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**Into the Wired:
Digital Freedom or Piracy?**
The ECJ's *Nintendo v. PC Box* Case Law
as an Emblematic Example of Copyright
Contradictions in the Information Society

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ABSTRACT

Il presente lavoro vuole delineare la situazione contemporanea riguardo all'impatto dell'era digitale in materia di diritto d'autore. Il diritto d'autore si è evoluto nel corso della storia rappresentando un compromesso tra diversi interessi: l'interesse degli autori nel venire riconosciuti come tali e guadagnare dal frutto delle proprie creazioni, l'interesse degli editori/produttori a massimizzare i profitti, e l'interesse del pubblico ad accedere a più quante opere possibili. A seconda della sua applicazione in sistemi di *Civil Law* o *Common Law*, il diritto d'autore ha favorito ora una fazione, ora l'altra. Tuttavia, l'avvento di Internet e di nuove tecnologie ha messo in crisi la distinzione stessa tra il *droit d'auteur* francese, incentrato principalmente sulla figura dell'autore, e il *copyright* di matrice anglosassone, focalizzato sull'importanza del pubblico.

Storicamente delimitato da confini nazionali, il diritto d'autore si è recentemente trovato a combattere una minaccia che, potenzialmente, non conosce limiti. L'impellenza di adeguare le normative alle nuove esigenze ha portato ad una convergenza internazionale iniziata nel 1886 con la Convenzione di Berna per la protezione delle opere letterarie e artistiche. Il quadro si è ampliato notevolmente nel corso degli anni, e gli esempi più significativi sono rappresentati dall'accordo TRIPs all'interno dell'Organizzazione Mondiale del Commercio e dai Trattati internazionali dell'Organizzazione Mondiale per la Proprietà Intellettuale, che hanno apportato importanti novità specialmente nel campo della protezione delle misure tecnologiche a favore dei detentori dei diritti. In questo contesto, l'Unione Europea rappresenta un esempio unico per il suo sistema di implementazione delle normative, poiché gli accordi internazionali vengono

dapprima tradotti in Regolamenti o Direttive, per poi venire successivamente introdotti nei corpi normativi dei singoli Stati Membri. Di conseguenza, le differenze nazionali si sono notevolmente appianate, sebbene sia ancora possibile riconoscere dei tratti distintivi nell'analisi della dottrina statunitense del *fair use*, chiaramente improntata sull'aspetto economico, e la Direttiva europea sul diritto d'autore nella società dell'informazione del 2001, che invece presenta alcune contraddizioni tra i vecchi obiettivi della comunità e i nuovi obiettivi dell'unione.

L'applicazione diretta delle diverse norme viene analizzata attraverso l'ausilio di alcuni casi. La pericolosità della minaccia digitale trova il primo riscontro negli Stati Uniti con il caso *Napster*, che introduce il tema delle nuove tecnologie *peer-to-peer*, attraverso le quali gli utenti possono condividere tra di loro contenuti digitali in pochi secondi. Negli Stati Uniti, la valutazione della responsabilità legale indiretta da parte dei fornitori di servizi digitali viene basata su criteri sia di tipo quantitativo che di tipo qualitativo, che tengono in considerazione gli usi legittimi e illegittimi che possono essere intrapresi tramite l'utilizzo di questi nuovi sistemi. Per quanto riguarda l'Europa, la Direttiva sul diritto d'autore viene analizzata soprattutto in relazione all'Articolo 6, riguardante la protezione legale di misure tecnologiche di prevenzione implementate dagli aventi diritto all'interno dei loro lavori digitali. La questione è di delicata importanza perché ha di recente suscitato molte critiche sia da parte di consumatori che studiosi, che contestano la norma poiché non riesce a garantire la liceità di alcuni utilizzi che dovrebbero invece essere coperti dalle eccezioni al diritto d'autore. Il punto focale della mia tesi, ossia il caso *Nintendo v. PC Box* preso in considerazione dalla Corte di Giustizia Europea su richiesta del Tribunale di Milano, offre un esempio di quanto la Direttiva sia inadatta allo scopo per cui è stata creata, cioè quello di offrire criteri di armonizzazione tra gli Stati

Membri in materia di diritto d'autore. Infatti, nell'obiettivo di rimanere volutamente generica per non interferire in questioni che dovrebbero rimanere sotto la diretta competenza dei singoli Stati Membri (come, appunto, il diritto d'autore) la Direttiva rischia di generare soltanto inutile confusione al riguardo, e di rallentare ulteriormente l'intervento della legge che invece si trova a dover contrastare una minaccia in continua evoluzione.

Il lavoro è stato condotto analizzando innanzitutto volumi e articoli presi sia dalla dottrina statunitense che da quella francese, che sono serviti come base per approcciare la materia e compilare prevalentemente il capitolo sulla storia del diritto d'autore e le differenze dello stesso in Paesi di *Civil Law* e *Common Law*. A questo punto, tramite l'analisi diretta di casi statunitensi ed europei e lo studio della letteratura critica riguardante le dottrine del *fair use* e della Direttiva sul diritto d'autore nella società dell'informazione, mi sono avvicinata al tema del diritto d'autore nell'era digitale. Alcuni siti internet come "www.howstuffworks.com", inoltre, sono stati di notevole aiuto per comprendere il funzionamento tecnico di software e applicazioni digitali riguardanti i casi legali presi in considerazione. Il capitolo dedicato alla causa *Nintendo v. PC Box*, invece, è stato condotto tramite un'analisi approfondita della causa stessa e dell'opinione dell'Avvocato Generale Sharpston. La parte relativa all'industria dei videogiochi è basata fondamentalmente su mie conoscenze del settore e sulla ricerca di notizie recenti attinenti all'argomento. Infine, il capitolo finale è stato strutturato prendendo in considerazione le più recenti novità provenienti dal settore della tecnologia. A tal fine, mi sono tenuta periodicamente aggiornata tramite giornali online internazionali e ho visitato i siti web ufficiali delle applicazioni per attingere a notizie attendibili riguardanti dati sensibili sull'evoluzione della pirateria in particolare.

In ultima analisi, pur partendo da considerazioni condivise da eminenti studiosi della materia, il mio lavoro di ricerca mira ad offrire un punto di vista diverso da quello di studiosi ed avvocati. L'interesse per l'argomento, infatti, è scaturito essenzialmente dalla mia passione per i videogiochi. L'idea di sviluppare una tesi su un tema del genere è nata dalla curiosità di comprendere cosa stesse accadendo nel panorama europeo al riguardo. Ricordo di aver letto la notizia sulla sentenza *Nintendo v. PC Box* per puro caso, probabilmente mentre ero intenta a cercare qualche nuova informazione sui videogiochi in uscita. La novità ha destato la mia attenzione e, quando ho provato ad ottenere maggiori informazioni da altre fonti, mi sono subito resa conto che sul Web c'era una gran confusione al riguardo. Infatti, diversi siti a contenuto videoludico riportavano la notizia giungendo ognuno a conclusioni diverse. Oltre a voler sapere come era andata davvero a finire, mi sono anche chiesta se non sarebbe stato utile produrre un lavoro su un argomento che sempre più spesso è affrontato in maniera troppo accademica da studiosi ed esperti della materia, e in maniera troppo approssimativa dagli utenti. Mi sono convinta che, unendo le mie conoscenze del settore ad altre informazioni che avrei dovuto notevolmente approfondire sia in materia giuridica che informatica, avrei potuto offrire un lavoro che fornisse le basi dell'argomento ai non addetti ai lavori, e un punto di vista diverso dal solito agli studiosi del settore.

La mia argomentazione parte dalla considerazione che la legge si muove più lentamente della tecnologia, provando a dare una risposta al quesito: può la legge rappresentare ancora il miglior compromesso nel garantire la protezione e al tempo stesso la divulgazione di opere della creazione? Dal mio punto di vista, sia chi crede ancora nel ruolo impositivo della legge sia chi crede che la legge non abbia più voce in capitolo è nel torto. Infatti, nel testo vengono riportati numerosi esempi che evidenziano quanto il ruolo dei

consumatori abbia acquisito importanza e vitalità nel panorama del diritto d'autore, tanto che le scelte di mercato vengono ormai influenzate più dai desideri degli utenti finali che dalle norme imposte dalla dottrina giuridica. Inoltre, una politica giuridica troppo aggressiva potrebbe scatenare addirittura un effetto controproducente. Come riporto attraverso alcuni esempi nel testo, ormai persino decisioni nazionali potrebbero riversarsi sull'intera popolazione mondiale (ad esempio, la chiusura di un sito da parte dell'FBI statunitense in realtà coinvolge tutta la comunità internazionale del Web), e scatenare forti proteste e reazioni pirata a danno delle istituzioni governative. Allo stesso tempo, però, la legge è ancora l'unica entità in grado di prendere decisioni *super partes* che ostacolino sia l'abuso di potere da parte degli aventi diritto sia le operazioni illegali facilmente messe in atto dalla comunità del Web.

In conclusione, la legge dovrebbe accettare il nuovo ruolo che le è stato assegnato dalla tecnologia. Mettersi a gareggiare in una sfida di velocità sarebbe una battaglia persa in partenza. Per questo motivo, la legge deve ormai prevalentemente focalizzarsi sulla funzione correttiva che solo quest'ultima può garantire, per assicurare costantemente che l'equilibrio tra diversi interessi dei vari attori non venga mai messo in discussione.

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INTRODUCTION

My research aims to analyze the impact of the digital era on copyright law's issues. The advent of the digital world has rewritten rules that were suited for products born in the physical one. Internet has challenged the power of each state to provide equal and proportionate protection to domestic and international copyrighted products, because of its worldwide range and unpredictability. Despite the differences of juridical systems among countries, the presence of an international pattern that would provide guidelines against a common menace is more needed than ever. Thanks to the new possibilities offered by technology, consumers can now interact with digital works in a way that was unbelievable some years ago. Sharing copyrighted files has become a matter of few seconds through peer-to-peer (P2P) systems and the Web 2.0, while transformative acts on copyrighted materials are easier than at any other time. The line that separates piracy from legal acts has become thinner, due to the wide range of possibilities offered by technology. The urgency of protecting one's own work may interfere with the right of end-users to operate in the field of copyright exceptions, such as criticism, research, teaching, news reporting, parody, and so on. The so-called Digital Rights Management (DRM) systems adopted by rightholders may in some cases overtake their primary functions and force consumers to commit illegal acts even in undertaking lawful uses. In this context, is the application of law still a necessary and sufficient instrument to guarantee at the same time the protection and the divulgation of intellectual works?

In chapter I, I analyze the birth of copyright protection theories, considering the different rationales underlying Civil law systems and Common law ones. I consider then the recent evolutions that, from the Berne

Convention for the Protection of Literary and Artistic Works of 1886 so far, have promoted a legislation convergence scenario, where the EU system represents a unique example. In chapter II, I introduce the issue of the digital challenge, taking some cases from the music industry as examples of the piracy menace. In particular, I focus on the advent of P2P technologies starting from the Napster case, eventually comparing it to the digital solution offered by the emergence of iTunes and other online music markets. Until this time, the separation between the concepts of free services and legal ones is still marked. In chapter III, I enter the core of my dissertation, taking the European Court of Justice (ECJ)'s *Nintendo v. PC Box* case law as an example of European juridical intervention in a potential digital piracy case in the field of the video game industry. The issue is emblematic to understand the peculiar situation of video games in the copyright protection effort and the EU system in the coordination of juridical intervention in each of its Member States. The case provides also the testing ground for the effectiveness of the EU Copyright in the Information Society Directive in providing protection to rightholders' exclusive rights while at the same time guaranteeing the lawfulness of acts that do not require the rightholders' authorization. Finally, in chapter IV, I argue why, in my opinion, law should not worry too much about the digital menace, despite the complexity of the situation. Indeed, new solutions can be offered by the evolution of the relationship between original authors and consumers, and sometimes even by the technology itself. The latter is the case of Spotify, which stands for an example in the music industry of how innovation could solve the piracy dilemma in a quicker and more efficient way than law can do, offering a solution that can be free and legal at the same time.

In conclusion, insisting on the opposition between one internationally free digital environment and many domestically differentiated legal instruments

in the protection of copyright, I try to demonstrate why law should renounce struggling to keep pace with technology, and start focusing on its corrective role in order to provide a safe *a posteriori* function when the balance between rightholders' and consumers' interests needs to be restored.

I. COPYRIGHT HISTORY AND FEATURES AT NATIONAL AND INTERNATIONAL LEVEL

SUMMARY: 1. Introduction – 2. History of copyright – 3. The economic rationale of copyright – 4. Copyright features and applications in Civil Law and Common Law systems – 5. A national legislation harmonization scenario

1. Introduction

What we call “copyright” is actually a discipline that touches different interests – the author’s interest in becoming known and/or living from his/her creations, the publisher/producer’s interest in maximizing the revenues, the public’s interest in having access to as many works as possible – and different application fields – philosophy, economics, law – which thereby has been studied and analyzed from several points of view. The common law systems’ notion of copyright is slightly different from the historical perspective of the French *droit d’auteur*, although in recent years new problems and possibilities have encouraged a legislation harmonization effort whose features will be analyzed throughout the chapter.

2. History of copyright

2.1. First cases of copyright protection

The first germs of copyright can be found at the time of the Republic of Venice. In 1469, the Republic granted a five-year print privilege to the German publisher Johann von Speyer, in order to introduce a book market structure in the city. Later, in 1486, the protection shifted from publishers to

authors, in the Republic's aim to control the results of its own historiographical work. Finally, in 1544, an administrative order prevented non-authorized printing without the author or his/her heirs' consent (1). It is significant to take account of that three-step passage because this first approach to the doctrine discloses some of the main features of copyright: the right to copy is limited in time (five-year print privilege); the right could apply to authors or to publishers; the right is transferable to others (the heirs). Nevertheless, although the Republic of Venice was a precursor in the field, it exhausted its action only within the form of contracts or *ad hoc* provisions.

The first example of a statutory rule is instead the "Statute of Anne," adopted in 1709 in England, which allowed authors to require copyright protection for a limited time of fourteen years, conceding them the possibility of doubling the period in the case they were still alive after the deadline. In order to be covered by protection, authors were supposed to forward formalities of registration and deposit of copies to the government, a procedure that will remain compulsory in U.S. copyright law for many years (2). Moreover, according to Ginsburg, in the title ("An Act for the Encouragement of Learning, by vesting the Copies of printed Books in the Authors or Purchasers of such Copies") and the preamble of the Statute ("[...]for the Encouragement of learned Men to compose and write useful Books") it is possible to find the society-oriented policy that will become the essential rationale for both English and American copyright laws (3).

The first impact of the statute was a shock for English publishers and booksellers, who since 1557 had been benefitting from an exclusive and no

(1) Françoise BENHAMOU and Joëlle FARCY, *Droit d'auteur et copyright*, 2nd ed. (Paris: Editions La Découverte, 2007), 19.

(2) See *infra*, §I.2.3.

(3) Jane C. GINSBURG, "A Tale of Two Copyrights: Literary Property in Revolutionary France and America," *Tul. L. Rev.* 64, no. 5 (1990): 997.

time-limited right of exploitation over their works (4). Secondly, the new legislative text inspired the “Copyright Statute” adopted in the United States in 1790, with the only difference that here the protection was granted only to American authors and not to foreign ones (5). At a time when English works of fiction and English authors like Charles Dickens were greatly appreciated by the American public, the result of the American statute was an unfair price distortion that wanted to “[...] reject ties with the old colonial power [...] in order to foster an American literature” (6). Nonetheless, as pointed out by Bender and Sampliner, the direct consequences of the American Statute were actually counter-productive, since publishers were more encouraged to print works written by English authors to whom they were not supposed to pay a royalty (*i.e.*, a percentage of the price of the sold book); paradoxically, in the end, American authors demanded equal treatment of their counterparts, in order to protect their own interests (7).

Meanwhile, in France, publishers were granted a monopoly over printing until the French Revolution, when, in 1791 and 1793, two laws accorded to authors their “fair prerogative” (8) to the exclusive rights of representation and reproduction over their own artistic and literary works, for a maximum of ten years after their death (9).

Through the above-mentioned cases, there were introduced issues like limited-in-time protection, distinction between authors and publishers as indirect subjects of safeguard measures, and copyright scope, rationale and

(4) BENHAMOU and FARCY, *Droit d’auteur et copyright*, 20.

(5) *Ibidem*. See also Ruth TOWSE, *Creativity, Incentive and Reward: an Economic Analysis of Copyright and Culture in the Information Age* (Cheltenham-Northampton, MA: Edward Elgar, 2001), 11.

(6) TOWSE, *Creativity, Incentive and Reward*, 23.

(7) *Ibidem*.

(8) GINSBURG, “Tale of Two Copyrights,” 1005.

(9) BENHAMOU and FARCY, *Droit d’auteur et copyright*, 20.

application mechanisms. The extent of all of these features will be subject of discussion below (10).

2.2. The birth of copyright protection theories

The word “copyright” actually refers to the Anglo-Saxon interpretation of a part of a more general intellectual property protection discipline, yet throughout my work the word will be used to identify “author’s rights” in general. The first disputes about the doctrine concerned its nature and rationale, and date back to the XVII century. At that time, the English philosopher John Locke associated the natural property of an individual over his body to the natural property of an author over his work, since it flows from his/her intellectual creation (11). A century later, Jeremy Bentham, the founder of the modern utilitarianism, affirmed that intellectual property is justified by its economic efficacy (12). Since Locke’s natural property theory found lack of economic premises due to the significant role of externalities in the process of the creation of a work (13), the concept was re-elaborated by Immanuel Kant who justified copyrights “as extensions of the personality of the author and subject of protection as such” (14). The reason of these two different perspectives can be found in the inner nature of the right in question, which can be considered at the same time a personality right under its moral aspect, and a property right under its patrimonial aspect (15). These two apparently antithetical approaches can result in a potentially infinite variety of solutions to the matter.

(10) See *infra*, §I.2.3.

(11) BENHAMOU and FACY, *Droit d’auteur et copyright*, 5.

(12) *Ibidem*.

(13) Robert M. HURT and Robert M. SCHUCHMAN, “The Economic Rationale of Copyright,” *The American Economic Review* 56, no. 1/2 (1966): 423. According to economic theory, an externality is “the cost or benefit that affects a party who did not choose to incur that cost or benefit.” In the matter in question, it refers to others’ ideas and works that naturally contribute to the creation of a new work.

(14) *Ibidem*.

(15) BENHAMOU and FACY, *Droit d’auteur et copyright*, 5.

As outlined in the introduction to the chapter, there are three actors whose interests are influenced by the application of copyright: the authors, the publishers/producers in a broad sense (that is, the subjects who deal with the exploitation of the work), and the public. These actors pursue different, and sometimes incompatible, objectives: generally, an author wants to become famous and earn from his/her work, a publisher/producer seeks to maximize profits while minimizing risks, and the public wishes to access as many works as possible. The only relative aspect emerging from the analysis is the author's position, since he/she could decide to privilege one aspect at the expense of the other (for example, he/she could renounce receiving compensation from the exploitation of his/her work in order to divulge it to as many people as possible (16)). In the above-explained context, law intervention is justified by its compromise-oriented function among conflicting interests.

Generally, a moral-orientated perspective, commonly associated with the French so-called *droit d'auteur*, is likely to apply more restrictive rules in the name of an author-centered view (17), yet constitutional and person-related principles like freedom of expression can intervene in favor of the public interest (18). Indeed, back to the French Revolution, in front of the National Constituent Assembly, Lakanal defined the entitlement in question as “the right of all rights the least subject to criticism, a right whose increase can neither harm republican equality, nor offend liberty [...]” (19). Le Chapelier emphasized the concept, declaring that “the most sacred, the most

(16) That is particularly true in cases such as “copyleft” licenses and “open access” publishing systems. See *infra*, §IV.2.

(17) Jane C. GINSBURG, “A Tale of Two Copyrights,” 992.

(18) The consideration takes more evidence from the analysis of copyright exceptions' rationale. See *infra*, §I.3.2.

(19) BENHAMOU and FARCY, *Droit d'auteur et copyright*, 20 («La propriété des toutes les propriétés la moins susceptible de contestation, celle dont l'accroissement ne peut ni blesser l'égalité républicaine ni donner ombrage à la liberté [...]»).

legitimate, the most unassailable, and, so to speak, the most personal of all properties, is the work which is the fruit of a writer's thoughts." (20). Nevertheless, as persuasively noticed by Ginsburg, it was Le Chapelier himself who added that "[...] a published work is by its nature a public property [...]," revealing an awareness about the importance of the public in the matter in question (21).

At the same time, the U.S.-privileged economic analysis of the discipline – the law and economics doctrine – can generate different results, depending on the periodical review of costs and benefits. Jules Deput and Leon Walras justify this approach by its social utility, clarifying that only a technical evaluation of efficiency can maximize the advantages of an intellectual property protection system (22). Ginsburg corroborates the theory by citing the U.S. Constitution's copyright clause, which puts the public's interest at the center of the issue by justifying the establishment of exclusive rights of authors in the name of a maximization of production and access to intellectual creations (23). An in-depth analysis of the evolutions of these two approaches will be given below (24).

2.3. Balances and extents of different copyright protection theories

Practically, the direct consequences of the implementation of different theories can influence the types of rights, the duration and the application of each right, the subjects involved in the protection, and the copyright scope.

Firstly, one can distinguish between patrimonial rights (*i.e.*, rights linked to the exploitation of the work) and moral rights (*i.e.*, rights associated to the

(20) *Ibidem*, 21 («La plus sacrée, la plus légitime, la plus inattaquable, et, si je puis parler ainsi, la plus personnelle de toutes les propriétés, est l'ouvrage fruit de la pensée d'un écrivain.»).

(21) GINSBURG, "Tale of Two Copyrights," 1006.

(22) BENHAMOU and FARCY, *Droit d'auteur et copyright*, 6.

(23) GINSBURG, "Tale of Two Copyrights," 991.

(24) See *infra*, §I.4.1.

personality of the author). Patrimonial rights include generally four broad categories of rights: the right of reproduction, the right of distribution, the right of communication to the public and the right of adaptation. These rights are patrimonial because they are related to the economic gains that originate from the author's work, and they are exclusive in the sense that only the rightholder is free to exercise them, prohibiting any unauthorized action by others. Firstly, the right of reproduction refers to the rightholder's exclusive right to make reproductions or copies of the work. It is worth noting that an unauthorized reproduction could be considered illegal even in case of a partial copy of the work. Further, the right of distribution grants to the copyright holder the exclusive right to authorize or prohibit any form of distribution to the public by sale, rental, lease, or lending. As will be analyzed below (25), the right is exhausted after the first distribution of each authorized copy in the case of application of the "first sale doctrine;" otherwise, it provides remuneration from further resale in the case of *droit de suite*. Finally, the right of communication to the public makes the rightholder the only subject legitimated to authorize or prohibit any form of presentation of the work to the public, while the right of adaptation refers to the exclusive right to authorize derivative creations of the work (e.g., translations) (26). Concluding, patrimonial rights are transferable to other subjects (e.g., publishers/producers, heirs) and are limited in time.

The limited-in-time protection theory is by itself a compromise between the authors' and the public's interests, since it provides a first period in favor of authors (when the exploitation of the work is subjected only to the author's will) and a second period in favor of the public (once the protection has expired, the work is said to be in the public domain). Generally, since its first

(25) See *infra*, §I.4.1.

(26) BENHAMOU and FARCY, *Droit d'auteur et copyright*, 40-41.

application, the duration of protection has been constantly extended due to the increase in life expectancy, recently reaching a minimum of seventy years after author's death in the United States and in countries of the European Union (27). The transferability of patrimonial rights, instead, finds its justification in the economic theory, according to which an author should allocate his/her work's exploitation possibilities in the most efficient way, often appealing to someone who can afford the financial expenses required for the investment, that is, the publisher/producer.

On the other hand, moral rights do not refer to an author's work, but they are attached to the personality of the creator; therefore, they were conceived as non-economic rights that cannot be sold or assigned to others (in principle, neither to heirs). Moral rights include the right of attribution, the right of disclosure, the right of retraction or withdrawal and the right to the integrity of the work. The right of attribution refers to the right to be acknowledged as the creator of a work (*i.e.*, the right to claim authorship also through a pseudonym or an acronym, as well as the right to remain anonymous); the right of disclosure identifies the right under which the artist can refuse to expose his/her work to the public before he/she feels it is satisfactory; the right of retraction or withdrawal means the right for the author to withdraw his/her work even after having divulging it, and the integrity of the work ensures that the work is not subjected to treatments that could in any manner be harmful to the author's honor or reputation (28). It is worth noting that the right of attribution has to be distinguished from the right against wrongful attribution, which is rather part of the general category of personality rights to which all individuals are entitled, regardless of whether they are authors

(27) See "Collection of National Copyright Laws" available on UNESCO website, accessed September 12, 2014, <http://portal.unesco.org/culture>.

(28) BENHAMOU and FARCY, *Droit d'auteur et copyright*, 23-24.

or not. For what concerns moral rights, professors Benhamou and Farcy support their justification also in absence or even in contrast with an economic theory (29), since they could be conceived to protect author's reputation rather than his/her – or other's – commercial interests (30). Indeed, moral rights define a category of rights deriving from the author-centered French tradition of copyright, where they stand for non-waivable, inalienable and perpetual rights (31).

Patrimonial and moral rights can also fit the descriptions of categories of rules identified by Guido Calabresi and Douglas Melamed in their work "Property Rules, Liability Rules, and Inalienability: One View of the Cathedral." Firstly, moral rights, as long as they are conceived to be non-waivable, non-transferable and perpetually attached to the personality of the author, can enter under the category of "inalienability rights:"

An entitlement is inalienable to the extent that its transfer is not permitted between a willing buyer and a willing seller. The state intervenes not only to determine who is initially entitled and to determine the compensation that must be paid if the entitlement is destroyed, but also to forbid its sale under some or all circumstances. (32)

For what concerns the rest – patrimonial rights – Calabresi and Melamed distinguish between "property rules" and "liability rules." As explained by the authors, property rules shape a scenario where

(29) *Ibidem*, 25.

(30) Robert M. HURT and Robert M. SCHUCHMAN, "The Economic Rationale of Copyright," 424.

(31) *Ibidem*.

(32) Guido CALABRESI and A. Douglas MELAMED, "Property Rules, Liability Rules, and Inalienability: One View of the Cathedral," *Yale Law School Faculty Scholarship Series* 75, no.6 (1972): 1092.

[...] someone who wishes to remove the entitlement from its holder must buy it from him in a voluntary transaction in which the value of the entitlement is agreed upon by the seller. It is the form of entitlement which gives rise to the least amount of state intervention: once the original entitlement is decided upon, the state does not try to decide its value. It lets each of the parties say how much the entitlement is worth to him, and gives the seller a veto if the buyer does not offer enough. Property rules involve a collective decision as to who is to be given an initial entitlement but not as to the value of the entitlement. (33)

In other words, according to property rules, authors benefit from total rights over their work; therefore, they can freely negotiate terms and conditions of a potential assignment or license agreement (34) with a third party, eventually deciding whether or not concluding the transaction. An example of application of the theory can be found in literary publishing: in this case, authors and publishers generally negotiate the rights to transfer (*e.g.*, including or not the adaptation right of the book), the initial purchase price of the transfer of rights, and royalty rates. On the other hand, liability rules define a reality where

[...] someone may destroy the initial entitlement if he is willing to pay an objectively determined value for it [...]. This value may be what it is thought the original holder of the entitlement would have sold it for. But the holder's complaint that it would have demanded more will not avail him once the objectively determined value is set. Obviously, liability rules involve an additional stage of law intervention: not only are entitlements

(33) *Ibidem*.

(34) Through an assignment agreement, the assignee becomes the new owner of copyright and can take actions in his/her own name, including legal actions against third parties. On the other hand, through a license agreement, the copyright owner preserves ownership of the rights, but allows a third party to carry out certain acts covered by his/her economic rights, generally for a specific purpose and for a specific period of time. For further information, see "The ABC of Copyright," available on UNESCO website, accessed September 12, 2014, http://www.portal.unesco.org/fileadmin/MULTIMEDIA/HQ/CLT/diversity/pdf/WAPO/ABC_Copyright_en.pdf, 55.

protected, but their transfer or destruction is allowed on the basis of a value determined by some organ of the state rather than by the parties themselves. (35)

Briefly, under a liability rule, authors must accept a minimum compensation set by law through a statutory/compulsory license (36). Clearly, this system may prevent authors from receiving the compensation for which they would have asked from the exploitation of their creations. For Strowel, property rules identify exclusive rights (*i.e.*, rights that only the rightholder is free to exercise, prohibiting any unauthorized action by others), while liability rules define remuneration rights (*i.e.*, rights that guarantee that an author will receive appropriate remuneration from the usage of his/her works) (37). In particular, liability rules may apply, for example, in exceptional cases, such as the recording of musical works, as set by Articles 11bis(2) and 13(1) of the Berne Convention for the Protection of Artistic and Literary Works (hereinafter, “Berne Convention”) (38). Indeed, a general preliminary finding concerns the importance for most performers of the rights to remuneration they can enjoy even after having transferred their exclusive rights. In that scenario, it is worth mentioning the role of copyright collective agencies.

(35) *Ibidem*.

(36) BENHAMOU and FARCY, *Droit d’auteur et copyright*, 36. Actually, the authors distinguish between “statutory licenses” as licenses where authors’ compensation is fixed by law, and “compulsory licenses” as licenses where the final compensation has been decided by the contracting parties. In other cases, especially in the Anglo-Saxon tradition, the two terms are used interchangeably to refer to an amount decided by the legislator. See, for example, Linda S. KATZ, *Managing Digital Resources in Libraries* (London: Routledge, 2013), 11.

(37) Alain STROWEL, *Droit d’auteur et copyright : divergences et convergences : étude de droit comparé* (Bruxelles: Bruylant, 1993), 647-648.

(38) See Article 11bis(2) and Article 13(1) of the Berne Convention for the Protection of Artistic and Literary Works (adopted September 9, 1886, last revised July 24, 1971) 1161 UNTS 30. For further information about the Convention, see *infra*, §I.5.1.

Born as a solution to transaction costs (39), copyright collective agencies stand as intermediaries between authors or publishers of artistic works and consumers, managing the economic aspects and the redistribution of money from royalties through a fixed procedure that defines modalities and percentages of each remuneration according to the relative importance of the works and the usages in question (40). Collective agencies operate in limited competence fields (e.g., music, cinema) at national level, yet single collective agencies can cover more than a unique sector and they can cooperate at transnational level all over the world thanks to reciprocal agreements among them (41). For authors, adhering to these organizations is generally not compulsory; nevertheless, they are greatly encouraged to do so in order to benefit from their exclusive services, which include the advantages of not getting directly involved in transactions with each single user, and maximizing the possibilities of becoming known to as many people as possible. Moreover, in case of prejudice, tracing the paternity of a work is simpler if that work is registered at a copyright collective. To subscribe to the organization, an artist is generally required to pay a fee to the relevant national agency – which is represented by branches spread all over the national territory – authorizing the administration of his/her patrimonial rights in exchange for royalties. Then, any potential user (e.g., show promoters, television networks, discotheques, radio stations) has to refer only to the collective agency and not to single authors or publishers anymore.

Recently, collective agencies have been subject to criticism due to a lack of transparency in their royalty distribution system and their maintenance

(39) BENHAMOU and FARCY, *Droit d'auteur et copyright*, 49. For an overview of transaction costs, see *infra*, §I.3.2.

(40) *Ibidem*, 48-52.

(41) *Ibidem*, 53.

costs (42). Indeed, apart from registration fees (plus, in some cases, annual fees (43)), they deduct a percentage from the total collected income as a refund of their administrative costs, besides using the profits of those artist who are untraceable for a variety of additional cultural and social activities (44). Moreover, the royalty distribution mechanism is based on an analysis of the expected usages declared by users at the moment of request, on consumption data and on surveys conducted, for instance, on radios' and discotheques' schedules (45). In other words, authors claim that the collected data is unlikely to result 100% accurate. In addition, if an author is represented by a music publisher, the latter will obviously hold a percentage on the final amount addressed to the author. Since their establishment, collective agencies have benefited from a constantly increasing number of participants, succeeding in amortizing fixed costs over a great number of rightholders and users (46), while gaining at the same time an enormous bargaining power over both of them, especially in those states where no other collective agency operates in the same field (*e.g.*, national markets of the members of the European Union (47)). The situation is instead quite different in some countries of Common Law tradition (*e.g.*, United States, Canada), where competitive terms and conditions are granted by the presence of multiple copyright collectives (48). In conclusion, adhering to a collective agency by authorizing the exploitation of their patrimonial rights, authors become subject to imposed remuneration mechanisms.

(42) *Ibidem*, 52-53.

(43) For example, the Italian SIAE (the Italian Society for Authors and Publishers) requires subscribers to pay an annual fee. See SIAE website, accessed September 12, 2014, http://www.siae.it/Associarsi.asp?click_level=1000.0500.0100&link_page=SIS_Musica_AutoreDeiTesti.htm.

(44) BENHAMOU and FARCY, *Droit d'auteur et copyright*, 51.

(45) *Ibidem*.

(46) *Ibidem*, 49.

(47) *Ibidem*, 53. The authors refer also to the artists' complaint about the significant disparity in fee amounts and royalty percentages among EU national collective agencies.

(48) *Ibidem*.

Summarizing, it is worth noting that, for what concerns *patrimonial rights*, the *rightholder* does *not necessarily* correspond to the *first creator* of the work, since the original author could have transferred one or more of his/her rights to another subject; on the other hand, in case of *moral rights*, the *rightholder* is *generally identified* by the *original author* of the work, even after having transferred his/her patrimonial rights to a third party.

Finally, with regards to the copyright scope, copyright law differs from patent law under three aspects. Firstly, while patent law requires proof of innovation, copyright law rewards the mere creative effort, without being subject to any artistic standard; thus, it covers not only the original material, but also arrangements, compilations, databases and translations deriving from the original work (49). It is worth noting, however, that in Common Law-inspired copyright systems another requirement is “the threshold of originality,” which is used to distinguish works that are sufficiently original to warrant copyright protection from those that are not. In this context, “originality” refers to something “coming from someone as the originator/author” (*i.e.*, the work must somehow reflect the author's personality), rather than “never having occurred or existed before” (50). Secondly, unlike patent law, copyright law provides a distinction between the idea that undergoes the protected work, and the expression of the work itself in a fixed form (*i.e.*, the fixation) (51). Copyright law generally rejects any form of protection of the mere underlying idea of a work, in order to guarantee the both socially and economically desirable follow-on creation

(49) TOWSE, *Creativity, Incentive and Reward*, 9.

(50) BENHAMOU and FARCY, *Droit d'auteur et copyright*, 41-42.

(51) In a digital environment, it is sometimes problematic to comply with the “fixation” requirement. For this reason, the European Union adopted the wording “the expression in any form of a computer program” to provide copyright protection to software. See Article 1(2) of the Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs, OJ L 111/16.

process that originates from the collection of different ideas (52). As explained by professors Benhamou and Farcy through an effective example, when the artists Christo and Jeanne-Claude tried to claim law protection over the idea of packaging monuments or gardens, they obtained a refusal by justice; nevertheless, law protection applied in the case of a reproduction of one of their works (specifically, the packaging of the *Pont Neuf* in Paris) (53). Lastly, according to the provisions expressed by the Berne Convention in 1886, copyright in most countries today is automatically recognized without any formality requirement (54). In the United States, who joined the Convention only in 1989, copyright registration was compulsory before that date. According to Ginsburg, this approach reflected the U.S.'s public-centered intent of the legislator:

[...] requiring the author to affix a notice of copyright, or to register and deposit copies of the work with a government agency, before the right will be recognized or enforced is fully consistent with a public-benefit view of copyright. But these requirements clash with a characterization of copyright as springing from the creative act. If copyright is born with the work, then no further state action should be necessary to confer the right; the sole relevant act is the work's creation. (55)

As seen above, the protection concerning creative works refer to patrimonial rights, while moral rights are connected to the personality of the author. Anyway, under some circumstances, law recognizes exceptions (or even

(52) BENHAMOU and FARCY, *Droit d'auteur et copyright*, 41-42.

(53) *Ibidem*, 41.

(54) See Article 5(2) of the Berne Convention. Anyway, as mentioned above talking about collective societies, voluntary registration of a work provides rightholders with a simple way to establish authorship in case they should ever be involved in a court proceeding.

(55) GINSBURG, "Tale of Two Copyrights," 993. However, if a copyright owner wins an infringement proceeding, the United States still recognize privileges such as statutory damages and lawyers' fees in the case that rightholder previously registered his/her work. See "Survey of National Legislation on Voluntary Registration Systems for Copyright and Related Rights" on WIPO website, accessed September 12, 2014, http://www.wipo.int/edocs/mdocs/copyright/en/sccr_13/sccr_13_2.pdf.

exemptions) to the copyright scope both in the field of patrimonial rights and moral rights, as will be analyzed in the next paragraph (56).

In conclusion, the interaction among the French-inspired philosophy underlying moral rights, the U.S.-privileged economic analysis of copyright and some constitutional principles defines a field of possibilities of features and applications of copyright that may narrow only in the case of a harmonization scenario (57). A further analysis of the main points of friction between Civil Law systems and Common Law ones will be provided below (58).

3. The economic rationale of copyright

3.1. An economic approach to copyright

As Towse points out, “the acknowledged economic role of copyright law is to provide incentives to create and disseminate the expression of ideas” (59). However, its function might include an oxymoron at the basis. Associating a work of intellect to a public good, the economics of intellectual property applies theories of under-production and under-utilization to the copyright context (60).

Under-production and under-utilization scenarios imply notions of non-excludable goods and non-rivalry goods. As explained by Mazziotti, “a good is non-excludable when, once it is produced, it is impossible to exclude an individual from using that good even if he or she does not contribute to the

(56) See *infra*, §I.3.2.

(57) See *infra*, §I.5.1.

(58) See *infra*, §I.4.

(59) TOWSE, *Creativity, Incentive and Reward*, 9.

(60) Giuseppe MAZZIOTTI, *EU Digital Copyright Law and the End-User* (Berlin-Heidelberg: Springer, 2008), 15.

cost of producing it” (61). Taking an example from Leveque and Meniere, a publisher cannot prevent several people from borrowing and reading a book that has been bought by someone else (62). Technically, a subject who does not contribute to the cost of producing the good he/she is using is called a “free rider.” On the other hand, a non-rival good is a good whose “[...] consumption by an individual does not reduce the quantity of the same good available to other people” (63). Using another example taken from Leveque and Meniere, watching a movie on TV does not compromise the possibility for another viewer to consume the same movie (64). Considering that fixed costs are costs that are not dependent on the level of goods or services produced by the business, while marginal costs refer to the cost of producing a supplementary unit, one can affirm that, in economic terms, non-rivalry implies that the marginal cost of serving an additional consumer is zero. Nevertheless, as pointed out by Lemley, in the case of reproduction of goods through physical devices (e.g., CDs, DVDs), although marginal costs may be relatively low compared to fixed costs, the former ones are not zero, given the expenses resulting from the production and the sale of the supports (65).

According to the above-explained mechanisms of non-excludability and non-rivalry, the under-production scenario occurs when, given the non-excludability of a good, publishers/producers and authors face the risk of not selling the quantity of that good sufficient neither to cover the expenditures nor to incentive the creator’s work. An under-utilization scenario, instead, takes place in the case of a consumers’ reluctance to pay for the consumption

(61) *Ibidem*.

(62) François LÉVÊQUE and Yann MÉNIÈRE, *The Economics of Patents and Copyright* (Berkeley: University of California Press, 2004), 4.

(63) MAZZIOTTI, *EU Digital Copyright Law*, 15-16.

(64) LÉVÊQUE and MÉNIÈRE, *The Economics of Patents and Copyright*, 5.

(65) Mark A. LEMLEY, “Property, Intellectual Property, and Free Riding,” *Tex L. Rev.* 83, no. 4 (2004): 1060.

of a good whose price is higher than the marginal cost (zero or, anyway, close to zero) afforded to produce that single copy of the product (66). Clearly, the situation generates a paradox: in order to compensate a possible product consumption by a free rider, rightholders may be incentivized to raise the final price of each single copy of the work, maximizing the risk of an under-utilization scenario and provoking a deadweight loss to society (*i.e.*, a loss of consumers' surplus (67)). According to David, the necessity of a redefinition of an economic approach to copyright is due to the advent of the invention of printing; indeed, since its first apparition, technology has substantially (and, I would add, progressively) increased the gap between the cost of the first copy and the unit cost of consecutive copies (68).

Leveque and Meniere noticed that, due to the limited-in-time nature of copyright, law could solve the issue in a sequential way. As explained by the authors:

Initially, the legal mechanism of protection makes the good excludable. Users are required to pay for the services offered, through royalties. Subsequently, when the work passes into the public domain, all consumers can access it free of charge. Intellectual property thus attempts to strike a balance between the incentive to create and innovate, and the diffusion of the results obtained. (69)

(66) MAZZIOTTI, *EU Digital Copyright Law*, 15-16.

(67) "Consumers' surplus" notion stands for the monetary gain obtained by consumers when they are able to purchase a product for a price that is less than the highest price that they would be willing to pay. On the contrary, "producers' surplus" is the amount that producers benefit from by selling at a market price that is higher than the least for that they would be willing to sell. Anyway, the issue is strictly linked to private copying as a copyright exception. See *infra*, §I.4.2.

(68) Paul A. DAVID, "Intellectual Property Institutions and the Panda's Thumb: Patents, Copyrights, and Trade Secrets in Economic Theory and History," in *Global Dimensions of Intellectual Property Rights in Science and Technology*, ed. Mary E. Moguee *et al.* (Washington, DC: National Academy Press, 1993), 51.

(69) LÉVÊQUE and MÉNIÈRE, *The Economics of Patents and Copyright*, 5.

In my view, a mere protection legal mechanism could not guarantee perfect excludability, since it cannot change the non-excludable *nature* of a good itself (70). A perfect excludability scenario, anyway, would be even disadvantageous from both a static and a dynamic efficiency point of view (71). On the one hand, static efficiency defines a situation where the allocation of resources maximizes surpluses (72). In the case of a rightholder's incapability of perfectly price discriminate, the result would be a price increase above its efficient demand, inevitably causing static inefficiency (73). On the other hand, dynamic efficiency concerns the optimal rate of innovation and investment over time (74). An under-utilization scenario, even if limited in time, would temporarily eliminate the possibility of follow-on creations (*e.g.*, arrangements, compilations, databases, translations) by free-riding users, partially ruining the dynamic-efficiently desirable input/output double effect that creative works naturally exercise on other intellectual productions (75).

In conclusion, as will be analyzed just below, the so far most effective solution to prevent both the under-production and under-utilization scenarios is the creation of exceptional uses to copyright protection.

3.2. The rationale of copyright exceptions

To understand better the economic rationale underlying copyright exceptions/limitations theories, it would be useful to introduce the notion of transaction costs.

(70) This is particularly true in the digital environment, where single usages were outside the rightholder's control before the advent of copy and access control mechanisms. See *infra*, §I.4.2.

(71) MAZZIOTTI, *EU Digital Copyright Law*, 18-19.

(72) LÉVÊQUE and MÉNIÈRE, *The Economics of Patents and Copyright*, 5-6.

(73) LEMLEY, "Property, Intellectual Property, and Free Riding," 35-36.

(74) LÉVÊQUE and MÉNIÈRE, *The Economics of Patents and Copyright*, 6.

(75) A reference to the dual nature of information can be found in MAZZIOTTI, *EU Digital Copyright Law*, 19-20.

According to economic theory, transaction costs are the costs incurred in making an economic exchange (*i.e.*, the cost of participating in a market). They include: *search and information costs* (costs due to the necessity of determining that the good in question is available on the market, which one has the lowest price, and so on); *bargaining costs* (the costs required to come to an acceptable agreement with the other party to the transaction, by drawing up, for example, an appropriate contract); *policing and enforcement costs* (the costs of making sure that the other party sticks to the terms of the contract, and taking appropriate action – often through the legal system – if this turns out not to be the case. In other words, in the real world market transactions incur in extra-expenses since the parties – the seller and the buyer – need to be identified, the drafting of a sale or a license requires time and knowledge, and legal actions need to be undertaken in case of prejudice (76). In this context, it is clear that a deal is likely not to take place when transaction costs are expected to exceed the gain of the parties involved in the negotiation. Applying the concept to copyright, that scenario would inevitably occur in the case of a rightholder’s claim to perfect excludability of his/her work. Indeed, given the non-excludable nature of a good (*e.g.*, a book, a digital work embodied in a physical support such as a CD), the rightholder in question would be supposed to enter each user’s household in order to negotiate and authorize an endless number of private reproductions. That hypothetical situation is described as “market failure” (77), and it represents one of the premises to the birth of exceptions to copyright.

(76) Robert P. MERGES, “The End of Friction-Property Rights and Contract in the Newton World of on-Line Commerce,” *Berkeley Tech. LJ* 12, no. 1 (1997): 116.

(77) In economics, “market failure” scenario defines a situation where the allocation of goods and services by a free market does not achieve economic efficiency (*i.e.*, the use of resources so to maximize the production of goods and services). For an analysis of market failure approach to copyright exceptions rationale, see Wendy J. GORDON, “Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and its Predecessors,” *Colum. L. Rev.* 82 (1982): 1615, and MERGES, “The End of Friction,” 130 ff.

Throughout her work “Fair Use as Market Failure,” Gordon supports the theory according to which the U.S. fair use doctrine regarding the legal protection of copyright exceptions is justified by the mere application of market failure rationale. Nevertheless, Parisi and Depoorter try to demonstrate that the U.S. fair use doctrine would be economically justified even in the absence of a market failure scenario, due to the “bargaining breakdown” theory. Imagine a co-authored work whose each single contribution is thereby covered by copyright protection. Imagine then a consumer who wants to undertake an action on it. If he/she was required to ask for each of the involved rightholders’ authorization, bargaining costs would increase proportionally to the number of the copyright owners in question (78). This theory gains importance especially in a digital environment, where technology has increased the cases of co-authored works and where a substantial diminution or even an absence of transaction costs could not justify anymore any copyright exception protection mechanism only through the application of the market failure rationale. Finally, an economic justification of exceptional uses may also apply in case of actions whose results do not involve a significant economic loss for the rightholder (79).

Apart from the U.S.-privileged economic approach to the doctrine, Benhamou and Farcy distinguish other reasons behind the legitimacy of copyright exceptions: firstly, the attention focused to particular categories such as journalists and people with disabilities; secondly, the importance given to constitutional principles and concerns such as freedom of expression

(78) Ben DEPOORTER and Francesco PARISI, “Fair Use and Copyright Protection: A Price Theory Explanation,” *International Review of Law and Economics* 21, no. 4 (2002): 14-20, 25-26.

(79) BENHAMOU and FARCY, *Droit d’auteur et copyright*, 36.

and privacy; finally, the social benefit gained from the exploitation of works through research and information divulgation (80).

In conclusion, given their underlying rationales, copyright limitations include (but are not limited to (81)): private copying (justified mainly by the market failure rationale, the bargaining breakdown problem and privacy concerns); news reporting, lectures (justified by the absence of a significant economic loss for the rightholder and/or by the importance of safeguarding constitutional principles such as freedom of expression); criticism, research, teaching, parody, pastiche, caricature (justified by an interest in protecting the social utility deriving from the access to information and in promoting the production of new derivative creations). Types and features of different legal mechanisms in the protection of copyright exceptions will be analyzed in the next paragraph (82).

4. Copyright features and applications in Civil Law and Common Law systems

4.1. Moral and patrimonial rights

The first point of friction between Civil Law systems and Common Law ones is the moral dimension of copyright. Due to a lack of economic rationale, moral rights were not recognized in Common Law systems before the entry into force of the first multilateral treaty about copyright, the Berne Convention for the protection of Literary and Artistic Works of 1886. Article 6bis of the Convention, entitled “Moral Rights,” reads:

(80) *Ibidem*.

(81) The list is not exhaustive since it contemplates the advent of new uses to which copyright exceptions may apply. See *infra*, §I.4.2.

(82) See *infra*, §I.4.2.

(1) Independently of the author's economic rights, and even after the transfer of the said rights, the author shall have the right to claim authorship of the work and to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, the said work, which would be prejudicial to his honor or reputation.

(2) The rights granted to the author in accordance with the preceding paragraph shall, after his death, be maintained, at least until the expiry of the economic rights, and shall be exercisable by the persons or institutions authorized by the legislation of the country where protection is claimed. However, those countries whose legislation, at the moment of their ratification of or accession to this Act, does not provide for the protection after the death of the author of all the rights set out in the preceding paragraph may provide that some of these rights may, after his death, cease to be maintained.

(3) The means of redress for safeguarding the rights granted by this Article shall be governed by the legislation of the country where protection is claimed. (83)

Firstly, the Article refers only to the right of attribution and the right to the integrity of the work. That is because the application of the right of disclosure and the right of retraction had created problematic situations in those states where they applied. Indeed, the right of disclosure is potentially dangerous for the public, since an author could decide never to divulge his/her work to the community, while the right of retraction can even require an author to provide economic indemnification when the act of withdrawal of a work from the market is particularly hard and expensive for the publisher/producer. Moreover, other concerns may regard also an abuse of the right of attribution and a misuse of the right to the integrity of the work. On the one hand, an abuse of the right of attribution can then be found in de Chirico attempt to repudiate its paternity over a sold painting: in that case, the Court, identifying the attribution of the work to the artist, condemned the painter to indemnify

(83) See Article 6bis of the Berne Convention.

the buyer (84), since the painting had already been sold and would have lost its value. On the other hand, for what concerns the right to integrity, the risk is that the right might in some cases penalize the socially desirable follow-on creation process deriving from transformative uses undertaken on the original work (85). Indeed, while the right to integrity grants protection against unauthorized modifications (*e.g.*, the elimination of chapters from a novel), as well as against use of the work in a demeaning context (*e.g.*, the use of a song in a pornographic film), it is also true that not every deviation from the author's original design must constitute an infringement of the integrity right by itself. The problem becomes particularly delicate in case of adaptations, for instance, from novels to movies, when the use of a new medium may make certain changes inevitable. For those reasons, Article 6bis of the Berne Convention is flexible in this regard, as it allows some changes or modifications as long as they are not prejudicial to the author's honor or reputation. Many national legislations have thus made the integrity right subject to a balance of the legitimate interests of all the parties concerned (86).

The second noteworthy feature of Article 6bis is the contemplation of a limitation in time of the right of attribution and the right to integrity. Despite moral rights were conceived to be perpetual in the *droit d'auteur* tradition, the Convention fixes a time-extension at least as long as the one granted to patrimonial rights (a minimum of fifty years after author's death as set by Article 7 (87)), and recognizes even the possibility of an expiration date coinciding with the author's death. This means that, in countries where moral rights may last for a limited time after the author's death, the transfer is

(84) BENHAMOU and FARCY, *Droit d'auteur et copyright*, 24.

(85) *Ibidem*.

(86) UNESCO, "The ABC of Copyright," 33.

(87) See Article 7 of the Berne Convention.

secured by succession either by will or by operation of law. Nonetheless, as a rule, successors are not entirely free in the exercise of the moral rights that they have inherited, since they are bound by the obligation to respect the particular wishes of the author or specific legal constraints. Otherwise, in countries where moral rights are perpetual, their protection is generally assured by designated governmental bodies (88). Notwithstanding the important changes improved by the Convention upon the delicate issue of moral rights protection, the United States ratified the agreement only in 1989, implementing the Convention in the U.S Copyright Act of 1976 through the Berne Implementation Act of 1988. Moreover, the U.K., despite having signed the Convention in 1886, implemented the protection of moral rights only through the “Copyright, Designs and Patents Act” of 1988 (89). However, in spite of the initial reticence, the distinction between the Civil Law states’ emphasis on moral rights and the Common Law countries’ economic approach to copyright is increasingly eroding thanks to the effort towards a copyright standardization worldwide (90).

A second distinction between the two traditional systems can be found in the further application of the patrimonial right of distribution, which grants to the copyright holder the exclusive right to authorize or prohibit any form of distribution to the public by sale, rental, lease, or lending. Firstly, the patrimonial right of distribution must not be confused with the author’s moral right of disclosure, which is still recognized only in some countries since its implementation is not required by the Berne Convention. The patrimonial right of distribution refers instead to the exclusive right of authorizing the first sale of a particular copy of the work on the market. Once

(88) UNESCO, “The ABC of Copyright,” 58.

(89) BENHAMOU and FARCY, *Droit d’auteur et copyright*, 26-27.

(90) TOWSE, *Creativity, Incentive and Reward*, 19. See *infra*, §I.5.1.

the copy is sold, the rightholder may have no say in further uses of the work, and may thus not benefit from activities that occur subsequently to the sale, such as the rental or borrowing of the copy. When this occurs, it means that the distribution right is subject to an important limitation in favor of the free circulation of goods, which is usually referred to as the “principle of exhaustion” or “first sale doctrine” (91). Otherwise, in the case of further compensation for the rightholder from the resale of the copy, the right of distribution is followed by the *droit de suite* or “resale right” principle.

Born and spread especially in EU countries, today the *droit de suite* is recognized in the European Union and in only one state of the United States (California), and applies as an *ad valorem* tax on the resale of graphic and plastic arts (*e.g.*, painting, sculptures) over a certain price in public auctions and galleries (92). The artist to whom the right applies receives a certain percentage of the resale price from the auctioneer or art dealer, but has generally no possibility to prohibit the transaction as a whole. The resale right therefore constitutes a remuneration right rather than an exclusive right (93). The rationale underlying the entitlement is both a compensatory and encouraging role for those artists who, especially at the beginning of their career, have to give their works away for a small amount of money in order to earn a living (94). Nevertheless, despite being born to incentivize minor artists’ work, the right has been criticized *a contrario* of fostering the disparity between top artists and young ones, because of the insufficiency of the applied percentage and due to the discouraging role exercised on dealers

(91) UNESCO, “The ABC of Copyright,” 39-40.

(92) BENHAMOU and FARCY, *Droit d’auteur et copyright*, 43. See also TOWSE, *Creativity, Incentive and Reward*, 17.

(93) UNESCO, “The ABC of Copyright,” 42. For an explanation of the distinction between exclusive and remunerative rights, see *supra*, §I.2.3.

(94) *Ibidem*, 43. See also BENHAMOU and FARCY, *Droit d’auteur et copyright*, 43, and TOWSE, *Creativity, Incentive and Reward*, 18.

by the presence of royalties in promoting artists' work. Moreover, the resale right often implies transaction costs because of the necessity of contacting the author of the work or his/her heirs, and, due to its irregular presence worldwide, it could not apply even if the artist belongs to a country where the right is recognized. Consequently, a potential dealer may prefer to resell the work in a country where the right is not acknowledged, in order not to incur in transaction costs and royalties, actually destroying any possibility for the artist to receive further compensation from the resale of his/her work (95). Recently, a right similar to the resale right was introduced in order to reduce the harm caused to copyright owners by the reduction of sales due to rental, borrowing and private copying practices. The right in question is called "rental right," and was implemented in many countries in compliance with the 1996 WIPO Copyright Treaty, at least with respect to cinematographic works, sound recordings and computer programs. The rental right refers to the possibility of making the original or a copy of the work available for borrowing on a commercial basis (*e.g.*, in a video rental store), and represents an exclusive right since authors can even decide to refuse rental activities in case they think that they would be prejudicial to their economic interests (96). Another right called "lending right" was instead introduced in some countries (*e.g.*, France) as a remunerative right for the lending services offered, for example, by public libraries. In this case, royalties are redistributed by collective management systems or through state subsidies (97).

However, notwithstanding the exceptions of resale, rental and lending rights, the European Union applies the exhaustion doctrine within the

(95) BENHAMOU and FARCY, *Droit d'auteur et copyright*, 43-44. See also TOWSE, *Creativity, Incentive and Reward*, 18.

(96) UNESCO, "The ABC of Copyright," 40.

(97) *Ibidem*, 40-41. See also BENHAMOU and FARCY, *Droit d'auteur et copyright*, 50.

Community for what concerns the rest, in the name of an enhancement of the internal market (98). In conclusion, as Common Law systems have gradually implemented moral rights in their national legislations, EU countries may re-dimension some of their historical principles in the name of a more market-oriented vision.

In the last instance, it is worth mentioning the “work-for-hire” doctrine as an emblematic example of friction between Civil Law systems and Common Law ones with regards to the distinction of authors from publishers/producers. Indeed, the “work-for-hire” doctrine reveals the importance recognized to the investor in Common Law systems. This doctrine is based on the principle according to which an artist employed permanently by a firm automatically transfers all his/her rights – both patrimonial and moral ones – to the employer. The doctrine finds its justification in the maximization of efficiency and the minimization of the risks linked to any potential decision that could compromise the further exploitation of the work (99). Clearly, this approach is intrinsically in conflict with the *droit d’auteur* vision of the author, even if in France, since 2006, the “employees of creation” have to renounce their moral rights in exchange of a public acknowledgment as creators of the work (*e.g.*, through their signature on the work) (100). Benhamou and Farcy refer to the video game sector as an emblematic example of the application of the doctrine (101); nevertheless, a group of video game creators tried to revolutionize the system through an extraordinary attempt that will be analyzed below (102).

(98) MAZZIOTTI, *EU Digital Copyright Law*, 44-45.

(99) BENHAMOU and FARCY, *Droit d’auteur et copyright*, 55. See also TOWSE, *Creativity, Incentive and Reward*, 16-17.

(100) BENHAMOU and FARCY, *Droit d’auteur et copyright*, 55, who refer to the “travailleurs de la création.”

(101) *Ibidem*, 54.

(102) See *infra*, §III.3.

4.2. The EU InfoSoc Directive *versus* the U.S. fair use doctrine

The most evident fracture between Civil Law systems and Common Law ones may perhaps be found in the analysis of the different protection mechanisms provided for copyright exceptions. Firstly, it is worth noting that, especially because of the possibilities offered by technology, committing copyright infringement once in possession of a copy of the copyrighted work could be relatively simple. In order not to do so, the first important consideration to bear in mind is that the ownership of copyright in a work is distinct from the ownership of the physical object or material into which the work may be embodied. In case the buyer wishes to undertake a use covered by an exclusive right, he/she must seek the rightholder's permission and enter into a transfer of rights agreement (103). Apart from that scenario, law provides a series of copyright limitations in order to legalize some unauthorized acts for different purposes, as seen above (104).

Firstly, it is necessary to make a distinction among *a priori* permitted exceptions (*i.e.*, exemptions), exceptions guaranteed only under certain circumstances, and limitations allowed only in the case of fair compensation for the rightholder. The latter distinguishes the aforementioned category of remuneration rights (105) and applies especially to the non-transformative exception of private copying. In the European Union, the protection of the private copying exception is regulated by Article 5(2)(b) of the 2001 Directive on copyright in the information society (hereinafter, "InfoSoc" Directive) (106), which provides that the fair compensation condition must be a binding premise to that limitation. The rationale underlying the

(103) UNESCO, "The ABC of Copyright," 54.

(104) See *supra*, §I.3.2.

(105) See *supra*, §I.2.3.

(106) Directive 2001/84/EC of the European Parliament and the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society, OJ L 167/10.

provision is to compensate the rightholder's economic losses deriving from uses such as home recording of movies and music. In many European countries, the goal is achieved by a collective agency-managed (107) levy-based remuneration scheme that charges fees on the sale price of certain types of reproduction equipment (*e.g.*, blank/recordable media) identified by law (108). Nevertheless, this practice has been accused of being harmful to European users, who in most cases incur in double fees because the access and/or usage control function is already operated by Digital Rights Management (hereinafter "DRM") systems embodied in digital works (109). Indeed, as the copyright owner exercises control over the first sale of his/her work in the first place, DRM technologies operate as sentinels by offering a further monitoring and managing system over every access undertaken by end-users on the divulged copies of the work, eventually restricting in number or even preventing certain usages through a set of legal permissions – frequently expressed as "licensing agreements" – which establish what one can or cannot do with the work (110). DRM systems can be implemented into digital works through different types of technological protection measures (111). In that regard, Article 5(2)(b) actually specifies that fair compensation must take account "of the application or non-application of technological protection measures [...] to the work or subject-matter concerned" (112), and Recital 35 of the same Directive makes it clear that "in cases where rightholders have already received payment in some other form, for instance as part of a license fee, no specific or separate treatment

(107) See *supra*, §I.2.3.

(108) MAZZIOTTI, *EU Digital Copyright Law*, 151.

(109) *Ibidem*, 89-92.

(110) For further information and examples about DRM systems, see *infra*, II.3.2.

(111) Technological protection measures can include encryption, the use of a registration key, and so on. I will not use the abbreviation "TPM" since it can create confusion with the "Trusted Platform Module," a microprocessor designed to secure hardware by integrating cryptographic keys into devices.

(112) See Article 5(2)(b) of the InfoSoc Directive.

may be due” (113). Nevertheless, the absence of a community common strategy caused uncertainty about how to implement the provision. The result is a non-homogeneous scenario where the European Union is currently trying to foster the progressive phasing-out of levying systems as DRM technologies become more widely available on the market (114).

However, Italy is recently witnessing a countertrend in that regard. Just some months ago, by entering the website of the Italian Society for Authors and Publishers (hereinafter, “SIAE”), it was possible to visualize a banner inviting artists to sign a petition to support the adjustment of the current Italian levy-system, asking for a levy increase. At the same time, Altroconsumo (an Italian consumers’ association) tried to stop the attempt launching an online counter-petition. Some of the criticisms moved against the proposal were about SIAE, which was accused of still belonging to an old world and not considering the evolution of consumers’ habits, who are not used to burn CDs and DVDs anymore, since they can access the same contents through online services (115). Moreover, the Italian lawyer Guido Scorza highlighted the inconsistency of the system: “When somebody buys a song or a movie from Amazon, Apple or other companies, the right to make a certain number of copies (which varies according to the license) is already figured into the price. So it is unfair that consumers pay twice for the same service” (116). In the end, the Italian Minister of Cultural Heritage and Activities Dario Franceschini decided to stand on the artists’ side. The result was a legislative decree that on June 2014 rained on the parade of those

(113) See Recital 35 of the InfoSoc Directive.

(114) MAZZIOTTI, *EU Digital Copyright Law*, 91-92.

(115) Federico GUERRINI, “Italy’s Artists Lineup to Support the Piracy Tax: How Much Should you Pay for the Right to Copy?,” *Italy’s Got Tech*, March 24, 2014, accessed September 14, 2014, <http://www.zdnet.com/italys-artists-line-up-to-support-the-piracy-tax-how-much-should-you-pay-for-the-right-to-copy-7000027686>.

(116) *Ibidem*.

consumers who are waiting for the fall launch of new iPhone 6. Indeed, criticism arose also about the devices to which the levy applies: Italy is one of the only three European countries that considers smartphones and tablets in the matter in question (117). Furthermore, the decree widened the gap between Italy and other European countries, such as Spain, where the levy was abolished in 2012 (118).

However, the heaviest consequences of the system can derive from the inadequacy of the Directive in providing adequate enforcement of the private copying exception. Indeed, since consumers are obliged to pay a fee (or even double fees), at least they should be guaranteed of being able to operate in the field of the private copying limitation. Nevertheless, according to Article 6(4), §2, of the InfoSoc Directive, the enforcement of that exception is conceived as a mere option, so that each Member State can freely decide whether implement it or not (119). Since in most cases consumers are not actually safeguarded in that regard, the levy has been nicknamed “piracy tax,” because of its mere compensation function against illegal uses (120). A vicious effect of the system can be found in the French *Mulholland Drive* case law, where a French user who wanted to make a private analogue copy in VHS format from a DVD was not justified by law in his claim against the producer of the DVD who actually embodied a technology measure that prevented that use from being undertaken (121).

For what concerns the rest, the Directive does not recognize any *a priori* permitted use (*i.e.*, exemption) and provides an exhaustive list of limitations – which means that Member States are not allowed to add any further

(117) *Ibidem*.

(118) *Ibidem*.

(119) See Article 6(4), §2 of the InfoSoc Directive.

(120) GUERRINI, “Italy's Artists Lineup to Support the Piracy Tax.”

(121) For an overview of the *Mulholland Drive* case law, see MAZZIOTTI, *EU Digital Copyright Law*, 201-209.

exception – under Article 5, where only few of them can actually be enforced by state intervention according to Article 6(4). Paradoxically, exceptions like Article 5(d), “quotations for purposes such as criticism and review” – the only mandatory exception recognized by the Berne Convention (122) – or Article 5(k), “use for the purpose of caricature, parody or pastiche” are even excluded from the possibility of being enforced by state intervention as provided by Article 6(4) (123). Moreover, Article 6(4) severely narrows the notion of “lawful use” as contemplated by Recital 33 of the Directive. Indeed, while the Recital’s aim is to safeguard usages “authorized by the rightholder” or “not restricted by law” (124), Article 6(4) confines the application of copyright exceptions to “where the beneficiary has *legal access* to the protected work or subject-matter concerned” (125). The consequences of these oversights are essentially three: firstly, since the list is exhaustive, new uses cannot be protected even if their aim fits any copyright exception rationale; secondly, some socially and economically desirable transformative uses are the only exceptions that cannot be enforced by law intervention; lastly, by transforming the notion of “lawful use” in that of “legal access,” the Directive theoretically submits its corrective power to the requirement of an “access right,” hypothetically conferring an unlimited power to rightholders, since users are not justified in bypassing the DRM access control in any case.

On the other hand, the U.S. approach is structurally different, since it consists in a case-by-case law intervention based on the “fair use doctrine.” As explained in the U.S. Digital Millennium Copyright Act of 1998 (as amended the U.S. Copyright Act of 1976, hereinafter “DMCA”):

(122) See Article 10 of the Berne Convention.

(123) See Article 5(2) and Article 6(4) of the InfoSoc Directive.

(124) See Recital 33 of the InfoSoc Directive.

(125) See Article 6(4) of the InfoSoc Directive (emphasis added).

In determining whether the use made of a work in any particular case is a fair use, the factors to be considered shall include:

- the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes
- the nature of the copyrighted work
- the amount and substantiality of the portion used in relation to the copyrighted work as a whole
- the effect of the use upon the potential market for or value of the copyrighted work. (126)

Firstly, it is worth noting that the doctrine does not provide definitive rules, but rather a list of factors to be considered by the courts (as suggested by the wording “[...] the factors to be considered shall include [...]”). Therefore, it is particularly suited to keep pace with the constant changes imposed by the evolution of technology. Further, according to the U.S. market-based approach to copyright, the purpose and the nature of the use and its potential impact on the market are decisive elements in order to assess its fairness. Finally, some exceptions are granted even in presence of DRM technologies, as provided by a list of exemptions to the “access right” in Section 1201 of the DMCA (127). Practically, to make a comparison with the French *Mulholland Drive* case law, the U.S. *Sony Corp. of America v. Universal City Studios, Inc.* (hereinafter, *Sony*) case acquitted the usage of Sony’s Betamax video cassette recorders, due to their substantial non-infringing

(126) U.S. Digital Millennium Copyright Act (amended October 28, 1998) USC 17, §107.

(127) See §1201 of the DMCA.

time-shifting purposes (*i.e.*, the practice of recording a program to view it once at a later time, and thereafter erasing it) (128).

In my view, the U.S. system is the most efficient model in relation to the needs of the information society. Firstly, providing an *ex ante* list of exemptions to the “access right,” it guarantees protection for the most socially and economically desirable uses against rightholders’ abuse of power attempts. Secondly, through an *ex post* approach in the evaluation of possible copyright exceptions, it is capable to adapt its provisions to the new situations that are likely to occur in the digital environment. Lastly, due to the *stare decisis* principle (*i.e.*, the fact that in Common Law systems the precedent is binding upon following decisions), the United States can legislate more rapidly than the European Union can do (129).

Unfortunately, the InfoSoc Directive cannot provide the same degree of protection to the public’s interest. Possible explanations of the reasons behind the InfoSoc Directive’s inadequacy will be provided in the next paragraph (130).

5. A national legislation harmonization scenario

5.1. International treaties with regards to copyright

Intellectual creations can be enjoyed anywhere at any time and are clearly not confined to countries’ boundaries. Nevertheless, no national copyright law is effective outside its respective territory. Even if every country had designed its laws on copyright according to different rationales and legal traditions, the growing importance of international trade relations required a

(128) *Sony Corp. of Amer. V. Universal City Studios, Inc.*, 464 U.S. 417 (1984). See also MAZZIOTTI, *EU Digital Copyright Law*, 141. For further information about the case, see *infra*, §II.2.3.

(129) For an overview of how EU decisions are made, see *infra*, §I.5.2.

(130) See *infra*, §I.5.2.

number of multilateral agreements to provide a certain degree of harmonization of the protection of copyright in a wide range of countries. An international treaty does not usually constitute a directly applicable source of rights to the contracting parties, but rather it imposes obligations to implement in each domestic legislation. In the field of copyright, the relevant conventions establish a certain level of protection in the contracting parties through the principle of national treatment and the guarantee of a number of minimum standards. According to the national treatment principle, “works originating in a contracting state are protected in every other contracting state in the same manner as these states protect works originating in their own territory” (131). On the other hand, the guaranteed minimum standards ensure that “the protection provided by national laws of contracting parties – notably the scope of rights, possible exceptions, as well as terms of protection – does not fall below the level agreed in the respective international instrument” (132).

As seen above, the first multilateral treaty in that regard is the Berne Convention for the Protection of Literary and Artistic Works of 1886, last revised in 1971, and amended in 1979. The Convention was promoted by ALAI, the International Literary and Artistic Association (*Association Littéraire et Artistique Internationale*), founded in France by Victor Hugo in 1878 (133). It is of particular importance especially for the influence exercised over the following treaties. As pointed out by Pilch:

The starting point for any discussion of international intellectual property law today is the Berne Convention, precisely because other international treaties, conventions,

(131) UNESCO, “The ABC of Copyright,” 82.

(132) *Ibidem*.

(133) See ALAI website, accessed September 14, 2014, www.alai.org.

multilateral and bilateral trade agreements are developed in relation to Berne, to extend its application, clarify its meaning, or apply it to new areas, such as computers and databases. Since its establishment in 1886, the convention has been amended seven times, mostly to keep pace with the emergence of new technologies. It figures in all of the newer global legislation and has retroactive effect. (134)

As mentioned above, the most important features of the Convention regard the inclusion of moral rights and the abolition of a notice requirement as a condition for copyright protection. These factors were also the reason why the United States entered the Convention only many years later (135). Moreover, the Convention requires a minimum of protection of fifty years after author's death (136), yet, as mentioned before, the United States and the European Union recently extended the limit to seventy years. Finally, since 1967, a specialized United Nations Agency, the World Intellectual Property Organization (hereinafter, "WIPO"), serves as the Berne Union's International Office (137). Later, in 1952, the Universal Copyright Convention introduced the symbol "©" as proof of copyright registration, while in 1961 the International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations was signed in Rome as the first multilateral agreement about copyright related rights (138). The Agreement on Trade-Related Aspects of Intellectual Property Rights (hereinafter, "TRIPs Agreement") of 1994 and the WIPO treaties of 1996 are instead of particular importance in relation to the topic of my dissertation,

(134) Janice T. PILCH, "U.S. Copyright Relations with Central, East European, and Eurasian Nations in Historical Perspective," *Slavic Review* 65, no. 2 (2006): 337-338.

(135) See *supra*, §I.2.3, §I.4.1.

(136) See Article 7 of the Berne Convention.

(137) UNESCO, "The ABC of Copyright," 84.

(138) *Ibidem*, 85-86.

since they are strictly linked to the digital problem (139). On the one hand, the TRIPs Agreement forms part of the legal obligations of the World Trade Organization; therefore, its rationale is noticeably based on the U.S. market-based approach to copyright. The major contribute of the Agreement is the extension of protection to computer programs and compilations of data (140). On the other hand, the WIPO treaties refer to the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty of 1996, which are usually called WIPO “Internet” treaties since they were designed to address questions related to the impact of new digital technologies on copyright and related rights. In particular, the WIPO Copyright Treaty introduces a new “right of making available to the public,” which encompasses interactive transmission of works on demand, for instance via the Internet (141).

The most noteworthy feature of the Berne Convention in its post-1967 version, the TRIPs Agreement and the WIPO treaties is the enclosure of a “three-step-test” for the identification of copyright exceptions. According to the test, exceptions should only be applied in “certain special cases that do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the rightholder” (142). In other words, to be included in the field of exceptions, a use must be supported by an underlying rationale (“certain special cases”), must not compromise the actual and predictable sources of revenues of the rightholder (“do not conflict with a normal exploitation of the work”), and the prejudice it raises must be proportional to the objective that it pursues (“do not *unreasonably* prejudice

(139) Agreement on Trade-Related Aspects of Intellectual Property Rights (April 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C) 1869 UNTS 299; WIPO Performances and Phonograms Treaty (December 20, 1996) 2186 UNTS 203; WIPO Copyright Treaty (December 20, 1996) 2186 UNTS 121.

(140) UNESCO, “The ABC of Copyright,” 87.

(141) *Ibidem*, 88.

(142) See Article 9(2) of the Berne Convention, Article 13 of the TRIPs Agreement, Article 10(2) of the WIPO Copyright Treaty, and Article 16(2) of the WIPO Performances and Phonograms Treaty.

the legitimate interest of the rightholder”) (143). The major uncertainty raised by the test is if it must be interpreted from a *qualitative* or a *quantitative* point of view, that is, in other words, if clear reasons of public policy could pre-empt the economic interests of rightholders. The solutions to the matter vary according to each national legislation. While the United States provide a case-by-case evaluation through the “fair use doctrine,” the European Union directly implemented the test into Article 5(5)the InfoSoc Directive, making it subject to the exhaustive list provided under the same Article (144). Nevertheless, as Mazziotti pointed out, the solution provided by the InfoSoc Directive is inconsistent, because “[...] the open-ended, *ex post* nature of the kind of evaluation required by three-step-test is at odds with the idea of identifying *ex ante* a number of punctual rights of use” (145).

The WIPO treaties introduced also another important change in copyright law, that is, the obligation to prevent the circumvention of encryption technologies and the interference with electronic rights management information. The United States embodied the provision in Section 1201(a) of the DMCA, while the European Union implemented it in Article 6 of the InfoSoc Directive (146). Nonetheless, despite the provision was conceived to oppose piracy, in the European Union the “access right” requirement could even prevent users from operating in the field of copyright limitations (147).

5.2. The EU experience

Because of its characteristics, the European Union is considered a *sui generis* international organization. Its unicity is reflected also in the

(143) MAZZIOTTI, *EU Digital Copyright Law*, 81-84.

(144) See Article 5(5) of the InfoSoc Directive.

(145) MAZZIOTTI, *EU Digital Copyright Law*, 306.

(146) See §1201(a) of the DMCA, and Article 6 of the InfoSoc Directive. For further information about the legal protection of DRM systems, see *supra*, §II.3.2.

(147) See *supra*, §I.4.2.

operation of its implementation system, where international treaties are first implemented into European legislation, and then into each Member State's legislation, through European Regulations or Directives.

Today the European Union's standard decision-making procedure is called "Ordinary Legislative Procedure," and was formerly known as "Co-decision Procedure," because of the Parliament and the Council double approval requirement. Laws are drafted upon initiatives proposed by the Commission, and can be divided into Regulations or Directives. Regulations are binding legislative acts that must be applied in their entirety across the European Union, with no possibility of interpretation for Member States. On the other hand, Directives are legislative acts that just set out a goal that all EU countries must achieve, leaving each Member State free to decide how to implement the legislation in the country in order to do so (148).

The current European legislative act about copyright is the InfoSoc Directive of 2001, whose aim was to implement all the relevant international treaties up to this time. The main goal of the Directive, as made explicit by Recital 1, was to foster the "harmonisation of the laws of the Member States on copyright and related rights" in order to contribute to "[...] the establishment of an internal market and the institution of a system ensuring that competition in the internal market is not distorted" (149), as provided by the Treaty Establishing the European Community. As seen above (150), the Directive failed to ensure a common pattern for the achievement of the protection of copyright exceptions, and the result was a not homogenous scenario that actually hindered the process of the creation of an internal market. The cause of the inadequacy of the Directive can be found in many

(148) See the European Union website, accessed September 14, 2014, www.europa.eu.

(149) See the Preamble and Recital 1 of the InfoSoc Directive.

(150) See *supra*, §I.4.2.

factors: according to Mazziotti, the lack of a defined strategy is essentially due to the wording of Article 295 of the EC Treaty, which prevented the Community from having the competence to legislate in the field of copyright law (151). Therefore, the only way to justify the Community intervention was to refer to the necessity of reinforcing market integration. Nevertheless, since the Treaty of Lisbon of 2009, Europe is not a *community* anymore, but a *union*. Clearly, the different wording suggests a change in purposes and objectives. Indeed, as witnessed by the preamble of the Treaty, the updated aims of the European Union concern issues such as the respect for human dignity, freedom, democracy, and equality (152). The fact that those principles are not yet carefully safeguarded under copyright exception regulations is an unforgivable oversight. Indeed, even if, unlike the United States (153), the European Union cannot count on a Constitution, the principles expressed both in the Treaty of Lisbon and the Charter of Fundamental Rights of the European Union should provide inspiration for the regulation of other subject-matters (154). However, it is worth noting that the European Union faces a delicate problem in exercising its harmonization function among Member States especially in relation to copyright, because of the coexistence of both Civil Law (e.g., France, Italy) and Common Law systems (U.K., Ireland). For example, the U.K. and Ireland have never adopted a levy-system (155), and since the entry into force of the InfoSoc

(151) MAZZIOTTI, *EU Digital Copyright Law*, 37.

(152) See the Preamble of the Treaty of Lisbon Amending the Treaty on European Union and the Treaty Establishing the European Community (December 13, 2007) OJ 2007/C 306/01.

(153) See *supra*, note 23. See also MAZZIOTTI, *EU Digital Copyright Law*, 222.

(154) Charter of Fundamental Rights of the European Union (December 18, 2000) OJ 2000/C 364/01. The Charter became legally binding when the Treaty of Lisbon entered into force on December 1, 2009, as the Treaty confers on the Charter the same legal value as the Treaties.

(155) MAZZIOTTI, *EU Digital Copyright Law*, 90.

Directive, the U.K. was forced to re-dimension its U.S. fair use doctrine-inspired fair dealing system (156).

In conclusion, a revision of the Directive would be the most desirable scenario. Nevertheless, because of the double approval requirement of the Council and the Parliament, a solution is not likely to be achieved in a few time. At the moment, only the Commission could intervene, addressing, for instance, non-binding Recommendations to Member States (157). Further consequences of the inadequacy of the Directive will be highlighted throughout next chapters, especially from the analysis of the *Nintendo v. PC Box* case law (158).

(156) *Ibidem*, 182.

(157) For example, thanks to the fostering intervention of the Commission through a Recommendation in 2005, the European Union has recently adopted a Directive to provide community-wide licenses to online music service providers. For further information, see Directive 2014/26 of the European Parliament and of the Council of 26 February 2014 on collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online use in the internal market, OJ L 84/72.

(158) See *infra*, §III.

II. THE DIGITAL CHALLENGE

SUMMARY: 1. Introduction – 2. Software providers' liability: the Napster case – 3. A digital solution to piracy: the iTunes case – 4. ISPs' and end-users' liability: a redefinition of roles?

1. Introduction

The advent of digital technology marked a new era in copyright law. Born to protect analogue works within national boundaries, copyright law has recently faced a menace who knows no border and potentially no limits. The chapter analyzes the impact of Internet and file-sharing systems in the field of digital music, especially through the resounding cases of Napster and iTunes. Moreover, since the evolution of technology may periodically rewrite the rules of the game, particular importance will be given also to the new roles of Internet Service Providers and end-users.

2. Software providers' liability: the Napster case

2.1. The *A&M Records v. Napster* case law

The peer-to-peer (hereinafter, "P2P") technology refers to a system where users can share digital files within the online environment carrying out two distinct operations, technically called "downloading" and "uploading." The download phase refers to the possibility of each user to request the reproduction of a file on his/her own hard disk; at the same time, the upload phase makes each user's hard disk archive available to other users. The P2P system became known worldwide in 1999, thanks to Napster, a Californian start-up. In order to benefit from Napster's services, users were required to

download the Napster's software from the homonymous website, create a shared directory where to collect both the downloaded and the to-share contents, and start sharing MP3 (*i.e.*, a coding format used for digital audio) music files with other connected users, through a mutual connection to the Napster central server. The central server's purpose was just to keep an index of all the logged-on users in order to connect them to each other, without storing any of the shared files. Despite having been created by a college student who wanted to share music with his roommate in an easier way, Napster already counted more than 75 million users by the end of 2000 (159). Because the downloaded and uploaded files were, most of the time, copyrighted works shared without authorization, a number of U.S music publishers accused the new company of copyright infringement.

The *A&M Records v. Napster* (hereinafter, *Napster*) case was brought before the U.S. Court of Appeals for the Ninth Circuit in 2001, on appeal from the District Court for Northern California in 2000 (160). During the proceedings, Napster claimed not to be liable for copyright infringement, also trying to compare its services to those offered by home-taping systems, appealing thereby to the *Sony* doctrine (161). Indeed, from Napster's point of view, its users were pursuing legitimate purposes, such as sampling and space-shifting. "Sampling" indicated the practice of copying different protected works only in order to decide which one to buy, while "space-shifting" appealed to the "time-shifting" fair purpose in *Sony* case law, referring to the practice of gaining digital access to a certain content already owned, for example, in audio CD format (162). Moreover, Napster claimed

(159) MAZZIOTTI, *EU Digital Copyright Law*, 139.

(160) *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001), *affd in part, revd in part*, 114 F.Supp.2d 896 (N.D. Cal. 2000).

(161) See *supra*, §I.4.2.

(162) MAZZIOTTI, *EU Digital Copyright Law*, 139.

that through its system it was possible to share also recordings by both new and established artists who have authorized their music to be disseminated, according to a “permissive distribution” system. Firstly, the Courts tried to determine Napster liability essentially by examining if the P2P file-transfer was of commercial nature. It was noted that, even if the flow of downloading and uploading did not lead to a commercial activity, it fell outside the field of the private copying exception as well, due to its amount. Indeed, even though Napster users did not engage in downloading music in order to sell it for profit, it was also true that, thanks to the system, they benefitted from free access to copyrighted works for which, otherwise, they would have been supposed to pay. Therefore, the purpose of “sampling” did not fit the case, due to the amount and the entirety of the shared files (163). Moreover, even if the Napster's software was capable of commercially significant non-infringing uses such as “space-shifting” and “permissive distribution,” these claims were rejected as well, since they did not constitute a significant use of the Napster system. However, in the end, it was the analysis of the impact on the market to be crucial in the determination that Napster users were not engaging in a fair use.

Despite the lack of decisive evidence due to the shortness of the interval from the advent of Napster and the Courts’ decision, the judges were far-sighted in determining that the use of Napster harmed the market for copyrighted music, due to the negative impact on CD sales. Furthermore, they were persuaded that the Napster system was compromising the plaintiffs’ possibility of eventually entering the market for online music sales. In the end, their suppositions were confirmed later, when, after four years from the

(163) The word “sampling” actually refers to a market practice provided by licensed Internet music sellers such as the iTunes Music Store by paying rightholders a fee for the right to do so. It consists in giving users the possibility of listening to an extract of the record before they decide to buy it.

advent of Napster, the sales of recorded music decreased by approximately 30% as file-sharing systems were becoming more popular (164).

In conclusion, the first round against the digital revolution highlighted the market-based approach of the U.S. fair use doctrine, and it ended up with a defeat for software providers. Nevertheless, technology will learn its lesson, and it will face law with heavier challenges.

2.2. The heirs of the Napster system

The strategy pursued in the United States in hindering unauthorized file-sharing throughout the Web focused essentially against software providers, since suing millions of direct infringers would have been too expensive and practically unfeasible.

As outlined by von Lohmann, from the analysis of U.S. case laws it is possible to recognize three forms of secondary liability for copyright infringement: inducement, contributory infringement, and vicarious liability. As explained by the author, inducement distinguishes “one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement.” Further, contributory infringement refers to “one who, with knowledge of the infringing activity, induces, causes, or materially contributes to the infringing conduct of another” or, in Landes and Lichtman’s words, when one has the “[...] meaningful capacity to prevent or discourage infringement [but renounces doing so]” (165). Lastly, vicarious liability applies when one “has the right and ability to supervise the direct infringer [but takes no action in that regard] and also has a direct financial interest in the infringer's

(164) MAZZIOTTI, *EU Digital Copyright Law*, 142.

(165) William LANDES and Douglas LICHTMAN, “Indirect Liability for Copyright Infringement: Napster and Beyond,” *The Journal of Economic Perspectives* 17, no. 2 (2003): 114.

activities” (166). In the *Napster* case, Napster was found liable for both contributory and vicarious infringement. Indeed, on the one hand, it was aware of the infringing uses undertaken through its system, and it provided material contribution with the “site and facilities” for the directly infringing conduct of its users (167). On the other hand, Napster had the ability to control the infringing activity of its users, because it retained the right to block a user's ability to access its system, and therefore had a duty to do so. Nonetheless, it took no action to prevent them, while at the same time deriving “[...] a financial benefit from the infringing activities of its users because this activity acted as a ‘draw’ for customers, and a portion of Napster’s value derived from the size of its user base” (168). However, after the *Napster* case, P2P technology evolved so as to encrypt the transmitted information, until not requiring a central server anymore. Therefore, for U.S. courts it became harder to determine whether providers of new P2P software could fit at least one of those categories for secondary liability for copyright infringement.

The first case in that regard is the *Aimster* case. (169) The Aimster system worked in a way similar to the Napster’s one, yet it was created with a technical feature that hid the content transmitted from a user to another. Therefore, it was practically impossible for the Aimster’s central server to check whether its users engaged in an unauthorized distribution of copyrighted works via the network. In Judge Posner’s view, the fact that the system was designed in such a way on purpose did not ensure immunity from

(166) Fred von LOHMANN, “IAAL: What Peer-to-Peer Developers Need to Know about Copyright Law,” *Electronic Frontier Foundation*, January 10, 2006, accessed September 26, 2014, <https://www.eff.org/wp/iaal-what-peer-peer-developers-need-know-about-copyright-law>.

(167) *Ibidem*.

(168) *Ibidem*.

(169) *In re Aimster Copyright Litigation*, 334 F.3d 643 (7th Circuit 2003).

liability, and supported an inference of “willful blindness” (170). Moreover, Aimster had made available for its users a tutorial that explained how to use the software, where the only example given in that sense was an act of copyrighted music sharing. In the end, Aimster was found liable for inducement, since it had encouraged its users to infringe copyright. However, according to the economic-oriented U.S. fair use doctrine, the commercial nature of the service was crucial also for this decision. Indeed, Aimster provided also an extra-service for its users, that was, the possibility of directly downloading from its website the most shared songs by paying a monthly fee of only \$4.95, obviously without transferring any royalties to rightholders (171).

Further, with the so-called *Grokster* case, the U.S. Courts had to face a system with no central server at all (172). Indeed, the Grokster technology worked in a way that the technical process of locating and connecting the dispensers of file-related information occurred independently of its control. Nevertheless, the Supreme Court found Grokster liable for inducement, since its purpose was essentially to capture old Napster’s users in order to replace the former Napster’s unlawful market for the unauthorized use of copyrighted works. Such an aim was confirmed by newsletters that contained links to news articles that discussed infringing uses of the software, and customer support messages responding to users who were having trouble locating or playing copyrighted materials (173). In the end, even in this case, Grokster’s economic gain from the activity provided decisive evidence of its

(170) *Ibidem*, 650-651.

(171) *Ibidem*, 652.

(172) *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. Supreme Court (2005).

(173) von LOHMANN, “IAAL: What Peer-to-Peer Developers Need to Know about Copyright Law.”

liability, since Grokster sold advertising space to be visualized on the screens of computers employing its software (174).

After *Grokster*, the U.S. Recording Industry Association of America (hereinafter, “RIAA”) has conducted a large campaign against piracy, accusing even single individuals (175). In the ending paragraph of the chapter, this approach will be compared to the one adopted in the European Union and other countries (176).

2.3. How non-infringing uses have an impact on indirect liability

Apart from confirming the economic approach of the fair use doctrine, the analysis of the aforementioned cases reveals another noteworthy feature: P2P is a dual-use technology, since it can be used both for legal and illegal purposes. For example, the Napster technology could serve non-infringing space-shifting purposes, as pointed out by the defendant during the proceedings. The *Sony* doctrine established that the mere making and selling equipment capable *also* of infringing uses did not represent by itself a sufficient ground to impute someone. However, what made the *Sony* doctrine inapplicable to any of the cases in question was the fact that Napster, Aimster and Grokster were used *mainly* for infringing aims, without providing other *commercially significant* purposes.

As noted by Mazziotti, in *Aimster* “[...] Posner’s reasoning relied upon an unprecedented cost-benefit analysis of peer-to-peer networking in relation to the magnitude of the infringing and non-infringing uses carried out by networked users [...]” (177). Anyway, from Posner’s point of view, “the balancing of costs and benefits is necessary only in a case in which

(174) MAZZIOTTI, *EU Digital Copyright Law*, 158.

(175) Wendy POLLACK, “Tuning In: The Future of Copyright Protection for Online Music in the Digital Millennium,” *Fordham L. Rev.* 68, no. 6 (2000): 2468-2470.

(176) See *infra*, §II.4.2.

(177) MAZZIOTTI, *EU Digital Copyright Law*, 159.

substantial non-infringing uses, present or prospective, are demonstrated” (178). It must be noted that Posner’s expressions “magnitude of non-infringing uses” and “substantial non-infringing uses” refer to the “commercially significant purposes” of the *Sony* doctrine. Those “commercially significant purposes” relied especially to *qualitative* criteria, as pointed out by the judges themselves while assessing Sony liability: “In order to resolve this case we need not give precise content to the question of how much use is commercially significant. For one potential use of the Betamax plainly satisfies this standard, however it is understood: private, noncommercial time-shifting in the home” (179). In other words, in the *Sony* case, Sony was found non-liable for copyright infringement because its Betamax video cassette were used *mainly* for non-infringing purposes (quantitative criteria), and because that “time-shifting” purpose represented by itself a “commercially significant purpose” (qualitative criteria). Moreover, it was plausible to admit that Sony had not meaningful control over their infringing customers, since the only contact with them occurred “at the moment of sale” (180). Applying the doctrine to *Aimster* case, the court concluded that Aimster had failed to introduce any evidence that the Aimster software had ever been used for anything other than infringing activity (181). On the other hand, in *Grokster*, Justice Ginsburg noticed that P2P technologies were capable of commercially significant non-infringing uses, as Sony’s Betamax video cassette recorders were. Nevertheless, in the matter in question, *Grokster* was “overwhelming used to infringe, and that this infringement was the overwhelming source of revenue for the products”

(178) *Aimster*, 334 F.3d 643 (7th Circuit 2003), 650.

(179) *Sony*, 464 U.S. 417 (1984), 442.

(180) LANDES and LICHTMAN, “Indirect Liability for Copyright Infringement,” 117.

(181) von LOHMANN, “IAAL: What Peer-to-Peer Developers Need to Know about Copyright Law.”

(182). Moreover, in Ginsburg view: “[...] the evidence was insufficient to demonstrate [...] a reasonable prospect that substantial or commercially significant non-infringing uses were likely to develop over time” (183).

In conclusion, it is interesting noting that, as technology evolves, new possibilities can come out not only in favor of piracy, but also in favor of law. Indeed, in the *Sony* case, Sony was acquitted also because it could not practically exercise control over its users, while Napster was sentenced mainly because it was capable of doing so, due to the creation of such an innovative system. To explain it through a non-academic well-known quote, it seems that “with great power comes great responsibility” (or, in this case, liability). The importance of the amount and/or the quality of non-infringing uses while assessing liability will be an issue of particular relevance in analyzing the European Court of Justice’s *Nintendo v. PC Box* case law (184).

3. A digital solution to piracy: the iTunes case

3.1. The advent of the iTunes Music Store

iTunes was initially conceived in 1998 as the first Apple’s music player. Over time, it developed into a sophisticated multimedia content and hardware synchronization manager, eventually becoming an e-commerce platform through the implementation of the iTunes Music Store (hereinafter, “iTMS”).

Sixteen days after its opening on April 2003 in the United States, the iTMS already counted more than two million downloads (185). With only one click,

(182) *Grokster*, 545 U.S. Supreme Court (2005) (Ginsburg concurring), 7.

(183) *Ibidem*, 7-8.

(184) See *infra*, §III.

(185) Digital Media Project team, “iTunes: How Copyright, Contract, and Technology Shape the Business of Digital Media – A Case Study” (case study released by the Berkman Center for Internet and Society at Harvard Law School, June 15, 2004), 9.

users could purchase songs and download them into their iTunes music library for \$0.99 cents per song and \$9.99 per album, without any subscription fees (186). Through the first versions of the iTMS, songs were downloaded in digital quality and could have been burned onto CDs for personal use, reproduced up to three computers, and copied on the Apple's portable player, the iPod. Moreover, thanks to the Apple's iTunes interface, users could listen to their downloaded music directly from the software, play or rip CDs, synchronize their iPod with their iTunes' library, access free Internet radio stations, and so on. The reasons behind the iTMS' success were the flexibility and the convenience offered by its tools and its *à la carte* pricing. Indeed, Apple's combination of user-friendliness, fast searching, one-click purchasing, and integrated software made the music store feel like the one offered by P2P technologies, in certain ways (187). However, in 2005, some of the major companies in the media and computing business (*e.g.*, Microsoft, Sony, Virgin, Yahoo) started proposing their own services, entering in competition with each other and with iTunes for the leadership in the online music market. In the end, the fact that the iTMS succeeded in maintaining 70% of the market was due also to its marketing strategy (188).

According to Rayna, the companies disputed adopting two different strategies: the selling strategy and the renting strategy. An interesting fact is that these two types of strategies were unequally distributed: apart from the leader (the iTMS) most of the firms decided to adopt a renting strategy: by paying a monthly fee, users could listen to as much of music as they wanted. However, once they stopped paying, they were not able to play the music

(186) *Ibidem*, 8.

(187) *Ibidem*, 9-10.

(188) Thierry RAYNA, "iTunes vs. Napster: Selling or Renting Music Online, Which is the Winner?" (paper presented at DIME Workshop, Gothenburg, April 29, 2006), 2.

they had previously downloaded (189). The reason behind the choice between these two strategies is due to the nature of the good. As explained by the author:

This contrast between selling and renting is well known in the literature discussing firms that supply a durable good. The interesting point is that music, as a digital good, has all the characteristics of a durable good. Thus, it should be possible to use the existing theories on durable goods to assess the market of online music. According to the literature, the presence of a durable good leads to a loss of market power for the firms, who are eventually forced to sell the good at a price equal to marginal cost. Thus, when supplying a durable good, the theory predicts that a renting strategy is more desirable for the firm than a selling strategy. The interesting fact for economists is that, despite the theoretical results showing the superiority of the renting, both selling and renting strategies are present simultaneously on the market. What is more, even though renting is the most commonly used strategy, the best one seems to be selling, since this is the strategy used by the market leader. (190)

The notion of “durable good” refers to the fact that, for example, in the music field the same piece of music can be used a large number of times, through the consumption of the same CD, vinyl disk, and so on. However, the digital format considerably enforced this feature of the good. Indeed, as noted by Rayna,

Before the invention of the digital format, copying a music recording necessarily led to a loss in quality. Therefore, the durability of music was determined by the durability of the medium that was used to distribute it (vinyl disk, analog tape, etc.). The digital format introduced the possibility to copy a music recording without any loss of quality, and thus removed the limit of durability of a music recording due to the medium, as it is always

(189) *Ibidem*.

(190) *Ibidem*.

possible to backup the recording on a new medium. Therefore, the introduction of digital systems allowed a potentially infinite durability of music recordings. (191)

Of course, the digital innovation led to important changes for the recording industry. Before the advent of the digital format, one would have been forced to purchase again a particular recording in case of deterioration of the medium or change of technology. As pointed out by Rayna, the deterioration of the medium was a plausible scenario especially because vinyl disks and magnetic tapes were known to be particularly fragile. This limitation insured a certain number of regular sales to the recording industry, since the copy of the recording to another medium (from a vinyl disk to an audio tape, for example) would have resulted in a loss of quality (192). On the other hand, another reason for a recording not to be durable was the fact that the medium technology is short-lived as well:

A straightforward example is the 78 RPM vinyl disks: even if we assume that the medium lasts for a long time, a new technology will appear and 78 RPM players will not be produced anymore. Thus, at some point the consumers will have to buy the same recording once again as there will not be any players compatible with the old technology available anymore. The interesting point is that transferring the recording to a medium compatible with the new technology is not necessarily feasible (in the case of the switch between 78 RPM and 45 RPM) or desirable as this would lead to a loss of quality (transfer of a 78 RPM on an audio tape). (193)

(191) *Ibidem*, 3.

(192) *Ibidem*, 3-4.

(193) *Ibidem*, 4.

Now, since digital technology allows a perfect copy of a digital recording, these two limitations of durability are not present anymore. Indeed, it is always possible to back-up a recording before the medium gets damaged, and it is also possible to transfer a recording on the next generation medium without any loss of quality (194). In conclusion, it was only with the advent of the digital format that music recording acquired total durability (195). In that scenario, from an economic point of view, it would have been better to adopt the renting strategy rather than the selling one, since the possibilities of re-selling a copy of the good are close to zero, due to the high durability of the format of the good itself. Nevertheless, despite iTunes refers to its business model as a service (196), its strategy is clearly a selling one, since the downloaded music file is permanently stored in the user's hard disk. According to Rayna, its success was due to the fact the market situation was rather an oligopoly than a monopoly, since "renting the durable good is often the winning strategy in the case of a monopoly, [while,] in the case of an oligopoly, the selling strategy is usually better" (197). Moreover, iTunes was competing not only with other companies, but also – and, maybe, especially – with piracy.

3.2. iTunes against piracy: the interoperability issue

In addition to durability, digital goods share with public goods also the characteristics of non-excludability and non-rivalry (198). Consequently, the interaction of these three features maximizes the possibilities of an under-production scenario (199).

(194) *Ibidem*.

(195) *Ibidem*.

(196) See Apple's website, accessed September 26, 2014, <https://www.apple.com/legal/internet-services/itunes/us/terms.html>.

(197) RAYNA, "iTunes vs. Napster," 1.

(198) *Ibidem*, 9.

(199) For an overview of non-excludability, non-rivalry, and under-production concerns see *supra*, §I.3.1.

As noticed by Rayna, even if the same kind of phenomenon could obviously occur with any other way of distributing digital music (*e.g.*, a CD), the advent of online music stores drastically simplified the divulgation process operated by consumers, since transferring a newly online-purchased file is more immediate than doing the same with tangible mediums (200). Therefore, it was necessary for the firms to develop a system that could have controlled consumers' usages of music files, in order to prevent or limit some operations that could have been undertaken on them (*e.g.*, copying). For that reason, online music stores started implementing DRM systems into the music files they would have sell or rent. In the field of digital music, DRM systems are generally used to encrypt the music file, requiring a key to decrypt it and let users consume it. Then, the encoding system either allows or prevents some actions (*e.g.*, allowing users to listen to the music on one particular computer, but preventing them from doing the same on another computer). Rayna shows that these DRM systems aim at diminishing the risks of an overuse scenario by making the good more rival (*e.g.*, the good can only be consumed on one computer at a time) and more excludable (*e.g.*, the consumer needs to input some kind of identification for the file to be played) (201). Moreover, DRM systems counteract piracy, since divulging a DRM-protected good would require a high knowledge and developed hacking abilities. In other words, by developing an efficient DRM system, firms could gain a total control over the usage of the music they supply, preventing or at least limiting both piracy and the under-production scenario.

Nevertheless, there are important concerns regarding the use of DRM technologies. Firstly, even if hacking the system requires experience, once the crack is available (usually, few weeks after the release of a new

(200) RAYNA, "iTunes vs. Napster," 9.

(201) *Ibidem*.

protection), it is simpler for anyone to access the work illegally (202). Secondly, as seen above (203), since the operation of DRM systems is protected by law, the requirement of the “access right” could restrict consumers’ possibilities of operating in the field of copyright exceptions. Lastly, due to the variety of the DRM systems available on the market and their embodiment both on hardware and software, it is often true that they are not inter-compatible between each other: this means, for example, that protected music files will not play on any hardware, but only on the media players compatible with the corresponding DRM system (204). This problem is often referred to as “lack of interoperability,” and it was particularly evident in the Apple’s case.

Apple’s proprietary DRM system is called “FairPlay,” and it was installed both on Apple’s iPods (*i.e.*, Apple’s portable players) and music files downloaded from the iTunes. FairPlay operated in a double way: it disabled interoperability between iPods and the music files downloaded from any other online music store that was not the iTunes, and it prevented music files downloaded from the iTunes from being played on any other music player that was not the iPod. Clearly, competitors on the market for music downloads accused Apple of a lack of “fair play,” due the competition distortion that the system was causing in the market of digital music. Indeed, considering that iTunes was available only on Apple-designed Mac computers before the 2003-release for the Microsoft Windows operating system (205), it could not be denied that it was also thanks to this marketing strategy that in only few years Apple became the company that we know

(202) In information technology, the work “crack” refers to an application capable of bypassing the protection embodied in a program, allowing the operation of that program even if the user did not purchase it legally.

(203) See *supra*, §I.4.2, §I.5.1.

(204) RAYNA, “iTunes vs. Napster,” 9.

(205) Digital Media Project team, “iTunes: A Case Study,” 8.

nowadays, one of the few capable of capturing the attention of millions of people on the launch of new versions of the iPhone or the advent of new products such as the iPad and the Apple Watch. Nevertheless, despite such a strategy could interfere with anti-trust laws, Apple was able to rely on its copyright on FairPlay in order to deny legally the disclosure of secret information in both jurisdictions where these claims arose (namely, in the United States and France).

The reason can be found in the fact that DRM systems are, as such, computer programs eligible for copyright protection when the standard of originality set out for this particular work is met. While in a Common Law systems such as the U.S. the threshold of originality is already *a priori* required for any work eligible for copyright protection (206), in the European Union the requirement was implemented in the relevant Directive for computer programs (hereinafter, “Software Directive”). Indeed, Article 3(1) of the European Directive on the legal protection of computer programs reads: “A computer program shall be protected if it is original in the sense that it is the author's own intellectual creation. No other criteria shall be applied to determine its eligibility for protection” (207). Moreover, Recital 8 of the same Directive adds: “In respect of the criteria to be applied in determining whether or not a computer program is an original work, no tests as to the qualitative or aesthetic merits of the program should be applied” (208). Now, since computer programs are designed in such a way that the so-called “source code” (*i.e.*, the human readable code) of the computer program remains undisclosed, the rightholder over a certain DRM system is entitled to keep the program code secret and, thus, to retain the essential

(206) See *supra*, §I.2.3.

(207) See Article 3(1) of the Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs, OJ L 111/16.

(208) *Ibidem*, Recital 8.

information that enables interoperability between products that support that particular DRM system (209). Clearly, this is particularly true in case a certain DRM system is even patented.

Going back to Apple, in the United States, in the second half of 2004, the digital music provider Real Networks launched “Harmony,” a technology that allowed users of the Real Music Store to transfer their files into the iPod, after Apple’s refusal to license its DRM technology to the company. Despite the DMCA allows the reverse engineering process of a DRM for interoperability purposes (210), Apple qualified the actions of Real Networks as “piracy” (211). Nonetheless, probably doubting about the possibility of a judgment in its favor, instead of suing Real Networks, Apple directly preferred to re-design the architecture of FairPlay in order to deactivate the crack. On the other hand, in France, the Virgin Mega online music provider intended a lawsuit against Apple, contesting its refusal to license its DRM system as an abuse of Apple’s dominant position on the market for music downloads. However, the French Competition Authority rejected the claim, showing that Apple was not exercising a monopoly neither on the market of portable music players nor in the market of DRM technologies, and that its refusal to license its DRM technology did not have the consequence of eliminating competition in the two relevant markets (212).

It is interesting noting that the interoperability issue is not confined to the digital world. For example, in 1996, the Swiss company Nestlé launched “Nespresso,” a machine capable of brewing espresso from a coffee capsule, a type of pre-apportioned single-use container of ground coffee and

(209) MAZZIOTTI, *EU Digital Copyright Law*, 180.

(210) See §1201(f) of the DMCA. The same is provided by Article 6 of the EU Software Directive.

(211) RAYNA, “iTunes vs. Napster,” 15.

(212) MAZZIOTTI, *EU Digital Copyright Law*, 190.

flavorings. The first of the more than 1700 patent applications for Nespresso's process was filed in 1996, and since then the Nespresso Company has manufactured both machines and capsules, earning most of the profits from the sale of the latter, conquering one-third of the eight billion dollar market of coffee pods. Nevertheless, the company has been recently involved in a series of court proceedings against other producers of cheaper capsules made compatible with the Nespresso machine. In the end, several companies like the Italian Vergnano, the English Dualit, and the German Ethical Coffee Company were found non-liable of patent infringement (213). Moreover, the European Patent Office has even revoked one of the Nespresso's patents that covered the way the capsules are ejected from the machine after their use (214). Despite it may be too early to make assessments, it is plausible to think that all these implications will not have a good impact on Nespresso's brand sales.

However, this scenario is unlikely to apply to Apple's situation, since the company decided to renounce spontaneously its DRM technology in 2007, at least for what concerns music files (215). The reason of this decision is probably because Apple is one of the most valuable companies in the world by now, and thus it can take the liberty of meeting consumers' needs and expectations even if it requires giving up something. Nevertheless, Apple should not let its guard down. Indeed, the advent of free legal online music

(213) Stefania MEDETTI, "Nespresso: la guerra della capsula continua," *Panorama*, April 30, 2013, accessed September 14, 2014, <http://www.panorama.it/economia/aziende/n Nespresso-guerra-capsule-tribunale-dualit>.

(214) "EPO Revokes Nestle Coffee Making Patent," October 10, 2013, accessed September 14, 2014, <http://www.worldipreview.com/news/epo-revokes-nestle-coffee-making-patent>.

(215) The new products offered by the iTunes, such as movies, books, and television shows still contain FairPlay restrictions. See "iTunes Store: iTunes Plus Frequently Asked Questions (FAQ)," accessed September 14, 2014, <http://support.apple.com/kb/ht1711>.

service providers, such as Spotify, are offering new challenges in the online music market (216).

4. ISPs' and end-users' liability: a redefinition of roles?

4.1. ISPs' liability

In information technology, an Internet service provider (hereinafter, "ISP") is an organization that provides services such as Internet transit, IP address assignment and so on for accessing, using, or participating in the Internet. In other words, ISPs are companies that provide Internet services in each geographic region, through which single users are able to connect to the Web and access single "websites." In the U.S., ISPs' liability is regulated under Section 512 of the DMCA (217).

The purpose of Section 512 of the DMCA is to limit the liability for copyright infringement by ISPs if they comply with certain conditions. As reported by Pollack, the United States Congress stated in its conference report that the Section

preserves strong incentives for service providers and copyright owners to cooperate to detect and deal with copyright infringements that take place in the digital networked environment [...] [while] provid[ing] greater certainty to service providers concerning their legal exposure for infringements that may occur in the course of their activities. (218)

(216) See *infra*, §IV.3.

(217) See §512 of the DMCA.

(218) Wendy POLLACK, "Tuning In: The Future of Copyright Protection for Online Music in the Digital Millennium," *Fordham L. Rev.* 68, no. 6 (2000): 2465.

Practically, “safe harbors” for ISPs are provided in four separate circumstances. Firstly, Section 512(a) limits the liability of ISPs in transitory digital network communications as long as the ISP is acting automatically. Essentially, this section negates liability when the ISP is acting as a data conduit, that is, merely transferring a copy of infringing material through the network (219). Secondly, section 512(b) removes liability for system caching, which is the practice of temporarily storing copies of Internet material in the ISP’s server so that ISP’s users can access that material in an immediate way. Again, the ISP is not liable as long as the ISP is uninvolved in the selection, modification, or other interference with the transmitted material (220). The third limitation on liability is for information residing on systems or networks at the direction of users. Section 512(c) provides that an ISP is not liable for acting as a mere storage facility for infringing material unless the ISP knows, should know of, or financially benefits from the infringing material. In other words, once an ISP is made aware of the infringing material, it must act immediately to either remove or paralyze access to the material in order to avoid liability (221). This provision is also known as the “notice and take down” approach (222). Lastly, section 512(d) provides a safe harbor for information location tools. It applies to hyperlinks, online directories, search engines, and other location tools of that nature, and limits liability for referring users to locations that contain infringing material as long as the same conditions as those in section 512(c) are met (223). In conclusion, under the DMCA, if an ISP’s activity falls under any one of the limitations and all of the requirements provided under that certain limitation

(219) *Ibidem*.

(220) *Ibidem*.

(221) *Ibidem*, 2465-2466.

(222) MAZZIOTTI, *EU Digital Copyright Law*, 154.

(223) POLLACK, “Tuning In: The Future of Copyright Protection,” 2466.

are met, then the ISP is not liable for claims of direct or third party infringement relating to the user's activity (224). However, if for any reason the ISP is not protected by one of the safe harbors and it is formally accused of copyright infringement by a rightholder, the ISP may still exculpate itself under fair use. In conclusion, Section 512 of the DMCA forces copyright owners to target the actual infringers, those individuals who upload songs against an artist's will, instead of giving the rightholders a liability catch-all in the ISPs. As outlined by Pollack, the U.S. strategy aims to warn direct infringers and to incentivize ISPs to expeditiously remove infringing material, instead of ignoring its presence, in order to qualify for a safe harbor (225).

On the other hand, also the European Union provides liability exceptions for ISPs under Article 5(1) of the InfoSoc Directive in the case of "temporary acts of reproduction [...], which are transient or incidental [...] and whose sole purpose is to enable a transmission in a network between third parties by an intermediary" (226). Moreover, the principle of "duty of care" applies under Article 14 of the Directive on electronic commerce of 2000 (hereinafter, "E-Commerce Directive"), which states:

Where an information society service is provided that consists of the storage of information provided by a recipient of the service, Member States shall ensure that the service provider is not liable for the information stored at the request of a recipient of the service, on condition that:

(224) *Ibidem*.

(225) *Ibidem*.

(226) See Article 5(1)(a) of the InfoSoc Directive.

(a) the provider does not have actual knowledge of illegal activity or information and, as regards claims for damages, is not aware of facts or circumstances from which the illegal activity or information is apparent; or

(b) the provider, upon obtaining such knowledge or awareness, acts expeditiously to remove or to disable access to the information. (227)

The Article then leaves each Member State free to require the service provider to terminate or prevent an infringement eventually establishing procedures governing the removal or disabling of access to information (228). Finally, Article 8(3) of the InfoSoc Directive provides that EU Member States “shall ensure that rightholders are in a position to apply for an injunction against intermediaries whose services are used by a third party to infringe a copyright or related right” (229). Actually, the latter was the premise to a series of injunctions issued in several Member States against online intermediaries that made available on their websites links to unauthorized copyright materials to be downloaded through other file-sharing platforms, such as BitTorrent. To understand why it was possible to attack single websites instead of the software provider BitTorrent, it would be useful to explain the functioning system of the latter. BitTorrent operates as a protocol that enables fast downloading of large files using minimum Internet bandwidth. In order to do so, unlike other download methods, BitTorrent maximizes transfer speed by gathering pieces of the required file and downloading these pieces simultaneously from people who already have them. However, BitTorrent does not offer a search facility to find files by

(227) Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market OJ L 178/01.

(228) See Article 14(3) of the E-Commerce Directive.

(229) See Article 8(3) of the InfoSoc Directive.

name, since its action is limited to choose the peer with the best network connections for the fragments of the file once it is required. In order to do so, information about which users own the desired content on their hard disks making it available for others is provided by tracker addresses directly attached to the file information. Thus, a user who wants to receive a file through the BitTorrent system must download the BitTorrent facility, search for the file on the Web, and require it for downloading by offering another. Indeed, BitTorrent works in a way that the more files a user share with others, the faster his/her downloads are. In this way, the developer of BitTorrent, Bram Cohen, wanted to provide a solution to the problem of “leeching,” that is, when someone benefits, usually deliberately, from others’ information or effort but does not offer anything in return (quite a free rider or free riding!). In the end, file fragments need to be re-assembled by the receiving machine, since they are not usually downloaded in a sequential order (230). In other words, it was not possible to accuse directly BitTorrent for copyright infringement, since the system does not directly provide or redirect to any unauthorized file to share in its entirety. On the contrary, since uploading and search facilities are provided by user-run websites such as “The Pirate Bay” or “Kickasstorrents,” ISPs from different geographic regions have been ordered to block access to those websites as a result of national injunctions (231).

4.2. End-users’ liability

In the European Union, national courts have often distinguished between the process of downloading and the one of uploading when assessing end-users’ liability for copyright infringement. Indeed, while the download phase

(230) BitTorrent operating system’s description was taken from the “BitTorrent” entry on “HowStuffWorks” website, accessed September 14, 2014, <http://www.howstuffworks.com/bittorrent.htm>.

(231) MAZZIOTTI, *EU Digital Copyright Law*, 165.

involves the right of reproduction, the upload phase concerns the right to make the work available to the public. Nonetheless, even if it is a widely-shared opinion that the act of uploading infringes the exclusive right of making copyright material available to the public, there has been much uncertainty about the infringing nature of the act of downloading by itself.

Actually, two 2004 case laws reported by Mazziotti, respectively discussed in the Netherlands and in France, excused the mere act of downloading under the exception of private copying (232). Without discussing the merits of the cases in question, it is worth noting that the judgments provide further evidence of the inadequacy of the InfoSoc Directive. Firstly, it must be considered that, even if certain P2P software enables users not to share what they downloaded from the network, it is also true that a clear distinction of these two phases could not be so evident, especially when a program admits temporary – not permanently – inhibitions of the “upload” function. Secondly, it seems paradoxical to think that a user complies with the “access right” requirement just because, obviously, no DRM system is embodied in a cracked copy of a work. Indeed, this self-contradiction is because Article 6(4) does not submit the notion of “legal access” to the “lawful use” one (233). Finally, as noted by Sirinelli, it was as if the judges considered that the levies charged upon recordable formats had the effect of making those reproductions legal, making the unlawful source of copyrighted material irrelevant to the judgment (234).

On the other hand, in the United States the situation is at odds with the European one. Indeed, due to the provisions set out by Section 512(h) of the DMCA, in the United States it is even possible for a rightholder to issue a

(232) *Ibidem*, 143-146.

(233) See *supra*, §I.4.2

(234) MAZZIOTTI, *EU Digital Copyright Law*, 146.

subpoena to a service provider for the identification of an alleged infringer through his/her IP address. As Section 512(h)(3) reads:

The subpoena shall authorize and order the service provider receiving the notification and the subpoena to expeditiously disclose to the copyright owner or person authorized by the copyright owner information sufficient to identify the alleged infringer of the material described in the notification to the extent such information is available to the service provider. (235)

Taking advantage of the provision, by September 2008 the RIAA had filed, settled, or threatened legal actions against at least 30,000 individuals (236). This anti-piracy campaign is subject to heavy criticism regarding its interference with users' freedom of expression and privacy. However, such a strategy seems not to be confined to the U.S. borders.

Indeed, in October 2011, a multinational treaty known as the Anti-Counterfeiting Trade Agreement (hereinafter, "ACTA") was signed in Tokyo to establish international standards for intellectual property rights enforcement. Despite the treaty was signed by the United States, the European Union and single EU Member States, Australia, Canada, Japan and others, it has not entered into force yet, since the ratification of six states condition has not been accomplished. This is primarily because the signature of the European Union resulted in so heavy protests across Europe that, on 4 July 2012, the European Parliament rejected the treaty (237). On the contrary, Japan, the only country who ratified the agreement so far, has already

(235) See §512(h)(3) of the DMCA.

(236) See "RIAA v. The People: Five Years Later," *Electronic Frontier Foundation*, September 30, 2008, accessed September 14, 2014, <https://www.eff.org/wp/riaa-v-people-five-years-later>.

(237) "Acta: Controversial Anti-piracy Agreement Rejected by EU," *BBC News*, July 4, 2012, accessed September 14, 2014, <http://www.bbc.com/news/technology-18704192>.

exacerbated its sanctions against piracy through a law that came into effect on October 2012 (238). Before the entering into force of the new law, only Japanese uploaders were subject to penalties, from fines as much as 10 million yen (\$125,000) until up to 10 years in prison (239). Now, even who conscientiously downloads illegal material risks up to two years in prison or fines up to two million yen (about \$25,000) (240). Anyway, a statistical survey conducted in Japan one year later demonstrated that, despite the new law aimed at reducing the continued financial losses reported by the music industry, sales of music in Japan have continued to fall and consumers are actually showing less interest in music than ever before (241). Moreover, a consumer survey showed that the respondents who spent “0 yen” on music in an average month were more than 68%: the highest percentage in almost ten years (242). As a result, even if many Internet users have become reluctant to click the “download” button, fearing of receiving a hefty fine, this does not mean that those who previously downloaded illegal material have started acquiring it in a legal way. At this point, a question comes spontaneously to mind: is law still the best instrument to assure at the same time copyright protection as an incentive to authors and work divulgation as an enhancement of the market?

4.3. A redefinition of roles?

Going back to late 2011, the Congress of the United States proposed two laws called the Stop Online Piracy Act (hereinafter, “SOPA”) and the

(238) “Japan Introduces Piracy Penalties for Illegal Downloads,” *BBC News*, September 30, 2012, accessed September 14, 2014, <http://www.bbc.com/news/technology-19767970>.

(239) *Ibidem*.

(240) *Ibidem*.

(241) Philip KENDALL, “A Month after Japan’s Strict New Download Law Comes into Effect, Survey Suggests that Consumers are Spending Less Than Ever on Music,” *Rocket News 24*, November 5, 2012, accessed September 14, 2014, <http://en.rocketnews24.com/2012/11/05/a-month-after-japans-strict-new-download-law-comes-into-effect-survey-suggests-that-consumers-are-spending-less-than-ever-on-music>.

(242) *Ibidem*.

PROTECT IP Act (hereinafter, “PIPA”). The bills aimed at expanding the ability of U.S. law enforcement to combat online copyright infringement and online trafficking in counterfeit goods. On January 18, 2012, a series of coordinated protests occurred against both SOPA and PIPA, which were accused of containing measures that could cause great harm to online freedom of speech and Internet communities. Protesters also argued that there were insufficient safeguards in place to protect sites based upon user-generated content, such as Wikipedia. As a result, websites such as Google, Wikipedia, Flickr and so on joined the protest, and some of them decided even to stop their normal functions for some days. Google, for example, chose a censor bar as its Doodle, which, when clicked, took visitors to pages with information on SOPA and PIPA, while Wikipedia obscured all of its English pages, making only the one relative to the two laws available to be read (243). Finally, one day after the Internet blacked out in protest, authorities of the FBI shuttered “Megaupload” website, one of the most popular file-sharing services on the Web (244). The Internet community’s reply was sent by a group of “hacktivists” (*i.e.*, people who use computers and computer networks to promote political ends) called “Anonymous,” who responded with a wave of hacker attacks against the US government and copyright organizations, temporarily shutting down the websites of the RIAA and even of the FBI itself (245). In the end, the U.S. Congress decided to postpone the vote (246). These events are noteworthy because they give

(243) Dave LEE, “SOPA and PIPA Protests Not Over, Says Wikipedia,” *BBC News*, January 19, 2012, accessed September 14, <http://www.bbc.com/news/technology-16628143>.

(244) “Megaupload File-Sharing Site Shut Down,” *BBC News*, January 20, 2012, accessed September 14, 2014, <http://www.bbc.com/news/technology-16642369>.

(245) Gerry SMITH, “Anonymous Responds to Megaupload Takedown; Claims Credit for DOJ, RIAA, MPAA, Universal Music Outages,” *The Huffington Post*, January 20, 2012, accessed September 14, 2014, http://www.huffingtonpost.com/2012/01/19/anonymous-megaupload_n_1217418.html.

(246) “SOPA and PIPA Bills Postponed in US Congress,” *BBC News*, January 20, 2012, accessed September 14, 2014, <http://www.bbc.co.uk/news/world-us-canada-16655272>.

evidence to the changes generated by the digital challenge in the field of copyright law. On January 20, 2012, indeed, Internet users from all over the world could not access Wikipedia or Megaupload anymore, because of some decisions taken within the boundaries of the United States of America.

This scenario revolutionizes the original concept of territoriality of international law. In other words, since national laws are confined to national boundaries, they should apply within the national territory. Nevertheless, because digital and online contents are available from any place on the Earth, when national laws intervene, for example, in shutting down a website, the users from all over the world are involved. Moreover, at the same time, if a national authority decides to tackle certain types of websites, this decision can burden on foreign Internet companies. However, due to the nature of the digital environment, the opposite is also true: indeed, law struggles even in enforcing decisions whose reach is limited to the borders of the country. An emblematic example is the case of an ISP – which for its nature is confined to a certain geographical region – forced by the national authority to block access to a certain website accused of copyright infringement. While in a first moment a user who is accessing the Web within that territory cannot visualize the website, once he/she has understood the problem, the solution is handy: all it takes is just adding an international proxy server on the browser he/she is using, in order to block the ISP information from the site to which he/she is connecting (247).

In this context, it is evident that the role of the law must be rethought. Technology evolves rapidly, and law struggles in keeping pace. Moreover, even the role of the users is changing: from mere passive consumers, end-users are increasingly involved in the creation process of new works. The

(247) Anyway, it must be noted that this strategy does not prevent the user from being tracked by the relevant ISP, thus it is not useful to avoid proof of copyright liability.

line between authors and users is blurred, due to the advent of new possibilities of interaction with the Web. With the expression “Web 2.0,” indeed, a new concept of participation in the digital environment was born in contraposition with the old one, where people were limited to the passive viewing of contents. Users can now interact and collaborate with each other in a social media dialogue as creators of user-generated content in a virtual community. For these reasons, end-users are not viewed anymore as mere parasites, and authors have started rethinking about the influence of their role. As a result, the role of publishers/producers is going to be re-dimensioned as well. Original authors are more than ever aware of the importance of their users’ feedback, and “copyleft” or “open access” licenses – when an author decides to divulge his/her work without receiving compensation – and “crowdfunding” experiences – when an author is financially supported directly by its future users – are some of the new examples of this change. In that scenario, it seems clear that a strict punishment strategy does not adapt to the context, both because it does not consider the evolution of the market for digital products and because it can even instigate a more violent reply by the Internet community. Further considerations about the future role of the law and the more recent outcomes of technology will be subject of discussion in the ending chapter (248).

(248) See *infra*, §IV.

III. THE ECJ'S *NINTENDO V. PC BOX* CASE LAW

SUMMARY: 1. Introduction – 2. *Nintendo v. PC Box*: from the Court of Milan to the opinion of Advocate General Sharpston – 3. Video games: software or more than that? – 4. The judgment of the European Court of Justice

1. Introduction

On July 26, 2012, the Court of Milan (Italy) submitted a request to the Court of Justice of the European Union for a preliminary ruling in the proceedings between the Japanese video game company Nintendo *versus* PC Box Srl and 9Net Srl, concerning the sale, by PC Box, of presumed illegal material through the website managed by PC Box and hosted by 9Net. The chapter analyzes the case highlighting the peculiar situation of video games in the field of copyright protection and, in the last instance, the inadequacy of the InfoSoc Directive.

2. *Nintendo v. PC Box*: from the Court of Milan to the opinion of Advocate General Sharpston

Nintendo is one of the most famous video game companies in the world. Nowadays, its products cover both consoles (*i.e.*, hardware) and video games (*i.e.*, software). Nintendo directly produces home and portable consoles, and it is the leading company in the production of the latter. At the moment, two types of consoles manufactured by Nintendo are competing in the market of the video game industry: the “Nintendo Wii” category in the field of home consoles, and the “Nintendo DS” family in the market of portable consoles. For what concerns video games, on all Nintendo’s consoles it is possible to play both Nintendo-made and Nintendo-licensed software. Games are

available on Nintendo DS cartridges and Nintendo Wii DVDs, or on the official Nintendo e-shop, from where they can be directly downloaded on the console through an Internet connection. On the other hand, PC Box is a small Italian company that markets devices capable of enabling the reproduction of games on Nintendo consoles. It is possible to purchase these devices on PC Box's website, available at "www.pcbox.it" – a domain hosted by 9Net srl (249). PC Box's devices can enable both the unauthorized reproduction of Nintendo-made or Nintendo-licensed games and the reproduction of games that are not those produced or licensed by the console manufacturer.

In 2011, Nintendo sued PC Box for having divulged devices capable of illegally circumventing the technological protection measures embodied in its consoles to enable the unauthorized reproduction of Nintendo-made or Nintendo-licensed games. On the other hand, PC Box tried to exculpate itself by highlighting the fact that its devices were also used to play lawful content. On July 26, 2012, the Court of Milan submitted a request to the European Court of Justice (hereinafter, "ECJ") for a preliminary ruling in the proceedings, essentially asking guidance on the interpretation of Article 6 of the InfoSoc Directive in that regard. ECJ's Advocate General Sharpston delivered her opinion on the case on September 19, 2013 (250).

The first concern outlined by Advocate Sharpston is whether the case must be solved applying the InfoSoc Directive or the Software Directive, since "a video game is to a large extent a type of computer program" (251). Firstly, Advocate Sharpston summarizes the relevant information from both the Directives. The InfoSoc Directive acknowledges that technological

(249) Actually, the company has recently changed name into "Homebrew srl" and its new website is available under the domain name "www.recoverybios.com" – on September 30, 2014, the old domain "www.pcbox.it" still redirects there.

(250) Case C-355/12 *Nintendo Co. Ltd and Others v PC Box Srl and 9Net Srl* [2013], Opinion of AG Sharpston. From now on, see Appendix I.

(251) See Appendix I, §5.

protection measures could develop at a similar pace with potential means of circumventing such measures: for this reason, as seen above (252), Article 6 provide legal protection to those measures until qualifying as illegal every action undertaken after the circumvention of them, for example in the case of copyright exceptions (253). On the contrary, the Software Directive, despite associating the protection of software to that guaranteed to literary and artistic works (254), provides exceptions in case of error correction, back-up copy, observation, studying, or testing of the functioning program and interoperability purposes (255). In other words, the Software Directive is more tolerant than the InfoSoc Directive for what concerns copyright exceptions. Moreover, it is interesting noting that, according to Article 7 of the Software Directive, only “[...] those who knowingly put into circulation or possess for commercial purposes any infringing copy of a computer program or any means whose sole intended purpose is to facilitate unauthorized removal or circumvention of a technical device applied to protect a computer program” are liable for copyright infringement (256). This means that, contrary to most of the international provisions regarding the liability of end-users (257), according to the Software Directive, only those in possess of infringing material *for commercial purposes* (and not for personal purposes) are liable for copyright infringement. In conclusion, since the Software Directive applies less strict conditions for the assessment of copyright infringement, Nintendo probably hoped that video games would have not been recognized as mere computer programs.

(252) See *supra*, §I.4.2., §I.5.1.

(253) See *supra*, §I.4.2., .see Article 6(4) of the InfoSoc Directive.

(254) See Appendix I, §14.

(255) *Ibidem*, §16-17.

(256) *Ibidem*, §18.

(257) See *supra*, §II.4.2.

Before entering in details, Advocate Sharpston analyzes the facts and the question referred by the Court of Milan. Nintendo sought to prevent PC Box's devices from being offered for sale (258). Indeed, as outlined by the Advocate, it was not disputed that PC Box's devices could actually be used to circumvent Nintendo's DRM system (259). Nintendo's technological protection measures are embodied both on hardware and software: Nintendo DS' cartridges and Nintendo Wii's DVDs contain encrypted information that must be exchanged with other encrypted information contained in the consoles in order for the games to be played (260). Obviously, Nintendo's measures prevent games other than Nintendo-made and Nintendo-licensed authorized copies from being played on Nintendo consoles, and PC Box's devices operate by circumventing the blocking effect of the required exchange of encrypted information (261). The problem arises analyzing whether Nintendo's DRM system aims to prevent the functioning of unauthorized copying of its games (an aim that would be protected by Article 6 of the InfoSoc Directive) or to increase the sales of its own games by disabling interoperability with other products (an aim that could even be in contrast with anti-trust laws) (262). However, the Court of Milan submitted doubts only about the interpretation of EU copyright law, without referring to EU competition law: the first is about the validity of technological protection measures installed not only in the copyrighted material (*i.e.*, the software), but even in the hardware, while the second is about the possibility of assessing in a quantitative or qualitative way the possible commercially significant legal purposes or uses of PC Box devices

(258) See Appendix I, §19.

(259) *Ibidem*, §22.

(260) *Ibidem*, §21.

(261) *Ibidem*, §22.

(262) *Ibidem*, §2.

(263). Advocate Sharpston’s assessment, thus, is focalized only on these two concerns (264).

The Advocate starts her assessment considering that the Court of Milan concluded that Nintendo video games are not to be regarded as computer programs within the meaning of the Software Directive, but as complex multimedia works falling within the scope of the InfoSoc Directive (265). However, as reported by the Advocate, PC Box asserted that its decryption process was limited to the parts of the program strictly necessary in order to ensure interoperability between Nintendo consoles and “homebrew” (*i.e.*, independently-produced) video games, without infringing any copyright (266). In my view, in analyzing this issue, Advocate Sharpston’s opinion is considerably incisive. Firstly, she recognizes the Software Directive as a *lex specialis* of the InfoSoc Directive, since the Software Directive applies “only where the protected material falls *entirely* within [its] scope” (267). Secondly, she refers that, because the Court of Milan found that Nintendo-made and Nintendo-licensed games cannot be reduced to the status of computers programs alone, then the “greater, and not the lesser, protection should be accorded” (268). Indeed, video games “include also intellectual works in narrative and graphic form, which appear to be *inextricable* from the programs themselves” (269). Moreover, it is unlikely to think that PC Box devices would have been excused even under the Software Directive, since “it does not appear that the acts made possible by the use of PC Box’s devices [...] fall within any of the exceptions” set out in the Software Directive (270).

(263) *Ibidem*, §4, §26.

(264) *Ibidem*, §28.

(265) *Ibidem*, §31.

(266) *Ibidem*, §32.

(267) *Ibidem*, §34 (emphasis added).

(268) *Ibidem*, §35.

(269) *Ibidem* (emphasis added).

(270) *Ibidem*, §36.

For what concerns the questions referred by the Court of Milan, in this paragraph I will consider only the first one, since the second one is strictly linked to the decision taken by the ECJ and the application of the InfoSoc Directive, which I will analyze further (271). The Court of Milan asks if legal protection of technological protection measures is assured even in the case they are embodied not only in the copyrighted material (*i.e.*, the software), but even in the hardware. Advocate Sharpston affirms that nothing in the wording of the InfoSoc Directive “excludes measures such as those in issue, which are incorporated partly in the games media and partly in the consoles, and which involve interaction between the two” (272). What is important is rather than, to benefit from the legal protection, a technological measure must be effective (273). In other words, it must prevent or restrict acts for which the rightholder’s authorization is required (reproduction, communication to the public and distribution) and it must also allow the use of the material to be controlled by the rightholder (274). There is no doubt that Nintendo’s measures comply with the requirement, and that the acts in issue in the proceedings are reproduction and distribution (275). Nevertheless, the Court of Milan highlighted that “those measures also prevent or restrict acts which do not require the rightholder’s authorization [...] – such as the use of Nintendo consoles to play games other than Nintendo and Nintendo-licensed games or the playing of Nintendo and Nintendo-licensed games on consoles other than those manufactured by Nintendo” (276). It is worth noting that, at this point, Advocate General affirms that, if Nintendo’s measures aimed only to prevent unauthorized acts,

(271) See *infra*, §III.4.

(272) See Appendix I, §43.

(273) *Ibidem*, §45.

(274) *Ibidem*.

(275) *Ibidem*, §46-47.

(276) *Ibidem*, §49.

then they would clearly fall within the scope of Article 6 of the InfoSoc Directive without any reservation (277). However, she adds that “the difficulty lies in the fact that the same measures prevent or restrict acts which do require authorization and those which do not” (278). In that regard, PC Box stressed that in assessing the legitimacy of Nintendo’s technological protection measures the principles of interoperability and proportionality should apply (279). Advocate Sharpston concludes her assessment on the issue advising the Court of Milan to verify if Nintendo could have protected its own or licensed games without preventing or restricting the use of its consoles to play “homebrew” video games (280).

Nonetheless, despite being aware that the mere enabling only Nintendo-made and Nintendo-licensed games to be played on a console is not a purpose covered by EU law, such a consideration about interoperability sounds very strange to the ears of a video game player – as I am. This is because video games are digital works whose features cannot be compared to those of other digital works, such as music files or movies. In order to argue my point of view, it would be better to introduce you to the magical world of video games.

3. Video games: software or more than that?

In my view, the Court of Milan was absolutely right in recognizing that video games are not mere computer programs, but complex multimedia works that embody also intellectual works in narrative and graphic form.

(277) *Ibidem*, §48.

(278) *Ibidem*, §51.

(279) *Ibidem*, §52.

(280) *Ibidem*, §53-64.

However, this view is not widely-shared as one may think, and, especially in the past, it was anything but taken for granted.

In the late '70s and early '80s, the video game industry was at its early stage of development. The leading company was Atari, a U.S. pioneer in the production of arcade games, home video game consoles, and home computers. At that time, when a company wanted to get into the video game business, it was supposed to create a video game console first, and then start making games that would have been played on that console. Indeed, as Atari made game cartridges for its console "Atari 2600," other companies like Magnavox and Mattel did the same with their "Intellivision" and "Odyssey" systems. In other words, no third-party (*i.e.*, only-software developer) company existed.

In early 1979, Atari's marketing department issued to its programming staff a memorandum that listed all the games Atari had sold the previous year. The list detailed how much, in percentages of sales, each game had contributed to the company's overall profits. The aim of the memorandum was to encourage programmers to create more titles similar to the best-seller ones (281). Atari's programming staff included 35 people, but, according to the memorandum, 60% of the sales came from works created by only four of them (282). David Crane, Larry Kaplan, Alan Miller, and Bob Whitehead looked at the memorandum, and they realized that, since Atari had done 100 million dollars in cartridge sales the previous year, they were responsible of 60 million of dollars of its earning (283). Unfortunately, their wage was far from a similar amount, since they earned only about 22,000 dollars a year

(281) Ben REEVES, "Activisionaries: How Four Programmers Changed the Game Industry," *GameInformer*, February 26, 2013, accessed September 14, 2014, <http://www.gameinformer.com/b/features/archive/2013/02/26/activisionaries-how-four-programmers-changed-the-game-industry-forever.aspx>, 1.

(282) *Ibidem*.

(283) *Ibidem*.

(284). The reason of such a disproportion was that the video game industry had been built upon the work-for-hire model of the toy industry, where a designer was paid a fixed salary and everything he/she produced was wholly owned by the company (285). However, after such an evidence, the four programmers were even more persuaded that video game creators should have been recognized for what they actually are – artists. For this reason, Crane, Kaplan, Miller, and Whitehead walked into the office of the CEO of Atari and proposed a new type of contract based on royalties (286). Unfortunately, their chief was not as committed to the cause as they were. Crane and Kaplan remember him saying: “You’re no more important to those projects than the person on the assembly line who put them together,” and: “Anybody can do a cartridge” (287). After this experience, the four programmers did not renounce their ideas of video games as “creative works” and “authorships” (288). Therefore, despite they decided to quit Atari, they did not stop producing games for its console.

The newly-born company was called “Activision,” and it was based on the idea that a game is a piece of art created by an author. Consumers would have known the name of every author of a game, and they would have started recognizing each author’s personality from his/her creations (289). The founders decided to package their games in bright and colorful boxes, with their “Activision” label clearly displayed on the top of each package. Of course, at the beginning, the battle against a giant like Atari was not simple to overcome, also because the attempt was the first in its case, and, until then, consumers were not used to choose among different software developers

(284) *Ibidem*.

(285) *Ibidem*.

(286) *Ibidem*.

(287) *Ibidem*.

(288) *Ibidem*.

(289) *Ibidem*, 2.

when purchasing video games to be played on their Atari 2600. Nevertheless, since the four programmers had worked for many years for Atari, they took advantage of their knowledge to exploit the Atari 2600's graphical abilities. In the end, many would say that Activision's games looked better than many other Atari's titles (290).

However, Atari did not forgive such an insubordination so easily. After Activision presented its products for the first time at the Consumer Electronic Show in Chicago in 1980, Atari indirectly accused the company of having stolen trade secrets to try to profit on them (291). This first step was just a warning before the lawsuit that Atari conducted against the company. Obviously, the four programmers disagreed with this vision: "They were selling more consoles because of our support, but they couldn't see it that way. We were the best thing that could ever happen to Atari, but they didn't think so at the time" (292). In the end, Atari decided that it was losing the lawsuit and opted to settle out of court. Then, Activision officially became the first third-party company in the production of video games in return for royalties (293).

In conclusion, when the video game industry was at a very early stage of development, each console manufacturer exercised a monopoly in the market of the software produced for its consoles. Nonetheless, thanks to the courage of four "visionaries," the video game industry evolved into the one we know nowadays, where competition and efficiency are guaranteed by the presence of three major console manufacturer companies (Nintendo, Sony, and Microsoft) and thousands of software developer companies. Indeed, today's scenario is the most favorable one for a consumer. Since hardware is more

(290) *Ibidem*.

(291) *Ibidem*, 3.

(292) *Ibidem*.

(293) *Ibidem*.

expensive than software, it is better to choose among few types of consoles (where the small number of manufacturers still guarantees competition) on which it is possible to play a broad variety of games, produced also by third-parties.

Therefore, going back to the *Nintendo v. PC Box* case law, PC Box's claim about interoperability has no reason in the matter in question, in my view. Things are different from the Atari case, where there was no possibility of obtaining a license for software houses who wanted to develop video games on other companies' consoles. Neither Nintendo refuses to grant licenses to third-parties competitors, as happened, for example, in the Apple and Real Networks' case (294); on the contrary, Nintendo does not even ask for royalties, charging only for the supply of the cartridges or DVDs on which the games are recorded (295). If Nintendo was not allowed to restrict the usages of its consoles in such a way that only Nintendo-made and Nintendo-licensed games could be played on them, then I would see no reason why video game developers should obtain a license in order to make their video games to be played on such consoles. Therefore, in my opinion, since it is possible to license video games to console manufacturers, every attempt to bypass this procedure should be considered, if not unlawful, at least unfair and suspicious.

Moreover, PC Box's claim of interoperability has no basis also for a second reason. Video games are essentially different from other digital works, such as music files or movies. In the video game industry, indeed, each console manufacturer targets different categories of consumers. For example, one may decide to target families, while another can decide to focus

(294) See *supra*, §II.3.2.

(295) See Appendix I, §21.

on single-players. Practically, all those different purposes influence the layout and the architecture of each console. A console created to be played by families, for example, will support more features for local multi-playing – such as the possibility of connecting more controllers – while a console ideated for single-players will focus, for instance, on the possibility of connecting the hardware to the Internet in order to enable online multi-playing. As a result, the software created for each console vary according to the target of the console itself. Of course, a console targeted to families will offer more local multi-playing games, while a console created for single-players will prefer video games that support the online-gaming feature. Thus, third-parties are influenced by the features of each console architecture when developing games, in order to guarantee to each consumer what he/she expects from that gaming experience. A video game player would never think about the possibility of playing the well-known Nintendo series “Super Mario” on a Sony PlayStation, because he/she knows that Nintendo develops games only for its hardware, and that playing its games on another console would never be the same thing. This is particularly true recently, since Nintendo has developed unique features on its new consoles, such as the touch screen and the 3D screen on its Nintendo DS and 3DS, and a motion capture feature on Nintendo Wii and Wii U. Trying to play certain Nintendo games on another console would be almost impossible (or at least very frustrating and unsatisfactory). Therefore, the video game industry cannot be compared, for example, to the music industry, since a music file is quite the same on all the music players where it can be reproduced. For these reasons, in my view, the interoperability issue finds no basis when applied in the field of the video game industry.

Unfortunately, law is short-sighted when assessing the legal implications of the interaction of new products in the contemporary world. This is because

law evolves slowly, especially in the European Union, where the implementation system starts from multilateral treaties and finishes years later in each Member State's national legislation. Therefore, law may sometimes even be forced to apply obsolete provisions to the fast-changing reality of the information society. Moreover, it is difficult for lawyers to be constantly updated with the most recent changes in the field of technology, since they should even not be supposed to deal with such an issue in a so in-depth manner – indeed, their work is already enough delicate by itself. For these reasons, I think that law should renounce expecting technology to adapt to its provisions, and start focalizing on how to adapt itself to technology. I have already highlighted how, under this point of view, the U.S. fair use doctrine maybe represents the best suited model for the purpose (296).

Furthermore, another solution to the digital challenge can be provided by the evolving relationship between authors and consumers. As outlined above (297), this is the case, for instance, of Apple, which partially renounced its “FairPlay” DRM system spontaneously. Another example can be found in the video game industry. In June 2013, video game players from all over the world were waiting for more news about the date of launch and the characteristics of Microsoft's future home console: the Xbox One. However, after its presentation at the “E3” (*i.e.*, the Electronic Entertainment Expo of California, the most famous annual trade fair dedicated to the video game industry), Microsoft's fans were quite disappointed. The reason was that Microsoft reveled its intentions of making a console that would have been constantly under the control of its manufacturer. Indeed, according to the information released at that time, the Xbox One would have required Internet

(296) See *supra*, §I.4.2

(297) See *supra*, §II.3.2

access even to play offline games, in order to track the reproduction and the usages undertaken on each game. Moreover, the possibility of reselling or renting personal copies of the game could have been subject to restrictions (298). Obviously, these features could have interfered with privacy concerns and the first sale doctrine. Nevertheless, just few weeks after the announcement, Microsoft published a news entitled “Your Feedback Matters” on its Xbox website, explaining that, after having considered its consumers’ feedback, it had revised the new Xbox One policy (299). It is interesting noting how, however, the new possibility offered by video game companies of downloading titles instead of buying physical copies of the games actually prevent those games to be rented or resold. In other words, video game companies are incentivizing the purchase of games in digital formats not only to reduce the marginal costs of the physical supports, but also in order to restrain the nature of non-excludability of the products. However, their users made it clear that such a practice cannot become an imposition. It is interesting noting how, nowadays, consumers’ feedback could have gained more importance than an injunction menace.

Going back to the role of the law, it is still true that the application of law is not an automatic process, but it is always subject to the interpretation of the judge in question, who can use his/her common sense in applying the right provision to the contingent situation. However, in the next paragraph, I analyze how the European Court of Justice missed the chance of providing a guiding interpretation of Article 6 of the InfoSoc Directive in assessing the *Nintendo v. PC Box* case law (300).

(298) “How Game Licensing Works on Xbox One,” June 6, 2013, accessed September 14, 2014, <http://news.xbox.com/2013/06/license>.

(299) “Your Feedback Matters,” June 19, 2014, accessed September 14, 2014, <http://news.xbox.com/2013/06/update>.

(300) See *infra*, §III.4.

4. The judgment of the European Court of Justice

On January 23, 2014, the ECJ delivered its judgment on the *Nintendo v. PC Box* proceedings (301). For the ECJ, it was the first time to deliver explicitly its interpretation about Article 6 of the InfoSoc Directive (302). Actually, the fact that the first ECJ-delivered interpretation of Article 6 of the InfoSoc Directive concerns the video game industry was not a desirable scenario, since, as I argued above (303), the video game industry represents *a sui generis* situation in the digital market context. However, some important findings emerged from the judgment.

The ECJ agrees with the Court of Milan in assessing that video games are more than just computer programs. Therefore, their protection is guaranteed under the system established by the InfoSoc Directive, and not under the one established by the Software Directive (304). Then, since Nintendo sued PC Box for having created devices capable of circumventing its technological protection measures, the Court must assess in the first instance if Nintendo's technological protection measures could comply with the requirements of Article 6 of the InfoSoc Directive about the legal protection of those measures. Recital 48 of the InfoSoc Directive provides interpretation guidelines for the matter in question:

Such legal protection should be provided in respect of technological measures that effectively restrict acts not authorised by the rightholders of any copyright, rights related

(301) Case C- 355/12, *Nintendo Co. Ltd and Others v PC Box Srl and 9Net Srl* [2014]. From now on, see Appendix II.

(302) Roberto CASO, "Technological Protection Measures: Fifty (and More) Shades of Grey of the European Court of Justice," research paper released by Trento Law and Technology Research Group, March 2014, 1.

(303) See *supra*, §III.3.

(304) See Appendix II, §23.

to copyright or the *sui generis* right in databases without, however, preventing the normal operation of electronic equipment and its technological development [...]. (305)

In that regard, Article 6(3) provides that:

3. For the purposes of this Directive, the expression “technological measures” means any technology, device or component that, in the normal course of its operation, is designed to prevent or restrict acts, in respect of works or other subject-matter, which are not authorised by the rightholder of any copyright [...]. Technological measures shall be deemed “effective” where the use of a protected work or other subject-matter is controlled by the rightholders through application of an access control or protection process, such as encryption, scrambling or other transformation of the work or other subject-matter or a copy control mechanism, which achieves the protection objective. (306)

The definition of “technological measure” provided by Article 6(3) of the InfoSoc Directive is actually quite broad. Indeed, the ECJ pointed out that “[...] there is nothing in that directive to suggest that Article 6(3) thereof does not refer to technological measures such as those in issue in the main proceedings, which are partly incorporated in the physical housing systems and partly in consoles which requires interaction between them” (307). The “effectiveness” requirement, on the other hand, provides that technological protection measures must be effectively controlled by the rightholders in the light of Article 6(3) and that they must be effective in restricting acts not authorized by the rightholders of any copyright in the light of both Article 6(3) and Recital 48. In the ECJ’s view, Nintendo’s measures satisfy these

(305) See Recital 48 of the InfoSoc Directive.

(306) See Article 6(3) of the InfoSoc Directive.

(307) See Appendix II, §26.

requirements (308). However, both Advocate Sharpston and the ECJ agree in interpreting the wording of Recital 48 so as to limit the extent of such measures to the uses that would require the rightholder authorization (309), affirming that “those measures must be suitable for achieving that objective and must not go beyond what is necessary for this purpose” (310). According to Advocate Sharpston, it is not disputed that Nintendo’s technological measures block both unauthorized acts and acts that do not require authorization (311). However, there is no agreement between the Advocate and the ECJ about the type of lawful acts that could be undertaken through PC Box devices. Indeed, while Advocate Sharpston refers to the possibility of playing “homebrew games” (312), the ECJ talks about the opportunity of reproducing MP3 files, music and videos (313). In my view, it is essential to distinguish between these types of digital files. Firstly, as I argued above (314), I would not agree that safeguarding interoperability with “homebrew games” is a question of utter importance, since the interoperability issue plays another role in the field of the video game industry, and it would be in contrast with the standard licensing procedure between first and third-parties. Secondly, in the case of the possibility of reproducing MP3 files, music and videos, it would be important to assess if those files come most of the time from a lawful source, otherwise the Court would force Nintendo to enable its consoles to the reproduction of illegal digital copies of a work. Anyway, the Court addresses to the Court of Milan the responsibility of submitting Nintendo’s technological protection measures to a proportionality test,

(308) *Ibidem*, §27-28.

(309) See Appendix II, §30.

(310) See Appendix I, §56, and Appendix II, §31.

(311) See Appendix I, §74.

(312) *Ibidem*, §54, §74.

(313) See Appendix II, §15.

(314) See *supra*, §III.3.

which should “[...] take account, *inter alia*, of the relative costs of different types of technological measures, of technological and practical aspects of their implementation, and of a comparison of the effectiveness of those types of technological measures as regards the protection of rightholder’s rights, the effectiveness however not having to be absolute” (315). Actually, in my opinion, Advocate Sharpston’s point of view is more effective in that regard, since it considers that the importance of protecting copyright must prevail on the purpose of guaranteeing users’ rights to carry out acts that require no authorization, because only the formers are exclusive and fundamental rights (316).

In the ECJ’s view, once assessed the validity of Nintendo’s technological protection measures, the Court of Milan should focus on the purposes of PC Box equipment. PC Box markets devices, notably “mod-chips” and “game copiers,” capable of circumventing Nintendo’s technological protection measures in order to enable the reproduction of games and/or other files (MP3 files, movies and videos) on Nintendo’s consoles. Theoretically, the InfoSoc Directive is very strict on that regard. Indeed, as I outlined above about copyright exceptions (317), according to Article 6(4) of the Directive, every attempt to circumvent such measures should be *a priori* condemned. This interpretation finds a new extent in relation to the matter in question, according to Article 6(1)(2):

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

(315) See Appendix II, §33.

(316) See Appendix I, §78.

(317) See *supra*, §I.4.2.

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

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

any effective technological measures. (318)

In other words, Member States are supposed to provide protection against any *quantitatively* significant attempt of circumvention of a technological protection measure that complies with the requirements of Article 6(3). Indeed, the *purpose* of the circumvention seems to have no relevance in assessing the lawfulness of such devices, according to the wording of Article 6(2). This interpretation seems to be enforced by both the opinion of Advocate Sharpston (319) and the judgment of the ECJ. In particular, the Court rules that:

That court must also examine the purpose of devices, products or components, which are capable of circumventing those technological measures. In that regard, the evidence of use which third parties actually make of them will, in the light of the circumstances at issue, be particularly relevant. The national court may, in particular, examine *how often* those devices, products or components are in fact used in disregard of copyright and how often they are used for purposes which do not infringe copyright. (320)

(318) See Article 6(1)(2) of the InfoSoc Directive.

(319) See Appendix I, §70.

(320) See Appendix II (emphasis added).

Roberto Caso criticizes this merely quantitative approach, comparing it to the more efficient U.S. one, which takes account of both quantitative and qualitative criteria (321). In Caso's view, a mere quantitative assessment would even be difficult to achieve, since the usages undertaken through those devices can only be known within the walls of each users' households (322). I would agree with this view, to the extent that a qualitative approach, obviously, should also give due recognition to the possibility of undertaking unauthorized acts.

In conclusion, the InfoSoc Directive, and in particular Article 6, are ineffective both in recognizing copyright exceptions and lawful uses, and in guaranteeing protection to the rightholders. Indeed, the fact that the Court of Milan asked those questions to the ECJ is because the Directive is unclear on that regard, and, actually, the ECJ missed the chance of providing reliable guidelines for the interpretation of Article 6 (323). Therefore, it is difficult to foresee how the Court of Milan and, in the last instance, the Supreme Court of Cassation will end the proceedings. Also because neither Advocate Sharpston nor the ECJ considered the liability of the web-hosting service 9Net, even if it will be probably assessed on the basis of duties of care for online intermediaries as provided by Article 14 of the E-Commerce Directive (324). Moreover, considering that Nintendo sued PC Box for the first time in 2011, and that at the end of 2014 the Court of Milan has not reached a verdict yet, it is apparent that law is still too slow if compared to the pace of the evolution of technology. In the meantime, for example, PC Box changed its name and its website domain, and it could have even changed the purpose and the functioning system of its devices. Finally, the fact that the ECJ

(321) CASO, "Technological Protection Measures," 9-12. See *supra*, §II.2.3.

(322) *Ibidem*, 9.

(323) CASO, "Technological Protection Measures," 13.

(324) See *supra*, §II.4.1.

expressed its first judgment on the interpretation of Article 6 in relation to the video game industry was not a desirable scenario. Unfortunately, various scholars took the occasion to disclose what they have always thought about the Directive. In the end of his paper, Caso highlights that his point of view is against the abuse of the protection of technological protection measures and in favor of end-users' freedom and innovation (325). Of course, it is an unforgivable oversight that the Directive does not guarantee adequate protection to the possibility of undertaking lawful acts and usages covered by copyright exceptions. Anyway, such general considerations must not prevail on the facts arising from the case in question. As I outlined above (326), the video game industry represents a *sui generis* situation in the digital industry scenario. For example, while safeguarding interoperability could be a fundamental concern in other cases, it is not the same in the specific matter in question. In the hypothetical case where PC Box devices are indifferently used both for interoperability and unlawful uses, the latter should prevail on the former, since, especially in the matter in question, guaranteeing interoperability is not as important as opposing piracy. Therefore, in my view, scholars and lawyers should not be blinded by the mere desire of opposing the contradictions of the Directive when assessing the specific case of *Nintendo v. PC Box*. Indeed, it would be a paradox if Article 6 of the InfoSoc Directive failed in guaranteeing protection to rightholders in preventing other companies from infringing their exclusive rights, while at the same time granting the same rightholders unlimited power against single end-users through the notion of "access right."

(325) CASO, "Technological Protection Measures," 17.

(326) See *supra*, §III.3.

IV. Alternatives to law (?)

SUMMARY: 1. Introduction – 2. The evolution of the relationship between authors and consumers – 3. “The answer to the machine is in the machine” – 4. Law v. technology: which is the winner?

1. Introduction

In the ending chapter, I analyze why, in my opinion, law should not worry too much about the digital menace. New possibilities offered by the change of consumers’ habits and the constant evolution of technology might offer solutions to the protection/divulgence balance of intellectual creations, even before law intervenes. However, this does not mean that law has no place in this newly-shaped scenario, as some may think: its corrective role, for example, is still essential to evaluate guilty and innocents parties of the digital world.

2. The evolution of the relationship between authors and consumers

At the beginning of my work, I highlighted how copyright is one of the possible solutions to the dilemma of protecting while at the same time divulging intellectual creations, since its role is based on a compromise among authors’, publishers/producers’ and the public’s interests (327). However, recent evolutions in the relationship among these three subjects may revolutionize this historical concept and the copyright rationale itself.

Theoretically, an author seeks acknowledgement and/or success, a publisher/producer aims at maximizing the profits, and the public aspires to

(327) See *supra*, §I.2.2.

access as many works as possible. Of course, it is clear that the authors' interest is at odds with the public's one, and that is why the two main unbalances of the system are the under-production scenario and the under-utilization scenario (328). In other words, this is the reason why piracy and DRM technologies exist. However, nowadays, authors and consumers may not be in conflict as they have always historically been. Such a change would be obviously disadvantageous for the role of publishers/producers, who have always taken advantage of the situation for profit.

Historically, consumers (at least some of them) have always played the role of parasites. Those who want to use works without giving anything in change are perhaps the authors' worst enemies. Nonetheless, the situation started evolving when authors began to think that publishers/producers have gained an enormous bargaining power. Even in the absence of an under-production scenario, they started considering that the royalty system was not adequate to incentivize their work. This consideration arose especially from the music industry – because of the bargaining power acquired by collective agencies (329) – the video game industry – where a royalty system did not even exist, as outlined in the Atari and Activision case (330) – and in the comic book industry – where, especially in Italy, many publishers do not even charge royalties to authors for the number of copies they sold. Meanwhile, authors started assessing the change of consumers' habits as well. Thanks to the new possibilities offered by technology, even those consumers who were used to access works “freely” were not parasites anymore, since they could create new works from the interaction with others or communicate their feedback to a wide range of people, actually promoting

(328) See *supra*, §I.3.1.

(329) See *supra*, §I.2.3.

(330) See *supra*, §III.3.

those works. This is what happened since the advent of the Web 2.0, when a more interactive way of participating in the network arose. For example, the non-profit Wikimedia foundation created the widest online encyclopedia in the world just counting on the support of thousands of consumers who enjoy sharing their knowledge with other users in exchange of different information. Another example can be found in the YouTube community, which was born in 2005 as a video-sharing system based essentially on contents uploaded by individuals, until becoming, nowadays, one of the most famous websites worldwide. These are only two examples why authors started thinking that maybe their consumers were not so passive and unconcerned as they seemed to be.

For these reasons, authors started approaching to consumers in a different manner. Firstly, they thought about new types of licenses that could meet consumers' needs in a better way. This is the case of "copyleft," "creative commons," and "open-access" licenses. The word "copyleft" is clearly a pun on the word "copyright." Alluding to the opposition between "left" and "right" spatial concepts, the word refers to the possibility "left" to consumers to exercise acts of copying that are not covered anymore by a "right." In other words, through "copyleft" licenses, authors divulge their works renouncing spontaneously their patrimonial rights over them. Further, "creative commons" are a type of ready-to-use licenses for those artists who want to divulge their work restricting their patrimonial rights. On the other hand, through "open access" licenses, authors allow users to access that type of work without paying, while maintaining their patrimonial rights over it (331). Some authors can choose also the possibility of creating different

(331) Marco MARANDOLA, *Il nuovo diritto d'autore: introduzione a copyleft, open access e creative commons* (Milano: DEC, 2005): 3-4. It is interesting noting that, *a contrario*, other types of new licenses favor the enforcement of rightholder's rights. This is the case, for example, of the "shrink-wrap" licenses,

licenses that allow different uses. For example, an author can decide to divulge a demo of his/her work for free, while releasing the integral work under compensation. Obviously, divulging a work for free is a dangerous scenario for authors, since they risk of not receiving incentives for their works. Anyway, it could be a useful possibility for budding artist who can become known before starting selling their creations. For instance, in the video game industry, the Japanese artist Daisuke Amaya – alias “Pixel” – created “Cave Story,” a video game developed all by himself, divulging it for free in 2004. The game, after its initial self-published release, slowly gained popularity on the Internet, receiving wide critical acclaim for its compelling story and gameplay. In the end, it was acquired by Nintendo in 2011 to be released on its Nintendo 3DS. Moreover, it is interesting to mention that, in some states, such as in Belgium, authors can be incentivized directly by the government through subsidies if they comply with certain requirements.

Further, it is worth to mention that authors can be financially supported directly by their own users, for example, through “crowdfunding” platforms. “Crowdfunding” is new reality that maybe your Microsoft Word will recognize and not underline anymore in a few years. It is the practice of funding a project or venture by raising monetary contributions from a large number of people, typically via the Internet. The crowdfunding model is fueled by three types of actors: the project initiator who proposes the idea and/or project to be funded, individuals or groups who financially support the idea through the Web, and a moderating organization (the “platform”) that brings the parties together to launch the idea. Generally, the project webpage displays a deadline and a minimum amount of the funding

where the consumer is forced to accept the conditions of the rightholders only after having already purchased the product.

necessary for the work to be developed. Recently, a successful example involved the Italian market of the comic book industry. Two young artists, Linda Cavallini and Emanuele Tenderini, received more than 75 thousand dollars to develop their comic book project, for which they asked a minimum amount of 55 dollars to be achieved by May 2014 (332). This is the first Italian experiment that gained such a reception, and it challenges the Italian publishers to start reconsidering their policy.

3. “The answer to the machine is in the machine”

Another solution to the protection/divulgence dilemma can be provided by the technology itself. “The answer to the machine is in the machine” is a prophetic view envisaged by Charles Clark in his homonymous chapter published in “The Future of Copyright in the Digital Environment” by Bernt Hugenholtz (333). Essentially, Clark recognized at a very early point that digital developments – particularly the Internet – would have completely changed the way in which copyright needs to be administered. His view finds evidence in the recent developments.

In chapter II, I analyzed the impact of the digital era on the music market (334). The Napster case was, indeed, the first example of the digital menace, since music files could be easily shared through the Web at no cost. Then, the solution offered by iTunes revolutionized the conception of the music market itself: consumers could purchase each single file through a “click,” at a very competitive price. Nowadays, online streaming services like Spotify

(332) See the webpage of the project available on “indiegogo” crowdfunding platform, accessed September 14, 2014, <https://www.indiegogo.com/projects/lumina--2>.

(333) Charles CLARK, “The Answer to the Machine is in the Machine,” in *The Future of Copyright in a Digital Environment*, ed. Bernt Hugenholtz (The Hague: Kluwer Law International, 1996), 139 ff.

(334) See *supra*, §II.

are challenging both P2P systems and online music markets with an innovative formula that could seem an oxymoron: listen to your favorite music for free, in a totally legal way.

Spotify is a Swedish online music streaming service, that is, a service that provides on-demand digital music files. Users can decide to use it for free or to subscribe to the premium tier by paying a monthly fee in order to benefit from extra-services. It consists in an application to download on one's hardware (*e.g.*, computers, tablets, smartphones) where it is possible to search directly for the required song and start listening to it. The difference between other services is that no music file is stored on consumers' hard disk – since it is streamed and not downloaded – yet it is possible to create personal playlists to make certain music files available also when the user is offline. Before Spotify, the Internet community was used to benefit from music streaming services through YouTube videos. However, this habit created legal implications, since those copyrighted contents were made available to the public by unauthorized individuals (335). On the other hand, Spotify's policy is based on the motto: "Music is for everyone," which means that the service aims to offer music fans a legal and paid service capable at the same time of generating for artists the royalties that they deserve.

In Spotify's view, digital downloads have not been able to make up for the decrease in physical sales over the years. Therefore, Spotify is attempting to restore much of the lost value by encouraging artists to divulge their works on the platform and to convince music fans to pay for music once again. Spotify's total revenue comprises money received from advertising on the free tier and subscription payments on the premium tier. Spotify pays

(335) It is quite common for YouTube videos to be removed under the rightholder's request. However, since uploading a video is a matter of few seconds, music artists started noticing that it was a losing battle. For this reason, they created "Vevo," their official YouTube channel.

royalties for all of the listening that occurs on its service by distributing nearly 70% of all the revenues to rightholders, while the artists' final payout is influenced by the number of premium subscribers per month, the number of the artists' streams compared to the total streams of the month, and the artist's royalty rate (336).

Since its advent in 2006, Spotify has challenged both online music services and piracy. Recently, Spotify said that "it is a matter of time" before it overtakes Apple's iTunes in Europe (337). iTunes's, which has been the leader of the market so far, replied to the challenge offering its users the new U2's album for free from September 9 to October 13, 2014. The move was promoted as "the biggest album release in music history," and it was supposed to represent a huge step for iTunes towards its consumers, as highlighted by the wording: "Never before [...] so many people owned one album, let alone on the day of its release" (338). However, since the album was automatically downloaded in each iTunes' library without the users' consent, some of them did not appreciate it. A minority complained that they did not ask for it, and that it was not a present, yet an imposition of what they should have listened to. Paradoxically, in the end, just some days after the release, Apple was forced to implement a function that could allow users to delete the album from their library (339). On the other hand, for what concerns piracy, a chart available on Spotify's website helps providing an

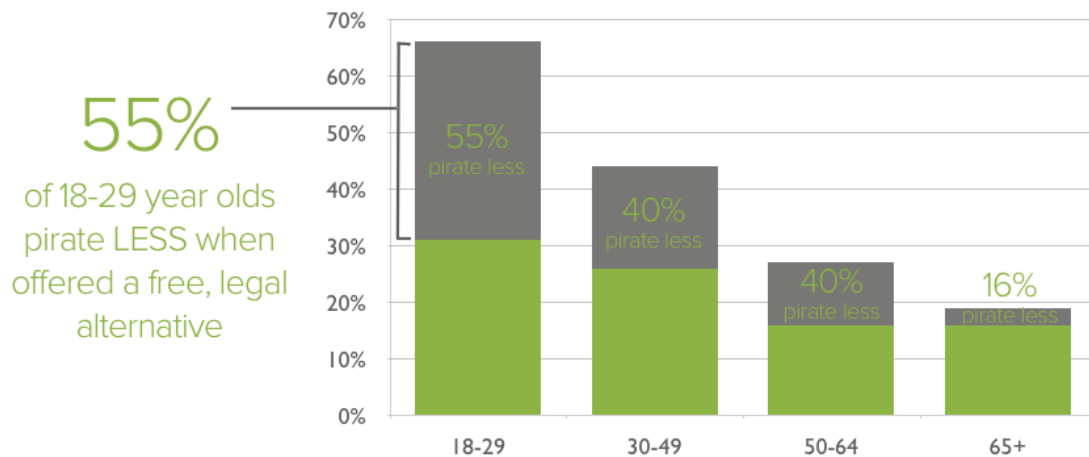
(336) See "Spotify Explained," accessed September 14, 2014, <http://www.spotifyartists.com/spotify-explained/#spotify-progress-so-far>.

(337) Stuart DREDGE, "Spotify Says It's 'a matter of time' before It Overtakes Apple's iTunes in Europe," *The Guardian*, April 25, 2014, accessed September 14, 2014, <http://www.theguardian.com/technology/2014/apr/25/spotify-itunes-apple-europe-streaming-music>.

(338) See Apple's website, accessed September 14, 2014, <https://www.apple.com/U2>.

(339) "Apple Introduces New iTunes Button to Allow Customers to Delete Latest U2 Album from Accounts," *The Daily Mail*, September 17, 2014, accessed October 1, 2014, <http://www.dailymail.co.uk/news/article-2758725/Apple-introduces-new-iTunes-button-allow-customers-delete-latest-U2-album-accounts.html>.

overview of the change of consumers' habits over the past 5 years (2009-2014) (340):



Indeed, Spotify was designed primarily to combat piracy. Founded in Sweden – which ironically is the home of The Pirate Bay website (341) – its founders believed that they could convince people to stop illegal file-sharing, and start consuming music legally again. Daniel Ek, Spotify's co-founder and CEO, was inspired by the same philosophy of Charles Clark: “The only way to beat piracy is by creating a better product” (342).

4. Law v. technology: which is the winner?

As I underlined throughout my work, the most difficult challenge for law is perhaps to keep pace with technology. Nevertheless, some think that in the information society law could still exercise its role of prevention, while others think that law ended its days. In my view, these perspectives are both wrong.

(340) Chart taken from “Spotify Explained,” accessed September 14, 2014, <http://www.spotifyartists.com/spotify-explained/#spotifys-progress-so-far>.

(341) See *supra*, §II.4.2.

(342) Henry MARTIN, “The Rise and Rise of Spotify,” *New European Economy*, accessed October 1, 2014, <http://www.neweuropeaneconomy.com/home-mainmenu-51/insight-mainmenu-87/168-legal-high--the-rise-and-rise-of-spotify>.

According to Mazziotti, European law should prevent rightholders from abusing of their power by determining that every DRM system must comply with the “fair use by design” requirement. With this expression, Mazziotti identifies a DRM system that is capable of restricting unauthorized uses while allowing lawful uses or uses covered by copyright exceptions (343). Despite such a solution would be undoubtedly desirable, it should be verified if it is realizable as well. Indeed, as pointed out by Advocate Sharpston and the ECJ in the *Nintendo v. PC Box* case law, the validity of alternative DRM systems must be assessed also taking account of the relative costs of different types of technological measures, of technological and practical aspects, and of their effectiveness in protecting the rightholder’s exclusive rights (344). This is the reason why, in my view, technology has challenged the *ex ante* role of the law. Law cannot foresee *a priori* the implications of the evolution of technology, and it cannot expect to slow down innovation. Nonetheless, the role of the law is still crucial in determining, *a posteriori*, lawful and unlawful usages and behaviors. In his book “Free Culture,” Lawrence Lessig warns that the escalating “war on piracy” would eventually cause the rejection of the legitimacy of the entire system of intellectual property in digitalized content (345). Indeed, this is what happens, for example, when law tries to force the change of consumers’ habits through strict provisions such as the ACTA or the SOPA and PIPA bills (346). Nevertheless, this does not mean, as argued by Lessig, that the role of the law will eventually vanish. In my view, while leaving technology to run its course, law should focus on its *ex post* role, a function that only law can exercise in order to contain

(343) MAZZIOTTI, *EU Digital Copyright Law*, 285 ff.

(344) See *supra*, §III.4.

(345) Paul A. DAVID, “The End of Copyright History?,” *Review of Economic Research on Copyright Issues* 1, no. 2 (2004): 8.

(346) See *supra*, §II.4.2, §II.4.3.

rightholders' abuses of power and consumers' abuses of piracy. Therefore, international law should learn from the U.S. fair use doctrine, where general but clear criteria can be easily and effectively applied case-by-case. While it is true, indeed, that law is unlikely to keep pace with technology, at the same time it is unlikely that technology will always move in the right direction.

In conclusion, to answer the question of the paragraph and of my dissertation, I would say that technology would win in a 100 meters race, but, in a chess game, the champion would be the law. Thus, only an approach between the two subjects would eventually provide a new balance in the digital era.

CONCLUSIONS

Throughout my work, I tried to make an overview of the most recent concerns regarding copyright in the information society. Of course, I have no claim to exhaustivity, because of the complexity and the constant updating of the subject in question. However, my aim was to introduce to the matter also those who were not familiar with it, and to analyze the subject from a different perspective, that is, the one of a greedy consumer of technology products.

Through the analysis of the birth of the first copyright theories, it is possible to understand the different rationales underlying the copyright function all over the world. With the advent of the digital era, however, the clear separation between those approaches started to lose its justifications. It was important, then, to determine international provisions that could be adequate to react to the digital menace. Despite several distinctions blurred over the years, it is still possible to recognize structural differences between the approaches of Civil Law systems and Common Law ones to copyright. Unfortunately, this may be one of the causes of the ineffectiveness of the InfoSoc Directive, since the European Union struggled in providing clear guidelines that could comply with its both European Civil Law countries and Common Law ones.

There is no doubt that technology is offering a heavy challenge to law, due to its unpredictability and rapid evolution. On the one hand, the U.S. fair use approach to copyright liability in the digital era was analyzed through the *Sony*, *Napster*, *Aimster*, and *Grokster* case laws, which gave evidence of the adaptability of the doctrine and its capacity of taking account of both quantitative and qualitative criteria when assessing the impact of new

technologies such as P2P systems. On the other hand, the analysis of the European situation with regards to levy-systems and DRM technologies and the ECJ's judgment in the *Nintendo v. PC Box* case law revealed the inadequacy of the InfoSoc Directive in guaranteeing clear provision for the protection of both the consumers' interest in operating in the field of copyright exceptions and the rightholders' interest in safeguarding their exclusive rights. As a result, the European situation outlined by the application of the InfoSoc Directive is not capable neither of enhancing the internal market as envisaged by the old European Community nor of defending the new principles of freedom, democracy, and equality as sought by the Treaty of Lisbon.

However, in my view, this scenario is not as serious as it may seem. Even when law fails, technology can provide a solution by itself. This is the case of “copyleft,” “creative commons,” “open access” licenses, which reveal a reality where authors' and consumers' interests are not at the odds anymore. Moreover, innovations such as Spotify in the music industry can create new basis to reconcile the right of authors to be incentivized for their works and the public's interest to access as many works as possible. Such revolutions derived also from the new conception of the role of consumers, who are not seen as parasites or free-riders anymore, but as follow-on creators and promoters of information thanks to the new possibilities offered by the Web 2.0.

In other words, technology is not always on the piracy's side. Still, if law continues considering technology as an enemy to be contained through the exercise of strict provisions, the reaction of the Internet community will only frustrate its efforts. This happens because technology moves faster than law, through ways that law cannot foresee. However, this does not mean that law ended its days, as some may think. Indeed, in the case of an unbalance of the

authors' and the public' interests, only the exercise of law can intervene in equalizing the situation.

In conclusion, the most desirable scenario is the one where law renounces trying to keep pace with technology through the exercise of a repressive power, focusing on its fundamental corrective role when the balance among copyright actors needs to be restored.

**APPENDIX I - CASE C-355/12, *NINTENDO V. PC BOX*,
OPINION OF ADVOCATE GENERAL SHARPSTON**

OPINION OF ADVOCATE GENERAL
Sharpston
delivered on 19 September 2013 [\(1\)](#)

Case C-355/12

**Nintendo Co. Ltd
Nintendo of America Inc.
Nintendo of Europe GmbH**

v

**PC Box Srl
9Net Srl**

(Request for a preliminary ruling from the Tribunale di Milano (Italy))

(Copyright and related rights in the information society – Protection of technological measures designed to prevent or restrict acts not authorised by the rightholder – Video game consoles structured to prevent the use of games other than those authorised by the console manufacturer – Devices capable of circumventing such measures – Relevance of the intended use of the consoles – Relevance of the extent, nature and importance of different possible uses of the devices)

1. Article 6 of Directive 2001/29 [\(2\)](#) requires Member States to provide adequate legal protection against a variety of acts or activities which circumvent, or whose purpose is to circumvent, effective

technological measures designed to prevent or restrict acts which are not authorised by the rightholder of a copyright or related right.

2. A manufacturer of video games, and of consoles on which to play them, structures both items so that they must recognise each other by exchanging encrypted information in order for the games to be played on the consoles. The stated intention is to ensure that only games produced by or under licence from the manufacturer (which are protected under Directive 2001/29) can be played on those consoles (which are not claimed to be protected under that directive) and thus to prevent use of the consoles to play unauthorised copies of the protected games.

3. Another operator markets devices which can be used to enable other games, including games which are not copies of those produced or authorised by the console manufacturer, to be played on the consoles. It alleges that the aim of the manufacturer – who wishes to prevent the marketing of such devices – is not to prevent unauthorised copying of its games (an aim which must be protected against circumvention under Article 6 of Directive 2001/29) but to increase sales of those games (an aim for which no such protection is required).

4. Against that background, the Tribunale di Milano (Milan District Court) asks, essentially, (i) whether Article 6 of Directive 2001/29 covers recognition devices installed in hardware (consoles) as well as encrypted codes in the copyright material itself even though interoperability between devices and products is thereby limited and (ii), when determining whether other devices have commercially significant purposes or uses other than circumvention, what weight it should accord to the intended use of the consoles and how it should evaluate the various uses to which the other devices can be put.

5. The national court restricts its questions to the interpretation of Directive 2001/29. However, a video game is to a large extent a type of computer program (though it may also incorporate other types of intellectual work, both narrative and graphic), and computer programs fall within the scope of Directive 2009/24. (3)

Summary of the relevant EU legislation

6. The principal relevant aspects of Directive 2001/29 and Directive 2009/24 may be summarised as follows.

Directive 2001/29

7. The preamble to Directive 2001/29 acknowledges that technological measures will increasingly enable rightholders to prevent or restrict acts which they have not authorised but expresses a concern that means of illegally circumventing such measures will develop at a similar pace. Measures put in place by rightholders should therefore be legally protected. (4) Such legal protection should be provided in respect of technological measures that effectively restrict acts not authorised by the rightholders of any copyright, rights related to copyright or the *sui generis* right in databases but must not prevent the normal operation or technological development of electronic equipment. It should respect proportionality and should not prohibit devices or activities which have a commercially significant purpose or use other than to circumvent the technical protection. (5) In addition, the legal protection afforded by Directive 2001/29 should not overlap with that given to technological measures used in connection with computer programs under Directive 2009/24. (6)

8. Article 1(2)(a) of Directive 2001/29 thus specifies that the directive leaves intact and in no way affects existing EU provisions relating to the legal protection of computer programs.

9. Article 6 of the same directive is entitled ‘Obligations as to technological measures’.

10. Article 6(1) requires Member States to provide adequate legal protection against the circumvention of any effective technological measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that he or she is pursuing that objective.

11. Article 6(2) requires Member States to provide adequate legal protection against the manufacture, import, distribution, sale, rental, advertisement for sale or rental, or possession for commercial purposes of devices, products or components or the provision of services which (a) are promoted, advertised or marketed for the purpose of circumvention of any effective technological measures, or (b) have only a limited commercially significant purpose or use other than to circumvent such measures, or (c) are primarily designed, produced, adapted or performed for the purpose of enabling or facilitating their circumvention.

12. Article 6(3) defines ‘technological measures’ as ‘any technology, device or component that, in the normal course of its operation, is designed to prevent or restrict acts, in respect of works or other subject-matter, which are not authorised by the rightholder ...’. They are deemed

‘effective’ where the use of protected material is controlled by rightholders through an access control or protection process such as encryption, scrambling or other transformation of the protected material or a copy control mechanism which achieves the protection objective.

Directive 2009/24

13. The preamble to Directive 2009/24 apparently defines the term ‘computer program’ as including programs incorporated into hardware (7) and makes clear that only ‘the expression of a computer program’ is to be protected, not the underlying ideas and principles themselves. (8) It specifies that ‘unauthorised reproduction, translation, adaptation or transformation of the form of the code in which a copy of a computer program has been made available’ infringes the author’s exclusive rights, but acknowledges that such reproduction and translation may be necessary, for example, to achieve interoperability with other programs or to allow all components of a computer system, including those of different manufacturers, to work together. To that limited extent, a ‘person having a right to use a copy of the program’ must not be required to obtain the rightholder’s authorisation. (9) Copyright protection of computer programs should be without prejudice to other forms of protection, where appropriate. However, contractual terms contrary to the provisions of the directive in respect of, inter alia, decompilation should be null and void. (10)

14. Accordingly, Article 1(1) and (2) requires Member States to provide copyright protection to computer programs (including their expression in any form but not the ideas and principles underlying them) as literary works within the meaning of the Berne Convention. (11)

15. Under Article 4(1)(a) and (c), the rightholder’s exclusive rights must include, inter alia, ‘the right to do or to authorise’ (a) ‘the permanent or temporary reproduction of a computer program by any means and in any form, in part or in whole’ and (c) ‘any form of distribution to the public, including rental, of the original computer program or of copies thereof’.

16. However, Article 5 provides for a number of exceptions to those exclusive rights. In particular, for any person lawfully in possession of a computer program and entitled to use it, authorisation is not required for: reproduction, where it is necessary for the use of the program in accordance with its intended purpose, including for error correction; the making of a back-up copy, in so far as necessary for the use of the program; or observation, studying or testing of the functioning of the

program in order to determine the ideas and principles which underlie any element of it, if carried out while performing any act which the person concerned is entitled to carry out.

17. Article 6 of Directive 2009/24 is headed ‘Decompilation’, a term which is not further defined. Under Article 6(1), the rightholder’s authorisation is not to be required where reproduction of a code or translation of its form are indispensable to achieve interoperability between computer programs, provided that (a) the act is carried out by or on behalf of a person entitled to use the program (b) who did not previously have the information necessary to achieve interoperability and (c) that it is confined to the parts of the original program which are necessary for that purpose. Article 6(2) adds that information obtained through the application of paragraph 1 must be used only for such purposes and Article 6(3) that the rightholder’s legitimate interests must not be unreasonably prejudiced.

18. Article 7 of Directive 2009/24 concerns special measures of protection. It requires Member States to provide appropriate remedies against, essentially, those who knowingly put into circulation or possess for commercial purposes any infringing copy of a computer program or any means whose sole intended purpose is to facilitate unauthorised removal or circumvention of a technical device applied to protect a computer program.

Facts, procedure and questions referred

19. The national proceedings are brought by three companies in the Nintendo group (‘Nintendo’), which produce video games and consoles, against PC Box Srl (‘PC Box’), a company which markets ‘mod chips’ and ‘game copiers’ (‘PC Box’s devices’) via its website. Both types of device enable video games other than those manufactured by Nintendo or by independent producers under licence from Nintendo (‘Nintendo and Nintendo-licensed games’) to be played on Nintendo consoles. The internet provider which hosts PC Box’s website is also a defendant. (12) Nintendo seeks to prevent PC Box’s devices from being offered for sale.

20. The referring court provides a certain amount of technical detail (and Nintendo has provided even more) as to how PC Box’s devices enable games other than Nintendo and Nintendo-licensed games to be played on Nintendo consoles. Much of that detail does not appear to me to be relevant to the legal issues raised. Suffice it to note the following.

21. The main proceedings concern two types of console manufactured by Nintendo ('DS' consoles and 'Wii' consoles), and the Nintendo and Nintendo-licensed games which are designed for them. Nintendo states that it provides free support for producers of the games which it licenses and sells its games in competition with them, demanding no royalties but charging for the supply of the cartridges or DVDs on which the games are recorded and which already contain the relevant encrypted information. Games for 'DS' consoles are recorded on cartridges which are slotted into the console; games for 'Wii' consoles are recorded on DVDs, which are inserted into the console. The cartridges and DVDs contain encrypted information which must be exchanged with other encrypted information contained in the consoles in order for the games to be played on those consoles.

22. It is not disputed that PC Box's devices can be used to circumvent the blocking effect of the required exchange of encrypted information between, on the one hand, Nintendo and Nintendo-licensed games and, on the other hand, Nintendo consoles. Nor is it disputed that the blocking effect of Nintendo's measures prevents games other than Nintendo and Nintendo-licensed games from being played on Nintendo consoles and that PC Box's devices will circumvent that effect also.

23. According to the referring court, Nintendo claims to have equipped its consoles and games with technological measures lawfully in order to ensure that unauthorised copies of Nintendo and Nintendo-licensed games may not be used with its consoles. It also asserts that the principal purpose or use of PC Box's devices is to circumvent those measures.

24. PC Box queries whether video games are to be regarded as computer programs or intellectual work. In either event, it submits that it markets original Nintendo consoles with a software pack comprising applications specifically created by independent producers for use on such consoles (13) in conjunction with mod chips or game copiers designed to disable the blocking mechanism built into the console. PC Box also considers that Nintendo's true purpose is (i) to prevent the use of independent software unconnected with the illegal video game copies sector and (ii) to compartmentalise markets by rendering games purchased in one geographical zone incompatible with consoles purchased in another. It therefore challenges Nintendo's application of technological measures not only to its video games but also to hardware, which it considers to be contrary to Article 6(3) of Directive 2001/29.

25. The referring court finds that, in line with the case-law of the Italian courts, video games such as those in issue cannot be regarded simply as computer programs but are complex multimedia works expressing conceptually autonomous narrative and graphic creations. Such games must therefore be regarded as intellectual works protected by copyright. It notes also that the technological measures put in place by Nintendo in its consoles contribute only indirectly to the prevention of unauthorised copying of games, and that the need to exchange information between the game and the console has the effect not only of allowing only Nintendo and Nintendo-licensed games to be played on Nintendo consoles but also of preventing such games from being played on any other console, thus restricting interoperability and consumer choice.

26. The Tribunale di Milano therefore seeks a preliminary ruling on the following questions:

- ‘(1) Must Article 6 of Directive 2001/29/EC be interpreted, including in the light of recital 48 in the preamble thereto, as meaning that the protection of technological protection measures attaching to copyright protected works or other subject matter may also extend to a system, produced and marketed by the same undertaking, in which a device is installed in the hardware which is capable of recognising on a separate housing mechanism containing the protected works (video games produced by the same undertaking as well as by third parties, proprietors of the protected works) a recognition code, in the absence of which the works in question cannot be visualised or used in conjunction with that system, the equipment in question thus incorporating a system which precludes interoperability with complementary equipment or products other than those of the undertaking which produces the system itself?
- (2) If it should be necessary to consider whether or not the use of a product or component to circumvent a technological protection measure predominates over other commercially significant purposes or uses, may Article 6 of Directive 2001/29/EC be interpreted, including in the light of recital 48 in the preamble thereto, as meaning that the national court must apply criteria which give prominence to the particular intended use attributed by the rightholder to the product in which the protected content is inserted or, in the alternative or in addition, criteria of a quantitative nature relating to the extent of the uses under comparison, or criteria of a qualitative nature, that is, relating to the nature and importance of the uses themselves?’ [\(14\)](#)

27. Written observations were submitted by Nintendo, PC Box, the Polish Government and the European Commission. At the hearing on 30 May 2013, Nintendo, PC Box and the Commission made oral submissions.

Assessment

Preliminary remarks

28. First, it has been made clear that the underlying dispute between the parties to the main proceedings concerns not only copyright law but also the question whether the measures put in place by Nintendo are lawful in the light of the rules of competition law. Since the national court's questions are confined to issues of copyright law, it does not seem to me appropriate to express any view on the latter aspect in the context of this reference.

29. Second, it appears that the technological measures put in place by Nintendo seek to prevent or restrict unauthorised acts in respect not only of Nintendo's own copyright material (its own games) but also of copyright material belonging to licensed independent producers. (15) The question whether, in order to benefit from protection under Article 6 of Directive 2001/29, technological measures must be put in place by the rightholder himself is alluded to by the referring court in question 1, but is neither mentioned in its reasoning nor addressed in the submissions to this Court. I shall not address it either.

30. Third, the outcome of the main proceedings will depend on findings of fact which can be made only by the national court (and I would agree here with the Commission that such findings must be made separately for each of PC Box's devices and for each type of Nintendo console). This Court cannot, for example, reach any conclusion or express any view on the relative extents to which Nintendo's purpose or intention is in fact to prevent unauthorised copying of its games and/or to gain commercial advantage by excluding interoperability with other products. Nor can it decide whether PC Box's devices in fact meet one or more of the criteria set out in Article 6(2) of Directive 2001/29. It can merely provide guidance as to the types of fact which may be relevant when applying national legislation implementing that article.

Relevance of Directive 2009/24

31. It is clear from the order for reference that the national court has made certain findings of fact as to the nature of Nintendo and Nintendo-licensed games and has concluded that, contrary to an argument put

forward by PC Box, those games are not to be regarded as computer programs within the meaning of Directive 2009/24 but as complex multimedia works falling within the scope of Directive 2001/29.

32. In its written observations, Poland suggested that those findings might be queried, although its own, not entirely conclusive, analysis seemed to lead it in the same direction. The Court therefore asked the parties attending the hearing (Nintendo, PC Box and the Commission) to address the question of the applicability of Directive 2001/29 in circumstances such as those of the main proceedings. Nintendo and the Commission agreed with the approach taken by the national court. PC Box, on the other hand, contended that Directive 2009/24, and not Directive 2001/29, was relevant to the circumstances in issue; it asserted that the decompilation carried out by PC Box was confined to the parts of the programme strictly necessary in order to ensure interoperability between Nintendo consoles and ‘homebrew’ games which did not infringe any copyright or related right.

33. It seems to me that this Court has no reason and no competence to reassess the facts found by the referring court, and that the conclusion which the latter draws from its findings in this regard is difficult to call in question as a matter of EU law.

34. Directive 2009/24 concerns only computer programs, whereas Directive 2001/29 concerns copyright and related rights in intellectual works in general. The latter leaves intact and in no way affects existing EU provisions relating to, inter alia, the legal protection of computer programs. The Court has thus stated that Directive 2009/24 constitutes a *lex specialis* in relation to the provisions of Directive 2001/29. (16) In my view, that statement must be read as meaning that the provisions of Directive 2009/24 take precedence over those of Directive 2001/29, but only where the protected material falls entirely within the scope of the former. If Nintendo and Nintendo-licensed games were computer programs and no more, Directive 2009/24 would therefore apply, displacing Directive 2001/29. Indeed, if Nintendo applied separate technological measures to protect the computer programs and the other material, Directive 2009/24 could apply to the former, and Directive 2001/29 to the latter.

35. However, the national court has found that Nintendo and Nintendo-licensed games cannot be reduced to the status of computer programs alone. They include also intellectual works in narrative and graphic form, which appear to be inextricable from the programs themselves. Nintendo’s

measures affect access to and use of the games as a whole, not merely their computer program component. The protection which Directive 2009/24 affords against unauthorised acts in respect of computer programs is slightly less generous (by reason of the exceptions provided for in Articles 5 and 6 (17)) than that which Directive 2001/29 affords against circumvention of technological measures designed to prevent or restrict unauthorised acts in respect of intellectual works in general. Where complex intellectual works comprising both computer programs and other material are concerned – and where the two cannot be separated – it seems to me that the greater, and not the lesser, protection should be accorded. If that were not so, rightholders would not receive in respect of that other material the degree of protection to which they are entitled under Directive 2001/29.

36. In any event, it does not appear that the acts made possible by the use of PC Box's devices, and with which the main proceedings are concerned, fall within any of the exceptions set out in Articles 5 and 6 of Directive 2009/24, although that again is a matter pertaining to the national court's assessments of fact.

37. Finally, I am aware that the German Bundesgerichtshof (Federal Court of Justice) has referred a specific question to this Court on the applicability of Directive 2009/24 to video games of the kind in issue. (18) I think it preferable for the Court to decide such a question in the light of the fuller submissions which will be presented to it in that case and to confine its assessment in the present case to the specific issues of interpretation raised by the national court.

38. I shall therefore address the questions by reference to Directive 2001/29 alone.

The questions referred

39. The Tribunale di Milano poses two questions, though perhaps not quite as clearly as might have been desired. (19)

40. As I understand it, the first question comprises two parts. First, do 'technological measures' within the meaning of Article 6 of Directive 2001/29 include not only those which are physically linked to the copyright material itself (here, by incorporation in the cartridges or DVDs on which the games are recorded) but also those which are physically linked to devices required in order to use or enjoy that material (here, by incorporation in the consoles on which the games are played)? Second, do

such measures qualify for the protection to be provided pursuant to that provision where (or even if) their effect is not merely to restrict unauthorised reproduction of the copyright material but also to preclude any use of that material with other devices or of other material with those devices?

41. The second question seems to concern essentially the criteria to be applied when assessing, in the context of Article 6(2) of Directive 2001/29, the purpose or use of devices such as those of PC Box which do or can in fact circumvent technological measures qualifying for protection. The national court refers in that regard, on the one hand, to ‘the particular intended use attributed by the rightholder to the product in which the protected content is inserted’ (here, Nintendo’s consoles) and, on the other hand, to the extent, nature and importance of the uses of the device, product or component itself (here, PC Box’s devices).

42. I infer that the national court wishes to establish, first, whether Nintendo’s technological measures qualify for protection because they are designed to prevent or restrict acts not authorised by the rightholder, even if they also restrict interoperability; then, if so, secondly and separately, whether that protection must be provided against the supply of PC Box’s devices because they allow or facilitate the performance of such unauthorised acts. I consider, however, that the two issues cannot be entirely separated, and that factors mentioned in relation to one may be relevant to the solution of the other.

Question 1

43. The first part of the question can, in my view, be taken alone and seems to pose no great difficulty. Nothing in the wording of Article 6 of Directive 2001/29 excludes measures such as those in issue, which are incorporated partly in the games media and partly in the consoles, and which involve interaction between the two. The definition in Article 6(3) – ‘any technology, device or component that, in the normal course of its operation, is designed to prevent or restrict acts, in respect of works or other subject-matter, which are not authorised by the rightholder’ – is broad, and includes ‘application of an access control or protection process, such as encryption, scrambling or other transformation of the work or other subject-matter or a copy control mechanism’. To exclude measures which are, in part, incorporated in devices other than those which house the copyright material itself would be likely to deny to a broad range of technological measures the protection which the directive seeks to ensure.

44. The second part of the question is less straightforward.

45. Both Nintendo and the Commission have rightly pointed out that, to benefit from legal protection pursuant to Article 6 of Directive 2001/29, a technological measure must be effective. Thus, in accordance with Article 6(3), not only must it be designed, in the normal course of its operation, to prevent or restrict unauthorised acts but it must also allow the use of the material to be controlled by the rightholder. In addition, as the Commission rightly submits, the acts which it must be designed to prevent or restrict are those for which the rightholder's authorisation is required under the directive – namely, reproduction (Article 2), communication or making available to the public (Article 3) or distribution (Article 4) of the rightholder's work.

46. The Commission considers that the acts specifically in issue in the main proceedings are, primarily, reproduction and, secondarily (because copies may subsequently be distributed), distribution of Nintendo and Nintendo-licensed games. I see no reason to disagree with that view.

47. As I have stressed, findings of fact are a matter for the national court, but Nintendo's technological measures seem to me likely to be effective in, if not preventing, at least restricting unauthorised reproduction of Nintendo and Nintendo-licensed games. It is true that the national court has found that their effect is largely indirect in that regard (the immediate effect being to prevent the use of unauthorised copies on Nintendo consoles) but I do not find that Article 6 of Directive 2001/29 contains any condition or makes any distinction as to directness of effect. If unauthorised copies are unusable (at least on Nintendo consoles), that is likely to have a significant restrictive effect on their production and thus their subsequent distribution. It also seems likely that the measures will have that effect 'in the normal course of their operation'. For the purposes of what follows, therefore, I shall assume that to be true.

48. If those were their only effects, the technological measures in issue would clearly fall within the scope of Article 6 of Directive 2001/29 and would be entitled to benefit from the required legal protection.

49. However, it is a premiss of the national court's question that those measures also prevent or restrict acts which do not require the rightholder's authorisation under Directive 2001/29 – such as the use of Nintendo consoles to play games other than Nintendo and Nintendo-licensed games or copies thereof, or the playing of Nintendo and

Nintendo-licensed games on consoles other than those manufactured by Nintendo.

50. To the extent that such other effects are generated, Directive 2001/29 does not require any legal protection to be given to the technological measures in question. Indeed, there would not appear to be any justification for such protection, if it were granted.

51. The difficulty lies in the fact that the same measures prevent or restrict acts which do require authorisation and those which do not.

52. Nintendo submits that the fact that a technological measure prevents or restricts acts which do not require authorisation is immaterial, provided that such an effect is only occasional or incidental to the main aim and effect of preventing or restricting acts which do require authorisation. PC Box, by contrast, stresses the principles of proportionality and interoperability set out in recitals 48 and 54, respectively, in the preamble to Directive 2001/29: technological measures which go beyond what is necessary to protect the copyright material itself or which exclude interoperability should therefore not benefit from protection. The Commission considers that, if such measures prevent also acts which do not require authorisation then, if they could have been designed so as to prevent only acts which require authorisation, they are disproportionate and do not qualify for protection; however, if it is unavoidable that they prevent also acts which do not require authorisation, they might not be disproportionate and might thus qualify for protection; the evaluation requires the current state of technology to be taken into account. Both Nintendo and the Polish Government submit that Nintendo consoles are not general-purpose computing devices; they are designed and marketed for the sole and explicit purpose of enabling Nintendo and Nintendo-licensed games to be played on them.

53. There is thus in fact broad agreement between those submitting observations (and I too agree) that a test of proportionality, the principle referred to in recital 48 in the preamble to Directive 2001/29, must be applied. Nintendo and PC Box, however, approach that test from opposite starting-points and argue for opposite outcomes.

54. I agree with the Commission that it is necessary for the national court to examine whether, in the current state of technology, the desired effect of preventing or restricting acts which require the rightholder's authorisation can be achieved without also preventing or restricting acts which require no such authorisation. In other words, could Nintendo have

protected its own or licensed games without preventing or restricting the use of its consoles to play 'homebrew' games?

55. I agree also with the cautious and nuanced manner in which the Commission expresses its view. The test of proportionality cannot be reduced to a mere assertion that interference with legitimate activity is immaterial provided that it is only incidental (Nintendo) or that any restriction of interoperability is necessarily disproportionate (PC Box).

56. In its classic form, as applied by the Court, that test involves determining whether a measure pursues a legitimate aim, whether it is suitable to achieve that aim and whether it does not go beyond what is necessary to achieve it.

57. As to the first element of the test, the aim of preventing or restricting acts not authorised by the rightholder is inherent in any system of copyright and is specifically encouraged by the legal protection required under Article 6 of Directive 2001/29.

58. To the extent that Nintendo's technological measures pursue only that legitimate aim, the question of their suitability to achieve it is linked to that of their effectiveness, which I have addressed in points 45 to 47 above. The national court must decide, on the evidence presented to it, which technological measures, among those currently available, can effectively protect against unauthorised reproduction of Nintendo and Nintendo-licensed games. There are perhaps no measures which can ensure that such acts are totally prevented. However, different measures can lead to different degrees of restriction. The national court must determine whether the degree of restriction attained by the technological measure in issue provides effective protection against unauthorised acts.

59. If, on the other hand, the national court were to find that Nintendo was pursuing in addition any other aim not justified in the context of that directive, the extent to which the nature of the technological measures was determined by the latter aim would have to be taken into account when examining whether those measures were suitable to achieve the legitimate aim of preventing or restricting unauthorised acts.

60. The remaining question is whether the measures do not go beyond what is necessary to achieve the aim of preventing or restricting unauthorised reproduction of Nintendo and Nintendo-licensed games.

61. In that regard, the national court must look at the degree of restriction of acts which do not require the rightholder's authorisation. What categories of act are in fact prevented or restricted where the technological measures in issue are applied and are not circumvented? How important is it that such acts should not be prevented or restricted?

62. Whatever the assessment of the degree of interference caused by the technological measures in issue, it will be necessary to decide whether other measures could have caused less interference while still providing comparable protection of rightholders' rights. In that regard, it may be relevant to take account of the relative costs of different types of technological measure, together with any other factors which might influence or determine the choice between them.

63. It is on the basis of considerations such as those which I have (without any claim to exhaustivity) outlined above that the national court must decide whether the technological measures in issue in the main proceedings are proportionate to achieve the aim of protection against unauthorised acts, as contemplated in Article 6 of Directive 2001/29, and thus qualify for the legal protection required by that provision, or whether they go beyond what is necessary for that purpose and thus do not qualify for such protection.

64. However, the analysis cannot be complete without considering the protection also in the light of the devices, products, components or services against which it is sought, with which Question 2 is concerned.

Question 2

65. The national court seeks guidance on the relevance of 'the particular intended use attributed by the rightholder to the product in which the protected content is inserted' (Nintendo's consoles) and of the extent, nature and importance of the uses of the devices against whose use protection is sought (PC Box's mod chips and game copiers).

66. As regards the first aspect, the national court refers to case-law of the Italian criminal courts according to which, apparently, the way in which the consoles are presented to the public and the fact that they are designed to play video games may lead to the conclusion that the use of mod chips has the primary purpose of circumventing the technological measures put in place. The referring court does, however, query whether that reasoning is adequate, particularly in proceedings such as those before it. In their observations, Nintendo and the Commission both consider that

the manufacturer's intention as regards the use of the consoles is not a relevant criterion when assessing the purpose of the mod chips or game copiers. By implication, PC Box appears to take the same view in its very brief observations on this question, while the Polish Government regards intended use as a factor which may be taken into consideration without being decisive.

67. I too consider that the particular use intended by Nintendo for its consoles is of no relevance to the assessment of whether protection should be provided against the supply of PC Box's devices. What matters is whether the latter fall within the scope of Article 6(2) of Directive 2001/29, and it is therefore the second aspect of the question – the extent, nature and importance of the uses of PC Box's devices – which must be addressed.

68. As the Commission has pointed out, where a technological measure qualifies for protection pursuant to Article 6(2) of Directive 2001/29, that protection must be provided against the manufacture, import, distribution, sale, rental, advertisement for sale or rental, or possession for commercial purposes of devices which (a) are promoted, advertised or marketed for the purpose of circumventing the technological measure in question, or (b) have only a limited commercially significant purpose or use other than to circumvent it, or (c) are primarily designed, produced or adapted for the purpose of enabling or facilitating its circumvention. Where none of those criteria are met, there is no protection pursuant to those provisions; by contrast, it is sufficient that a single criterion is met for protection to be required.

69. The national court's concern in its question is apparently less with (a) or (c), namely, purposes for which the devices are marketed or designed, than with (b), namely, the commercially significant uses of the devices in question. What types of criteria, it wishes to know – quantitative and/or qualitative – should be relied upon in order to assess whether PC Box's mod chips or game copiers 'have only a limited commercially significant purpose or use other than to circumvent' the technological measures put in place by Nintendo?

70. The reference to quantitative criteria in the question seems to indicate that the national court envisages examining evidence as to, for example, how often PC Box's devices are in fact used in order to allow unauthorised copies of Nintendo and Nintendo-licensed games to be played on Nintendo consoles and how often they are used in order to allow the playing of games which do not infringe copyright in Nintendo and Nintendo-licensed games.

71. That, Nintendo submits, reveals a misconception: what matters is not whether there are commercially significant purposes or uses *other than facilitating infringement* of the exclusive rights protected by the technological measures but simply whether there are commercially significant purposes or uses *other than circumventing those measures*, regardless of the type of act or activity which is thereby facilitated.

72. The Commission, however, stressed at the hearing that Directive 2001/29 does not seek to create any rights other than those specified in Articles 2, 3 and 4 (in essence, to grant or refuse authorisation for the reproduction, communication or distribution of a protected work). Legal protection pursuant to Article 6 is required only against circumvention which would infringe those specific rights. (20) Consequently, it is relevant to consider the ultimate purposes or uses of PC Box's devices and not merely the question whether there are commercially significant purposes or uses other than circumventing Nintendo's technological measures.

73. I would agree here with the Commission, and I would add that the same factors are relevant to the assessment of Nintendo's technological measures themselves.

74. It is not disputed that Nintendo's technological measures block both unauthorised acts (the use of unauthorised copies of Nintendo and Nintendo-licensed games) and acts which do not require authorisation (the use of other games), and that PC Box's devices circumvent that blocking in both cases. The blocking and the circumvention are thus coextensive; they are two sides of the same coin.

75. The extent to which PC Box's devices may in fact be used for purposes other than allowing infringement of exclusive rights will therefore be a factor to be taken into account when deciding not only whether those devices fall within Article 6(2) of Directive 2001/29 but also whether Nintendo's technological measures meet the test of proportionality. If it can be established that they are used primarily for such other purposes (and whether such a proposition can be established is a matter for the national court), not only are they used in ways which do not infringe any of the exclusive rights guaranteed by Directive 2001/29, but there will be a strong indication that the technological measures are not proportionate. By contrast, if it can be established that the devices are used primarily in such a way as to infringe exclusive rights, that will be a strong indication that the measures are proportionate. Consequently, if it is possible, a quantitative assessment of the ultimate purposes for which

the technological measures are circumvented by means of the devices will be relevant in determining both whether Nintendo's technological measures qualify in general for legal protection and whether protection should be given against the marketing of PC Box's devices.

76. The question of qualitative criteria, raised by the national court, has scarcely been addressed in the observations to the Court. It seems from the order for reference that the national court was envisaging that the importance of allowing Nintendo's consoles to be used for purposes which did not infringe any exclusive rights might outweigh the importance of preventing or restricting unauthorised acts.

77. I have indicated above (21) that such considerations may be relevant when applying the test of proportionality to Nintendo's technological measures. They may in my view also be relevant to the question whether protection must be provided against the marketing of PC Box's devices.

78. I would agree that it may be important in some cases (though less important in others) that the implementation of technological measures which protect exclusive rights should not interfere with users' rights to carry out acts which require no authorisation. However, to the extent that the latter are not fundamental rights, the importance of protecting copyright and related rights must also be given due recognition. None the less, such qualitative criteria should be viewed in the light of the quantitative criteria already discussed, namely, the relative extent and frequency of uses which do and of those which do not infringe exclusive rights.

Conclusion

79. In the light of all the foregoing considerations, I am of the opinion that the Court should answer the questions raised by the Tribunale di Milano to the following effect:

- (1) On a proper construction of Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society, 'technological measures' within the meaning of Article 6 of that directive may include measures incorporated not only in protected works themselves but also in devices designed to allow access to those works;

- (2) When determining whether measures of that kind qualify for protection pursuant to Article 6 of Directive 2001/29/EC where they have the effect of preventing or restricting not only acts which require the rightholder's authorisation pursuant to that directive but also acts which do not require such authorisation, a national court must verify whether the application of the measures complies with the principle of proportionality and, in particular, must consider whether, in the current state of technology, the former effect could be achieved without producing the latter effect or while producing it to a lesser extent.
- (3) When determining whether protection must be provided against any supply of devices, products, components or services pursuant to Article 6(2) of Directive 2001/29, it is not necessary to consider the particular intended use attributed by the rightholder to a device designed to allow access to protected works. By contrast, the extent to which the devices, products, components or services against which protection is sought are or can be used for legitimate purposes other than allowing acts which require the rightholder's authorisation is a relevant consideration.

1 – Original language: English.

2 – Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (OJ 2001 L 167, p. 10).

3 – Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs (Codified version) (OJ 2009 L 111, p. 16). Directive 2009/24 repealed and replaced Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs (OJ 1991 L 122, p. 42).

4 – See recital 47.

[5](#) – See recital 48.

[6](#) – See recital 50. The reference was originally to Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs (OJ 1991 L 122, p. 42), which was repealed and replaced by Directive 2009/24 (see Article 10 of the latter).

[7](#) – See recital 7. To seek to define a term in the preamble is an unusual legislative technique. Guideline 14 of the Joint Practical Guide of the European Parliament, the Council and the Commission for persons involved in the drafting of legislation within the Community institutions stipulates that terms which are not unambiguous ‘should be defined together in a single article at the beginning of the act’. See also Case C-136/04 *Deutsches Milch-Kontor* [2005] ECR I-10095, paragraph 32, and, more recently, the Opinion of Advocate General Jarabo-Colomer in Case C-192/08 *TeliaSonera Finland* [2009] ECR I-10717, in particular at point 89.

[8](#) – See recital 11.

[9](#) – See recital 15.

[10](#) – See recital 16.

[11](#) – Berne Convention for the Protection of Literary and Artistic Works (1886), as most recently amended in 1979. All the Member States are parties to the Berne Convention.

[12](#) – This reference does not concern the involvement of the internet provider (9Net Srl).

[13](#) – Independently produced video games, designed for use on proprietary hardware such as Nintendo consoles, are often referred to as ‘homebrew’.

[14](#) – Although the actual wording of the second question might leave room for doubt, it is clear from the reasoning set out in the order for reference that the ‘uses’ referred to in relation to quantitative or qualitative criteria are those of the ‘product or component’ to be evaluated (namely, the mod chip or game copier), and not those of the ‘product in which the protected content is inserted’ (the console).

[15](#) – See point 21 above.

[16](#) – Case C-128/11 *UsedSoft* [2012] ECR I-0000, paragraph 51.

[17](#) – See points 16 and 17 above.

[18](#) – Case C-458/13 *Grund and Nintendo*.

[19](#) – Nintendo has quoted a learned commentator as saying: ‘It is difficult to decipher the meaning of these complicated questions. (The CJEU might have to refer these questions back for preliminary explanation by the Milan court or by a committee of linguists.)’ That appears something of an exaggeration, but their formulation is indeed not simple.

[20](#) – The Commission pointed out that, in its proposal and amended proposal for Directive 2001/29, Article 6(1) and (2) specified that they concerned ‘circumvention without authority of any effective technological measures designed to protect any copyright or any rights related to copyright ...’ and that it was only with a view to ‘simplifying the drafting’ that the Council removed that specification (see Common Position (EC) No 48/2000, OJ 2000 C 344, p. 1).

[21](#) – At point 61.

**APPENDIX II - CASE C-355/12, NINTENDO V. PC BOX,
JUDGMENT OF THE COURT**

JUDGMENT OF THE COURT (Fourth Chamber)

23 January 2014 (*)

(Directive 2001/29/EC – Copyright and related rights in the information society – Concept of ‘technological measures’ – Protection device – Equipment and protected complementary products – Similar complementary devices, products or components from other undertakings – Exclusion of any interoperability between them – Scope of those technological measures – Relevance)

In Case C-355/12,

REQUEST for a preliminary ruling under Article 267 TFEU from the Tribunale di Milano (Italy), made by decision of 22 December 2011, received at the Court on 26 July 2012, in the proceedings

Nintendo Co. Ltd,

Nintendo of America Inc.,

Nintendo of Europe GmbH

v

PC Box Srl,

9Net Srl,

THE COURT (Fourth Chamber),

composed of L. Bay Larsen, President of the Chamber, K. Lenaerts, Vice-President of the Court, acting as Judge of the Fourth Chamber, M. Safjan (Rapporteur), J. Malenovský and A. Prechal, Judges,

Advocate General: E. Sharpston,

Registrar: A. Impellizzeri, Administrator,

having regard to the written procedure and further to the hearing on 30 May 2013,

after considering the observations submitted on behalf of:

- Nintendo Co. Ltd, Nintendo of America Inc. and Nintendo of Europe GmbH, by M. Howe, QC, L. Lane, Barrister, R. Black, C. Thomas and D. Nickless, Solicitors, and G. Mondini and G. Bonelli, avvocati,
- PC Box Srl, by S. Guerra, C. Benelli and S. Fattorini, avvocati,
- the Polish Government, by B. Majczyna and M. Szpunar, acting as Agents,
- the European Commission, by E. Montaguti and J. Samnadda, acting as Agents,

after hearing the Opinion of the Advocate General at the sitting on 19 September 2013,

gives the following

Judgment

- 1 The request for a preliminary ruling concerns the interpretation of Article 6 of Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (OJ 2001 L 167, p. 10).
- 2 The request has been made in proceedings between, on the one hand, Nintendo Co. Ltd, Nintendo of America Inc. and Nintendo of Europe GmbH (collectively ‘the Nintendo undertakings’), and, on the other, PC Box Srl (‘PC Box’) and 9Net Srl (‘9Net’), concerning the sale, by PC Box, of ‘mod chips’ and of ‘game copies’ (‘PC Box equipment’) through the website managed by PC Box and hosted by 9Net.

Legal context

International law

- 3 In the words of Article 2(1) of the Convention for the Protection of Literary and Artistic Works, signed at Berne on 9 September 1886 (Paris

Act of 24 July 1971), as amended on 28 September 1979 ('the Berne Convention'):

'The expression "literary and artistic works" shall include every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression ...'.

European Union law

Directive 2001/29

4 Recitals 9 and 47 to 50 in the preamble to Directive 2001/29 state:

(9) Any harmonisation of copyright and related rights must take as a basis a high level of protection, since such rights are crucial to intellectual creation. ...

...

(47) Technological development will allow rightholders to make use of technological measures designed to prevent or restrict acts not authorised by the rightholders of any copyright, rights related to copyright or the *sui generis* right in databases. The danger, however, exists that illegal activities might be carried out in order to enable or facilitate the circumvention of the technical protection provided by these measures. In order to avoid fragmented legal approaches that could potentially hinder the functioning of the internal market, there is a need to provide for harmonised legal protection against circumvention of effective technological measures and against provision of devices and products or services to this effect.

(48) Such legal protection should be provided in respect of technological measures that effectively restrict acts not authorised by the rightholders of any copyright, rights related to copyright or the *sui generis* right in databases without, however, preventing the normal operation of electronic equipment and its technological development. Such legal protection implies no obligation to design devices, products, components or services to correspond to technological measures, so long as such device, product, component or service does not otherwise fall under the prohibition of Article 6. Such legal protection should respect proportionality and should not prohibit those devices or activities which have a commercially significant purpose or use other than to circumvent the technical

protection. In particular, this protection should not hinder research into cryptography.

(49) The legal protection of technological measures is without prejudice to the application of any national provisions which may prohibit the private possession of devices, products or components for the circumvention of technological measures.

(50) Such a harmonised legal protection does not affect the specific provisions on protection provided for by [Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs (OJ 2009 L 111, p.16)]. In particular, it should not apply to the protection of technological measures used in connection with computer programs, which is exclusively addressed in that Directive. It should neither inhibit nor prevent the development or use of any means of circumventing a technological measure that is necessary to enable acts to be undertaken in accordance with the terms of Article 5(3) or Article 6 of Directive [2009/24]. Articles 5 and 6 of that Directive exclusively determine exceptions to the exclusive rights applicable to computer programs.’

5 Article 1 of Directive 2001/29 provides that:

‘1. This Directive concerns the legal protection of copyright and related rights in the framework of the internal market, with particular emphasis on the information society.

2. Except in the cases referred to in Article 11, this Directive shall leave intact and shall in no way affect existing Community provisions relating to:

(a) the legal protection of computer programs;

...’

6 Article 6(1) to (3) of Directive 2004/113 provide that:

‘1. Member States shall provide adequate legal protection against the circumvention of any effective technological measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that he or she is pursuing that objective.

2. Member States shall provide adequate legal protection against the manufacture, import, distribution, sale, rental, advertisement for sale or

rental, or possession for commercial purposes of devices, products or components or the provision of services which:

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

any effective technological measures.

3. For the purposes of this Directive, the expression “technological measures” means any technology, device or component that, in the normal course of its operation, is designed to prevent or restrict acts, in respect of works or other subject-matter, which are not authorised by the rightholder of any copyright or any right related to copyright as provided for by law or the *sui generis* right provided for in Chapter III of Directive 96/9/EC [of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases (OJ 1996 L 77, p. 20)]. Technological measures shall be deemed “effective” where the use of a protected work or other subject-matter is controlled by the rightholders through application of an access control or protection process, such as encryption, scrambling or other transformation of the work or other subject-matter or a copy control mechanism, which achieves the protection objective.’

Directive 2009/24

- 7 Article 1(1) of Directive 2009/24 is worded as follows:

‘In accordance with the provisions of this Directive, Member States shall protect computer programs, by copyright, as literary works within the meaning of the Berne Convention for the Protection of Literary and Artistic Works. For the purposes of this Directive, the term “computer programs” shall include their preparatory design material.’

Italian law

- 8 Article 102c of Law No 633 on the protection of copyright and other rights relating to its exercise (legge n° 633 – Protezione del diritto d’autore e di altri diritti connessi al suo esercizio) of 22 April 1941 (GURI No 166 of 16 July 1941), as amended by Legislative Decree No 68, transposing directive 2001/29/EC of the European Parliament and of the Council of

22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (decreto legislativo n. 68 – Attuazione della direttiva 2001/29/CE sull’armonizzazione di taluni aspetti del diritto d’autore e dei diritti connessi nella società dell’informazione), of 9 April 2003 (Ordinary Supplement to GURI No 87, of 14 April 2003), provides that:

‘1. Rightholders of any copyright or of any related right as well as of the right under Article 102bis (3) [concerning databases], may apply to protected works or objects effective technological protection measures, including any technology, device or component that, in the normal course of its operation, is designed to prevent or restrict acts which are not authorised by the rightholders.

2. Technological protection measures shall be deemed effective where the use of the protected work or object is controlled by the rightholders through the application of an access control or protection process, such as encryption, scrambling or other transformation of the work or the protected work, or if that use is limited by a copy control mechanism which achieves the objective of protection.

3. The present article shall not affect the application of the provisions concerning computer programs referred to in Title 1, Chapter IV, Part VI.’

The dispute in the main proceedings and the questions referred for a preliminary ruling

- 9 The Nintendo undertakings, members of a group which creates and produces videogames, market two types of products for those games, namely portable systems, ‘DS’ consoles and fixed console videogame systems, ‘Wii’ consoles.
- 10 The Nintendo undertakings have adopted technological measures, namely a recognition system installed in the consoles, and the encrypted code of the physical housing system onto which the videogames which are protected by copyright are registered. Those measures have the effect of preventing the use of illegal copies of videogames. Games lacking a code cannot be launched on either of the two types of equipment marketed by the Nintendo undertakings.
- 11 It is also apparent from the order for reference that those technological measures prevent use on the consoles of programs, games and, generally, multimedia content not from Nintendo.

- 12 The Nintendo undertakings have observed the existence of PC Box equipment which, once installed on the console, circumvent the protection system present on the hardware and enable illegal use of videogames.
- 13 Considering that the principal purpose of the PC Box equipment was to circumvent and to avoid the technological protection measures of Nintendo games, the Nintendo undertakings brought proceedings against PC Box and 9Net before the Tribunale di Milano.
- 14 PC Box markets original Nintendo consoles together with additional software consisting of certain applications from independent manufacturers, 'homebrews' created specifically to be used in such consoles and the use of which requires the prior installation of PC Box equipment which deactivates the installed device which constitutes the technological protection measure.
- 15 In the opinion of PC Box, the actual purpose pursued by the Nintendo undertakings is to prevent use of independent software which does not constitute an illegal copy of videogames, but which is intended to enable MP3 files, movies and videos to be read on consoles, in order to fully use those consoles.
- 16 The referring court considers that the protection of videogames cannot be reduced to that provided for computer programs. Indeed, although videogames take their functionality from a computer program, they begin and progress following a narrated predetermined route by the authors of those games in a way to make a group of images and sounds appear together with some conceptual autonomy.
- 17 That court queries whether the implementation of technological protection measures such as those at issue in the main proceedings used by Nintendo exceeds what is provided for that purpose by Article 6 of Directive 2001/29, such as interpreted in the light of recital 48 in the preamble to that directive.
- 18 In those circumstances, the Tribunale di Milano decided to stay the proceedings and to refer the following questions to the Court of Justice for a preliminary ruling:

'(1) Must Article 6 of [Directive 2001/29] be interpreted, including in the light of recital 48 [thereof], as meaning that the protection of technological protection measures attaching to copyright-protected works or other subject matter may also extend to a system, produced and marketed by the same undertaking, in which a device is installed in the

hardware which is capable of recognising on a separate housing mechanism containing the protected works (videogames produced by the same undertaking as well as by third parties, proprietors of the protected works) a recognition code, in the absence of which the works in question cannot be visualised or used in conjunction with that system, the equipment in question thus incorporating a system which is not interoperable with complementary equipment or products other than those of the undertaking which produces the system itself?

(2) Should it be necessary to consider whether or not the use of a product or component whose purpose is to circumvent a technological protection measure predominates over other commercially important purposes or uses, may Article 6 of [Directive 2001/29] be interpreted, including in the light of recital 48 [thereof], as meaning that the national court must adopt criteria in assessing that question which give prominence to the particular intended use attributed by the rightholder to the product in which the protected content is inserted or, in the alternative or in addition, criteria of a quantitative nature relating to the extent of the uses under comparison, or criteria of a qualitative nature, that is, relating to the nature and importance of the uses themselves?’

Consideration of the questions referred

- 19 By its questions, which it is appropriate to examine together, the referring court asks, in essence, in the first place, whether Directive 2001/29 must be interpreted as meaning that the concept of an ‘effective technological measure’, for the purposes of Article 6(3) of that directive, is capable of covering technological measures comprising, principally, equipping not only the housing system containing the protected work, such as the videogame, with a recognition device in order to protect it against acts which are not authorised by the holder of any copyright, but also portable equipment or consoles intended to ensure access to those games and their use.
- 20 In the second place, that court asks the Court of Justice, in essence, according to which criteria the scope of legal protection against circumventing technological protection measures within the meaning of Article 6 of Directive 2001/29 should be assessed. In particular, that court seeks to ascertain in that regard whether, first, the particular intended use attributed by the rightholder to the product in which the protected content is inserted, such as the Nintendo consoles, and, second, the scope, the nature and the importance of the use of devices, products or components

capable of circumventing those effective technological measures, such as PC Box equipment, are relevant.

- 21 In that regard, first of all it must be noted that Directive 2001/29 concerns, as is apparent *inter alia* from Article 1(1) thereof, the legal protection of copyright and related rights, including, for authors, exclusive rights to their works. As for works such as computer programs, they are protected by copyright provided that they are original, that is that they are their author's own intellectual creation (see Case C-5/08 *Infopaq International* [2009] ECR I-6569, paragraph 35).
- 22 As regards the parts of a work, it should be borne in mind that there is nothing in Directive 2001/29 indicating that those parts are to be treated any differently from the work as a whole. It follows that they are protected by copyright since, as such, they share the originality of the whole work (see *Infopaq International*, paragraph 38).
- 23 That finding is not weakened by the fact that Directive 2009/24 constitutes a *lex specialis* in relation to Directive 2001/29 (see Case C-128/11 *UsedSoft* [2012] ECR, paragraph 56). In accordance with Article 1(1) thereof, the protection offered by Directive 2009/24 is limited to computer programs. As is apparent from the order for reference, videogames, such as those at issue in the main proceedings, constitute complex matter comprising not only a computer program but also graphic and sound elements, which, although encrypted in computer language, have a unique creative value which cannot be reduced to that encryption. In so far as the parts of a videogame, in this case, the graphic and sound elements, are part of its originality, they are protected, together with the entire work, by copyright in the context of the system established by Directive 2001/29.
- 24 As regards Article 6 of Directive 2001/29, it is important to note that it requires the Member States to provide adequate legal protection against the circumvention of any effective 'technological measure' which is defined, in paragraph 3, as any technology, device or component that, in the normal course of its operation, is designed to prevent or restrict acts, in respect of works or other subject-matter, which are not authorised by the rightholder of any copyright or any right related to copyright as provided for by law or the *sui generis* right provided for in Chapter III of Directive 96/9.
- 25 Those acts constitute, as is apparent from Articles 2 to 4 of Directive 2001/29, the reproduction, the communication to the public of works and

making them available to the public, and the distribution of the original or copies of works. The legal protection referred to in Article 6 of that directive applies only in the light of protecting that rightholder against acts which require his authorisation.

- 26 In that regard, it must be stated, in the first place, that there is nothing in that directive to suggest that Article 6(3) thereof does not refer to technological measures such as those at issue in the main proceedings, which are partly incorporated in the physical housing systems of games and partly in consoles which requires interaction between them.
- 27 Indeed, as the Advocate General noted in point 43 of her Opinion, it is apparent from that provision that the concept of ‘effective technological measures’ is defined broadly and includes application of an access control or protection process, such as encryption, scrambling or other transformation of the work or other subject-matter or a copy control mechanism. Such a definition, moreover, complies with the principal objective of Directive 2001/29 which, as is apparent from recital 9 thereof, is to establish a high level of protection in favour, in particular, of authors, which is crucial to intellectual creation.
- 28 In those circumstances, it must be considered that technological measures such as those at issue in the case in the main proceedings, which are partly incorporated in the physical housing of videogames and partly in consoles and which require interaction between them, fall within the concept of ‘effective technological measures’ within the meaning of Article 6(3) of Directive 2001/29 if their objective is to prevent or to limit acts adversely affecting the rights of the holder protected by them.
- 29 In the second place, it is necessary to examine according to which criteria the scope of legal protection against circumventing technological protection measures within the meaning of Article 6 of Directive 2001/29 should be assessed.
- 30 As the Advocate General noted in points 53 to 63 of her Opinion, the examination of that question requires that account be taken of the fact that legal protection against acts not authorised by the rightholder of any copyright must respect the principle of proportionality, in accordance with Article 6(2) of Directive 2001/29, interpreted in the light of recital 48 thereof, and should not prohibit devices or activities which have a commercially significant purpose or use other than to circumvent the technical protection.

- 31 Accordingly, that legal protection is granted only with regard to technological measures which pursue the objective of preventing or eliminating, as regards works, acts not authorised by the rightholder of copyright referred to in paragraph 25 of the present judgment. Those measures must be suitable for achieving that objective and must not go beyond what is necessary for this purpose.
- 32 In those circumstances, it is necessary to examine whether other measures or measures which are not installed in consoles could have caused less interference with the activities of third parties not requiring authorisation by the rightholder of copyright or fewer limitations to those activities, while still providing comparable protection of that rightholder's rights.
- 33 Accordingly, it is relevant to take account, *inter alia*, of the relative costs of different types of technological measures, of technological and practical aspects of their implementation, and of a comparison of the effectiveness of those different types of technological measures as regards the protection of rightholder's rights, that effectiveness however not having to be absolute.
- 34 The assessment of the scope of the legal protection at issue would not have to be carried out, as the Advocate General noted at point 67 of her Opinion, by reference to the particular use of consoles, as envisaged by the copyright holder. It would, however, have to take account of the criteria laid down, as regards the devices, products or components capable of circumventing the protection of effective technological measures, in Article 6(2) of Directive 2001/29.
- 35 More specifically, that provision requires the Member States to provide adequate legal protection against those devices, products or components which have the purpose of circumventing that protection of effective technological measures which have only a limited commercially significant purpose or use other than to circumvent that protection, or are primarily designed, produced, adapted or performed for the purpose of enabling or facilitating that circumvention.
- 36 In that regard, with a view to examining the purpose of those devices, products or components, the evidence of actual use which is made of them by third parties will, in the light of the circumstances at issue, be particularly relevant. The referring court may, in particular, examine how often PC Box's devices are in fact used in order to allow unauthorised copies of Nintendo and Nintendo-licensed games to be used on Nintendo

consoles and how often that equipment is used for purposes which do not infringe copyright in Nintendo and Nintendo-licensed games.

- 37 In the light of the foregoing, the answer to the questions referred is that Directive 2001/29 must be interpreted as meaning that the concept of an ‘effective technological measure’, for the purposes of Article 6(3) of that directive, is capable of covering technological measures comprising, principally, equipping not only the housing system containing the protected work, such as the videogame, with a recognition device in order to protect it against acts which are not authorised by the holder of any copyright, but also portable equipment or consoles intended to ensure access to those games and their use.
- 38 It is for the national court to determine whether other measures or measures which are not installed in consoles could cause less interference with the activities of third parties or limitations to those activities, while still providing comparable protection of the rightholder’s rights. Accordingly, it is relevant to take account, inter alia, of the relative costs of different types of technological measures, of technological and practical aspects of their implementation, and of a comparison of the effectiveness of those different types of technological measures as regards the protection of the rightholder’s rights, that effectiveness however not having to be absolute. That court must also examine the purpose of devices, products or components, which are capable of circumventing those technological measures. In that regard, the evidence of use which third parties actually make of them will, in the light of the circumstances at issue, be particularly relevant. The national court may, in particular, examine how often those devices, products or components are in fact used in disregard of copyright and how often they are used for purposes which do not infringe copyright.

Costs

- 39 Since these proceedings are, for the parties to the main proceedings, a step in the action pending before the national court, the decision on costs is a matter for that court. Costs incurred in submitting observations to the Court, other than the costs of those parties, are not recoverable.

On those grounds, the Court (Fourth Chamber) hereby rules:

Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society must be interpreted as

meaning that the concept of an ‘effective technological measure’, for the purposes of Article 6(3) of that directive, is capable of covering technological measures comprising, principally, equipping not only the housing system containing the protected work, such as the videogame, with a recognition device in order to protect it against acts not authorised by the holder of any copyright, but also portable equipment or consoles intended to ensure access to those games and their use.

It is for the national court to determine whether other measures or measures which are not installed in consoles could cause less interference with the activities of third parties or limitations to those activities, while still providing comparable protection of the rightholder’s rights. Accordingly, it is relevant to take account, inter alia, of the relative costs of different types of technological measures, of technological and practical aspects of their implementation, and of a comparison of the effectiveness of those different types of technological measures as regards the protection of the rightholder’s rights, that effectiveness however not having to be absolute. That court must also examine the purpose of devices, products or components, which are capable of circumventing those technological measures. In that regard, the evidence of use which third parties actually make of them will, in the light of the circumstances at issue, be particularly relevant. The national court may, in particular, examine how often those devices, products or components are in fact used in disregard of copyright and how often they are used for purposes which do not infringe copyright.

[Signatures]

* Language of the case: Italian.

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