were respectively 8 and 7-year-old. Apple launched the LISA, the very first Personal Computer integrating a Graphical User Interface – GUI<sup>27</sup>. On LISA the revolution did not come from the GUI, as the very first computer to use was the Xerox Alto, but from the price making it accessible to the home market; LISA cost only \$9 995 (Old Computer, n.d.) and 100 000 units were sold during the two years it spent on the market. A year later, in 1984, Apple launched the Macintosh, also using the GUI but for an overall cost of \$2 495 (Old Computer, n.d.), from then on the Personal Computer market only grew. On its side, Microsoft had sold Microsoft BASIC for 7 years allowing the company to generate revenues and develop other products like Microsoft MS-DOS, which was released in 1981 and conceived to work on IBM PC's, the very first Personal Computer which sold millions of units.

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26 The term “hacker” has to be understood as what it meant in the 1970's and 1980's, as a synonym of programmer, not as a person using computer skills to get unauthorized access to data.

27 The GUI is “a program interface that takes advantage of the computer's graphics capabilities to make the program easier to use” (Webopedia n.d.).

As a consequence to an obvious market growth, the software industry has started to close<sup>28</sup> the source-code<sup>29</sup> of its software in order to sell them and more importantly to copyright their content thanks to the revision of the American Copyright Act in 1976. We think that the combination of these two factors, the revision of the Copyright Act and the market growth of Personal Computers provoked that switch.

### 2.1.2 Free Software and Open Source

Still in 1983 the time has come to talk about GNU<sup>30</sup> which is a UNIX-compatible system, technically very similar to UNIX<sup>31</sup>, but giving its user total freedom (FSF, 2011). Richard M. Stallman, back then programmer at the Massachusetts Institute of Technology Artificial Intelligence Laboratory<sup>32</sup>, started to re-code UNIX, the most spread operating system at that time. He wanted to make it very adaptable and more importantly free of use and modifiable. Programmers like Stallman were disappointed with the changes occurring in the software industry. He launched his free-of-use operating system project, GNU, in order to give the hacker community what it wanted: modifiable and redistributable pieces of software (Raymond, 2001). Stallman gave away the parts of GNU<sup>33</sup> he wrote so programmers could use and re-code them as they wished. But in his effort he was failing to provide a crucial piece of an operating system: the kernel<sup>34</sup>. Stallman and his team gave up on a first attempt to write it and then decided that Mach, a kernel designed at Carnegie Mellon University, was a good alternative. But their work was delayed by several years awaiting for the university to choose a license which could allow them to re-use the source-code.

Only a few months after starting his work on GNU Stallman quitted his job at the MIT AI Lab fearing that his employers would claim ownership of his work and he founded the Free Software Foundation (FSF) – further details about the FSF in section 2.1.4. The foundation's mission is “to promote computer user freedom and to defend the rights of all free software users” (Free Software Foundation, 2012). To understand why Stallman was and still is so fond of the idea of Free software and why people followed him with that idea we have to understand the following: “A lot of the Unix-must-be-free philosophy has more to do with the circumstances of the time rather than with the OS” (Torvalds and Diamond 2002 p. 57). Stallman was 30-year-old in 1983, meaning that during the peak of the non-violent and all-sharing hippie subculture in the 70's he was, just like most programmers of his time, a young adult forming his ideas of the world. So what Linus Torvalds, creator of the Linux kernel, clearly says is that without the cultural influence GNU could not have seen the light of day.

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28 In other words companies stopped sharing their code.

29 “The human readable code files that programmers write and edit” (Weikel, 2009)

30 GNU is a recursive acronym meaning Gnu is Not Unix

31 UNIX is an Open software in the sense that it was distributed with its complete source code and manuals, developed in Bell Labs, subsidiary of AT&T. AT&T was not legally authorized to sell products other than telecommunication ones, thus the company decided to license UNIX for educational purposes at a low price.

32 The Laboratory for Computer Science of the MIT conducted research on operating systems, distributed systems, programming languages and theory of computation.

33 GNU is not a package, it is made of numerous pieces of software to put together.

34 “The most basic level or core of an operating system, responsible for resource allocation, file management, and security.” (Oxford Dictionaries, 2013)



That leads us to the beginning of the 90's, when programmers not only were not enjoying the proprietary model but also were disappointed with the FSF which was still not providing them an enjoyable model. It had become clear to the actors of the software industry that UNIX was a commercial failure and even if Stallman was proposing free use software's pieces, the seven years awaiting for the missing kernel of GNU was causing programmers to lose hope in the product.

The evolution of the software industry brought us to the early 1990's. And the missing kernel of GNU was being worked on by a young Finnish student: Linus Torvalds who was disappointed by the performance of his computer and wanted to challenge himself. To do so he started programming the missing part of GNU. In 1991 Linus released his very first version of the kernel, free of charge and free of use, just like GNU, to everyone who may want to study or use it. To his surprise not only people used it but they answered him with bug corrections and adaptations according to their own hardware. At first this involved only a few people, but Linus took into consideration these corrections, included them to his work and released them again and again. Soon Linus wrote bigger pieces of programs, producing a brand new operating system: Linux. It is said that during the first year of Linux, Linus released code at least once a day if not several times per day (Torvalds and Diamond, 2002). This was the birth of the “bazaar model” (Raymond, 2001) as the first example of a bottom-up way of working in software programming. Even with the Free Software Foundation and the GNU GPL, Stallman proposed a development model restricted to an exclusive group of programmers, only then modifications of softwares were allowed, thus proposing a top-bottom model that Raymond calls “cathedral model”.

Even though the programmer community has been about collaborative work, no project has involved as many people as Linux does. In 1993, only two years after the first release of the operating system, there were about 1,200 Linux users (The Linux Documentation Project, n.d.) and as Raymond said “users are wonderful things to have [...]. Properly cultivated, they can become co-developers” (2001). In 1998 Torvalds estimated that there were “hundreds of thousands of participants” to Linux (2002, p.163). Nowadays Linux is the most used operating system for servers and the number of Linux based projects, users and programmers volunteering or working on Linux based projects, has only been increasing. These projects may be companies set up in order to sell or distribute Linux, but the implication of Torvalds in these companies stops there. Torvalds is known as the “benevolent dictator” of Linux: he is the mind behind the software, the distribution whether free or not, is left to companies or projects leaders as Linux's GNU General Public License allows both modifications and sales of the software. Torvalds, on his end, keeps monitoring and improving Linux.

### **2.1.3 Programmers' motivation and a model of gift economy**

This makes us wonder why skilled people would spare their time and knowledge for free. And part of the answer is given by Eric Raymond when he describes “the hacker milieu as a gift economy” (Raymond, 2001, pp.80–82). A gift economy relies solely on unidirectional giving, which makes it different from bartering as there is no exchange of goods or services. In a gift economy the exchange is made on a social level, if one gives then another one receives, therefore the one giving is asserting his/her authority and social dominance over the receiver (Weikel, 2009, pp.20–25). That sets the frame of the peer repute

competition leading programmers into Open Source projects. If one writes good code, works hard on difficult tasks and is committed to the project, his/her reputation amongst his/her peers improves. Or as Raymond puts it: “continued devotion to hard, boring work (like debugging, or writing documentation) is more praiseworthy than cherrypicking the fun and easy hacks.”.

But the fun and easy hacks are not to be forgotten. Having fun coding and being involved in a project that interests them is what gets programmers motivated in the first place. This is the basis of the “scratch your own itch” motto: find a project that interests you, no matter its stage of development, and add what you may find useful to it. Problem solving, interest and fun are the core motivation of individuals in an Open Source project, the reputation game and peer recognition is the social link between programmers resulting from the motivators.

The Linux development model is the reference of the Open Source software development and it is still used as it proved to be efficient: the peer review allows quick and good bug correction as well as fast improvement of the project. In the *Cathedral and the Bazaar*, Raymond (2001) describes the peer review of a software program as the “Linus's law” and continues saying “Given enough eyeballs all bugs are shallow”. The bazaar model sums up this way: “Linus Torvalds' style of development – release early and often, delegate everything you can, be open to the point of promiscuity” (Raymond, 2001).

In 1998, in order to counter Microsoft's Internet Explorer which was imposing more and more closed protocols on the Internet navigation, Netscape Communication took the decision to open-source its web browser, Netscape Navigator. At that time, in people's mind, the only alternative to proprietary software is associated to the Free Software Foundation which rose two problems for Netscape. The first one was that the FSF had been struggling with the meaning of “free” since its very beginning. So much so that on the Free Software Definition it is clarified that “[...] “free software” is a matter of liberty, not price. To understand the concept you should think of “free” as in “free speech”, not as in “free beer”” (Free Software Foundation n.d.). The second problem was that the FSF was associated to the strong ideology of Free software and Netscape leaders were not willing to be linked with it as it could have been a frightening factor for potential investors and to get to business in general. The Netscape board used help from programmers like Eric Raymond who understood and used the Linus's Law. Altogether, they named the concept of the bazaar model “Open Source” and created the Open Source Initiative – OSI – in 1998 before going on a massive communication campaign in an attempt to make Open Source known to the public and to the business world. Although the campaign took off, the development of an Open Source Netscape was not a success due to deep design flaws (Raymond 2001). But Netscape ended up giving birth to Mozilla Firefox, one of the top three used desktop browsers worldwide (Bright, 2012). And this is how Open Source started.

With the communication about the Open Source Initiative and the spread of Linux in the corporate world the broad public started to learn about Sir Time Berners-Lee Open Source project, the World Wide Web, and with it started the democratization of the Internet<sup>35</sup>. The

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35 Technically the Internet – a network of networks – and the World Wide Web – an information space – are different (W3C, 2009) but with their democratization the terms became interchangeable for non-computer savvy people.

Internet and Linux were sources of lucrative businesses and Torvalds is not afraid to say, in *Just for fun* (2002), that he has earned a lot of money thanks to the IPOs<sup>36</sup> of companies like Red Hat, provider of Open Source solutions for enterprises. Indeed, Red Hat gave Linus Torvalds stock options a few years before going public. On August 11, 1999, the first day of trading, the stock closed at \$35 each. Within a couple of days Linus Torvalds became a millionaire only thanks to Red Hat IPO (Torvalds and Diamond, 2002, pp. 172–175). Even though all Open Source projects may not know the same monetary success as Linus Torvalds and Linux had, some have known longevity and/or loyalty from the programmers which, in a gift economy, are successes of their own.

Ever since the democratization of Open Source, the Linux management model has been studied academically in order to apply it to other projects. The concept itself has been reviewed in plenty of different ways, from a Human Resources point of view in order to find what moves and motivates the participant to volunteer on such project, to a quality management point of view, showing that Open Source software are often more reliable than proprietary ones thanks to the peer review. From then on the business models have been looked upon too in order to determine how Open Source is exploitable for firms.

#### **2.1.4 Open Source and Free Software: Differences and similarities**

As Stallman wrote: “Open Source is a development methodology; Free Software is a social movement.” (2007), we have talked about the birth of both the Free Software Foundation and the Open Source Initiative, in order to keep the chronology flowing we did not say much about the differences nor about the similarities between these two movements. We shall start doing so by explaining the main ideas behind both movements and then move on to the differences exposed by Stallman and see if nowadays they are still relevant.

For a better understanding the Free Software Foundation's position we need to overview its basic philosophy. The FSF lies on four basic freedoms:

- Run a program for any purpose,
- Study how a program works and change it,
- Redistribute copies,
- Distribute copies of your own modified versions<sup>37</sup> (Free Software Foundation, 2012).

A software will be considered as a Free Software only if its license respects these four principles. In this case it is important to remember Stallman's explanation of free software, “think of “free speech,” not “free beer.”” (Free Software Foundation, 2012). The following idea is the backbone for the four basic freedom: “being free to do these things means [...] that you do not need to ask or pay [extra] for permission to do so” (Free Software Foundation, 2012). The Free software model does not completely exclude a paying distribution system, to the contrary if it may help the development of a Free software, but what these freedom imply

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36 “Initial Public Offering: the first sale of stocks by a private company to the public” (Initial Public Offering (IPO) Definition | Investopedia, n.d.)

37 Studying and changing a program implies that the source-code is delivered with it, so does the distribution of modified versions

is that no extra charge shall be asked in order to access the source code, get the right to modify it or to redistribute it. The conclusions we may draw here is that the Free Software Foundation is more concerned about how software are used than by their distribution and development model.

In the Open Source Initiative mission statement, the given definition of Open Source is the following: “Open source is a development method for software that harnesses the power of distributed peer review and transparency of process. The promise of Open Source is better quality, higher reliability, more flexibility, lower cost, and an end to predatory vendor lock-in” (Open Source Initiative, n.d.). On the licensing end, the OSI have ten requisites stated in the Open Source Definition – we gathered some in the following list. The license shall be recognized as Open Source if (Open Source Initiative, n.d.):

- The distribution is free<sup>38</sup>,
- The source-code has to come with the software or be easily findable,
- Derived works and their distribution must be allowed under the same term as the original license,
- The license does not allow modifications it has to allow patches,
- The license shall not discriminate against persons, groups, fields, endeavors or technology,
- The rights attached to the license have to allow the distribution without additional licensing,
- The license must not be specific to a product nor restrict other programs<sup>39</sup>

Here the OSI focuses on the qualities of the software as well as on the freedom for users and distributors.

Both entities function the same way: based on their defined characteristics they review software licenses in order to verify if they comply with their set of values. The differences behind these sets of values may not seem as great as it used to be and even the FSF and the OSI admit their similarities. “The two terms describe almost the same category of software, but they stand for views based on fundamentally different values” (Stallman, 2007). The OSI goes even further by saying that “Free Software and Open Source software are two terms for the same thing: software released under licenses that guarantee a certain, specific set of freedoms” (Open Source Initiative, n.d.). To conclude, we believe that nowadays differences between both movements have been explained by Stallman when he said that “Open Source is a development methodology; Free Software is a social movement.” (2007) and that the amount of reviewed licenses accepted by both parties makes their philosophical differences almost insignificant (Weikel, 2009, p.12).

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38 This means that whether or not the software can be sold shall not be mentioned in the license and only is the distributor choice.

39 “For example, the license must not insist that all other programs distributed on the same medium must be Open Source software.” (Open Source Initiative n.d.)

The subjects we approached earlier on such as Open hardware and crowd-funding are newer and consequently less reviewed yet. Even though a simple Internet search allows us to see that the engineering world is largely interested in the idea of Open hardware. Just like scientific researches that have been shared to find better and greater results, engineers are using the Open Source spirit to improve devices. When it comes to hardware and software we noticed that in general the concept is not part of the earliest studies. Indeed, projects are now being studied individually which makes us think that the concept itself has given all it had to give academically speaking. Crowd-funding is different because it can cover everything, so right now we can see studies of how it applies and what are its effects on individual discipline. We also came across research looking into the psychology of backers and the geography of the funds. That makes us say that crowd-funding is a new idea, evolving quickly and still being defined through the different spectrum academical researches have to offer.

## **2.2 Cultural products: legal frame and observations**

In this sub-chapter we will compile several elements that we deem important for our work. We shall start with some legal explanations by overseeing the main lines of both copyright and author rights thanks to the Berne convention. Then, remaining in the legal scope, we shall further describe the latest attempts to eliminate piracy and point out the global issues which may rise if laws similar to SOPA or PIPA were enforced. To finish with the legal matter we shall examine the notion of Copyleft and the Creative Commons licenses as well as Larry Lessig's work which led him to the elaboration of these licenses.

In the second time we shall investigate on opinions that we believe give weight to the current work. First of all, the European Commissioner Neelie Kroes confirms that there is a need for change, whether in the laws, or in ways of making business or in people's mind concerning the consumption of culture over the Internet. Then we will see Linus Torvalds's point of view on intellectual property which shall lead us to Kirby Ferguson's web-series, *Everything is a remix*, showing that there is a gray area in copyright and author right laws concerning derivative works. We will also review the main arguments of the entertainment industry against piracy – the earning loss – and we will try to understand these numbers under the lights of Rob Reid's work.

### **2.2.1 Legal frame: copyrights and author rights**

Under the term intellectual property we find both industrial property and author rights or copyrights. Intellectual property rights are incentives to protect creations and allow the dissemination of knowledge and culture. In the present work we wish to focus on author rights and copyrights. We shall look at them under the lens of the Berne convention and the scope of the law from Portugal, the United Kingdom, France and the United States of America.

Whether we are talking about copyright or author rights there is a will to protect the creator: the person – or group – who externalizes an idea. In both case, from the moment an idea is given a form the author is granted rights on it, regardless of whether or not it is made available to the public. Historically, differences between author rights and copyright were more obvious but since the *Berne Convention for the Protection of Literary and Artistic*

*Works*, signed in 1886<sup>40</sup> by 165 countries, the models got closer together, even if differences remain. For instance, a choreography does not involve copyrights whereas, in some author rights frame, it is possible for the choreographer to have rights over this kind of work.

The Berne Convention imposes three basic principles:

- The principle of nation treatment, under which a work must be given the same protection in every signing countries,
- The principle of automatic protection, corresponding to the fact that works do not need to be registered to be protected,
- The principle of independence of protection, which means that the protection of a work is independent of the country of origin of this work

But another important point is that it grants moral rights to authors. In other words it gives them the right to be credited for their works and the right of integrity, meaning that no other person than the creator of a work can modify<sup>41</sup> it nor use it in a way that could harm the author's honor or reputation (WIPO, n.d.). These moral rights are taken from the author rights model. Copyright was more of an economic right on one's work, thus only granting patrimonial rights to the author (Staffordshire University, n.d.). As a consequence of the Berne Convention, most copyright countries integrated rights similar to moral rights and most author rights based countries reinforced the patrimonial rights over creations<sup>42</sup> (eAuteur, 2011). For instance the U.S.A. are currently granting moral rights solely to authors of visual arts (Visual Artists Rights Act of 1990).

The patrimonial rights over one's creation are given for the creator's lifetime and then may be inherited at the author's death. In three of four codes or acts we chose to study, the patrimonial rights are waived 70 years after the author's death, in the case of joint works, these rights last for the lifetime of the last surviving author plus 70 years<sup>43</sup>. In the British Copyright Act, the duration of the rights depends on the kind of work, sound recordings and broadcasts are protected for 50 years after they were first recorded, films, literary, dramatic, musical or artistic work are protected for their author's lifetime plus 70 years and typographical arrangements of published editions are protected for 25 years after the first edition<sup>44</sup>. The duration of the patrimonial rights may depend on the dispositions the author took before his death. After that time – or depending on the author's will – the work shall enter the public domain, which means that “no permission whatsoever is needed to copy or use [...] works” (UC Copyright, 2003) as the economic rights over the work were either

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40 And then revised in 7 times. The latest revision was made in 1971 in Paris, it was then amended for the last time in 1979 (Berne Convention for the Protection of Literary and Artistic Works, 1979).

41 Modifications here include possible mutilation or deformation (WIPO, n.d.).

42 As we are mentioning an international conventions it is important to note that countries are still independent in the way they legislate, thus the importance of patrimonial rights compared to moral rights depends on the country's legislation.

43 Portugal, *Code of author rights and neighboring rights*, Art. 34

France, *Code of intellectual property*, Art. L123-1

United States of America, *Copyright Act*, Art. 302

44 United Kingdom, *Copyright, Design and Patent Act*, Section 12 to 15

expired or waived by the author. Yet, depending on the country's legislation, the moral rights may be inalienable and imprescriptible, which is the case in France and in Portugal<sup>45</sup> but not in the United Kingdom nor in the U.S.A., moral rights persist as long as patrimonial rights subsist in the work<sup>46</sup>.

In addition to the rights granted to the author, and partly due to the advances of the technology, we also find related rights in the author rights/copyright law. These rights consist of protecting performers, whose interpretation is necessary to bring a project to life – i.e. actors or singers – producers of audio and video recordings and broadcasting organizations (WIPO, n.d.). The related rights are granted to third parties as their performance, organization or role is necessary to the creation of the author. Thus these parties are granted the rights to give authorizations upon reproduction of a creation and entitled to a remuneration upon the distribution of the reproductions.

## 2.2.2 Copyleft and Creative Commons

Before explaining the extends of the term “copyleft” and of the Creative Commons (CC) Licenses, we wish to go an important aspect of Lawrence “Larry” Lessig's work: the distinction between commercial and non-commercial use. But first, Larry Lessig is the director of the Edmond J. Safra Center for Ethics at Harvard University and the Roy L. Furman Law Professor at Harvard Law School, he also is one of the co-founders of the Creative Commons and actively participated to the redaction of the Creative Commons Licenses.

In *Laws that choke creativity* (2007) Lessig explains that he sees the Internet as an “opportunity to revive the read-write culture” thus as a tool easing the process for derivative works – which we shall talk about in the sub-chapter *Everything is a remix* – including fan works. Fan works are creative derivative works of any kind made by fans of a work (tvtropes.org n.d.), the most well known forms of fan-works are cosplay<sup>47</sup>, which consists of dressing up like a character, fan-fiction, which is the re-writing of a story or using given characters to write a different story, and fanvid<sup>48</sup> which is the creation of a new video based on the re-edition of existing material. These work may be based on fictional characters and stories or on actual people (commonly, bands) and they are the fans' way of demonstrating their fondness for the characters or stories. Yet, legally, these are adaptations<sup>49</sup> and considering the large amount of fan-works available, we shall assume that they are not always authorized by the holder of the copyrights/author rights.

Even though there are records of lawsuits, for instance “Salinger V. Colting 2010” some authors have different approaches about fan-works. One the one hand there are some

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45 Portugal, *Code of author rights and neighboring rights*, Art. 56

France, *Code of intellectual property*, Art. L121-1

46 United Kingdom, *Copyright, Design and Patent Act*, Section 86

U.S.A., *Copyright Act*, Art. 106A

47 A mix of the words “costume” and “play”

48 Fan videos or AMV – Animated Music Video (tvtropes.org, n.a.).

49 Even though fan authors claim that their work fall under the fair use of protected content. In France and in Portugal original authors cannot forbid caricatures, pastiches or parody, but fanworks often go further than these precise styles.

authors prefer to be given credit for the creation of the characters and ask the fans not have a commercial use of their fan-works. A noticeable example is the one of J.K. Rowling, author of the Harry Potter series of novels, who had never complained about “innocent fan fiction”, but took matter in her hands regarding fan fictions including sexually explicit content (Goddard, Rowling, and Warner Brothers, 2002). On the other hand authors prefer to ignore these creations, or have them removed from distribution channels but still do not want to sue fans. For example Anne Rice has been asking fanfiction.net for the removal of all fan-works including her characters from her series *The Vampire Chronicles* and its prequel *Interview with a Vampire* but she had not pressed any charges against creators of the works (Pauli, 2002).

In *Free Culture: The nature and future of creativity* (2005), Larry Lessig distinguishes two uses for cultural contents: commercial and noncommercial. The commercial cultural content would be the one produced with the purpose to be sold, the noncommercial would be all the rest. From this we can say that, even though the fan-works are made from commercial contents they are commonly not meant to be sold, their sole purpose is to be shared amongst fans<sup>50</sup>. But we shall see that these practices go against copyright and author rights laws. Lessig has been working towards promoting that balance between commercial and noncommercial use. And in order to allow a simpler process than contacting the creator of a work, asking for the permission to modify or use his/her work or going through a lawsuit, Lessig and other lawyers worked on the Creative Commons.

But before explaining the CC licenses we shall go through the meaning of copyleft, thus explaining why both the Free and Open Source movement are so close to the CC.

### **2.2.2.1 Copyleft**

“Copyleft [is] a play on copyright” (Weikel, 2009) and is not a legal term. The rise of the term and its use is intricately linked with the development of Free Open Source Software as the first copyleft license was the Emacs General Public License, written in 1988 by Richard Stallman and became the GNU General Public License in 1989 (Potter, 2012). Using licenses allows the author to clearly grant authorizations to the users and, in the intellectual property context, they are necessary as authorizations from an author have to be put in writing to be able to document them and to have a legal value<sup>51</sup>.

Copylefting a work is only achievable by one of two ways: either by putting the creation in the public domain<sup>52</sup>, thus waiving all patrimonial rights or by licensing it. For a license to be recognized as a copyleft license it has to meet requirements similar too the four freedoms of Free Software we mentioned earlier. The Free Software definition of copyleft is a general method which allows anyone to make their work free and requires all the derivations of this work to be distributed under the same terms of licenses (Free Software Foundation

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50 Here we chose to explain the differentiation between commercial and noncommercial use by using fanworks as they are proofs of fondness and respect from the fan base toward the author and its creation, but this difference is not inherent to this kind of creation and could be expended to every cultural work.

51 In some context, oral contracts have a value, when it comes to intellectual property, they do not.

52 Richard Stallman argues that if someone puts his/her work in the public domain, it makes it possible for others to re-use it and then distribute it in a proprietary manner, thus the freedom granted by the original author has been ripped by the middleman (Free Software Foundation, 2013)



Online distribution of digital cultural products: Are legal distributors strong enough against piracy?

2013). When it comes to software licensing, the GNU GPL license is the most widely used: GNU GPL 2.0 represents 32,65% of the Free Open Source projects and its more recent version – GNU GPL 3.0 – 11,62%, which adds up to 44,27% for the copyleft “original” license (Black Duck Software, 2013).

Before 2001 and the foundation of the Creative Commons non-profit organization and its licenses, the GNU GPL was also used for some written content such as wikis and some websites. Nowadays, such contents are more commonly licensed under a CC license.

### **2.2.2.2 Creative Commons Licenses**

The Creative Commons's mission is to “develop, support, and steward legal and technical infrastructure that maximizes digital creativity, sharing and innovation.” (Creative Commons, n.d.). The idea moving the Creative Commons is that the Internet is a tool that allows to share and access educational, research and cultural material but the current legal frame – which was created before the Internet – is sometimes too restrictive as the sentence “All rights reserved” suggests. Thus the Creative Commons allow the author to set understandable rules following the “Some rights reserved” motto (Creative Commons, n.d.). Creative Commons licenses do not reduce the rights of an author, the licenses work alongside copyright and author rights for a simpler collaboration between people (Creative Commons, n.d.). Because they were thought to work alongside copyrights laws, the CC licenses are more appropriate for copyrighted works. Even though software are copyrighted works, the organization of the Creative Commons does not recommend using one of its licenses as they do not mention neither the source code nor the object of the software (Creative Commons, 2013).

When making the choice of using a CC license, the author has to make sure he/she is the holder of the rights and in the event of collective creation all authors have to agree with this choice. Furthermore the CC licenses are reversible but the process is nearly impossible, as we are talking about Internet distribution; getting a hand on each copy made under a CC license is not possible. Deciding not to use a CC license anymore is not a problem in itself, but stopping the share and spread of the distributed work is complicated, if even possible. There is no “right way” for an author to choose amongst these licenses, he/she shall act as he/she pleases and in accordance to the kind of uses he/she wants to authorize. To get a better understanding of the CC licenses we shall now explain all six of them.

- Attribution

The Attribution license – or BY – is the less restrictive of all as it allows derivative works as well as distribution whether for commercial or non-commercial uses. The only requirement with this license is to credit the author, thus it is complying with the moral rights and the concept of paternity of the work. The attribution license is usually indicated as seen on Illustration 2.



*Illustration 2: CC BY Normal Icon (Creative Commons)*

Online distribution of digital cultural products: Are legal distributors strong enough against piracy?

- Attribution ShareAlike

The Attribution ShareAlike – or BY-SA, on Illustration 3 – license allows the creation of derivatives works, the distribution for both commercial and non-commercial purposes to the conditions that the author is credited and that the license for the derivations remains the same. This license is considered as a copyleft license and it simplifies the creation of derivatives work as the author express his/her consent when choosing this license.



*Illustration 3: CC BY-SA Normal Icon (Creative Commons)*

- - Attribution NoDerivatives

On the one hand this license let others redistribute a creation whether for commercial purposes or not as long as the author is credited. On the other hand, the author does not allow derivative works. Under the Attribution NoDerivatives – BY-ND – license, the author has to be credited and the use may be commercial but the work has to be redistributed as the author made it. The use of an BY-ND license is pictured by Illustration 4.



*Illustration 4: CC BY-ND Normal Icon (Creative Commons)*

- - Attribution NoCommercial

This license allows the redistribution and the creation of work adapted from the original as long as it is not done with commercial purposes. The author has to be credited for his/her work. And even though the license as such does not allow a commercial purpose of the work, by contacting the author and obtaining his/her approval, a commercial use is possible. This license is also called BY-NC and is represented as shown in Illustration 5.



*Illustration 5: CC BY-NC Normal Icon (Creative Commons)*

- Attribution NoCommercial ShareAlike

The Attribution NoCommercial ShareAlike – BY-NC-SA, see Illustration 6 – license re-use the terms of the Attribution NoCommercial license but when the adaptations of the work are distributed, they have to be under the same terms. That is to say that the author of a derivative work must credit the original author and cannot allow commercial use of his/her work, these requirements keep going along each derivation of derivations and so on and so forth.



*Illustration 6: CC BY-NC-SA Normal Icon (Creative Commons)*

- - Attribution NoCommercial NoDerivatives

This license is the most restrictive of the Creative Commons licenses, it does not allow the creation of derivative works nor its commercial use. In other words one is allowed to download the content and distribute it as it is and without profit, as sharing it is still allowed by the author. It is represented by the icon shown in Illustration 7 and may also be called BY-NC-ND.



*Illustration 7: CC BY-NC-ND Normal Icon (Creative Commons)*

### **2.2.3 The attempts to eradicate piracy: ACTA, SOPA, PIPA, CISPA**

We have already stated earlier that stopping piracy by trying to eradicate was not, in our opinion, the best path to follow. By explaining and reviewing the latest attempts to legislate we wish to clarify our opinion. We shall start this review with ACTA, the international trade agreement and then move on to SOPA, PIPA and CISPA, the American proposed laws which could have a global impact.

ACTA is the Anti Counterfeit Trade Agreement, an international trade agreement, negotiated in secret since 2007 by thirty-nine countries (La Quadrature du Net, 2013), and its purpose is to globally coordinate the fight against intellectual property infringement on the Internet – i.e. piracy – as well as in real world – i.e. counterfeits (Gallo, 2012). As of today, the agreement has been rejected by the European Parliament, thus by 27 of the 39 countries. When the negotiations and the first draft of the agreement became accessible – in July 2010 (La Quadrature du Net, 2013) – strong reactions started to raise from the crowd. The first concern was the secret nature of the agreement; for the European parliamentarian Marielle Gallo, ACTA was negotiated just like any other international trade agreement (2012) whereas for the association La Quadrature du Net<sup>53</sup>, the fact that ACTA was negotiated and not democratically debated was “to dictate a repressive logic” (La Quadrature du Net, 2013).

But the main concerns about ACTA came from the fact that the agreement would allow governments to file charges in criminal court against Internet providers and some websites. Indeed, if Internet providers would not respond to the request from a financial beneficiary of protected content<sup>54</sup> to give information about a customer suspected of copyright or author right infringement or to cut off the Internet connection of a person suspected of

<sup>53</sup> The association's mission is to “defend the rights and freedoms of citizens on the Internet” (La Quadrature du Net, 2008).

copyright/author rights infringement, the State would have the mean in its hand to sue the Internet provider.

For websites which would allow Internet users to access other websites linked with illegal matters – for instance any search engine – the legal threats would have been similar. As a consequence, most of the concerns were that, with the threat of criminal charges, the power would lay in entertainment industries' hands with help from the government (De Coninck, 2012). Internet actors, such as providers, search engine or blog hosts, would have had to monitor everyone's behavior in order to restrict some content so that they would not be threatened. For the people who manifested against ACTA, the problem is not to try to eradicate online piracy, the problem is the possible limitation of their freedom of speech and the non-protection of their private data (NouvelObs.com 2012).

SOPA, the Stop Online Piracy Act, PIPA, the Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property, and CISPA, the Cyber Intelligence Sharing Act<sup>55</sup>, are very similar to ACTA. Jenna Wortham, journalist for the *New York Times* reports that “the tech industry maintains that the language in the bills is too broad, and that they could pose a threat to free speech and stifle innovation. Among other things, they say, the bills could make sites responsible for all content or links posted by their users, a weighty burden for social sites” (Wortham, 2012). And even though these are American laws, there are ways in which they could globally impact the Internet. We believe that the global character of the Internet makes these American propositions a worldwide concern, and we shall not forget the strong presence of U.S. based companies on the Internet.

These laws would work as follows: with the suspicion that content could be or lead to copyright infringement a company would be able to ask justice to take down not only the targeted content but an entire website (TotalHalibut, 2011) by suspending its domain name. We could easily imagine that happening to a website like Youtube, thus preventing the stream of not only the pirated content but also of the millions of user generated videos. But the way the bills were drafted would enable the same destiny to Facebook, Google<sup>56</sup>, and any user-generated content<sup>57</sup> website including Wikipedia.

We would also wish to remind that the Federal Bureau of Investigation (FBI) took down the Hong-Kong based website managed by a New Zealander: Megaupload during the manifestations against all these proposed laws and the trade agreement so before any of these laws passed. And the FBI proceeded just like the SOPA and PIPA drafts: it took down Megaupload domain name thus preventing an important part of the users to access the website and then arrested the inhabitant and citizen of New Zealand Kim Dotcom. The potential trial of Kim Dotcom in the U.S.A. have been a global controversy as the U.S.A. simply do not have jurisdiction in New Zealand and Judge O'Grady in charge of the case even stated that he was not sure whether or not there would be a trial (Fisher, 2012).

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54 All people or entities affected by author rights, copyrights and related rights: the author, the performer or the producer for instance.

55 As of today, non of these bills have been debated to the U.S. House of Representatives, thus they did not pass yet.

56 Youtube belongs to Google. Also as an e-mail provider Google would also be forced to censor certain e-mails, sent or received, containing links to suspicious material (americancensorship.org, 2011).

57 Blogs, video channels, wikis, podcasts and so on.

## 2.2.4 There is a need for change

When it comes to the current legal frame for culture we noticed that some authorities realize that it is no longer adapted to today's ways of consuming. In September 2012 the Lisbon Council, a Brussels-based think tank, held *The 2012 Intellectual Property & Innovation Summit*. During this summit, Neelie Kroes, European Commissioner for the Digital Agenda, explained that the European Union is aware that “the debate on copyright is not a simple question, we need to recognize it is a complex issue”(2012). The latest copyright/author rights revision made by the European Union – The Copyright Directive – is already 11 years old and when it comes to the European Union and its laws, things get even more complicated as there are 27 sets of laws and 27 countries to please with the changes made. The Commissioner added an interesting comment related to the astonishing fact that culture cannot be legally spread across borders of the Union. Indeed, buying digital music or accessing VoD<sup>58</sup> from Czech Republic while living in Latvia is not possible. The Schengen Space<sup>59</sup>, which was meant to allow free circulation of people, does not allow the free circulation of dematerialized culture. But Neelie Kroes also said that “the way we consume and enjoy creative works – music, and also movies and also games – is changing [...] fast” (Copyright and Innovation in the Creative Industries, 2012) and because of these rapid changes she urges policy makers to refresh the European legal frame as a lot of opportunities are out there for creative people but 27 legal frames stand in their way. She added that “we should help artists live from their art, stimulate creativity and innovation, improve consumer's choice, promote our cultural heritage and help the sector drive economic growth” (Neelie Kroes: Copyright and Innovation in the Creative Industries, 2012).

## 2.2.5 Intellectual property and customers

In this last quote Neelie Kroes names the artists and we want to approach that with Linus Torvalds' point of view on intellectual property as exposed in his book *Just for fun*. In the chapter *Intellectual Property* Linus agrees that IP is useful to protect the work and the author if it is wanted by the author. But through the licensing of IP one is entitled to sell the product and keep it at the same time thanks to the digitalization<sup>60</sup> of the product. Licensing also allows the organization to claim that it is not responsible if a product presents imperfections<sup>61</sup>. Therefore the licensing of IP may prevent customer protection.

On that observation lays the following quote “[...] not so surprisingly, the proponents of stricter intellectual property laws are the organizations that stand to gain the most. Not the artists and inventors themselves, but the clearinghouse of IP: companies that make a living off other people's creativity” (Torvalds and Diamond, 2002, p. 207).

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58 Video On Demand is “an umbrella term for a wide set of technologies and companies whose common goal is to enable individuals to select videos from a central server for viewing on a television or computer screen” (VoD, n.d.)

59 The Schengen Space is made of 22 members of the European Union plus 4 associated states. It was integrated to the Amsterdam treaty in 1999. The main purposes of the Schengen agreements were to allow free circulation of people within the borders of all signing states, to harmonize control at the external borders of the delimited space and reinforce the police and judiciary cooperation. (touteurope.eu, 2012)

60 Every time a digital product is sold, a copy is made, but the “original” remains in the seller's hands.

61 Software bugs, compatibility issues with some image or music formats etc.

Online distribution of digital cultural products: Are legal distributors strong enough against piracy?

There are two common beliefs surrounding piracy, on the one hand some argue that file-sharing discourages the artists' creativity and hurts them financially, on the other hand it is argued that the ones denouncing piracy are the companies behind artists, as some consumers may think that they are the only ones truly financially hurt by the practice of piracy. Both are supported by the advertising campaigns against piracy reinforcing the criminalization of file-sharing.

The first argument has been dismissed by Felix Oberholzer-Gee and Koleman Strumpf in their essay *File-Sharing and Copyright* (2010): “Data on the supply of new works are consistent with our argument that file sharing did not discourage authors and publishers. The publication of new books rose by 66% over the 2002-2007 period. Since 2000, the annual release of new music albums has more than doubled, and worldwide feature film production is up by more than 30% since 2003.”. To contest further this argument – piracy financially hurts the artists – we shall also rely on a survey conducted by the Dutch government, in 2011. Out of the 4 000 Dutch artists from different fields more than 50% disagree that file-sharing hurts them financially, 30% agree and the remaining 20% do not know whether or not their finances are affected by illegal file-sharing (Ernesto, 2011).

Concerning the second argument and whether piracy is prejudicial to the “clearinghouses of IP” the counter argument is easy to find. The organizations mentioned are major music companies or movie studios or, generally speaking, producers. As they provide the money to support the artists' creation the laws of business logically allow them to look for a good return on investment.

But Linus Torvalds' opinion goes against that counter-argument, IP generates revenue which is re-invested in IP but he wonders about the goodness of that process giving the example of the music industry: “look at the music business today. Kajillions of dollars are spent every year on finding the next hot artist – yet nobody really thinks that the Spice Girls (who has been richly rewarded for their contributions to their art) can compare to Wolfgang Amadeus Mozart (who died destitute). So throwing money at the problem does not make for that kind of genius.” (Torvalds and Diamond, 2002, p. 211). Torvalds thinks that a great product is able to live on its own, that the customers is able to see quality in it and chose it over another better marketed but of less quality.

We shall not go on arguing about the quality of cultural products, first because the authors do not have the required knowledge and second because we know the power of marketing today. Yet we thought that this comment was important to show that great creation does not come in pair with great financial funds.

### **2.2.6 Everything is a remix**

Torvalds also argues that the border between copy and inspiration can be really thin and not defined in the law, which leads us to Kirby Ferguson's web series *Everything is a remix*. The core postulate of the researches Ferguson made is that everything, whether cultural or industrial, is created through the process of copying, transforming, combining. This process is what Ferguson calls remixing and this is how the term “remix” shall be understood thereafter. The most well known example of remixing works of art would may come from Walt Disney. Ever since the iconic Mickey Mouse derived from Walt Disney's own character *Steamboat Willie* (Iwerks, 1930), whose story is largely inspired from the storyline of the

movie *Steamboat Bill, Jr.* (Reisner, 1928) and with the yearly successes of the Walt Disney Company, everything seems to be a remix.

Before talking about the licit character of remixing we have to clear up the meaning of words in the eyes of the law<sup>62</sup>. On the one hand a copy consists of the reproduction of a work in any form<sup>63</sup>. On the other hand an adaptation<sup>64</sup> – or derivative work under American and Portuguese laws – is a record, a writing or any other form of a translation, the transformation of a dramatic work into a non-dramatic work and vice versa, or a version of a story or action wholly or mainly put in pictures or in a form suitable for reproduction. In the case of music an adaptation is an arrangement or transcription of the work. Therefore, by definition, a remix falls into the adaptation category. If remixing is not illegal and derivative works are authorized, what is the problem?

The criticism made by Torvalds is that we do not clearly know where the derivation starts and the inspiration stops. In his series, Ferguson tells us that “fundamental changes” are necessary to allow the creation of new works but does not say what are these fundamental changes. In the first episode, *The song remains the same* (2011), Ferguson gives the example of Led Zeppelin, the 1970's British rock band. Led Zeppelin has been sued several times and by several artists for copyright infringement. The band used some songs, changed some lyrics and/or made some music but the original artists still thought that their original works were too recognizable. As they had made changes, Led Zeppelin did not consider these songs as covers – which are categorized as adaptations – thus did not credit the original artist nor asked any authorizations to use these songs (Ferguson 2011). The problem lies in the very thin line between inspiration and copy. The British Copyright Service tells us that “there is nothing to stop you being inspired by the work of others, but when it comes to your own work, start with a blank sheet and do not try to copy what others have done.” (The UK Copyright Service 2000).

But another well known artist has some copied works of his own; Bob Dylan<sup>65</sup> but the advice his friend Woodie Guthrie gave him is what interest us: “The words are the important thing. Don't worry about tunes. Take a tune, sing high when they sing low, sing fast when they sing slow, and you've got a new tune.” (Ferguson, 2011). This is the same opinion as the blues singer and guitar player Blind Willie McTell gives when he states “I jump 'em from other writers but I arrange 'em my own way.”, which reinforces Ferguson's postulate that everything is copied, transformed and combined. This is not true only for music but also for movies and other cultural contents.

We decided to include Ferguson's work to our own for two reasons, first it allows us to oversee the concept of adaptation and derivative works. Second, while making further

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62 To be able to talk about the law we have analyzed the British and the American Copyright Acts as well as the Portuguese and the French Codes of Intellectual Property.

63 Including electronic form or a three dimensions copy of a two dimensional work or a two dimensions copy of a three dimensional work.

64 Adaptation is the legal term in British law, in American law an adaptation is called derivative work. In the Portuguese law the adaptation is a form of derivative work. In the French law the terms adaptation, arrangement and transformation are used. In the rest of this work we may use derivative or adaptation regardless.

65 It is estimated that 2/3 of his early songs were inspired by works from others (Ferguson, 2012)

research on the particular theme of adaptation, derivation and inspiration we came across articles explaining to artists what to do if they find themselves in the situation of having their works modified or copied without being asked.

These advices were guidelines on how to ask the person to take down the adaptations, and concluded by “the million dollars question: is the presence of this duplicate content more of a financial threat to you than the cost of having your lawyer file an injunction?” (Lechnyr, 2012) As the purpose of our work is business orientated, we have to admit our surprise as, it took us a lot of research to encounter advice about trying to turn the situation to the creator advantage by asking for credit, a link to the original artist's website and a notice saying that the work as been taken as such or slightly modified as long as the situation excludes commercial use – copy of one's image on a blog as an illustration, sharing information, news or else (recipes, handcrafts idea etc.). In Annex A we gathered a list of articles we consulted as well as the templates of letters requesting the removal of the infringed work.

### **2.2.7 Copyright math**

When we talk about copyright infringement the entertainment industry has big figures to show the damages made by piracy. For instance, we retrieved from a French documentary entitled *Internet, the war is declared* (De Coninck, 2012) some numbers and statistics given by the Independent Film and Television Alliance's (IFTA) President, Jean Prewitt. In 2012 she declared that piracy caused the loss of 370 American jobs per year, a loss of earnings up to tens of millions of dollars, therefore a loss of \$2 to 3 million in taxes. In his TEDTalk, Rob Reid, creator of Copyright Maths gives the figures of the Motion Picture Association of America (MPAA). The numbers of jobs lost – 373,000 – seem to match even though we are missing a time period, and the MPAA estimates an earning loss of \$58 billion per year for the American economy. Before going further we want to argue the vagueness of these numbers.

In the case of the IFTA, the number of jobs loss is given for a time period, but does that number concern the people represented by the IFTA only? The movie business? The entire entertainment industry – in which we would at least include the music industry? And when it comes to loss of earnings we wonder: is the number given per year? For the last ten years? Since the development of the Internet? And the questions concerning “who” is losing their work can be applied here too. For the MPAA's figures the questions remain the same, we are given a time period for the earning loss of the entire American economy, but does it include tax loss for the country? Is inflation taken into account? Does it include the loss of purchasing power of people losing their jobs and who therefore cannot consume as much as if they did have a job? Does it include the loss of earnings for other industries due to impoverishment of workers from the entertainment industry? We are aware that some of these questions may seem farfetched and the lack of answer may not be imputable to the MPAA or the IFTA but to the journalists or to the person giving the speech. Yet, we still think that questioning these numbers is important as they demonstrate a possible disinformation and considering the importance of the given figures, questioning their legitimacy is necessary.

Reid's work on Copyright Math relies on the analysis of the figures given by the MPAA. In the speech *The \$8 billion iPod* (2012) Reid explores this annual earning loss of \$58



billion to the U.S. economy, which corresponds to the collapse of American cultivation<sup>66</sup>. He goes further by admitting that the music business has been losing \$8 billion per year since the creation of Napster<sup>67</sup> but on the other hand movie revenues<sup>68</sup> are up by about \$10 billion in 10 years – i.e. \$1 billion per year – and television, satellite and cable revenues are up by roughly \$40 billion in 10 years – i.e. \$4 billion each year. Without releasing figures, Reid says that book and radio revenues are also going up. So he suggests an absurd postulate: the loss given by the MPAA is due to a market that has no historical data, like ring-tones, meaning that this ring tones market represents a \$50 billion loss to the American economy (Reid, 2012).

Then the conference goes on about the number of jobs lost to copyright theft and we face a problem: in 1998 the statistics of the U.S.A. Bureau of Labor showed that the motion picture and video business was hiring 250,000.00 people and 45,000.00 people for the music business, adding up to 295,000.00 people for the entertainment industry. Therefore the number of 373,000.00 jobs lost<sup>69</sup> to copyright theft would give an employment rate below zero (Reid, 2012).

These numbers are incredible and the U.S. Government Accountability Office gives an explanation for it: “the illicit nature of counterfeiting and piracy makes estimating the economic impact of IP infringements extremely difficult, so assumptions must be used to offset the lack of data.” (2010). Plus during the researches we made to be able to write this sub-chapter we came across a variety of different figures<sup>70</sup> supposed to illustrate the impact of copyright theft on the industries. Even though we do not wish to diminish the economic impact of copyright and author rights infringement we thought it was important to enhance the contradictions of the given figures and Rob Reid's work on Copyright Math allowed us to do so.

### **2.3 File-sharing protocols**

This last part shall be about the different ways to share file over the Internet. All these protocols and processes are legal, the possible illegality depend on the content shared. With this sub-chapter we wish to clarify terms that we shall use in Chapter 4. Illustration 8 shows that the most used sharing protocols over the Internet are peer-to-peer, web and streaming.

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66 An actual economic loss of \$58 billion correspond, in the U.S.A., to the end of production of “corn, fruits, wheat, cotton, tobacco, rice and sorghum” (Reid, 2012).

67 In 1999, Napster is a peer-to-peer sharing platform meant to ease the sharing of music files.

68 Including theaters, home (buying DVDs for instance) and Pay-Per-View, a TV system that allows the user to watch sport events or movies on demand by paying a fee (CableTelevision advertising bureau, n.a.).

69 We are assuming 10 years, but the time frame is never mentioned.

70 For instance: “online piracy is a [...] problem which costs the U.S. Economy between \$200 and \$250 billion per year, and is responsible for the loss of 750,000 American jobs.” (Raustiala and Sprigman, 2012)

Protocol Class	Southern Africa	South America	Eastern Europe	Northern Africa	Germany	Southern Europe	Middle East	South-western Europe
P2P	65,77%	65,21%	69,95%	42,51%	52,79%	55,12%	44,77%	54,46%
Web	20,93%	18,17%	16,23%	32,65%	25,78%	25,11%	34,49%	23,29%
Streaming	5,83%	7,81%	7,34%	8,72%	7,17%	9,55%	4,64%	10,14%
VoIP	1,21%	0,84%	0,03%	1,12%	0,86%	0,67%	0,79%	1,67%
IM	0,04%	0,06%	0,00%	0,02%	0,16%	0,03%	0,50%	0,08%
Tunnel	0,16%	0,10%	-	-	-	0,09%	2,74%	-
Standard	1,31%	0,49%	-	0,89%	4,89%	0,52%	1,83%	1,23%
Gaming	-	0,04%	-	-	0,52%	0,05%	0,15%	-
Unknown	4,76%	7,29%	6,45%	14,09%	7,84%	8,86%	10,09%	9,13%

*Illustration 8: Protocols class proportion (Schulze and Mochalski. 2009, p.2)*

This sub-chapter shall focus on the three first protocols, Web which includes file-hosting, P2P which is the one that generates the most Internet traffic and include the BitTorrent protocol, and Streaming which is a widespread way to access audio files as well as videos.

### 2.3.1 File hosting

Put simply, for traditional downloading, a server a client are needed. A server is “a computer or device that manages network resource” (Webopedia, n.d.) whereas a client is an application or a software which relies on a server to perform some operations (Webopedia, n.d.). When someone downloads something – a set of data – this set is copied from the server to another computer through the client. Such system is called a client/server architecture (Webopedia, n.d.) and is depicted on Illustration 9. This is what file hosting consist of, and it may be for personal use with services like Dropbox<sup>71</sup>, or it is the kind of network architecture that was used for Megaupload.

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71 Dropbox rents its users some space on the Internet and allows them to access their files as long as they are connected to the Internet

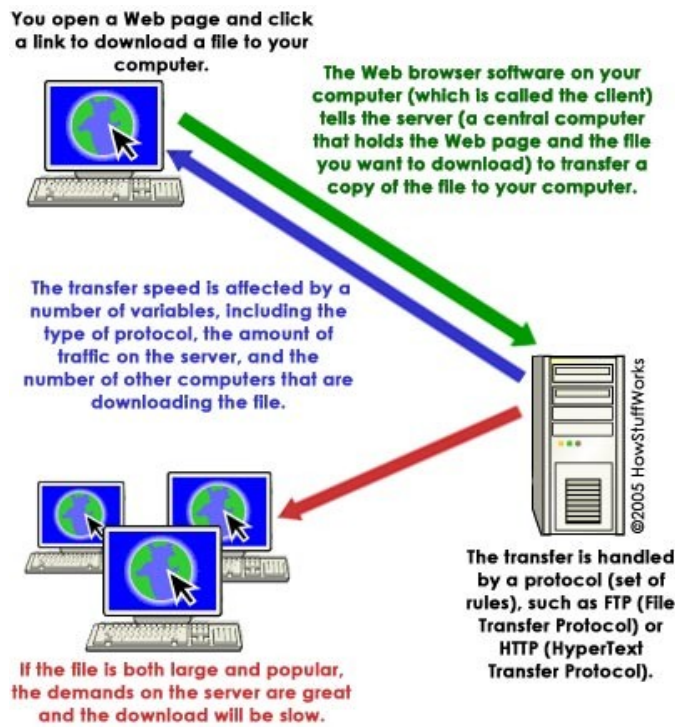


Illustration 9: Traditional client/server download (Carmack, 2005)

As seen on Illustration 10, file hosting, depending on locations, represent from 12,11% to 44,26% of the Internet generated by web applications – such as browsers for instance.

Protocol	Southern Africa	South America	Eastern Europe	Northern Africa	Germany	Southern Europe	Middle East	South-western Europe
All Web	20,93%	18,17%	16,23%	32,65%	25,78%	25,11%	34,49%	23,29%
HTTP	85,52%	54,55%	81,57%	73,47%	58,90%	58,32%	69,70%	65,99%
File hosting	12,11%	44,26%	18,43%	26,53%	39,78%	40,54%	27,08%	34,01%
HTTPS	2,37%	1,19%	-	-	1,33%	1,14%	3,23%	-

Illustration 10: Traffic distribution of Web usage (Schulze and Mochalski, 2009, p.12)

### 2.3.2 Peer-to-peer and BitTorrent

With a peer-to-peer – P2P – architecture every computer sort of becomes a server, when someone researches a file, the client will look for it all over the network, when found multiple connections are created thus allowing the download to be much faster as the copy is made from several sources (Kayne, 2012). For a better understanding Illustration 11 shows us how a P2P network works.

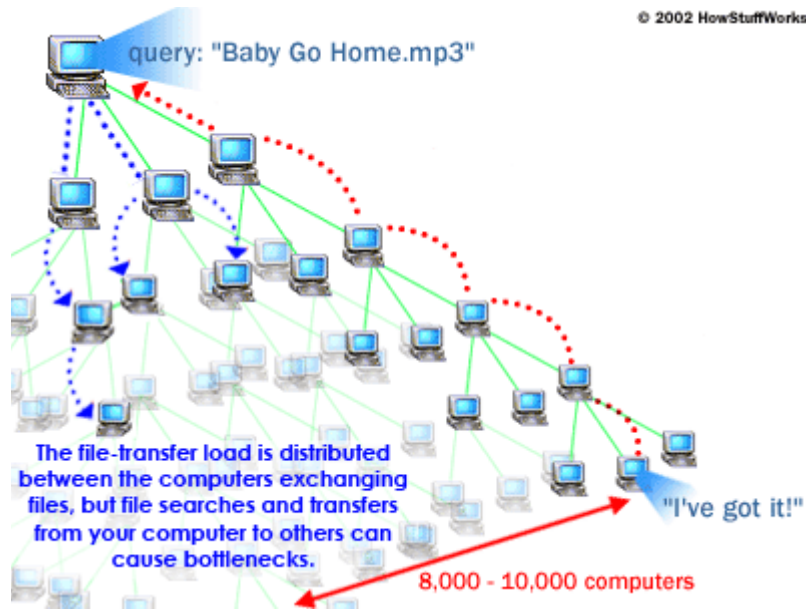


Illustration 11: Depiction of a peer-to-peer network (Carmack, 2005)

BitTorrent is a P2P Open Source protocol created in 2001 (BitTorrent, 2013). It creates several connections to several sources of the same set of data but the protocol works by downloading the data “slice by slice” and as soon as they are downloaded to the computer, they are uploaded to another one seeking the same content. The main difference with other P2P protocols is that instead of creating a library of files available for downloads, on the files in the client can be shared (Kayne, 2003). Illustration 12 is a depiction of how BitTorrent's downloads work: the tracker – or server – identifies the crowd which have the content available and make all client communicate.

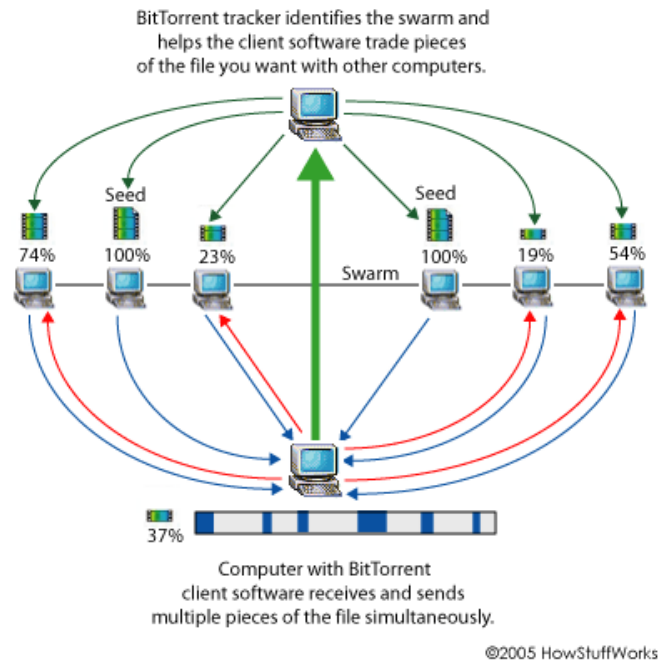


Illustration 12: BitTorrent's peer-to-peer download process (Carmack, 2005)

Online distribution of digital cultural products: Are legal distributors strong enough against piracy?

The percentage of Internet traffic generated by P2P protocols is broken down by protocols in Illustration 13, showing that BitTorrent is, worldwide, the most used of the peer-to-peer protocols.

Protocol	Southern Africa	South America	Eastern Europe	Northern Africa	Germany	Southern Europe	Middle East	South-western Europe
All P2P	65,77%	65,21%	69,95%	42,51%	52,79%	55,12%	44,77%	54,46%
Ares	0,29%	42,63%	0,00%	2,24%	0,84%	0,16%	0,11%	1,80%
<b>BitTorrent</b>	<b>48,34%</b>	<b>30,02%</b>	<b>80,83%</b>	<b>74,51%</b>	<b>70,77%</b>	<b>48,94%</b>	<b>78,85%</b>	<b>58,20%</b>
DirectConnect	0,01%	0,00%	17,87%	0,08%	0,85%	0,00%	0,12%	0,30%
eDonkey	2,48%	25,99%	1,16%	7,70%	24,22%	47,17%	15,37%	35,99%
Gnutella	18,60%	0,36%	0,14%	14,21%	1,75%	1,66%	5,00%	2,75%
iMesh	13,60%	0,02%	0,00%	0,47%	0,00%	0,03%	0,00%	0,14%
Thunder	14,04%	0,80%	0,00%	0,69%	0,77%	1,64%	0,52%	0,62%
Other	2,64%	0,19%	0,00%	0,10%	0,68%	0,41%	0,03%	0,21%

*Illustration 13: Most popular P2P protocols (Schulze and Mochalski, 2009, p.6)*

### 2.3.3 Streaming

Streaming is a widespread technology which allows the user to “listen to music or watch video in “real time”, instead of downloading a file to [a] computer and watching it later” (WebWise Team, 2012). Usually it translates by a video or audio file embedded in a website, the best example of streaming website is Youtube. Contrary to the other two, streaming does not allow the user to keep the material on his/her computer<sup>72</sup>. This may confuse some users but it does not make streaming legal, just like for file-sharing and BitTorrent, the licit character of streaming depends on the streamed content.

We have now explained the raise of Open, the spread of Free software, the legal frame surrounding cultural products and reviewed opinions and works that we find valuable and the different ways to share cultural products over the Internet. It is now time for us to explain how we wish to conduct our research, thanks to which we shall define whether or not the legal online distributors can compete with piracy.

<sup>72</sup> With some online services and/or knowledge, downloading streaming material is possible but streaming itself is not intended this way.

### 3 Methodology

We have now reviewed the legal frame in which the present work is inscribed as well as the kind of licenses it may call to and the opinions which led us to this work. So, now, what is left is our analysis. When Gabe Newell said that piracy was a service problem, how right was he? To answer we shall study companies which offer a legal distribution service at least as satisfying as piracy does.

We selected our case studies so they are in direct competition with pirate offers, hence they have to legally distribute cultural content over the Internet. These were our only three requirements – direct competition with online piracy, legal distribution and Internet based. We did not wish to set any geographic condition to our selection as the problem of piracy is global, thus solutions may be transferable from a country to another without extensively changing the economic model of the company. We have thought of selecting the companies according to whether or not they charge the user to access the cultural content, but after long consideration we came to the conclusion that whether or not users/consumers could access cultural product for free had to be the artist's decision not the distributor's. We also wished to be able to find enough data so much that our analysis would be meaningful. This wish led us to select well-known companies as we considered it as an indicator of consequential substantial usage.

As we mentioned earlier we will be using the list of core copyright-based industries provided by WIPO as it allows us to study a broad diversity of examples and cover most of the industries gathered under the name Creative Industries. But, in order to have the similar offers gathered in one sub-chapter, we reunited some main groups. Along with the music, theatrical productions and operas we added the radio, with the motion picture and video we added television, and photography is now alongside visual and graphic arts. We have made these choices as the distribution system are related. For instance, radio programs are often available as podcasts<sup>73</sup> on platforms also distributing music, television screens all kind of movies or series that are produced by the motion picture and video group. Consequently, how the piracy affects one group may affect the other as well.

In order to make an accurate analysis we shall investigate the same criteria in each company, if we are able to find them. To start we shall present the company using the 5WH: who, what, where, when, why and how. Then, if the company provides them, we shall use its mission statement and its vision for the reason that these elements give us information about how the company sees itself. Then we shall conduct an analysis of the marketing strategy. It shall be conducted using the 4Ps model – Product, Price, Place and Promotion – which allows us to clearly identify the company's offer.

Thereupon we shall move on to study the users characteristics which would help us identify typical users. This shall be done using the marketing concepts of targeting, segmenting and positioning. In marketing, in order to define a target market, we need to segment it, which consists of identifying subgroups of consumers sharing a set of criteria, these may be geographic, demographic, psychographic<sup>74</sup> or behavioral<sup>75</sup> as well as a combination of several of these aspects. Thus a set of segments altogether represents the

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73 A podcast is “a multimedia file, such as a radio program or music video that can be downloaded from the Internet and played on an iPod or similar piece of equipment” (MacMillian Dictionnary, 2013).



company's target. Once a company identified who they wish to appeal to it needs to define how the product shall be perceived, this is positioning. We consider this identification of discourse and customers as necessary in order to compare pirates and legal offer users.

In order to make a consistent comparison between what piracy has to offer and legal offers we decided to give two examples of the “pirate offer”. We have chosen the Pirate Bay as it represents a half of the worldwide torrent traffic (Simon Klose, 2013) and it holds all kind of contents<sup>76</sup>. The second example we chose is Project Free TV as it is a repertory of streamed content. We shall give more details about both websites in the next chapter of the current work. We shall conduct the analysis of these two just like we have described the analysis of the legal solutions. Thus we shall use these analyses as benchmarks which shall allow us to conclude whether or not we are really looking at a service problem. We shall also observe whether or not users share similar characteristics for the reason that if they do they might be willing to use an offer or the other regardless.

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74 Psychographic segmentation is used to divide buyers into groups sharing personalities traits, lifestyles and values (César Machado and Da Costa Babb, 2012).

75 In this context we mean behavior towards a product. A behavioral segmentation is based on the “buyers' knowledge, attitudes, uses or response to a product” (César Machado and Da Costa Babb, 2012)

76 More details in Chapter 4

## 4 Case studies

In order to answer our question and know whether or not piracy is a service problem we shall first consider the illegal offer available worldwide. Then we shall go through examples of the copyright-based industries and see if their offer is a potential competitor to piracy, thus we shall compare all aspects of this offer. We shall also go through people's opinions and justifications on why they pirate content. As a consequence in this sub-chapter we shall study the offers as well as the customers' response to them and thanks to these responses and understanding the cause of why is the pirate offer appealing to people we shall be able to understand if the current legal offer is strong enough to compete the illegal one.

### 4.1 The pirate offers

In order to set a benchmark on our analysis we decided to study two offers well-known for being important sources of illegal sharing. We chose these two as they represent two of the most used file-sharing methods over the Internet and together they represent each core copyright-based industry.

#### 4.1.1 The Pirate Bay

The Pirate Bay (TPB) is a Swedish website co-founded in 2003 by Peter Sunde, Fredrik Neij and Godfritt Svartholm. Since 2006 the administration of the website seems to have been transferred to Reservella a “shadowy company”<sup>77</sup> (Anderson, 2009) based in the Seychelles islands and it appears that none of the three co-founders is officially linked with the website anymore. Even though for its first year of existence the website was affiliated with the Pirate Bureau, a Swedish think tank supporting file sharing – which name is a play on the Anti-Piracy Bureau, TPB is no longer politically affiliated.

TPB is a torrent repository on which only registered users are able to upload torrent files (The Pirate Bay, n.d.). It also is the largest BitTorrent tracker in the world and, as seen in the documentary *The Pirate Bay Away From Keyboard* (Simon Klose, 2013), it is estimated that half of the worldwide BitTorrent traffic is coordinated by The Pirate Bay's trackers. In order to give a general idea, on May 12, 2013 the website claimed a total of 6 246 348 registered users and 75,574 104 peers (56,388,214 seeders and 19,185,890 leechers<sup>78</sup>) for 5,376,194 torrent files downloaded at the moment these data were retrieved (The Pirate Bay, 2013). Among all of these files, it is safe to state that most<sup>79</sup> of them are being shared without rights holder permission.

In order to show The Pirate Bay's offer we broke down the five main categories and their subcategories in Illustration 14. We shall define some of these categories for a better understanding. In the Audio category, FLAC is referring to an Open Source audio format – Free Lossless Audio Codec – which is known to provide better sound quality than MP3 (Pendlebury, 2012). In the Video category, movies DVDR are rips of DVD which can be burn

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77 There is no evidence of that transfer, no record of money transfer nor a contract, and it is speculated that Fredrik Neij is at the head of the company (Anderson 2009)

78 A seeder is a person keeping the BitTorrent client active thus uploading for others to be able to download, whereas a leecher is only downloading from others without uploading material.

79 Most of the files as TPB also make list of works in the public domain or under any kind of free licenses.



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on DVDs and played by a DVD player. In the Other category, Physibles is the last subcategory added to the website and it consists of plans meant for 3D printing.

Illustration 14 allows us to see that TPB is giving access to content of every kind, thus is a considerable multimedia platform. The downside of it remains that most of this material is shared without the right owners' authorizations.

Audio	Video	Application	Games	Other
Music	Movies	Windows	PC	E-books
Audio Books	Movies DVDR	Mac	Mac	Comics
Sound clips	Music video	UNIX	Psx	Pictures
FLAC	Movie clips	Handheld	XBOX 360	Covers
Others	TV shows	iOS	Wii	Physibles
	Handheld	Android	Handheld	Others
	HD Movies	Other OS	iOS	
	HD TV shows		Android	
	3D		Others	
	Others			

*Illustration 14: The Pirate Bay categories and subcategories*

When it comes to promotion, on the one hand TPB does not use Internet advertising but a small shop of goodies – mostly t-shirts – is linked to the site's frontpage. On the other hand the different lawsuits the website faced as well as the overall fight against piracy were strong publicity. Because of its wide offer The Pirate Bay may appeal to anyone regardless of gender or location. Facebook fans statistics show that the age range the most active on TPB's Facebook page is the 18-24 year-old, but this does not have to be representative the users. TPB has strong confidentiality and security protocols for its registered users, which does not let a chance to demographic statistics.

A TPB user could be a man as well as a woman, without technological knowledge – downloading torrents became fairly easy to do – but with an Internet connection. As a matter of behavior, we came across two main mindsets for downloaders: those who download to have a try at a product and then, depending on their level of satisfaction, would buy the product, and those would simply never buy the product afterwards<sup>80</sup>.

As a matter of perception by its users – or positioning – TPB is a secure place for users, meaning that all information about users are kept secret, and the website aims to be “The galaxy's most resilient BitTorrent website”. This last position is illustrated by three facts. The first one is the only rule of TPB, a torrent file shall be deleted only if its title does not comply with its content<sup>81</sup>, this means that The Pirate Bay does not comply with requests from authors or producers of content, to the contrary, the website administrators have been

80 We shall see later in this chapter than for some industries this practice is more common than for others.

81 The only exception to this rule concerns pedophilia and all pornographic content involving children, TPB encourage users to report such content not only to the website administrators but also to the police (The Pirate Bay, 2013).

displaying not only the legal notices they have received throughout the years but also their answers.

The second fact illustrating the website resilience has been celebrated on the TPB's blog on May, 31<sup>st</sup> 2013. On the same day of the year 2006, TPB Internet service provider has been raided by the Swedish police who confiscated all TPB servers as well as all other servers hosted by this Internet provider – and not necessarily connected to TPB. Three days later, TPB was back online. Following that same idea, the blog post states that “We decide if the site dies or not, no one else” (Winston, Wionna, and Winni, 2013), this shows that neither the police raid nor the lawsuit the three co-founders faced in 2009<sup>82</sup> are relevant enough for the current administrators to shut down the website.

The third and last example this resilience is due to the newest category: Physibles. In December 2012, Defense Distributed, a U.S. non-profit organization run by Cody Wilson, starts testing its Wiki Weapons, in other words guns produced with a 3D printer. After the U.S. Congress shut down Defense Distributed's website, the plans for the gun ended up on TPB (Doctorow, 2013). Referring to the rule of titles matching contents, TPB refused to take down such content as it was not violating any of the site's rules, showing once again the site's resilience to comply with laws other than the Swedish ones.

The Pirate Bay is an important example of what piracy has to offer to its users. The website gathers every kind of content and does not require neither payment nor registration for people to access its content. It is a concentrated repository of contents and formats. For users, going through TPB is similar to a walk in Todmorden, a small English city in which the non-profit Incredible Edible planted vegetables in communal gardens for inhabitants to help themselves when the harvest time comes (Caillat, 2012). The difference between picking a tomato in Todmorden and getting a movie from The Pirate Bay resides in the licit character of one of these initiatives.

#### **4.1.2 Project Free TV**

The Project Free TV is a streaming repository which does not host any content<sup>83</sup>, according to its disclaimer. It is a repository of links and embedded content uploaded on other video streaming websites. We were not able to find any information about the administrators of the website, and their discretion is understandable in the light of TPB trial. The domain name of PFTV is a “.me”, meaning that this domain name is registered in Montenegro.

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82 The three co-founders of The Pirate Bay were convicted to 1 year of jail for “assisting copyright infringement”. The prosecutors were Warner Bros, Columbia, the 20<sup>th</sup> Century Fox and MGM for the movies *Harry Potter and the goblet of fire* (Newell, 2005), *Pink Panther* (Levy, 2006), *Syriana* (Gaghan 2005), *Walk the line* (Mangold 2005) and the TV series, *Prison Break* (Prison Break N/A).

83 As indicated by the disclaimer on the website “All Project Free TV does is link or embed content that was uploaded to popular Online Video hosting [...]. All youtube/veoh/megavideo/googlevideo users signed a contract with the sites when they set up their accounts which forces them not to upload illegal content. By clicking on any Links to videos while surfing on Project Free TV you watch content hosted on third parties and Project Free TV can't take the responsibility for any content hosted on other sites.” (Project Free TV, 2013)

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PFTV is a repository of videos only, both movies and TV series, and it was made famous thanks to word of mouth as the website “unleashing the Free TV revolt. Tell everyone you know about this site - Spread the world - Spread the revolution” (Project Free TV, 2013).

PFTV is not a restrictive website, there is no need to register in order to access it, thus there is also no fee involved, everyone with an Internet connection can access the 23.500 titles of TV series<sup>84</sup> and the numerous movies available in a variety of languages. The problem users may encounter is the low quality of some contents, or the dead links still indexed by PFTV, but generally speaking; users of such website know what to expect regarding these matters.

PFTV is a great competitor for platforms such as Netflix or Lovefilm.com - Amazon's legal video streaming offer, but we shall see in part 4.4 why PFTV is used and why users are fond of pirate solutions.

## **4.2 Press and literature**

The relationship between the press and the Internet is fairly different from the one with other cultural products. But since the spread of the Internet the consumer habits about printed press changed, it has become more normal for people to check the press titles online than buying a newspaper to read it from front to back. These new habits have forced the press to rethink its business models<sup>85</sup> thus explaining the online presence of most newspapers. We have found an example – madmoiZelle.com – to illustrate the effort of the press, partly against piracy, but mostly to survive. We have to say that we also chose that example because it involves two of the four principles of an Open world as described by Don Tapscott which we reported in the introduction of this work.

For this section our second example shall be the Project Gutenberg. With the spread of eBook readers and handheld devices, books have been more and more pirated. We shall see how the Project Gutenberg uses the public domain in order to release books to customers.

### **4.2.1 madmoiZelle.com**

madmoiZelle.com<sup>86</sup> is a French online magazine founded in 2005 by a man, Fabrice Florent, who was working on the website for a fashionable prêt-à-porter company when he started to think of the concept. He observed that all feminine press was orientated the same way, giving the same advice to all women: there was no media addressing to women depending on their age and their interests. Thus he decided to launch madmoiZelle.com, a new media for young women which would approach “superficial aspects of life”(Florent, 2005) such as fashion and beauty as well as deeper subjects such as news, culture or high-tech. madmoiZelle.com's editorial line is based on the feminist current supporting every

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84 Estimation made by the author

85 In 2008, 16 000 American journalists have been laid off as opposed to the 2 000 in 2007. Some newspapers had to stop all printing activities to dedicate themselves to online publication and even the New York Time had been struggling financially (Lh er t , 2012)

86 All the information used to write this sub-chapter have been retrieved from the *Manifesto of MadmoiZelle* (Florent, 2005) and the series of four videos made by the editor-in-chief for the readers to explain how the website works

woman as she is and as she wants to be<sup>87</sup>, this message is passed on not only through the subtitle “I am not who you think I am” but also throughout all articles.

Before explaining madmoiZelle's business model, we shall first go through an interesting aspect of the magazine, the collaboration. madmoiZelle.com is a team of 13 journalists and columnists, which together reach a publishing rate of 15 to 20 articles per day. But often, articles are not written by members of this team, but by readers. Commonly an online newspaper or magazine has a comments section, in which readers give their opinion and view about the article and/or its subject, on madmoiZelle this comment section is a forum, but we believe this is a fairly common practice. What madmoiZelle does is that it gives a voice to its readers, allowing them to share important aspects of their lives by writing articles. This is part of why we believe madmoiZelle is an Open magazine, it establishes a give and take climate with its readers: it collaborates with them.

The second principle of Open applied to madmoiZelle.com is closely related to its business model: transparency. First of all we shall explain how the journalists and columnists are remunerated by explaining where madmoiZelle gets its money from as access to the entire website is entirely free. The financial stability of the magazine started out with advertising banners, a common practice for a website. Then, sponsored links were added up to this first income, meaning for instance that the fashion selection sometimes included links to a seller for the selected items and if readers were to click on this link, madmoiZelle.com gets a remuneration. As click-to-pay practices may not allow an important expansion of the magazine these sponsored links evolved to partnerships with brands, an example would be a special offer from the company Eat Your Box<sup>88</sup> for which the madmoiZelle team selected the products and Eat Your Box took care of the logistics – packaging, shipping... – and the profits were shared between both entities. Such partnerships are also made with clothing companies either by creating special promotion codes for madmoiZelle's readers or by asking the magazine to promote special offers. In all these cases, the fact that articles or special offers are promoted because the brand sponsors the article is always communicated to the readers. This is why we consider it as an example of transparency from the magazine, thus one of Openness' principles.

Even though the press has not been struggling with piracy in a sense of downloading, it has been competing with user generated content and the Internet changed some of the industry's traditional ways of working. Also, the copy/paste practice is not to be excluded from some user generated articles and broadcast of opinions, which translates into the copy of one's material for unauthorized redistribution, consequently, this is piracy. We chose to include the example of madmoiZelle.com for these reasons, and because, contrary to some other online magazines or newspapers which started out on paper and then went online, this one was born online and is not meant to make it on paper, it is a successful example of a press business model.

#### **4.2.2 The Project Gutenberg**

The launch of the Project Gutenberg is considered to be the day Michael Hart sent his copy of the U.S. Declaration of Independence over the Internet, on January 12, 1971. Because

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87 Whether she wants to be a stay at home mother, a working girl, or a combination of both.

88 Eat Your Box is a company shipping a selection of edible products to its subscribers.

it started in such early ages, the Project is the first eBooks repository and the most important. The Project Gutenberg is a volunteer effort to digitize cultural works, mainly books but also some music sheets – through the Gutenberg music – and movies thanks to a DVD rental system<sup>89</sup>. The Project Gutenberg now distributes more than 42,000 books itself and more than 100,000 through its partners and affiliated resources. In average 400 books are added to the catalog every month, it also is the first and the largest collection of eBooks. The team of about 2,000 volunteers is intentionally unorganized in order to allow a greater selection of books to be digitized. As the process is not centralized, volunteers chose on their own the books they want to see on the Project's catalog. The Project's goal is to be able to produce “any book that [they] legally can” (Gutenberg Project, 2013).

The entity's mission is “to encourage the creation and distribution of eBooks” in order to “break down the bars of ignorance and illiteracy” (Project Gutenberg, 2013). In order to do so, the Project digitize and distribute books in the public domain, from classics of literature from any country to less known books, and also books for which authors have given them the right to distribute – thus still copyrighted. Despite the fact that most of the books are copyright free, the Project Gutenberg wrote the Gutenberg License for the books which are still copyrighted. In Creative Commons terms, the Gutenberg License would be close to a by, non-commercial, share-alike license.

As a matter of catalog, the books are divided amongst three portions: light literature, heavy literature and references. Light literature consists of kid books and novels. The heavy literature category includes religious documents and classics of literature – such as Shakespeare's work for example. The last category is the references which is composed of almanacs, encyclopedias, thesauruses and other dictionaries. Because of such a broad range of products anyone is a potential customer of the Project's products, whether it is to get a fairy tale for a child, accessing a classic to study it, or just get a novel.

As Micheal Hart, the mind behind the Project, wanted to “break down the bars of ignorance and illiteracy”, he wanted his project to reach as many people as possible. And because it digitizes – mostly – copyrights free material, the Project Gutenberg chose to distribute all the material for free. Micheal Hart put it this way: “the Project Gutenberg eTexts should cost so little that no one will really care how much they cost” (1992). At the time he wrote this, he wanted the texts to be available for the lower cost on the standard media of the time, so back in 1992 it was computers, nowadays handheld devices and electronic readers seem to be the most spread means of accessing Project Gutenberg's products, after computers. Still in the vein of wanting “to break down the bars of ignorance and illiteracy”, the Project Gutenberg put together a CD and DVD project which allows people with a slow Internet connection to still access numerous books. A CD contains up to 600 books and a DVD about 1,400, these copies are shipped to the person who asks for them, no matter the place nor the purpose of the order – whether personal or professional or else.

The Project Gutenberg is an impressive catalog of books, a great example of what may be done with cultural works in the public domain and how it can be made. By allowing anyone, from anywhere to access all the classics of literature of any country, the Project Gutenberg not only spread knowledge but also helps to prevent piracy. But we see only one

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89 The music and DVD projects are done with the help of the Manchester by the sea library which handles the DVD rental.

fact which could hold the Project back, people remain very attached to the object of the book, thus they are reluctant to read on a screen. The fact that there is no newer, best seller books does not appear as an issue for the Project Gutenberg as these books do not correspond to its segment. In addition, new works enter the public domain every day, greatly enlarging the Project's potential catalog.

### **4.3 Music, theatrical productions and operas + Radio**

As we saw on 2.2.7 with Rob Reid's copyright math (2012), ever since the creation of Napster in 1998 the music industry has been losing money because of piracy. In this sub-chapter we shall come across several examples of business models currently used to spread music outside of the brick and mortar shop. We chose these examples for their originality and because there is more to most of them than a simple buy/sell transaction.

It has already been said that the use of streaming for music, such as some of our examples, have been salutary for the music industry. As the study published by the International Federation of the Phonographic Industry in February 2013, “global sales [of music] rose by 0.3 percent” (McGovern, 2013) in 2012, which is “the first sign of industry growth since 1999” (McGovern, 2013). Even though a rise of 0.3 percent may not seem big, it brings the industry's revenues to \$16.5 billion<sup>90</sup> and more importantly, it is the first time in almost 15 years that these revenues go up, showing that a change occurred recently and improved this situation.

The recorded music industry have been working as follows: recording, promoting and touring, thus the most important revenue streams were from the sales of albums and the sales of concert tickets – here we shall consider the sale of merchandising as a promotion tool and a marginal a way to generate revenues. Since the pick of TV, it became more and more common for the recognizable figures of the music industry to be part of projects not directly related to music but to the artist's famous image, for instance being featured in advertisement – whether the band or its music – or an apparel capsule collection for example.

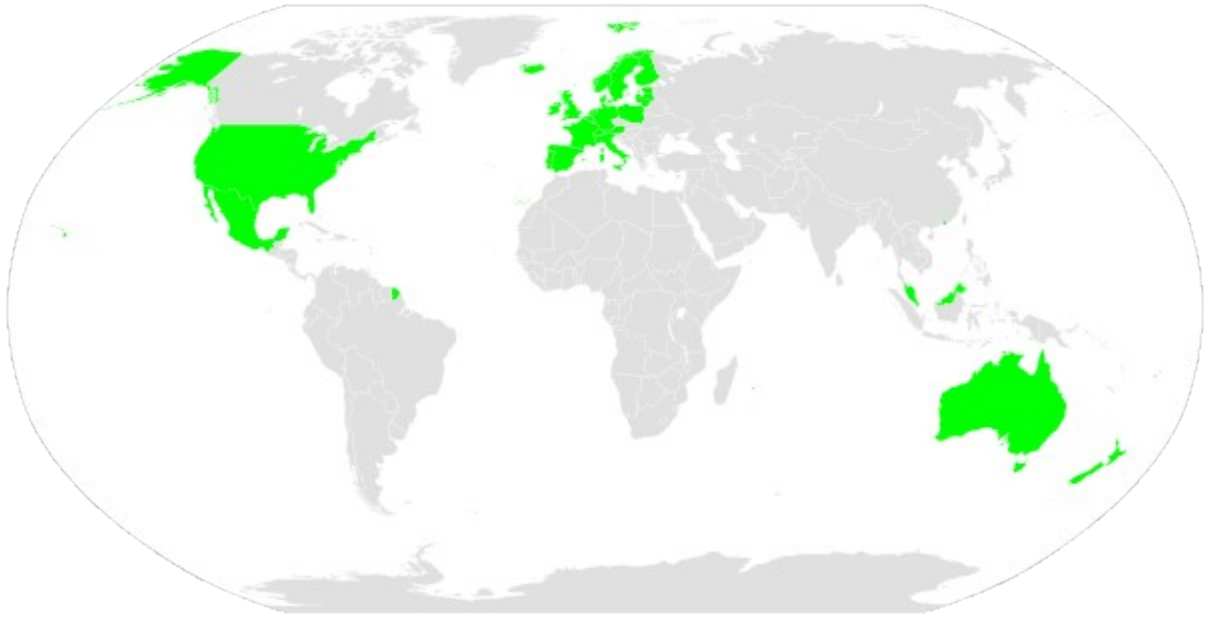
With the example of Spotify we shall try to figure out what the change in the recorded music industry consists of and how it works. Then with Musopen we shall scheme through an interesting initiative regarding the distribution of recorded material which fell into the public domain and how the neighboring rights we talked about affect this distribution. To finish, with Jamendo we shall overview distribution of Creative Commons licensed material.

#### **4.3.1 Streaming music: the example of Spotify**

Spotify is a subscription-based digital distribution co-founded by Daniel Ek and Martin Lorentzon. Its development started in 2006 in Stockholm and since the public launch, in 2008, the headquarter of Spotify AB is based in London. Spotify is accessible from 28 countries all over the world (see Illustration 15) and, in April 2013, according to Spotify, the service counted more than 24 million active users<sup>91</sup> worldwide, more than 6 million who are paying subscribers (Stenovec, 2013).

90 Reminder: before the creation of Napster in 1998, the music industry's global annual revenue was estimated to \$38 billion

91 According to Spotify an active user is a person “who has logged into the service at least once the last month” (Stenovec, 2013)



*Illustration 15: Availability of Spotify worldwide as of April 2013 (Danindub, 2013)*

The first motivation behind Spotify, according to co-founder and CEO Daniel Ek, was to find a legal way to share music, a way to take down piracy and to allow the people who make music to live from it (Let's Talk About Spotify, n.d.) thus creating a win-win situation for music lovers and music makers. Other goals are to connect people through their favorite songs and create an enjoyable service.

Spotify has three offers, the Free one, the Unlimited and the Premium which all give access to the +20 million songs available on the platform<sup>92</sup> (Noble, 2013). The Free offer consists of letting people register without paying any fee, advertisements will be broadcast to the users from time to time and will substitute the fee and pay the artists. This offer is limited to 10 hours of streaming music per month. In some locations listening to one song is restricted to 5 times per month, and the Free offer is only accessible from a computer<sup>93</sup>. The Unlimited offer is also accessible from computers only, but the monthly fee of €4.99 allows the user to access the service with no limitation nor advertisement. The Premium offer allows the user to access Spotify from any computer as well as handled devices – regardless of operating systems – and features a downloading service which allows offline use of the service for €9.99 per month<sup>94</sup>.

Thanks to its broad range of genres, Spotify is able to attract all kind of customers and the fairly easy to use platform also allows a broad age range of users. Customers perceive Spotify and similar streaming platforms as easy ways to access an important repository of music for a low price. In comparison, a newly released digital album costs, in average, €8 to 9, consequently for a lower fee customers have unlimited access to virtually over 20 million

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92 Virtually as the Spotify catalog is not global but differs from country to country (Spotify, 2013)

93 Spotify has been made available for every operating system even though Linux requires the use of a third party software – Wine (Noble, 2013)

94 €4.99 and €9.99 are the prices from France in May 2013.

songs. So Spotify allows inexpensive access to music for its users, and as we have mentioned before, the service is praised for helping the music industry. As a consequent we got interested in the amount of money dedicated to the artists who uses Spotify as part of their distribution system.

In September 2012, Josh Davison, a musician for the band Parks and Gardens<sup>95</sup> released figures of the streaming revenues earned from both Spotify and iTunes Match, thus we can see on Illustration 16 that for the band to earn 1cent from Spotify the song has to be listened twice. Another relevant information is that some artists, to be featured on Spotify and other digital distribution services – i.e. iTunes or Amazon – have to pay the service of a third party: an aggregator<sup>96</sup>. The aggregator shall act as an intermediary: the artists submit songs to the aggregator for them to be listed on digital distribution services and then the aggregator manages all cash flows from service providers. We can only imagine that such management eases the distributor's paying process.

In Josh Davison's case the aggregator, TuneCore, costs the band \$50 each year, so for them to break-even they need either 15,152 streams from iTunes Match or 5,155 streams from Spotify<sup>97</sup>.



*Illustration 16: Josh Davison's tweet about streaming revenues, screenshot relayed by the magazine The Next Web (Panzarino, 2012)*

Such figures bring up the difference between independent – or indie – and major record labels and their artists in the music industry. In short a label record, whether independent or major, is a company which manufacture, distribute and promote recorded music (McDonald, 2012). The difference between indie and major labels is that major are important corporation financially backed by a mother company. The major, also known as the

95 According to their webpage, the band ceased to exist in 2010 (<http://parksandgardens.thornytigers.com/>)

96 Aggregators will manage all cash flows from digital distribution services for an artist, thus the artist shall not be paid directly by Spotify but by its service provider. We can only imagine that such management eases Spotify's paying process.

97 As the band was present on both platforms it would need less streams from both, but for the sake of comparison we apprehended the numbers as if the band was only streamed on one platform.



Big Four, are Sony BMG, Universal Music Group, EMI and Warner Music Group<sup>98</sup> and their subsidiaries. Because of the multiplicity of subsidiaries the structure of the major labels record may be complex, but it is important to note that the Big Four represent, annually and in average, up to 75% of the recorded music sold worldwide (McDonald, 2012), which leaves the 25% to independent labels and artists which do not have the same finances the back up as the majors.

This financial difference enlighten the importance of the \$50 fee for an aggregator. An indie artist does not have the same means to access massive publicity and communication, which means that they are not as looked for on platforms such as Spotify, thus not streamed as much as well-advertised artists. For major artists, the remuneration per stream is fairly similar, for instance, the Korean singer Psy earned in average \$0,006/stream<sup>99</sup> of his *Gangnam Style* but the song has been streamed more that 1,2 billion times, which adds up to a total earning to \$8 million (Hogan, 2013). So Psy barely earned more money per stream, but the buzz and marketing allowed him to reach more people, he has been more looked for on streaming platform and in the end earned more thanks to a higher stream rate. In sub-chapter 2.2.5, we stated that we know the power of marketing today, this relays that thought. Using Spotify as a distribution channel allows customers to legally access music records, but promotion and marketing still play important roles in the rising of fame and revenues of an artist.

Which is why the difference between major and indie is important here. Indie labels have funds much more limited than major, and even if \$50 is not an important sum of money, having to be streamed 5,000 times to break-even may be an obstacle for indie artists. We shall divide this view into two points: entry barriers for artist and diversity for customers. In Porter's 5 forces matrix<sup>100</sup>, an entry barrier is an element which may prevent a newcomer to enter the industry. With the development of technologies, record, edit or sample music became easier and cheaper and the Internet allows anyone to post their creation online for minimum costs. As we stated, the price of the aggregator's service is not such a big amount, but coupled with the very low revenues of streaming, artists may prefer to invest the \$50 in something else with a better return on investment – instrument, ad placement, concert venues, depending on the artists' strategy.

This leads us to reason two: diversity for customers. If indie artists were to invest the \$50 in something else, they would simply not be featured on a famous and broadly used repository. And if indie artists consider the aggregator's fee as an entry barrier, or as an investment not interesting enough, then places like Spotify would be filled with major artists. This would prevent users to discover new artists and reducing the offer. This is where the problem could lay: if, as we postulated, piracy is a service problem, then an offer concentrating major mainstream artists would not be good enough. It could bring the revenues

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98 Respectively the mother companies are Sony Corporation, Vivendi S.A., EMI's assets have been split between Sony Music and Universal Music Group, the last mother company is Warner Bros..

99 Average made between all streams from Youtube views to Spotify and iTunes Match streams. This number was provided by Google's Chief Business Officer Nikesh Arora (SAPA, 2013).

100 Michael Porter is the Bishop Lawrence University Professor at Harvard University, based at Harvard Business School. His 5 forces model represents the points which influence an industry and shape strategy. The model includes the power of rivalry, entry barriers, the bargaining power of suppliers and buyers and the threat of substitute products ore services (Porter, 2008).

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of the industry up, as we saw, major labels represent in average 75% of the industry's revenue, but independent artists would not benefit this raise of revenues.

Spotify and similar services are good and reliable services for customers to access music legally, which may help end piracy, but it is a mean with limitations. With revenues so low it is unlikely that such models can support the entire industry, that is to say not only artists but also technicians or producers. Mixing streaming revenues with live experiences and licenses for commercial use may help artists and the industry but reaching revenues as high as before 1998 seems like a long call, furthermore, despite the struggles the industry had with piracy, it remained very productive, as a consequence, from a customer based point of view streaming services are an important advancement. We shall now move on to Jamendo which can be considered as the Spotify for indie artists.

#### **4.3.2 Jamendo**

Jamendo is a platform of legal streaming and downloads for music. It was launched in 2005 by Pierre Gérard, Laurent Kratz and Sylvain Zimmer and the company is set in Luxembourg. As it gathers more than 30,000 artists who uploaded more than 362,000 tracks it is considered one of the most important legal platform for music – in number of artists (Jamendo, 2012). Since 2008 the website has been divided into two categories: private individuals and professionals, and this distinction is necessary in order to separate commercial and non-commercial use of the music available on Jamendo as all the website content is licensed under Creative Commons licenses.

Jamendo allows any right holders to upload their music without fee, only a registration is needed before starting to share music. Jamendo only asks the artists to be careful if they registered their works with a collecting society because the contracts binding artists and such societies are commonly exclusive ones, which would make the use of Creative Commons and the distribution impossible. Indeed, Jamendo asks the artists to chose amongst all the Creative Commons licenses and if the work is not CC licensed it shall not be uploaded on Jamendo. Once artists shared their work on Jamendo there are not tied to the website, if at any time they want to delete their content and/or profile, they shall do so as they wish. Since 2009 Jamendo also acts as an aggregator for the French streaming distributor Deezer<sup>101</sup> but only for artists who volunteer to share their music on both platforms (Jamendo 2009).

For private individuals, access to Jamendo is entirely free of charge and does not need registration, even though for an active user, registration may be useful to sort the streamed music in playlists. As a community website, Jamendo also allows user to rate, leave comments to artists and also makes it possible for users to make donations to artists. By the end of 2012, Jamendo counted 1,4 million of users disseminated all over the world as shown on Illustration 17. It was also estimated that in average, 1.2 million streams are generated everyday by these 1.4 million users, and they also make 80,000 downloads per day.

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<sup>101</sup> Deezer a French streaming platform, equivalent to Spotify.



*Illustration 17: Jamendo users all over the world (Jamendo, 2012)*

On the commercial use side, there are two offers, Pro/Flow and Pro/Track but no free tracks. Pro/Flow is for professionals who want to put music in a commercial location such as a shop, a restaurant or offices. In this case, the price of the license varies, depending on the surface of the place, from €48<sup>102</sup> to €352<sup>103</sup> per year, and special negotiations are possible for chain stores' musical selection. Jamendo licenses music to more than 1,500 companies all over the world. For instance to Subway and Quick, the fast food chains, use Jamendo to broadcast music in their restaurants, as well as Yves Rocher, a beauty products retailer. The Pro/Track section is divided by types of projects and the price range of the licenses depends on the type of project, its location and the duration of the license. For example, for a documentary broadcast internationally through all channels (TV, VoD, mobile etc.), the one year license costs €120 and the unlimited one is €360. When an artist's music is licensed, the revenues is split equally between Jamendo and the artist but the website does not withdraw any fee on donations. In order to limit the amount of money transfers done, Jamendo transfers money to the artist every €100 cumulated from both licenses and donations.

Jamendo could be considered like the indie version of Spotify and is an interesting window for independent artists to broadcast themselves at minimum cost. It allowed us to show that not only CC makes things easier thanks to “some rights reserved” but also that it is possible to use CC licenses and get revenues in a way fairly similar to the traditional recorded music business. It was important to add the example of Jamendo for indie artists as some people started to doubt the goodness of the music industry. These people started to believe that the model was not good enough for artists because majors, in the name of business, would earn more than artists. To make things clearer, majors produce all big artists we can hear everywhere at anytime – commonly called mainstream artists<sup>104</sup>, but figures show that in

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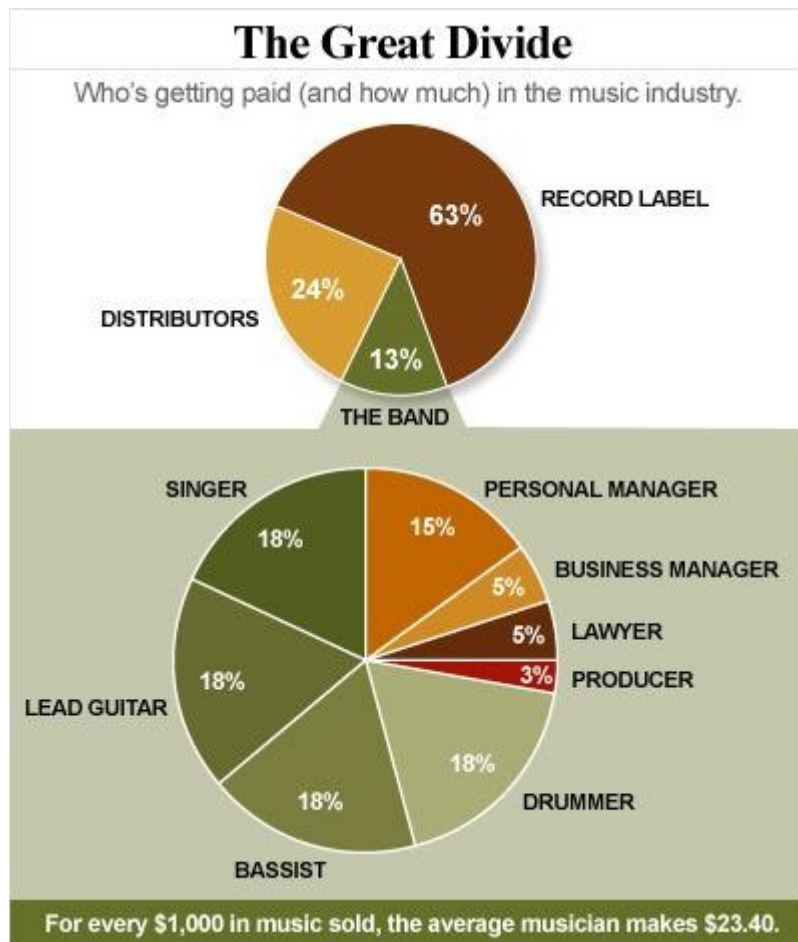
102 Plus taxes, for a surface smaller than 100 m<sup>2</sup>.

103 Plus taxes, for a surface between 2001 and 4000 m<sup>2</sup>.

104 As of today examples of these mainstream artists could be Rihanna, Justin Beiber or other Kanye West.

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2009, only 2.5% of the albums released during the year sold more than 5,000 copies (Jefferson 2010). And the revenues of these sales is split amongst all actors of the music industry as shown on Illustration 18. On this graph, distributors are the one in charge of the promotion of an artist and the rate shown is the one distributors charge for a new band. We could not help but notice that this graph is obviously missing the part going to the songwriter, but in the article from which this illustration is taken, the author explains that the writer and its publisher – the one pushing the song towards performers – receive in average \$0.091 per sold copy of the song, and this amount has to be split between the two.



*Illustration 18: Division of revenues from album sales (Jefferson, 2010)*

The article also refers to a common practice called record advance which consists of the artist owing the money invested in the recording of an album. For example, if \$70,000 are necessary to record the album, the artists owe these initial \$70,000, no matter the market success of the album. Thus, for independent artists to have a window as dedicated as Jamendo is necessary, not only because it is inexpensive and easy to access, contrary to the record companies, but also to be heard by the general public.

### 4.3.3 Musopen

Musopen is non-profit organization registered in the U.S.A. and a project led by Aaron Dunn which started in 2006. The purpose of the team of five volunteers is to “set the music free” by “improving access and exposure to music” (Musopen.org, n.d.) and they wish to do so by creating free educational material. It is important to note that Musopen is a project mainly based on releasing classical music, and to do so the team uses copyright free materials. We have explained in chapter 2.2.1 how copyright works, and the example of Musopen shall help us understand more about neighboring rights in music and the public domain.

In September 2010, Musopen successfully raised \$68,359 on Kickstarter in order to record several new tracks to be shared. Such fund raising appears to be necessary as even though “Beethoven has been dead for 183 years and his music is no longer copyrighted, if you were to buy a CD of Beethoven's 9th symphony, you would not be legally allowed to do anything but listen to it” (Dunn, 2010) according to the project's description page. Beethoven's work belongs in the public domain, as the copyright and author rights we described in chapter 2.2.1 would suggest, but the work of third parties such as the performers, broadcasters or producers is protected by neighboring rights thus entitling all third parties to make a living out of their performances. What Musopen intend to do is to find people how are willing to give up on these neighboring rights so the recording shall be freely shared, which was the purpose of the 2010 crowd-funding campaign: hiring an orchestra in order to record music. But such initiative is not the only way for Musopen to supply material, the website also works with performers giving their records away to be uploaded, as a donation.

Musopen does not only distribute records but also music sheets and the non-profit's next project is a music textbook free of rights. The records and music sheets are available for streaming on the website without subscription and it was estimated that 5 million visitors reach Musopen each year. In order to download any of the 50,000 files, subscribing to one of the three plans is necessary – 100,000 subscribers in 2012(Dunn, 2010).

The first plan, Lite, is free of charge, downloads are limited to 5 per day, audio quality is standard and no advantage is granted regarding release dates.

The second plan, Member, costs \$55/year<sup>105</sup> and allows unlimited downloads, high-quality audio and the newest records are released to members before Lite subscribers.

The third and last offer is called Benefactor, for \$20/month the subscriber benefits unlimited downloads, lossless audio quality, the newest additions to the website before their release dates and the Benefactor may request pieces of music.

At the moment, Musopen is an all digital distribution organization and the organization also made good use of its Internet placement by promoting itself through a blog. The 2010 Kickstarter campaign also brought the project into light, not only was it featured in *Best of Kickstarter 2012* (Kickstarter, 2013) but also the crowd-funding window allowed

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105 As Musopen is a registered non-profit organization, subscription fee is a tax deductible donation for U.S. tax payers-

exposure in the press notably on the BBC *Outrider*<sup>106</sup>, NPR<sup>107</sup> and Wired UK<sup>108</sup>. The organization's goal is to set the music free, and it does so using the means we just described, but it also has a strong educational purpose which translated into the textbook on music theory in development. By providing free resources Musopen allows students as well as teacher to access study material.

By allowing educators to initiate their students to classical music for a minimum cost, Musopen contribute to a broader access to the genre thanks to a collaborative approach and thanks to its collaborative aspect, Musopen may also be considered as an Open project We chose this example in order to show what may be done with work in the public domain and to show that neighboring rights were sometimes preventing this release for the public.

The music industry has been struggling with piracy ever since the creation of Napster in 1998, and as we mentioned before, in 2012, the industry finally shows a profit after 15 years of earnings loss. And despite initiatives such as these three or the development of iTunes in 2001, piracy already has its effects on some people minds: Some people now believe that all music shall be free of charge for the public and that artists shall get their revenues from commercial uses and touring, but not anymore from recorded music.

This opinion is clearly relayed by Grooveshark's<sup>109</sup> CEO and co-founder, Sam Tarantino who considers that “record labels want too much money” when “musician already get paid more touring” than with recorded distribution and that “the music business is too slow and partially broken” thus it “needs a 360-degree shift”(Tarantino, 2012). With the next chapter we shall see that customers' perception of price is different for the motion picture industry.

#### **4.4 Motion picture and video + Television**

The Motion Picture Association of America is one of the most active actors of the war against piracy. We have seen in the light of Rob Reid's work that the MPAA estimates an earning loss of \$58 billion but it is still very active and productive.

We shall start this study of the motion picture industry an analysis of the HBO series *Game of Thrones*, which was reported to be the most pirated series of 2012 by Forbes. *Game of Thrones* shall be our common theme in this sub-chapter as it is a good example of pirated good because its distribution does not match viewers' expectations. Then the analysis of the series' distribution shall lead us to the study of the American Netflix. The limitations of these services shall bring us the French TV channel OCS, which offer is trying to satisfy consumers of American series in France.

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106 Knowles, J. (2010, October 5). Live, die, remix. *BBC Outriders*. Retrieved from [http://www.bbc.co.uk/blogs/outriders/2010/10/open\\_remixes\\_digital\\_death\\_and.shtml](http://www.bbc.co.uk/blogs/outriders/2010/10/open_remixes_digital_death_and.shtml)

107 Moe, J. (2010, September 16). *Free public domain classical music on the way*. Retrieved from <http://futuretense.publicradio.org/episode/index.php?id=1131293755>

108 Geere, D. (2010, August 26). Musopen raises cash to open-source classical recordings. *Wired UK*. Retrieved from <http://www.wired.co.uk/news/archive/2010-08/26/musopen-public-domain>

109 Grooveshark is a service which streams music with authorizations of the right holders. It currently is facing lawsuits from major record labels for copyright infringement (Tarantino, 2012).

#### 4.4.1 Game of Thrones

Game of Thrones is an epic fantasy series created by David Benioff and D. B. Weiss, based on the novel series *A Song of Ice and Fire* written by George R. R. Martin. The pilot aired on HBO on April 17, 2011 and was watched by 2.22 million Americans on that day, the series already count three seasons and the fourth one is planned for 2014. The filming is mainly made throughout Europe and partly in the United States and the budget for the first season was estimated between \$50 and 60 million.

Game of thrones: Viewers by episode (in million)

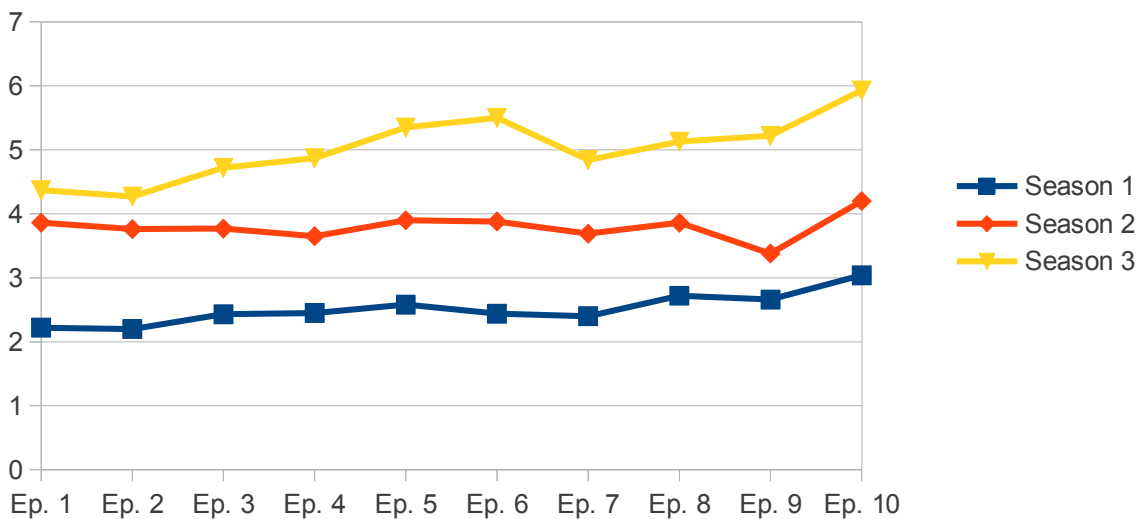


Illustration 19: Game of Thrones: Viewers by episode of the first airing on HBO in the U.S. (in million). Graph made by the author according to TV by the number publications of audience ratings.

Despite its peculiar genre, we can see on Illustration 19 that *Game of Thrones'* audience was quickly met and has only be growing: it tripled between the first broadcast of the pilot (Seidman, 2011) and the first broadcast of the last episode of the third season (Bibel, 2013). In addition to the watchers of the first airing, HBO estimated that through HBO Go and HBO on demand, the number of legal viewers reaches approximately 11.6 million per episode (HBO, 2013). And despite *New York Times'* critic's, Ginia Bellafante, opinion that *Game of Thrones* "is [a] boy fiction patronizingly turned out to reach the population's [of women] other half" (2011), audience analysis show that genders are almost equally represented amongst viewers.



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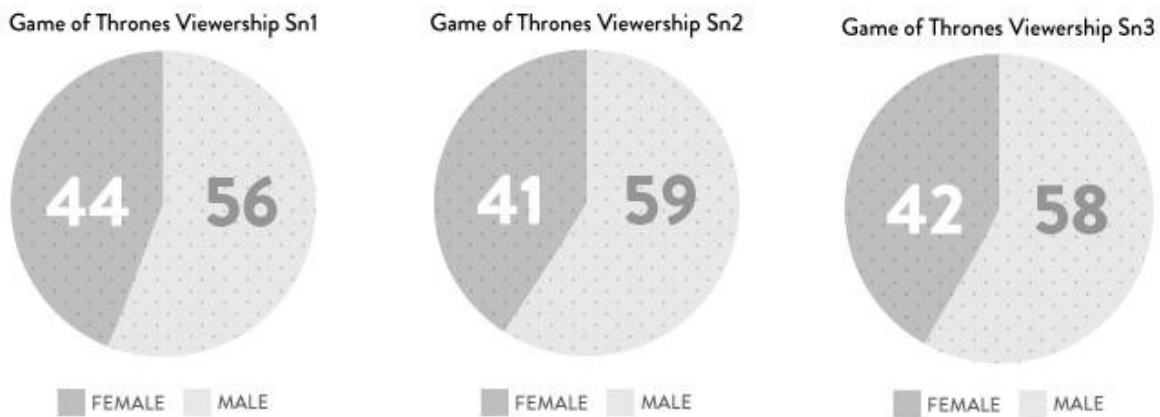


Illustration 20: Game of Thrones viewership by gender and by season. Data provided by Nielsen (Watercutter, 2013)

We can see on Illustration 20<sup>110</sup> that the representation of the female audience went down by 2 points between the first and the third season, and even though the viewership remains mainly masculine, women talk about the show as much as men on social media, as seen on Illustration 21<sup>111</sup>.

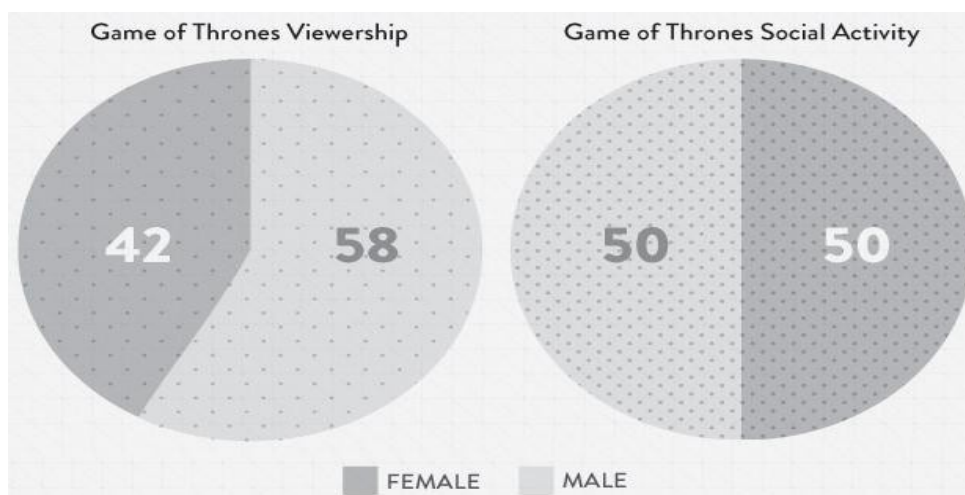


Illustration 21: Game of Thrones season 3: Viewership and positive social activity by gender. Data provided by Fizziology (Watercutter, 2013)

In addition to the American market, *Game of Thrones* broadcast quickly expand to the rest of the world, so much so that the show is currently aired almost all over the world (see Illustration 22). By the end of 2011 the show was aired in more than 55 countries and the last country to air the first episode of the first season was Japan on January 21, 2013 (Winteriscoming.net, 2013).

<sup>110</sup> In the U.S.A. Nielsen is the provider of audience figures; the company estimates TV ratings among other trends (Nielsen n.d.).

<sup>111</sup> Fizziology uses real-time information from social media to provide business intelligence (Fizziology, n.d.).



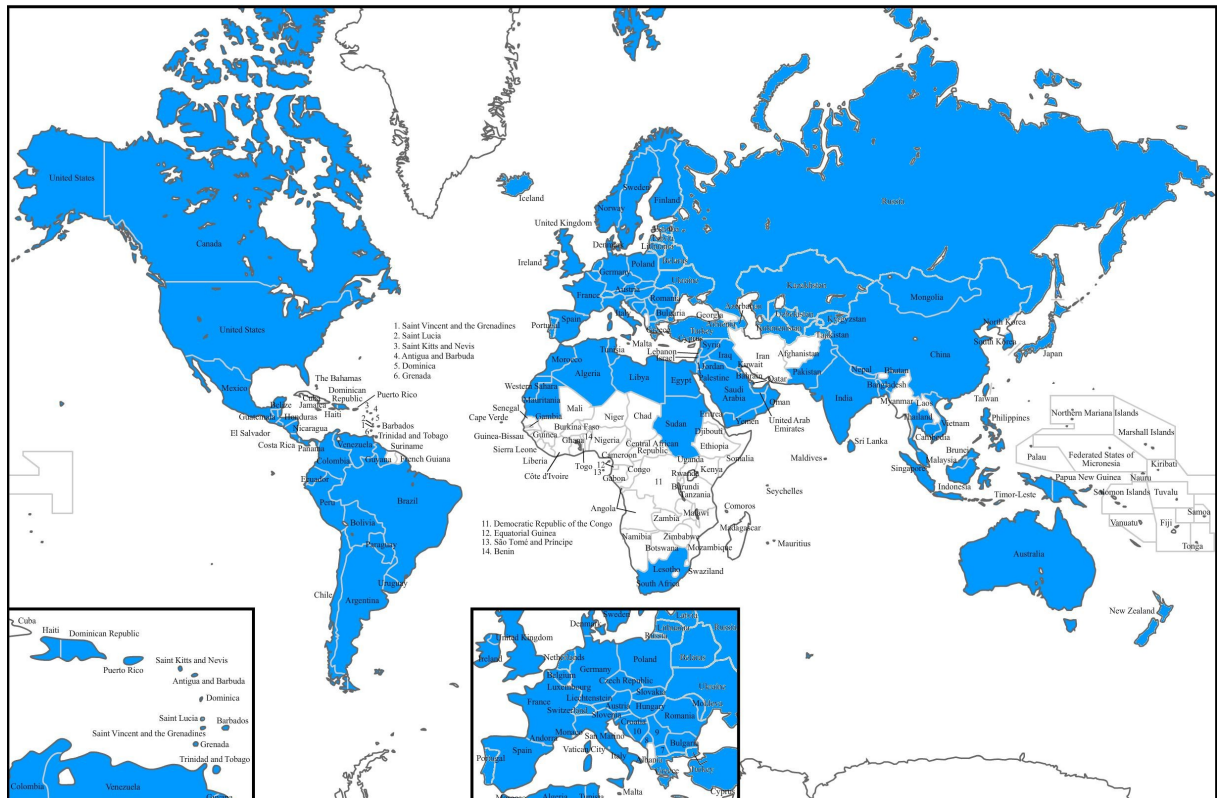


Illustration 22: International airings of *Game of Thrones* in January 2013 (Winteriscoming.net, 2013)

But *Game of Thrones* turns out to be a victim of its own success and with its international distribution we are starting to approach the problem. But first we shall overview *Game of Thrones* complete distribution system.

HBO is a subscription-based cable channel, and with this subscription comes a right to access HBO replay service called HBO Go<sup>112</sup> and HBO on Demand, the channel's VoD provider. In countries the channel is not accessible, shows are licensed for broadcasting, most of the times on paying channels. But the channel strictly refuses to partners with services such as Netflix. Such refusal forces customers to either pay for two subscriptions with similar services or go see elsewhere if they may find the product they look for without the double fee: piracy downloads. As *Mashable* columnist, Amanda Wills puts it, “when it comes to the Internet, the more exclusive the content, the more illegal downloads” (2012).

This exclusivity matters mostly the United States, when it comes to international distribution, the recurrent problem is the delay between the first airing in the U.S.A. and the time it takes for an episode to be legally available in another country. Thus watchers would rather access pirated content than wait for days, possibly month or even years<sup>113</sup>. These reasons have also been reported by *Forbes* magazine as reasons why the show became the most pirated TV series in 2012 (Kain, 2012), and we invite the reader to see

112 A cable subscription in the U.S.A. costs in average \$50, \$15 have to be added for an HBO subscription (Greenberg, 2012).

*Annex B: I pirate Game of Thrones because...* for more insight from watchers. Relaying Big Champagne<sup>114</sup> and TorrentFreak estimations, Greenberg writes that “the second season of the show has been downloaded more than 25 million times [between April and May 2012] from public torrent trackers”, and the 5<sup>th</sup> episode of the second season was downloaded “more than 2.5 million [times] in a day” (2012). It also appears that the third season finale broke new records concerning the BitTorrent technology as it was shared by more than 170,000 people<sup>115</sup> and downloaded 1 million times in the 24 hours following the first U.S. airing (Ernesto, 2013). In average, a single episode of *Game of Thrones* is downloaded 4.28 million times and 80% of these downloads are from outside the U.S.A. (McMillan, 2013).

We have mentioned Netflix and the difficulties faced by viewers outside of the U.S.A. Now we shall explain what the streaming service Netflix is as well as possible solutions that have been developed by foreign services.

#### 4.4.2 Netflix

Netflix is an American company which started as a DVD rental company in 1997 and the current CEO, Reed Hastings, is also one of the co-founders. Nowadays, Netflix's services are divided amongst 2 categories, rental, which gathers 8 million subscribers and is available only in the U.S. and streaming with 36.3 million subscribers – including 29.2 million in the U.S. alone – in twenty countries<sup>116</sup> (The Associated Press, 2013). Before July 2011, both offers were gathered into one plan for a monthly fee of \$9.99 (Becker, 2011). In order to make things clearer we shall first describe the current plans and how they work.

The first offer we shall describe is the unlimited DVDs which consists in two products: 1 DVD out at-a-time – for \$7.99 – and 2 DVDs out at-a-time for \$11.99. Netflix's DVD rental system works as follows, from a digital catalog, the subscriber chose a movie to rent then this movie is shipped to the renter as well as a pre-paid envelop for the user to be able to ship the DVD back once it is watched. Netflix rentals are not limited in time, thus the subscriber may not pay late fees for the rental of a DVD.

Netflix's streaming offer is accessible from TVs, computers, consoles<sup>117</sup> and handheld devices and for \$7.99 per month, users shall be granted unlimited access to the streaming catalog of 11,865 titles<sup>118</sup> (Loewen, 2013) to watch on any time, the only prerequisite is for the device to be connected to the Internet. Customers were disappointed with the split from one overall plan to two separated ones, furthermore because there is no option to combine them both anymore, one shall pay both fees to access both services. But for those who cannot access Netflix, it still looks like a great deal: a complete cheap unlimited catalog of movies and series.

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113 It sometimes takes years for a show to reach a country as rights have to be bought and for that to happen, the series have to show promising audience.

114 Big Champagne is a media measurement company.

115 More than 128.000 seeders for more than 42.000 leechers according to statistics from the tracker (Ernesto, 2013). Numbers this important had never been registered before.

116 The U.S.A., Canada, Latin America, the Caribbeans, the United Kingdom, Ireland and Nordic countries.

117 PlayStation, Xbox and Wii

118 In the U.S.A. On June 10, 2013, this number does not include multiple episodes of the same show (Loewen, 2013) i.e. Friends shall be counted only once despite its 10 seasons of +20 episodes each.

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On May 1, 2013, Netflix's users' disappointment kept growing as Warner Bros., MGM and Universal did not renew the licensing contracts binding them with the digital distributor, causing the loss of nearly 2,000 titles (Warren, 2013). Since the end of this partnership, Warner started to develop its own streaming platform, the Warner Archive Instant, on which the 1,794 titles removed from Netflix are registered (Warren, 2013).

As we are looking for solutions satisfying enough for customers to choose them over piracy, we feel that a war over content is not the best. Indeed, in 4.1.1 we described The Pirate Bay's offer and we can only notice that it is a concentrated, centralized repository of content and during research we found out that customers are not reluctant to pay for what they watch (see Illustrations 23 and 24) because they are aware that finances are necessary for a show to last and they love the show they pirate. Fans of HBO series also launched a campaign called "Take my money, HBO" in 2012, to which the channel responded that they appreciate the love but will not take the money. But fragmenting the offer means increasing the number of subscription for one person/household: \$8 for Netflix, \$15 for all HBO, \$10 for Warner Archive Instant in addition to the average of \$50 for the cable subscription, it all adds up to \$83 only for TV. The Pirate Bay became strong because it was well garnished, for the motion picture industry to try to compete, fragmenting the offer is not the most customer-friendly decision.



**Banana'd Peanut Butter** 1 year ago

Every time I download the new episode, I send HBO an email asking them where I can send them a dollar or two for the episode. They have yet to get back to me.

Though the blu-ray set of the first season is absolutely wonderful!

*Illustration 23: Comment about Andy Greensberg's article "HBO's Game of Thrones on track to be crowned most pirated show of 2012" (2012)*



**Will Dell** 2 months ago

As far as I'm concerned HBO is being foolish by not allowing people to subscribe to their shows online. I can stream Vikings on Amazon for a couple bucks per episode. If a similar option was available for Game of Thrones I would do the same with that show. I would be more than happy to help support such a quality show.

[Reply](#)

[Permalink](#) [Flag](#)

*Illustration 24: Comment about Erik Kain's article "International audience have few choices to legally watch HBO's Game of Thrones" (2012)*

But this all works within the borders of the U.S. as it is the one of the few countries which has access to all these solutions at the same time. By looking at OCS' offer, we shall see what kind of option may be available for non-Americans – in this case, French – to legally access their favorite shows.

#### **4.4.3 OCS**

OCS is a package of five channels, the acronym stands for Orange Cinema Series and the offer also includes access to VoD through TV, computer, the Xbox and handheld devices. This package was first put together by Orange, a French Internet – and triple play – provider. The five channels are: OCS Max, OCS Happy, OCS Choc, OCS Novo and OCS Géant and the program is made depending on genres rather than format, which means that all channels broadcast movies as well as series. This package of channels is also available through two other Internet providers, SFR and Numericable, a cable provider, Canalsat, in two overseas department and also in Mauritius and costs in average €12 per month.

We chose to OCS' offer as it is one of the few French channels – if not the only one – which provides US+24 programs. Basically, a TV series – here *Game of Thrones* – is made available one day after the first U.S. airing in its original version – in English – with subtitles. The speed of the process and the fact that the show is broadcast in English are two revolutionary factors for French TV – it is important to note that in France all large public programs are dubbed. Ever since the spread of the Digital Terrestrial Television, some programs have been made available in both their original languages and French and with the broad use of piracy people grew more and more accustomed to their favorite's characters original voices thus making them want the choice to chose between subtitles and dubbing. And OCS' VoD platform gives subscribers this choice.

But we have to admit that we first heard about the OCS' offer on a blog called *J'voulais pas pirater* – literally: I did not want to pirate – which takes the inventory of anecdotes from people who wanted to legally access content but because of limitations of services provided could not. Apparently there is no issue for Orange customers, but for SFR subscribers the US+24 offer was more of US+48. All in all, this is not a big issue, but it becomes one if this is the subscriber's main reason to pay for the package in the first place and the provider lacks communication about that specific trouble. As a consequence the person who provided this testimony canceled his/her subscription (anonymous, 2013). Another issue is that the cable offer, Canalsat is not available with all triple play providers and even when it is, it represents an additional cost by itself, then the OCS package is part of a bigger thus more expensive package – up to +€40 per month.

As a victim of its success and of HBO's distribution system, *Game of Thrones* was the most pirated series of 2012. This sub-chapter was not an exhaustive list of streaming services, but this fact alone shows the fragmentation of the market, which, as we stated earlier, is not working towards the best solution possible for customers. Indeed, in the light of The Pirate Bay's concentrated offer, the multiplicity of services which are not able to easily and quickly cross borders are the main factors leading people to piracy when it comes to the motion picture industry.

#### **4.5 Software and database**

We have already talked about the software industry to see what it could bring to the cultural distribution system. We shall now illustrate this remark with two fairly different softwares: the proprietary Steam which is a distribution platform for video games and the Free Open Source GIMP, a software for image manipulations. We shall start with Steam and after

studying its effect on piracy of video games we shall see how GIMP and other Free Open Source softwares are accidental solutions against software piracy.

#### 4.5.1 Steam

Steam is a video games distribution platform created by Valve Corporation and first released in 2002. It started out as a way for the company to update its *Counter Strike* without interfering with the use of the game. It then was developed towards implementing better anti-piracy and anti-cheat measures. Steam quickly became the world's largest gaming platform which distributes more than 1,900 games (Valve Corporation, 2013) to more than 40 million active users (Mugdal, 2012), it thus represents 70% of the digital distribution market<sup>119</sup> (Graft, 2009). Steam is available in 237 countries<sup>120</sup> and in 21 languages (Valve Corporation, 2013).

Publishers are Steam's best suppliers, and for them to put a game on the platform is more interesting than other retail stores as the digital platform allows them to earn a gross margin around 70%, whereas in retail stores, the average gross margin for publishers is 30% (Chiang, 2011). Generally speaking, publishers also have a more flexibility than with regular stores and Steam supplies them with live statistics on the market (Chiang, 2011), and the recurring Steam sales allows to sell by the volume.

Due to the wide variety of games available on the platform, it is used by hardcore gamers as well as the occasional players. But Steam's best move was to turn pirates into legitimate customers and the platform did so by providing all customers with what they wanted. We used Rick White's blog post *Why I stopped pirating video games* (White, 2010) to elaborate the following list of services which make Steam so appealing to all kind of gamers and pushes them to buy video games instead of pirating them.

Firstly, games will be continuously updated through the platform and eventual additional contents will be quickly and easily accessible. Second the support provided by Steam is important and the platform allows the community to communicate and help each other while playing. The fact that all games may be downloaded on different computers, with different operating systems and the saved game will still be at the same point, updates will also be saved, meaning that each install will not require extra time for the game to update before being able to play. One aspect that we retrieve from Gabe Newell's quote in chapter 1.2.2 is the fact that Steam does not do regional releases. Everyone everywhere gets the same catalog to chose products from at the same moment, thus reducing the temptation to pirate the Japanese version of a game because its western release is planned a few months after.

The last aspect that is not mentioned here is Steam's fairly low prices and the regular week-end and mid-week sales. In times such as Christmas or on Black Friday, the majority of Steam's catalog is on sales, thus allowing users to buy numerous games.

Newell's statement on how piracy is a service problem is the core postulate of our work, thus seeing that Steam, one of his products, encourages people to buy games instead of pirating them, offers additional services to the digital distribution platform that people enjoy

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119 Estimation made in 2009 by Steam challenger Impulse in the company's annual customer report.

120 The official United Nations list of countries counts 193 members (UN.org 2013) but several micronations are not members thus not taken into account.

using and offers great deals to publishers whether independent or not, only seems logical. With Steam, Valve took care of gamers by listening to their wishes, and of publishers who found a dedicated platform which is good to them too. As we said before, Steam represents 70% of the digital distribution system and references next to 2,000 games. This makes it the most centralized video game platform.

#### **4.5.2 GIMP**

GIMP is a piece of software meant for photo retouching, image compositions and image authoring, it also is a Free Open Source software distributed under a GPL v3 license. According to the project's History(GIMP, 1998) and Prehistory(GIMP, 1998), for Spencer Kimball and Peter Mattis the development of project started out in 1995 as an assignment for one of their classes at Berkeley University. In November of the same year, the beta version of the General Image Manipulation Program was first released. During the following year, the two students met Richard Stallman and asked him if they could change the “General” to “GNU”, and with his agreement the name changed to the GNU Image Manipulation Program. In order to have feedbacks from GIMP's users, the duet created a mailing which in 1996 was split into two: gimp-users and gimp-developers as some questions asked to developers were really user orientated – as a matter of features for instance. In 1997 Spencer and Peter graduated and left the project fatherless as they moved forwards in their life. But the small community around it kept on making releases and improving the software. Another developer, Quatic, took the project in his hands and started by having people working towards stability because the first version of the software was still rather unstable, but Quatic quickly left. After this the project moved from the mailing list to an IRC channel<sup>121</sup> so contributors could chat in real time. And GIMP started to show differences from the typical bazaar model as instead of having one person picking the project up, a benevolent dictator, a team constitutes itself to run the project without a specific leader, but several equal ones.

GIMP is a direct competitor for the Adobe's Photoshop software, and even though it was first stated that GIMP could not reach the same results as Photoshop for high-end commercial works, “it is beginning to gain some acceptance in the pro market” (Paul, 2008). So GIMP users are both private individuals and professionals, who get a working tool free of charge and free of use. GIMP developers says themselves that they are not in the project for the money (GIMP, 1998), thus the project works only with donations and no fee, not even for commercial use of the software. And as a Free Open Source software, GIMP is available for all operating systems.

GIMP, like some other Free Open Source softwares, has been a way to avoid violation of licenses of proprietary software. Let's imagine that someone wants to try to learn image manipulation, knowing that Photoshop costs \$800, that is a big investment just for trying out, thus we have two other alternatives: find a pirated version of Photoshop and not pay for the license, or use GIMP which is as good as Photoshop. Such way of thinking works for a large variety of Free Open Source software even though it is not the primary purpose of the movement as we studied in chapter 2.1.

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121 IRC stands for Internet Relay Chat and is a chat system which is not limited to two participants and allows live conversations (Webopedia n.d.).

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Even though the programmers found alternatives to proprietary software, they did not do so to fight piracy of any kind. With Steam we have an example of a service thought for customers thus customers are enjoying it. On the other hand GIMP is an example of an unplanned solution, the project did not start with the goal to compete with Photoshop, but as a way for the programmers to enjoy themselves as scratching their own itch, but we believe that Free Open Source softwares compose a strong and wide enough offer to be used as such.

## **4.6 Visual and graphic arts + Photography**

Images are the easiest product to pirate, people have been sharing their photos and drawings, while some other have been saving them to keep them or to re-use them for blog illustrations, modifications or re-sharing – on Facebook for example. With Flickr we shall take the example of a platform which goal is for photographers to share their work with the entire world, but not necessarily for the entire world to share.

### **4.6.1 Flickr**

Flickr is a photograph platform created in 2004 and then bought by Yahoo. The repository counts 51 million registered users and 80 million unique visitors every day worldwide and it grows of 4,5 million photograph daily, which adds up to more than 6 billion pictures uploaded by August 2011 (Parfeni, 2011).

Flickr is a platform for both professionals and amateurs and it is divided amongst three categories.

The first one is the normal Flickr, which allows people to share their photographs at will, either only with friends or with everyone. Flickr allows its users to choose the way they want to license their works, and these ways may be “all rights reserved” as well as “some rights reserved” as Flickr enables Creative Commons licenses since the very beginning of its existence. So much so that on October 5, 2011, Flickr counted 200 million images under Creative Commons licenses (Kremerskothen, 2011).

Then the Getty images category is for people who want to sell their pictures. They submit their works to Getty and then the Flickr team of creative people shall decide whether the person's pictures are marketable. The Getty section is a result of a partnership between Flickr and Getty Images, this way it is made easier for Flickr users to submit their work. The partnership was made as Flickr is only a repository and Getty Images is a stock photography website, which means that it handles licensing for photographers. When someone goes of Getty to look for a picture it usually is to buy a license to use it, and then it works as on any other stock photography, either the picture is rights-managed or royalty-free. On the one hand rights-managed means that not only the use but also the price of the license will depend on the size of the file, the placement of the picture, the duration of use and the geographic distribution (Flicker, n.d.). On the other hand, royalty-free means that the price of the licenses is set depending on the size of the picture, the end use is not specified thus the price do not change depending on it, this also allows the licensee to use the pictures as many times as wanted (Flicker, n.d.).

The last category of Flickr is called The Commons, and on this part, uploaders are institutions such as museums, archives or library. These institutions provide content either in

the public domain or for which the institution owns copyrights but are not interested to control it. The goals of The Commons is to create a centralized archive of public-held photography collections and to “provide a way for the general public to contribute information and knowledge” (Flicker, n.d.) by allowing this public to rate, comment, share use these pictures and illustrations. Because the works are free of rights, it makes it easier for centralizing images from all over the world.

Flickr is an important platform, not only by its size, but also for its role. Because it has enabled CC licenses, Flickr also enabled some stories from its users, such as the following one, shared by Lars Plougmann on the Creative Commons website in March 2007:

“Making my photos available on Flickr using a CC-license has made wonderful things happen. My photos have been used in classrooms, in books and on blogs. They have been used to illustrate articles in Wikipedia or help charities’ fund-raising campaigns. Some 41 of my Flickr photos (that I know of) have been used through CC (although I am actually making thousands available). I have tagged each one of them ‘ccpublished’ and generally write a comment on the photo [...]” (Plougmann, 2008).

Or this one, shared by Paul Moody:

“I have both had my photos reused and reuse photos from Flickr. I’ve had many non-profits request permission to use my photos (though I believe my CC settings permits this without requests). A number of churches around the world have started projecting images during their ceremonies and have used my nature, sunset and vermont photos for these. I also had a number of ‘psychology’ help sites request use of my 365 portraits since they include ones where I’m crying, happy, etc. I work with a nonprofit that helps VT state parks and have requested permission to reuse photos from flickr – typically of invasive species and wildlife – usually for our newsletter and for state park maps given out by the park for free.” (Moody, 2008)

These stories show that Flickr, through licenses, can be a window for photographers to promote themselves. Plus, concentrating Creative Commons licenses on one platform makes it easier for people how are looking for pictures to find them. Thus, no matter for what kind of illustrations, the process of finding a picture and using is rendered much easier, whether we are talking about commercial or non-commercial use. Flickr is a way to prevent unauthorized use of photographs because it is simple to use and to understand.

#### **4.7 Conclusion: what about Flattr?**

Rather than a true alternative to piracy, Flattr is a system of micro-donations. The project lead by Peter Sunde, former spokesperson of The Pirate Bay and Linus Olsson was launched in March 2010 (Butcher, 2010). Flattr works with creators and supporters. Creators link their Flattr account with all the content they produce: on Facebook, Vimeo, Soundcloud, Youtube and other user generated content platforms. On their side, supporters register on the Flattr website and credit their account with a minimum of €2. Then, when a supporter enjoys someone's work he/she clicks the Flattr button and at the end of the month, all clicks are counted. 90% of the amount<sup>122</sup> on the supporter's account is split between all the creators supported. On the creators' side, on the 10<sup>th</sup> of each month he/she will receive the donations

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<sup>122</sup> Flattr keeps 10% of the amount credited on a supporter's account for financing itself.



made by all the supporters. For supporters who follow a podcast or Youtube channel for instance, Flattr also offers the option of a monthly donation so supporters do not have to think of clicking the Flattr button, the donation is made automatically each month.

Solutions of micro-donations similar to Flattr are starting to rise<sup>123</sup> and Flattr is also looking into solutions for macro-donations for supporters to be able to give more to their favorite creators and thus encourage their creations. But Flattr remains only a donation system and not a buying platform, so even though initiatives as pictured on Illustration 25 may seem considerate, reproducing one's work without authorizations remains illegal and donations do not make up for the practice.



*Illustration 25: A Flattr supporter tweet. Screenshot by the author*

We quickly mention the HBO fans' campaign "Take our money", now let's imagine such a solution for Game of Thrones: HBO estimates 11.6 million legitimate watchers, big champaign and TorrentFreak had an estimation of 4.28 million illegal downloads for each episode. Let's imagine that each who downloads the show donated €1 per episode, knowing that there is 10 episodes per season, it shall add up to €42.8 million, or \$56.98 million, which correspond to the budget for the first season. Or if pirates were to give €0.10 per episode, it would be €1 for the entire season, thus an additional €4.28 million – \$5.69 million – for the channel. And these figures do not index the streaming viewers of the show.

We have seen different solutions for each industry and even though we sometimes argued the good nature of some of these solutions, they remain an important step ahead as they provide new angles of inquiry for the industries to look into. What we can conclude from these examples is that cultural industries owe to be more customer-focused. Also, in the light of TPB and PFTV offers, fighting piracy appears to be a joined effort for all copyright-based industries: we believe that a legal service which gathers the most content and is able to quickly share content internationally shall be a strong competitor. We believe so because we did see that people, when given the choice, are willing to financially support their favorite products. In that sense, we also believe that the micro-donation systems, if well promoted, could be used by all. But even though micro-donation is only an angle of inquiry regarding the financial support of artists and creators of all kind, it may rise fiscal issues, as donation may be tax exempted in some countries.

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123 Kachingle or Rewrd offer similar services.

## 5 Conclusion

Throughout this work, we tried to verify Gabe Newell's postulate on piracy being a service issue. In order to answer this question we decided to go back to the dawn of the computer age and start with the notions of Open and Free that the “real programmers” (Raymond, 2001) developed. By looking at how they have been working and developing Free and Open products, we aimed to show how working collaboratively towards a product that respects its users and meeting their needs can provide solutions at least as good as proprietary software. Then we decided to show that these notions greatly expanded until today, notably thanks to Don Tapscott's definition showing us how empowering, sharing, transparent collaboration is the core of Open but also thanks to the evolution from software to hardware and the collaborative appeal that is crowd-funding. Explaining the notions of Free and Open was also necessary as Stallman and its GNU GPL were the precursors of the idea of copyleft, the idea that people shall be authorized to share, modify, and redistribute content.

Before going further in this notion of copyleft, we first needed to understand what copyrights and author rights are, which is why we decided to go through an explanation of these laws and everything they involve allowing us to understand how piracy is a violation of laws in several countries, but not uniformly as each country has its own set of laws. Giving a legal frame to our work led us to the Creative Commons licenses which by their forms allow authors to clearly and simply announce a set of authorizations and/or restrictions to users.

In order to proceed with our work we relayed Neelie Kroes' concern about the creative industries in the European Union, she noted that the last common revision of copyrights is already more than ten years old. She reminded us that even within the borders of the Union copyrights and author rights are not harmonized, preventing creative and cultural works to circulate freely.

We also considered Linus Torvalds' opinion on Intellectual Property, how useful it is when it does foster creation instead of serving a cultural or industrial war. Torvalds also believes that businesses can also trust customers to choose quality over marketing, not matter how much money is injected into a project.

Torvalds' questions about Intellectual Property logically led us to Kirby Ferguson's postulate that all creation is a process of copying, transforming and combining, joining Lavoisier's famous principle that “Nothing is lost, nothing is created, everything is transformed”. From Ferguson, this postulate means that no creation is truly original but always at least slightly inspired by something, whether another artist's work or nature.

We finished our study of opinions with Rob Reid and his copyright math, a principle invented by himself in order to decipher the estimations of earnings loss due to piracy given by the MPAA. Reid concluded that these estimations are partly biased as new markets have developed since the reference year used by the organization. And we also noted that piracy has a peculiar effect on people: as the product is free of charge, it does not matter if it is of poor quality. As a consequence, people do not download solely content they would have bought: this could mean that every download or stream is not necessarily a lost sale, as the downloader or watcher might have never bought it in the first place.

Once we considered all these opinions and notions, we moved on to the practical aspect of this work, the market studies. We wanted to be able to compare both the illegal and legal offers in order to find why the illegal one is appealing to people, we then used the market studies of both The Pirate Bay and Project Free TV as benchmarks.

We started the study of legal offers with the Press and Literature, the example of madmoiZelle.com allowed us to introduce a collaborative magazine which gives a voice to its readers by letting them write articles and which is entirely transparent in the way the magazine is managed. With Project Gutenberg, we studied the first and biggest repository of books and publications free of copyright. Because it relies solely on volunteers' work, the Project is able to distribute all these publications for free, and thanks to the selection made by the volunteers, the repository includes masterpieces of literature as well as less known books in several languages and from a variety of countries.

Then we moved on to the music industry and we focused on recorded music because live experiences are impossible to pirate as even unauthorized broadcast of a live shall never compare to being at a representation. We began with Spotify as it is a service praised by its users and it is indeed an impressive service, the interface is easy to use, the content is varied, but Spotify is a good distribution channel for musicians who already enjoy some exposure otherwise we do not believe Spotify is enough for musicians to make a living out of their works. Firstly because it generates costs, which certainly are not high, but the second point is the slow return on investment which may discourage musicians. If Spotify is added to promotion tools and efforts then it may become interesting for independent artists.

One of the promotion tools for indie artists is Jamendo, which works with the same technology as Spotify, but with Creative Commons licenses only. Jamendo appeared as a great window as it manages both the commercial and non-commercial aspects of music distribution, on the one hand, individuals are able to discover numerous artists for free, while on the other hand, these artists are able to get revenues from the commercial use of their tracks.

We have completed our analysis of the recorded music industry with Musopen, the non-profit project distributing copyright free classical music with a strong educational orientation and our second and last example of business model distributing content from the public domain. Musopen was an example driven by the will to share and to educate.

In 2012, the music industry's earnings increased for the first time in 15 years, and we saw that customers are willing to consume their music legally and pay for it, even though some started to think that recorded music should be free of charge because the core of the music industry lies in concerts and public representation. We also found that the earnings of the music industry, at least in the U.S.A. is mainly going to labels and not to artists (as shown on Illustration 18 on p.49), which contradicts the well-known idea that piracy hurts artists and creation. And even though piracy were to financially hurt artists, by seeing the amount of bands and tracks available on both Spotify and Jamendo, piracy did not prevent new creations.

Our analysis then moved on to the motion picture industry and in this sub-chapter, our common theme was the worldwide praised TV series *Game of Thrones*, because it has been crowned "Most pirated show of 2012". The conclusions we may draw from our close look at

the series' situation is that for a start, it is a victim of its success, but second it also victim of its distribution. We have showed that people want to watch it legally as they like the show and want it to keep being on air: watchers are well-aware that it requires means and funds. But by deciding to keep its exclusive distribution, HBO is orientating watchers toward illegal sources.

The other issue we raised was the international distribution, even though the broadcast of TV series had worked until now, things have changed and people can receive the latest episode of a series within the hour of its first U.S. airing through illegal platforms but it may take month for a program to be broadcast abroad. As a consequence, we can say that the inability for cultural products to legally cross borders easily and quickly is a factor encouraging piracy.

The third and last factor we noticed is the fragmented offer, HBO's offer is really similar to Netflix's and Warner Brothers'. But by making the content different on each channel, legal distributors impose several services on customers. And because customers have access to well-organized complete repositories such as The Pirate Bay or Project Free TV, they shall chose one of these offers thus pirating the content of the other two. Because the illegal competition is so well-stocked, the legal distributors cannot afford to split offers as much as they currently do. This observation is also valid for the other industries we studied, if each major label company were to provide its own platform, we believe that very few customers – if any – would subscribe to all because from a customer's point of view, a concentrated offer is more attractive.

The next industry is software and database and for this one it was only logical to introduce Newell's product, Steam. Because the platform is distributing nearly 2,000 video games regardless of their publishers – major or independent – and because it is adding numerous services, Steam is an example of a satisfying service. People using the platform feel like they are part of a community and that this community is giving back to them with sales and great choice. The second example, GIMP, is representative of Free Open Source software as replacement for proprietary software, it is undeniable that Adobe's Photoshop is more well-known than GIMP. But because GIMP is an alternative to the \$800 Photoshop, it also is an alternative to a pirated Photoshop, even though it is not a primary goal for the people behind GIMP.

We went on in our presentation with Flickr, the images repository which enables Creative Commons license, thus enables uploaders to be as flexible as they wish with their rights. Thanks to its partnership with Getty Images, Flickr does not only provide a window for photographers, but it also helps them to be present on the market and potentially make a living from their works. And The Commons is a repository of copyright free images – photographs as well as drawings. These three aspects make Flickr a concentrated database of images which enables watcher or consumers of photography to easily access any kind of images, as well as an important help for photographers who can expose their works at will.

We concluded our analysis with Flattr, a system of micro-donations which could be a reward system for creators. We believe that Flattr has great potential as it allows direct communication between a user and a creator, even though it would not solve the problem of unauthorized used. We have seen that some people already use it as a remuneration system.

In the light of all our observations from the case studies, we believe that if copyright-based industries had started to listen to their customers earlier, piracy would already have slowed down. As a consequence, we can conclude that Gabe Newell's opinion that piracy is a reaction to bad legal services is right. Since they were not satisfied with legal distribution channels, customers resorted to fetching cultural contents through illegal ways. Throughout this work, we faced difficulties inherent to a market study: the lack of information, people's orientated points of views, the difficulty to find reliable sources. But in the end we were able to demonstrate Newell's postulate: piracy is a service problem thus improving legal distribution is one of the solutions against piracy.

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## **Annex A: What to do is your work has been copied**

Selection of articles helping artists with copyright infringement and templates of letter requesting the removal of infringed content

“I have noticed the strong similarity of elements of your website to my company’s website, www.example.com. Your use of material from our site constitutes an infringement of our copyright and therefore subjects you to substantial liability under federal copyright law. Please immediately remove that material from your site and refrain from any further use of any material derived from our website.

We would prefer to promptly resolve this matter without legal action and trust that your prompt cooperation will allow us to do so. Please send me confirmation that the infringing material will be immediately removed from your website so that this matter can be resolved. Thank you for your cooperation.”

By:

Lechnyr, D. (2012, July 22). What to Do When Someone Steals Your Work. *Freelance Switch*. Retrieved May 1, 2013, from

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“Thanks for featuring one of my recipes on your site and I’m glad you enjoyed it enough to share with your readers!

The recipes in my books and on my site are copyrighted and shouldn’t be reprinted word-for-word. If you wish to feature a recipe from one of my books, taken directly from the book, you’ll need to get written permission from the publisher. Their contact information is on my “Books” page on my site.

You are welcome to ‘adapt’ one of my recipes from my books or my blog, using your own words, with attribution and a link back to my site or to the book where the recipe originally appears. Most readers of your blog come to your site to see your take on a recipe, and to read your description. And it would benefit your blog to explain the recipe as you made it.

You can read more about this at a post I did for Food Blog Alliance on Recipe Attribution, which explains it in a bit more depth. For those new to blogging, you can find a lot of tips at Food Blog Alliance. Thanks, -David”

By:

Lebovitz, D. (2012, May 17). What to do when your content is lifted. *Food Blog Alliance*.

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## Annex B: I pirate *Games of Thrones* because...

Selection of comments from Greenberg, A. (2012, May 5). HBO's "Game Of Thrones" On Track To Be Crowned Most Pirated Show Of 2012. *Forbes*.

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**Banana'd Peanut Butter** 1 year ago

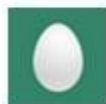
Every time I download the new episode, I send HBO an email asking them where I can send them a dollar or two for the episode. They have yet to get back to me.

Though the blu-ray set of the first season is absolutely wonderful!



**jmarquiso** 1 year ago

I think buying the Blu-Ray for a series you enjoy is not only fair, but a way to show that there are more willing customers.



**Maynard Handley** 1 year ago

It's also a way to signal that you support a distribution medium that forces you to sit through ads and 20 seconds of "You too are a pirate and are hurting rich people in Hollywood" (all of which can't be skipped over).

Some of us are more than a little reluctant to send this particular signal.



**Janet Kizer** 1 year ago

If I want to watch Game of Thrones 'legally' I have to subscribe to a package of cable channels which would raise my monthly cable/internet/phone bill to nearly \$200 a month. I can't just add HBO Canada to my list of channels, for a few extra dollars. If I could do this, I would. The whole system is forcing me to watch a favourite show by downloading it 'illegally'. I'm losing all sympathy for big media which is calling me a thief because I want to enjoy their programming.

Online distribution of digital cultural products: Are legal distributors strong enough against piracy?

Selection of comments from Kain, E. (2012, May 9). HBO Has Only Itself To Blame For Record “Game Of Thrones” Piracy. *Forbes*.

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<http://www.forbes.com/sites/erikkain/2012/05/09/hbo-has-only-itself-to-blame-for-record-game-of-thrones-piracy/>



**Mr. Waterblu** 1 year ago

“HBO co-president Eric Kessler has said he thinks the move away from traditional television to an internet-based model is just a fad that will pass – a temporary phenomenon.”

This actually sounds weird, coming from HBO boss. Short-sighted and almost stupid conclusion in my opinion.

This show is popular worldwide not just in US. There’s absolutely no other way in many countries (where HBO simply isn’t available) to watch the show except for torrenting episodes.



**Anon** 1 year ago

I have HBO, and HBO GO, but I still download the show on torrent because streaming on my phone is choppy.



**missdk** 1 year ago

Trevor – yes, they do. For one, tv shows like this are a group experience. Secondly, we live in an age of instant media. If torrenting gives people the speed of access we are used to for all other shows, that’s what they will use.

Online distribution of digital cultural products: Are legal distributors strong enough against piracy?

Selection of comments from Kain, E. (2012, May 10). International Audiences Have Few Choices To Legally Watch HBO's "Game Of Thrones." *Forbes*.

Retrieved from

<http://www.forbes.com/sites/erikkain/2012/05/10/international-audiences-have-few-choices-to-legally-watch-hbos-game-of-thrones/>



**Stephan Patzek** 1 year ago

Even more annoying for international viewers of the show: If you live in a country with synchronizaiton (like Germany), you have to wait another 6 months until season 2 is aired. Usually the original english streams (like Big Bang Theory) are not available because of the German IP ("This content is not accessable from your region..."). So what does someone who understands english well enough and is a big fan of an english/american show do? Wait for ages until the show gets sychronized and the local broadcast acquire the rights? well, let me think... NO. The other option? Sail ho...



**Pulak Kumar** 1 year ago

Um...so let's see. I have HBO as part of my subscription, and I am a resident of India. So chances are, season 1 maybe has been telecast in my country. Problem is, I totally missed it. And there's no way for me to (legally) catch up.

Telecasting the show in the first place is one thing. However, not everybody can tune in during the wee hours of the night to watch one episode of one friggin' show. And hell, I wasn't even aware of the proper schedule for the show when the first season just slipped me by. So HBO, kindly set up some reruns once in a while to help your poor viewers keep track of your rare and easy to miss shows. Or else, we'll have to resort to torrents to help us.