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Is TPM a dirty word?

Digital rights management-systems and video games within the EU

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Summary

The video game poses a challenge in terms of copyright protection due to the complexity and novelty of its nature, in essence being comprised of multiple copyrightable elements, resulting in jurisdictionally diverse legal classification and harmonisation within the EU is not yet achieved. As the varying options of copyright classification of video game affects the applicability of EU anti-circumvention law, and thus, the evaluation of digital rights management-systems, which is an important part of this thesis, clarification was called for. It was found that there are indications that a video game should not be considered a mere computer program, but rather a complex amalgamation of intellectual works.

The rapid technological development has made it comparably easy to gain unauthorised access to and use of copyrighted content, resulting in a growing illegal consumption of video games. To counter this, right holders implement digital rights management-systems (DRM-systems) to protect and manage their exclusive rights through restricting or preventing unauthorised access and use. Of tools used, technological protection measures (TPMs) in particular are from a lawful end-user perspective perceived as over-restrictive, complicating and limiting the access and the use of the video game, including acts that do not require right holder authorisation. In light of this, the impact of implemented DRM-systems, TPMs in particular, on illegal consumption and end-user's attitudes is illustrated and the *de facto* effectiveness of TPMs evaluated. It is argued that TPMs are not truly effective in preventing illegal consumption – indeed some scholars suggest that TPMs might even increase the magnitude of copyright infringement following increasing levels of discontent within the video gaming community.

Another aspect to the implementation of DRM-systems, specifically TPMs, is the potential conflict created as the right holder's fundamental right of property is pitted against the end-user's fundamental right of freedom of expression and information. This called for the application of a fundamental rights perspective, investigating whether TPMs may be interfering with end-users fundamental rights and, if so, whether it is considered a violation or not. It is shown that TPMs can interfere with the right of freedom of expression and information, but so far relevant case law implies that such interference is not considered a violation, in part due to the wide margin of appreciation awarded EU Member States. However, current case law does not seem entirely preclude that as a possible future outcome.

In conclusion, TPMs does not only inconvenience lawful end-users whilst being *de facto* ineffective in preventing illegal consumption of video games, but TPMs also interferes with end-user fundamental rights, although violation has not been confirmed. It is thus proposed that TPMs in their

current format may not be the preferred solution to counter video game piracy and ensure right holder exclusive rights.

Sammanfattning

Dator- och TV-spel är relativt nyligen introducerade och komplext utformade verk, vilket innebär en utmaning avseende upphovsrättsligt skydd. I huvudsak består ett sådant spel av ett flertal olika upphovsrättsliga alster, inkluderande programvaran, som är ouplösligt sammansatta i en och samma produkt. Detta leder till att den upphovsrättsliga klassificeringen varierar beroende på aktuell jurisdiktion, då harmonisering ännu inte har uppnåtts inom EU avseende sådana verk. Den upphovsrättsliga klassificeringen av dator- och TV-spel påverkar tillämpligheten av EU:s upphovsrättsliga skyddsåtgärdslagstiftning och därmed även utvärderingen av de elektroniska system (DRM-system) som används för att förvalta digitala rättigheter. Då denna utvärdering utgör en signifikant del i detta arbete, var ett försök till klargörande påkallat. Det visades att det föreligger indikationer på att dator- och TV-spel inte bör betraktas som enbart programvara, utan snarare bedömas vara en komplex sammanslagning av olika intellektuella verk.

Den snabba tekniska utvecklingen har gjort det jämförelsevis lätt att få obehörig tillgång till och nyttja upphovsrättsskyddat material, vilket resulterat i en växande illegal konsumtion av dator- och TV-spel. För att motverka detta och skydda sina ensamrätter nyttjar rättighetshavare vissa system för elektronisk förvaltning av digitala rättigheter, DRM-system, avsedda att begränsa eller helt förhindra obehörig åtkomst och användning. Av de rättsligt skyddade verktyg som används uppfattas särskilt de tekniska skyddsåtgärderna (TPMs) av legitima slutanvändare som alltför restriktiva då de både begränsar åtkomst till och komplicerar användningen av dator- och TV-spelet, inbegripet handlingar som inte kräver rättsinnehavarens tillstånd. Effekten av implementerade DRM-system, särskilt TPMs, på den illegala konsumtionen och på slutanvändarnas attityder illustreras som ett led i utvärderingen av *de facto* effektiviteten av TPMs. Det hävdas att TPMs inte tillräckligt effektivt förhindrar den illegala konsumtionen, och vissa forskare vill även mena att användandet av TPMs kan öka omfattningen av upphovsrättsintrång, sprunget ur ett växande missnöje med dessa inom dator- och TV-spelar forum.

En annan aspekt av implementering av DRM-system, särskilt TPMs, är den potentiella konflikt som uppkommer genom att rättighetshavarens fundamentala rätt till egendom ställs mot slutanvändarens fundamentala rätt till yttrande- och informationsfrihet. Detta berättigade en utredning av huruvida TPMs gör intrång i slutanvändarens fundamentala rättigheter, och, om så är fallet, ifall detta kan anses utgöra en otillåten kränkning. Det framkommer att TPMs kan anses göra intrång i rätten till yttrande- och informationsfrihet, men rådande rättspraxis finner inte att sådana intrång innebär otillåten kränkning, men verkar däremot inte helt prekludera denna möjlighet.

Sammanfattningsvis, TPMs medför inte bara besvär för legitima slutanvändare, utan de är även inte *de facto* effektiva i att förhindra illegal konsumtion av dator- och TV-spel. Därutöver inkräktar TPMs på slutanvändares fundamentala rättigheter, om än det idag inte ses som en otillåten kränkning. Därför synes TPMs i nuvarande utformning inte vara en optimal lösning för att motverka illegal konsumtion och skydda rättighetshavarens ensamrätt.

Preface

I began my academic studies at as a student of English, made a pit stop studying film and eventually ended up where I am now: putting the finishing touches on the thesis that marks the end of five years of law studies.

Initially, I wish to thank my supervisor Ulf Maunsbach, for the guidance and encouragement I have received throughout the writing process.

To my mother Maria and my sister Katarina I extend my warmest gratitude for your unstinting support, with an extra thank you to my mother for the hours she spent proofreading this thesis.

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Finally, I owe thanks to my dear friend Kristin with whom I have spent many a day playing video games, a most enjoyable activity, which undoubtedly have influenced my choice of topic.

Lund in January 2013,
Alexandra Alquist

Abbreviations

AG	Advocate-General
Berne Convention	Berne Convention for the Protection of Literary and Artistic Works
CJEU	European Union Court of Justice
DRM	Digital Rights Management
ECHR	European Convention on Human Rights
ECtHR	European Court of Human Rights
EC Treaty	Current consolidated version of the Treaty establishing the European Community
EU	European Union
EU Charter	Charter of Fundamental Rights of the EU 2000/C 364/01
GUI	Graphic user interface
ICCPR	International Covenant on Civil and Political Rights
InfoSoc Directive	Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society
ISP	Internet service provider
MD	Swedish Market Court
RMI	Rights management information
Software Directive	Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs
Swedish Copyright Act	Lag (1960:729) om upphovsrätt till litterära och konstnärliga verk
TPM	Technological Protection Measure
TRIPS	WTO Agreement on Trade-Related aspects of Intellectual Property Rights
UN	United Nations
WCT	WIPO Copyright Treaty
WIPO	World Intellectual property Organization
WPPT	WIPO Performances and Phonograms Treaty
WTO	World Trade Organisation

1 Introduction

1.1 Background

Video games pose a challenge as regards copyright protection due to the complexity and novelty of its nature. Video games of today are indeed complex work of authorship and, more often than not, are comprised of multiple copyrighted works. At the very least, any video game contain audiovisual parts, (e.g. pictures, video recording and sound), and software which essentially manages the audiovisual elements. In terms of the applicable legal approach, this inherent complexity results in jurisdictional diversity.¹ In other words, there are multiple legal classification options available for video games. As regards copyright classification and applicable EU law, two directives in particular are of interest, the Software Directive², applicable to computer programs, and the InfoSoc Directive³, applicable to a variety of intellectual works and related rights.

In a relatively short time span, video games have become an increasingly popular form of entertainment and a promising platform for creativity and innovation as well as a multibillion-dollar industry.⁴ The increase in popularity and economic value naturally makes the legal rights attached to video games more important than ever, and increased harmonisation and legal clarity is in demand. In addition, the rapid technological development, particularly as relates to the internet, has made circumvention of copyright protection easy and widespread and the result is a rising need to effectively protect copyrighted works. This has spurred the development of digital rights management (DRM) systems in order to ensure that right holders can manage their digital rights and exercise their exclusive rights.⁵ A DRM-system is a combination of electronic management and content protection, and it utilises technological, organisational and other means to control the use of digital works. Anything from basic copy protection to more complex systems controlling distribution and end-user consumption of content, for example by means of licensing- and payment-systems, are examples of DRM.⁶ Legally speaking, a distinction is made between rights management information (RMI) and technological protection measures (TPMs), although both are parts of DRM-systems.⁷ According to article 7 of the InfoSoc Directive, rights management information is defined as any electronic “information provided by right holders which identifies the work or other

¹ WIPO webpage, *IP: Video Games*.

² Software Directive, 2009/24/EC.

³ Information Society (InfoSoc) Directive, 2001/29/EC.

⁴ Jervell, Catherine, *Video Games: 21st Century Art*, WIPO Magazine, August 2012.

⁵ Bhatt, Vidyadhar, *Is Digital Rights Management an IPR?*, Journal of Library and Information Technology, Vol. 28, No. 5, September 2008 (Bhatt), p. 39-40.

⁶ Still, Viveka, *DRM och upphovsrättens obalans*, IPR University Center, Oy Nordprint AB: Helsinki, 2007 (Still), p. 2.

⁷ Still, p. 3.

subject matter, the author or any other right holder, or information about the terms and conditions of use, [...] and any numbers or codes that represent such information”.⁸ Member states are required to “provide adequate legal protection” for rights management information.⁹ Furthermore, article 6 of said directive obligates member states to “provide adequate legal protection against circumvention of effective technological protection measures”.¹⁰ Essentially, TPMs are technological devices or tools that prevent or hinder unauthorised or illegal access to intellectual works, as well as copying or reproduction of said works.¹¹ An example would be encryption built into gaming consoles that can only be decrypted through an information exchange with a medium, such as a cartridge or CD, containing the decryption key.

However, TPMs, incorporated in video games are often perceived as over restrictive and intrusive by legitimate end-users.¹² As the discontent of end-users grow, so does the extent of illegal consumption of unauthorised video game copies, raising questions as to whether DRM, in its current form, is effectively protecting the exclusive rights of right holders or if it creates discontented end-users. Further, as such DRM restricts end-user access to and use of a legitimately bought game, questions pertaining to conflicting fundamental rights of the right holders, i.e. right to property, and the end-user’s fundamental rights of freedom of expression and information, arise. Essentially, one asks oneself whether the permitted level of DRM within the EU interferes with the fundamental rights of the end-user or not.

1.2 Purpose and questions

The primary purpose of the thesis is to critically examine the EU anti-circumvention law pertaining to DRM, and in particular TPMs, its applicability regarding video games and the *de facto* effect and effectiveness of the current regulation in this context, focusing on conflicting interests of right holders and end-users. I aim to examine and clarify how the relevant legal EU regulation relates to copyrighted videogames and what impact the legal approach to copyright protection and DRM-systems have in reality, especially on end-users.

The secondary purpose is to establish whether these DRM-systems, specifically TPMs, inherently create a conflict between right holders fundamental right to their intellectual work and the end-users fundamental rights of freedom of expression and information. If such interference is

⁸ Directive 2001/29/EC on the harmonisation of certain aspects of Copyright and Related Rights in the Information Society (InfoSoc Directive), article 7(2).

⁹ InfoSoc directive, article 7(1).

¹⁰ InfoSoc directive, article 6(1).

¹¹ InfoSoc directive, article 6. ?

¹² Wilson, Arlene, *Digital Rights Management – An Overview*, Business Law Review, January 2010 (Wilson), p. 7.

indeed deemed to take place, then the question is whether that interference is justifiable or not.

The questions that have been formulated to guide the research are as follows:

1. How do TPMs affect end-users and are TPMs *de facto* effective?
2. Can the use of DRM-systems, in particular TPMs, interfere with end-users' fundamental right to freedom of expression and information, and, if so, is it considered a violation or not?

1.3 Method and material

Initially, it should be noted that I myself am an avid gamer, which partly explains my interest in this subject matter. It is therefore not unimaginable that my personal experience as an end-user of video games affects how I interpret the material used, although my aim is to be critical and objective.

The method applied throughout the thesis is traditional legal method in the sense that primary and secondary sources of law within the EU, i.e. relevant directives and conventions in combination with relevant EU case law and doctrine, are analysed. The focal point is EU law, but as appropriate national Member State legislation and international agreements are studied. Due to the nature of the subject matter, the discussion is not limited to a strict *de jure* approach and subsequently the issue is also approached in terms of the *de facto* impact.

By way of contrasting right holder interests with end-user interests, when appropriate, throughout the thesis, their potentially opposing perspectives are used to present the core arguments in the debate on DRM-systems.

Further on, a fundamental rights perspective is adopted and an evaluation of the relevant provisions of primary law sources, such as the European Convention on Human Rights (ECHR) and applicable protocols, the EU Charter of Fundamental Rights (EU Charter) and case-law from the European Court of Human Rights (ECtHR), is performed.

Concerning the *de facto* impact of examined DRM-systems on video game piracy and end-users actions as well as the prevalent attitudes within the gaming community, the approach is, in part, based on a non-legal discourse. This becomes apparent as regards the discussion on the underlying reasons for illegal consumption and the choices made by both end-users and right-holders.

Apart from select primary sources, such as treaties, directives, conventions, national legislation and applicable case law, a rather substantial number of secondary sources are used, mainly peer-reviewed articles and relevant literature. The articles I have used primarily adhere from different

intellectual property journals, for example Nordiskt Immateriellt Rättsskydd, European Intellectual Property Review and Intellectual Property Quarterly.

The international intergovernmental organisation World Intellectual Property Organisation (WIPO), which concerns itself with the clarification of intellectual property law and aims to strike a balance between right holder privileges and end-user freedom, has, apart from establishing certain relevant treaties, also conducted studies and handbooks on the subject of copyright. Particularly one recent study¹³ on the legal status of video games has been examined alongside the WIPO Handbook on Copyright.

In terms of secondary online sources, a few have been examined which cannot be considered traditional legal sources. Examples are online websites and blogs, dedicated to discussions on intellectual property law, video gaming and/or DRM. The purpose of using these untraditional sources is to get a sense of the ongoing discussion in the gaming community pertaining to right holder's use of DRM and its impact on end-users. In particular, these sources have been used to exemplify and explain the dynamics between the right holders and the end users and when discussing end-users attitudes towards DRM these blogs and websites have been particularly useful.

When searching for relevant material, online legal search engines and the law faculty library have mainly been utilised. Available research literature, specifically focused on video game piracy and the related legal complications, is limited whilst information on other digital products is available to a higher degree. Unsurprisingly, it has not been easy finding material that specifically targets the narrow topic of copyrighted video games and DRM. However, even though the novelty of the legal subject matter of video games and attached copyright partly complicated the research insofar that the number of traditional sources addressing the particular issue were limited, it also resulted in the majority of relevant material being current and up to date.

1.4 Terminology

The general definition of the term video game is “a game played electronically manipulating images produced by a computer program on a monitor or other display”.¹⁴ In general terms, when talking about video games one is therefore referring to a type of electronic game which is not inherently locked to a specific platform. In other words, a video game could be a computer game (e.g. for PC or Mac) or a game playable only on a

¹³ Ramos, Andy et.al., *The Legal Status of Video Games: Comparative Analysis in National approaches*, July 29 2013 WIPO.

¹⁴ Oxford Dictionaries, *Definition of video game* (online source).

particular gaming console (e.g. for Xbox, Playstation and Wii). Throughout the thesis, this is the intended connotation of “video game”.

1.5 Delimitations

The scope of the thesis is limited to the intellectual work that is video games and the analysis is limited to the right holder perspective and the end-user perspective.

The study is primarily focused on EU legislation, but comparisons will, when appropriate, be made with national and international regulation.

Although competition law most definitely could be of interest, insofar as the implications of digital right management on the European market are concerned, it is a different field of law and as such will not be examined.

Concerning the discussion on fundamental rights and DRM, it is limited to the conflict between the right of property and the right of freedom of expression and information. Naturally, there are other fundamental rights which could potentially be of interest, however it would not be feasible to thoroughly examine more than the selected rights within the scope of this thesis. One such example which could be interesting to discuss would be the right to protection of personal data, but that discussion is deliberately left outside the scope of the thesis.

It is presumed that the reader is relatively conversant on the legal topic of intellectual property law, especially copyright. The thesis is focused on EU law and it is recommended for any reader to possess basic knowledge of the structure of EU law, how it correlates with member states and interact with international law. For example, that there is a legal doctrine of primacy of EU law, which entails that EU law precedes over national member state law and that member states must comply with adopted and ratified directives, is knowledge that the reader is presumed to possess.

1.6 Disposition

The structure is one of consecutive presentation of relevant information and analysis of said information. The thesis is not divided into parts of strictly objective information presentation followed by chapters entirely comprised of analysis, on the contrary, the chapters are structured around the different themes presented in the first chapter and incorporates both facts and analysis.

In the first chapter the topic and aim of the thesis as well as the main question formulations, terminology, necessary delimitations and overall structure of the thesis is presented.

The second chapter provides a basic introduction to the legal framework as regards copyright and video games within the EU and certain relevant international agreements. The chapter then expands on the actual classification of video games in terms of EU copyright. To achieve this, certain relevant directives, conventions and agreements already mentioned are presented in greater detail. The last part of the chapter deals with DRM, expanding upon what the term entails and what its legal basis within the EU is.

Chapter three then addresses the recently issued opinion of Advocate-General (AG) Sharpston regarding the preliminary ruling of the case *Nintendo v PC Box*. At a first glance it might seem excessive to devote an entire chapter to this one preliminary ruling, however as the opinion represents a recent and slightly new take on EU anti-circumvention law, specifically concerning TPMs and video games, and addresses the importance of proportionality and fair balance between copyright and other rights as well as other relevant legal questions, an extensive examination is justified.

The fourth chapter presents arguments supporting the use of DRM-systems and discusses potential drawbacks of TPMs, with the aim to illustrate the end-user attitudes towards those as well as possible reasons for circumvention. Further, the *de facto* effectiveness of TPMs as a countermeasure for video game piracy will be discussed. Due to the nature of the issue, the strict legal approach is departed from in favour of empirical studies and non-legal sources.

Chapter five addresses the core issue of balancing the fundamental rights of copyright holders with the fundamental rights of end-users. The right to property will be weighed against the right to freedom of expression and information through comparison of legal provisions, doctrine and case law.

Finally, in chapter six, the questions presented in chapter one are, following the analyses in previous chapters, answered and conclusions are drawn.

2 Copyright law, video games and DRM

2.1 International agreements

The Berne Convention is the foundation for copyright internationally and within the European Union and was established in the 1886. The convention asserts the exclusive right of the author to his or her own literary or artistic work, or more specifically, as formulated in article 2(1), the author's "every production in the literary, scientific and artistic domain, whatever may be its mode or form of its expression".¹⁵ The convention provides the author with the exclusive right to reproduce the work, according to article 9, whilst other important issues, for example distribution, are left entirely unaddressed. Further, article 5(1) states that authors "[...] enjoy, in respect of works for which they are protected under this Convention, in countries of the Union other than the country of origin, the rights which their respective laws do now or may hereafter grant to their nationals". Article 20 expressly states that it is only permissible for Member States to conclude special agreements if such agreements grant authors more extensive rights than the Berne Convention itself and do not provide contrary provisions.

The World Trade Organisation (WTO) Agreement on Trade-Related aspects of Intellectual Property Rights (TRIPS) was enacted 1994 and raised the standards of internationally mandatory protection for intellectual property rights beyond the level prescribed by the Berne Convention.¹⁶ However, TRIPS was created in the early 1990's when the full potential of digital communication was unknown and therefore it does not address the issues related to copyright and the World Wide Web.¹⁷ As a response to this, two treaties were adopted in 1996 by the World Intellectual Property Organization (WIPO), both addressing the demands made by the increased digitisation on copyright and related rights.¹⁸ WIPO itself is a specialised intergovernmental agency within the United Nations (UN) system of organisation.¹⁹ Its purpose is to promote "the creation, dissemination, use and protection of works of the human mind for economic, cultural and social progress of all mankind". It aims to strike a balance between sufficiently protecting rights of the authors and granting access to the socio-

¹⁵ Berne Convention for the Protection of Literary and Artistic Works, September 9, 1886, articles 5, 9 & 20.

¹⁶ Kur, Anette & Dreier, Thomas, *European Intellectual Property Law text, cases & materials*, Cheltenham: Edward Elgar, 2013, (Kur & Dreier) p. 25.

¹⁷ Kur, & Dreier, p. 32.

¹⁸ Cvetovski, Trajce, *Copyright and popular media: liberal villains and technological change*, New York: Palgrave Macmillan, 2013, (Cvetovski) p. 60.

¹⁹ *WIPO Intellectual Property Handbook*, WIPO publication No. 489 (E), Second edition, 2008, (WIPO Handbook) p. 14.

economic and cultural benefits of such works worldwide.²⁰ The two abovementioned WIPO treaties are considered to be special agreements pursuant article 20 of the Berne Convention and as such are available to all the Convention's contracting parties.²¹ The more relevant of the two treaties is the WIPO Copyright Treaty (WCT), which addresses what WIPO refers to as the 'Digital Agenda' and is essentially a reaction to the need to clarify existing norms and to create new norms if necessary, particularly concerning the issues of digitisation and the internet. Its provisions covers the applicable rights for the storage and transmission of works in digital systems, exceptions to and limitations on the rights in the digital environment, technological protection measures and rights management information.²² In accordance with both the Berne Convention and TRIPS, article 10 of the WCT states that the limitation and exceptions to the rights stipulated in WCT utilises the "three-step" test and therefore permissible limitations and exceptions are limited to "certain special cases that do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the author".²³ Furthermore, contracting parties are also obliged to supply legal protection of technological protection measures.²⁴ According to article 11, contracting parties are required to provide "[...] adequate legal protection and effective legal remedies against circumvention of effective technological measures that are used by authors in connection with the exercise with the rights under this treaty or the Berne Convention and that restricts acts, in respect of their works, which are not authorized by the authors concerned or permitted by law."²⁵ The application of such measures and information are left to the right holders.²⁶ The other mentioned WIPO treaty is the WIPO Performances and Phonograms Treaty (WPPT), however, as it concerns performances and phonograms it is not relevant to the subject matter at hand.²⁷

2.2 EU copyright law

First and foremost, copyright law protects literary and artistic work of certain originality and since copyright protection is dependant on the principle of territoriality, copyrighted works are governed by the national regulations of the concerned Member State. Essentially, copyrighted work is protected by different laws in each Member State.²⁸

²⁰ WIPO Handbook, para. 1.4, 15.

²¹ Tritton, Guy, *Intellectual property in Europe*, Third Edition, London: Thomson Sweet & Maxwell, Third Edition, 2008, (Tritton) p. 483

²² WIPO Handbook, 270-271.

²³ Tritton, p. 483.

²⁴ Wilson, p.2.

²⁵ WIPO Copyright Treaty on December 20, 1996 adopted in Geneva (WCT), article 11.

²⁶ WIPO Handbook, p. 272-273

²⁷ WIPO Handbook, p. 326.

²⁸ Kur & Dreier, p. 243-244.

Furthermore, according to article 295 of the EC Treaty, the European Community lacks direct competence to legislate the field of copyright law, which further enforces that intellectual property law is a matter of national law. Apart from when legislation is enacted on the grounds of article 308 of the same directive, which confers the so-called implied powers, the harmonisation of copyright law rests on article 95, intended to favour and reinforce market integration. This implies that the main goal, in terms of harmonisation, is to remove differences between national legislation that hinders the free movement of goods or causes distorted conditions of completion.²⁹

It is only recently that harmonisation of European national copyright law has begun. Harmonisation was for a long time held back because of differing territorial cultural stances on copyright as well as language barriers. Perhaps even more importantly, the trans-border copyright protection did not use to be of great economic value, unlike today, and thus, harmonisation of copyright law within Europe was not prioritised. The arrival of computer programs, databases, technological advances and, most notably, the internet changed the scene and as access to and unauthorised sharing of copyright protected works online became all too easy, the need for reliable trans-border protection of copyrighted works grew and became a priority to right holders. However, full harmonisation of copyright law is still a work in progress.³⁰ As of today, no less than seven copyright directives have been adopted.³¹ As regards video games the following directives are of particular importance.

2.2.1 Software Directive (2009/24/EC)

What separates a video game from other copyrightable works, such as a painting or a piece of music, is not only that it is comprised of many different intellectual works, but also that it inevitably has one vital component that traditional intellectual works do not; a computer program, a core element in the creation of a video game.

The development of computer software is often expensive and time-consuming while the end-result can easily, and generally at an insignificant cost, be reproduced. Consequently, authors need easily attainable and verifiable exclusive legal protection that copyright, by its very nature, grants. Computer programs are legally protected against unauthorised copying, for private use or sharing, as well as from unauthorised adaptations of said program made by competitors. Subsequently, the Directive on the legal protection of computer programs 2009/24/EC³² (Software Directive) recognises computer programs as a new subject matter of intellectual

²⁹ Mazziotti, Guisepppe, *EU Digital Copyright Law and the End-User*, Berlin: Springer Verlag, 2008, (Mazziotti) p. 37.

³⁰ Kur & Dreier, p. 242-243, 245.

³¹ Kur & Dreier, p. 250.

³² Originally published as Directive 91/250/EEC.

creation, despite being fundamentally functional.³³ The directive stipulates that member states must protect computer programs as literary works under the Berne convention and attach copyright.³⁴ The directive does not expressly define the term “computer program”, but according to recital 14, logic, algorithms and programming language are not protected to the extent that they comprise ideas and principles.³⁵

The exclusive rights are presented in article 4(1) and exhaustion of distribution rights are stated in article 4(2). Article 6 then presents the limitations on the exclusive rights for the benefit of legitimate users (“lawful acquirers”) – for example, legitimate users are allowed to make back-up copies when necessary.³⁶ In addition, article 7 obliges member states to provide certain remedies as regards infringement, which includes a limited form of anti-circumvention protection.³⁷

2.2.2 InfoSoc Directive (2001/29/EC)

The Directive 2001/29/EC on the harmonisation of certain aspects of copyright and related rights in the information society, referred to as the InfoSoc Directive, represents a new more encompassing horizontal approach to harmonisation of copyright law, even though it does not replace earlier copyright directives.^{38,39} Up until the enactment of this directive, the predominant approach to copyright within the EU was sectorial in that each directive handled individual categories of intellectual works, individual rights or other particular issues. The InfoSoc Directive was initially meant to deal solely with copyright implications with the internet, but many of its provisions, for example its definition of the reproduction right in article 2, are generally applicable. In terms of harmonisation, one might say that the InfoSoc Directive is the first real step towards an EU-wide copyright code.⁴⁰ Several different essential rights are harmonised in this directive, for example, reproduction and distribution rights and other right holder exclusive rights, as well as limitations to these rights and protection of technological measures and rights management information. It is also clear that already in article 1(2) the InfoSoc Directive leaves the Software Directive intact.⁴¹

Article 2 stipulates that “Member States must provide for the exclusive right to authorise or prohibit direct or indirect, temporary or permanent reproduction by any means and in any form, in whole or part: (a) for

³³ Kur & Dreier, p. 250.

³⁴ Directive (2009/24/EC) on the legal protection of computer programs (Software Directive), article 1(1).

³⁵ Tritton, p. 490-491.

³⁶ Software Directive, article 5(1) and (2).

³⁷ Software Directive, article 7(1)(c).

³⁸ Mazziotti, p. 44.

³⁹ Kur & Dreier, p. 271.

⁴⁰ Tritton, p. 531.

⁴¹ Kur & Dreier, p. 270-272.

authors, of their works; [...]”. Article 3 then grant authors the exclusive right to communicate their intellectual works to the public.⁴² This means that authors of works have a right to authorise or prohibit any communication of their works to the public, by wire or wireless means. This includes making their works available to the public in such a way that members of the public can gain access to the works from a place and at a time individually chosen by them.⁴³ The right to distribute these works is exclusively awarded to the authors in article 4. Essentially, without authorisation from the right holder, the public is not allowed to reproduce, communicate or distribute an intellectual work. However, there are exceptions to these rules, as listed in article 5. Article 5(1) stipulates that acts of temporary reproduction, being transient or incidental and an integral and essential part of a technological process and whose sole purpose is to enable either a transmission in a network between third parties by an intermediary or a lawful use, is exempt from the reproduction right in article 2. The reproduction must additionally not have any independent economic significance and must fit into one of the categories (a-e) in article 5(2).⁴⁴ One such exemption occurs when a reproduction is made by publicly accessible libraries and certain other establishments, for example museums or archives, under the precondition that it is not for direct or indirect economic or commercial advantage.⁴⁵ Additionally, article 6 and 7 addresses the legal protection of technical protection measures and rights management information.⁴⁶

Further, the InfoSoc Directive implements the international WIPO treaty WCT.⁴⁷ According to Kur and Dreier, the directive, in certain aspects, even go beyond the obligations of the treaty.⁴⁸ For example, article 6 prohibits both the act of circumvention and of manufacturing and distribution of circumvention devices, which they view as a broadening of anti-circumvention protection. The concerned WIPO treaties only provide anti-circumvention protection to the extent that intellectual works are protected by copyright and not exempt due to limitations and exceptions, but no such limitations or exceptions exists in the InfoSoc Directive.⁴⁹ In greater detail, article 6(1) states that member states shall “provide adequate legal protection against the circumvention of any effective technological measures, which the person concerned carries out in the knowledge, or with reasonable grounds to know, that he or she is pursuing that objective.”⁵⁰

⁴² InfoSoc directive, Article 2, 3.

⁴³ Tritton, p. 543.

⁴⁴ InfoSoc directive, Article 4, 5.

⁴⁵ InfoSoc directive, Article 5(2)c.

⁴⁶ Kur, & Dreier, p. 271.

⁴⁷ Ficsor, Mihály, *TPM systems to protect video games and illegal “mod chips” to circumvent them – in the light of a referral to the CJEU*, 21st Annual Intellectual Property Law & Policy Conference, Fordham University School of Law, April 4-5, 2013, (Ficsor I), p.5.

⁴⁸ Kur & Dreier, p. 270.

⁴⁹ Kur & Dreier, p. 273.

⁵⁰ InfoSoc Article 6(1).

2.3 Classification of video games

As the core of the thesis is the effect of DRM-systems, in particular TPMs, attached to video games as copyrighted intellectual work, it is necessary to first classify the video game in terms of copyright, as such classification can affect the applicable anti-circumvention legislation.

In essence, video games are amalgamations of individual copyrightable elements, such as music, scripts, video, paintings and character design, with the addition of a computer program on specific hardware which enables human interaction with the game. Unsurprisingly, such complex works of authorship presents specific legal issues in terms of classification.⁵¹ Lipson and Brain considers three types of creative elements to be included in a video game: audio elements (e.g. musical compositions, sound recording and voice-acting), video elements (e.g. photographic images, moving images, animation and text) and computer code (i.e. source code and object code). Additionally, the video game script, plot and other literary works, well-developed characters and maps and architectural works, may also be eligible for copyright protection. However, these elements are only protected if they fulfil the criteria for protection in each jurisdiction.⁵²

Since individual elements that comprise a video game can undisputedly warrant independent copyright protection, the question at hand is whether legal protection is attainable for the video game as a whole, i.e. as a single and cohesive intellectual work.⁵³ Basically, there are three main modes of classification: some jurisdictions considers video games to be predominantly a computer program, whilst others consider that video games have a distributive classification and consequently the legal protection of different individual elements must be found separately in accordance with the specific nature of the element, and finally, a limited number of countries are inclined to address video games as essentially audiovisual works. However, the classification of video games as essentially audiovisual works is marginally used, especially within the EU, and is thus of limited interest and will not be further examined.⁵⁴

Finally, however likely it may be that a video game can be classified as an intellectual work pursuant the InfoSoc Directive, since a computer program is a core component of video games, an investigation of the Software Directive and its applicability on the subject matter is warranted, and it would not be appropriate to dismiss it without investigation.

⁵¹ Ramos, Andy et.al., *The Legal Status of Video Games: Comparative Analysis in National approaches*, July 29 2013 WIPO (Ramos et al.), p. 7.

⁵² Lipson, Ashley S. and Brain, Robert D., *Computer and Video Game Law – Cases, Statutes, Forms, Problems & Materials*, Durham: Carolina Academic Press, 2009, p.54.

⁵³ Ramos et al., p. 8-9.

⁵⁴ Ramos et al., p. 11.

2.3.1 The video game as a computer program

First and foremost, what is the definition of a computer program according to the Software Directive? Even though article 1(1) and (2) regulates the object of protection, i.e. computer programs, the term is not clearly defined.⁵⁵ This lack of a clear definition was intentional as it allows the term to be dynamic and adaptable over time.⁵⁶ Article 1(2) states that the directive is applicable to “[...] the expression in any form of a computer program”. Additionally, in recital 7 of the preamble, the term computer program includes “programs in any form, including those which are incorporated into hardware.” Moreover, recital 7 sentence 2 states that the term is also applicable to “preparatory design work leading to the development of a computer program”, provided that the nature of the preparatory work is such that it can result in a computer program at a later stage.⁵⁷ However, this does not clearly define what actual elements are included in the expression “programs in any forms” - is source and object code classified as a computer program and is the graphic user interface (GUI) included? In 2010, the case *BSA* (C-393/09) was published concerning the interpretation of article 1(2) of the original Directive 91/250/EEC, which addresses the question: is the GUI of a computer program a form of expression of that program included in the meaning of article 1(2)? The article states that: “Protection in accordance with this Directive shall apply to the expression in any form of a computer program. Ideas and principles which underlie its interfaces are not protected by copyright under this Directive”. The Court of Justice of the European Union (CJEU) concludes that the directive does not define the term “expression in any form of a computer program”, but that preparatory design work, which can lead to the “reproduction or the subsequent creation of such a program” is included.⁵⁸ The court then refers to the directive’s 10th and 11th preamble recitals, which state that GUIs provide for interconnection and interaction of software elements and hardware with other software and hardware as well as with users.⁵⁹ The court further states that the GUI in particular is an interaction interface enabling communication between the computer program and the user. Since the GUI under these circumstances “does not enable the reproduction of that computer program”, the court concludes that the interface does not constitute a form of expression of a computer program within the meaning of article 1(2) and can therefore not be copyright protected specifically under the Software Directive.⁶⁰ However, the court states that the GUI can be protected by copyright, assuming it is its author’s own intellectual creation, following the InfoSoc Directive 2001/29/EC.⁶¹ Consequently, the CJEU separates the copyright protection offered

⁵⁵ Software Directive, Article 1.

⁵⁶ Wolk, Susanne, *Det upphovsrättsliga programskyddets gränser*, Nordiskt Immateriellt Rättsskydd year 2012, omnibus 80 (Wolk), p. 295.

⁵⁷ Software Directive, recital 7.

⁵⁸ *BSA*, C-393/09, para. 37.

⁵⁹ *BSA*, C-393/09, para. 39.

⁶⁰ *BSA*, C-393/09, para. 40, 41, 42.

⁶¹ *BSA*, C-393/09, para. 43, 44, 46.

computer program from the copyright attainable by the program's visual expression on screen.⁶² In the *SAS Institute* case (C-406/10) the CJEU expands on the definition of computer program and states that the functionality of a computer program and the programming language, i.e. its code, as well as the format of data files used to utilise certain functions of the program are protected under the Software Directive as expressions of the computer program.⁶³ In conclusion, the software code inherent in a video game does indeed qualify as a computer program in view of the Software Directive and the protection for TPMs granted by said directive could be applicable. However, this does not tell us whether a video game should be regulated under the Software Directive as a computer program or under the InfoSoc Directive as an amalgamation of different copyright protected works or, indeed, under both.

2.3.2 The video game as a combination of individual intellectual works

As opposed to the Software Directive, the InfoSoc Directive has not defined the copyright subject matter and Member States are therefore free to decide on their own preferred regime concerning the standards of originality that determine copyright protection.⁶⁴ Additionally, the legal protection afforded by this directive is not meant to overlap with the protection granted technological measures attached to computer programs under the Software Directive.⁶⁵ In my view, this implies that both directives should not be applied simultaneously to the same element of an intellectual work, whilst it seems likely that most parts of a video game can fall within the scope of the InfoSoc Directive as it is meant to be applicable to "copyright and related rights" in general and a video game certainly have parts which would qualify as original intellectual work (for example musical scores, the GUI and other on-screen expressions etc).

As far as national legislation is concerned, Sweden is a good example of the individual rights approach to video games. In Sweden, works of authorship are protected through the "Lag (1960:729) om upphovsrätt till litterära och konstnärliga verk" (Act on Copyright in Literary and Artistic Works, henceforth referred to as the Swedish Copyright Act). According to section 1, "[...] anyone who has created a literary or artistic work shall have copyright in that work, regardless of whether it is: 1) a fictional or descriptive representation in writing or speech, 2) a computer program, 3) a musical or dramatic work, 4) a cinematographic work, 5) a photographic work or another work of fine arts, 6) a work of architecture or applied art or 7) a work expressed in some other manner".⁶⁶ Subsequently, the medium used for a literary or artistic work is of limited importance as long as a

⁶² Wolk, p. 295.

⁶³ *SAS Institute v World Programming*, C-406/10, para. 39 et seq.

⁶⁴ Mazziotti, p. 53.

⁶⁵ InfoSoc Directive, recital 50.

⁶⁶ Swedish Copyright Act, section 1.

literary or artistic work is contained within. Although video games are not expressly classified in section 1, such work could be protected within several of the categories pursuant point 1-6, or under the extensive general clause of point 7.⁶⁷ To exemplify, in accordance with section 1 point 2, the underlying code of a video game can be granted copyright protection as a computer program. Secondly, the visual output of the screen images of a video game, e.g. the GUI, can be protected as a cinematographic work. According to the Swedish Market Court (MD) case *MD 2011:29*, a video game consists of several different categories of works included in section 1: it is protected as a computer program pursuant point 2, a musical work pursuant point 3, a cinematographic work according to point 4 and audiovisual elements, such as the GUI, are protected under point 7.⁶⁸ Depending on which category the individual works included in the video game adhere to, different rules of the Swedish Copyright Act are applicable depending on the classification.⁶⁹ In *MD 2011:29*, the Swedish Market Court concludes that a video game, for the gaming console PlayStation 3, attains copyright protection both as a cinematographic work and as a computer program.⁷⁰ However, copyright categorisation *per se* is not something which the Swedish Market Court normally concerns itself with, as intellectual property law falls outside the jurisdiction of the MD, and therefore the ruling is an exception.⁷¹ Consequently, only very limited emphasis can be placed on this particular case in terms of precedence.

2.3.3 Clarification from the CJEU

The question of how to legally classify video games within the EU, in terms of copyright and technological protection measures, and whether the Software Directive or the InfoSoc Directive should be applied is not clear cut since parts of a video game can fall within the scope of both directives. However, the issue at hand has lately been receiving more attention and at the moment, more than one case is referred to the CJEU addressing this particular issue. The referred case *Grund and Others (C-458/13)* asks the pointed question:

“Does Article 1(2)(a) of Directive 2001/29/EC (1) preclude the application of a provision (in this case Paragraph 95a(3) of the UrhG [Gesetz über Urheberrecht und verwandte Schutzrechte, Law on copyright and related rights]) which transposes Article 6(2) of Directive 2001/29/EC into national law if the technological measure in question protects not only works or other subject-matter but also computer programs?”

Primary appellant is Anders Grund as administrator in the insolvency proceedings of SR-tronic GmbH and the respondent is Nintendo Co. Ltd,

⁶⁷ Ramos et al., p. 85.

⁶⁸ MD 2011:29, Swedish Market Court, (MD 2011:29) p. 30.

⁶⁹ Ramos et al., p. 86, point 267.

⁷⁰ MD 2011:29, p. 57.

⁷¹ Ramos et al., p. 86 point 266.

Nintendo of America Inc.⁷² The premise is that the two directives are clearly separated and article 1(2)(a) of the InfoSoc Directive states that “this Directive shall leave intact and shall in no way affect existing Community provisions relating (a) to the legal protection of computer programs” and subsequently article 6(2) of the InfoSoc Directive does not affect article 7 of the Software Directive, both provisions concerning TPMs. Hence, the issue which arose for the referring court (the German Supreme Court) was: should TPMs protecting hybrid products, in particular video games, fall within either the scope of regulation specifically for computer programs or the general provisions of copyrighted works within the InfoSoc Directive.⁷³ The question was referred to the CJEU recently, and the case is still in progress and no opinion have yet been issued.

However, concerning a second referred case, the *Nintendo v PC Box* (C-355/12), AG Sharpston issued an opinion in mid-September 2013. The opinion deals with several important issues directly related to video games and copyright protection through DRMs (and TPMs) and it will be discussed at length in the following chapter. Concerning the applicability of the Software Directive compared to the InfoSoc Directive as regards video games, AG Sharpston states that the Software Directive “[...] only concerns computer programs, whereas the InfoSoc Directive concerns copyright and related rights in intellectual works in general”.⁷⁴ She then refers to the case *UsedSoft* (C-128/11) which states, in its paragraph 51, that provisions of the Software Directive is viewed as *lex specialis* in relation to provisions of the InfoSoc Directive. In her opinion, this statement infers that the Software Directive takes precedence over the InfoSoc Directive, but “only when the protected material falls *entirely* within the scope of the former (italics added)”. In other words, the Software Directive would be applicable in this case if, and only if, the video games in question were considered mere computer programs.⁷⁵ AG Sharpston also points out that the protection granted against unauthorised acts is slightly more restricted in the Software Directive than the protection offered by the InfoSoc Directive. In her opinion, where complex intellectual works, comprising inseparably of both computer program and other copyrightable elements, are concerned, the greater, and not the lesser, protection should be accorded.⁷⁶ In other words, if the computer program parts are not separable from the other intellectual works, as could be the case with video games as the audiovisual elements are inextricably incorporated in the software, then the InfoSoc Directive

⁷² *Grund and Others*, C-458/13, Request for a preliminary ruling from the Bundesgerichtshof (Germany) lodged on 19 August 2013 — Andreas Grund acting as administrator in the insolvency proceedings concerning the assets of SR-Tronic GmbH, and Others v Nintendo Co. Ltd. and Nintendo of America Inc., Official Journal of the European Union, Volume 56, 23.11.2013.

⁷³ EU Law Radar: *Monitoring References to the Court of Justice of the European Union, C-458/13, Grund and others – video games and technological protection mechanisms*, October 14 2013 (online source).

⁷⁴ Opinion of Advocate General Sharpston on case C-355/12 *Nintendo v PC Box*, (Opinion of the Advocate-General), issued September 19, 2013, para. 34.

⁷⁵ Opinion of Advocate-General, para. 34.

⁷⁶ Opinion of the Advocate-General, para. 35.

should be applied as its provisions offers the greater protection. Nevertheless, from a strictly legislative standpoint, there seem to be no indication in the relevant EU legislation that the applicability of either directive, on their respective subject matter, should preclude the applicability of the other, especially since the InfoSoc Directive leaves all existing EU directives intact. However, in keeping with the AG's opinion on the matter, video games are to be regarded as complex intellectual works, as opposed to mere computer programs, and should therefore be awarded the greater protection provided by the InfoSoc Directive. Hence, in terms of applicable DRM protection regulation, it is the relevant provisions of the InfoSoc Directive that will act as a focal point for the remainder of the thesis.

2.4 Digital rights management in the EU

Traditional copyright protection was not built to adequately handle the challenge inherent in the new information technology and therefore a new form of technology-based copyright protection was developed. The beginning of DRM as we know it today was devised as a self-protection response, mainly from the music industry, to the illegal sharing of music files via the World Wide Web. From a right holder perspective, DRM is simply a proportionate self-protection response to the rights protection issues which accompanies the all-encompassing copying and sharing machine that is the World Wide Web.⁷⁷

Digital rights management is a generic term ultimately describing a sophisticated sets of tools, or technologies, for 'the identification and protection of intellectual property in the digital form'. One common example is when a DRM-system simply encrypts, or scrambles, digital data in order to limit access to authorised users holding a decryption key. Other DRM-systems allow the end-user to download a specific digital file, for example a video, but the content remains decrypted, or simply put unwatchable, until the end-user has acquired an individual license which unlocks the content on the computer. Even when the end-user has purchased the individual license he or she is unable to share it with others – if the digital content is sent to another party it will once again be encrypted since the license is specifically tied to the purchaser and the utilised device.⁷⁸

DRM is used by digital rights owners, such as video game companies, to encrypt the content of a digital file or otherwise restrict access to the content and the ability to copy it, as well as to control the manner it is being provided to customers. Essentially, right holders aim to remove or restrict control of the legitimate copy of the digital content from the end-user in possession of it, opting for control to remain with the right holders even

⁷⁷ Bhatt, p. 39-40.

⁷⁸ Wilson, Arlene, *Digital Rights Management – An Overview*, p.2, Business Law Review January 2010.

after purchase by a customer.⁷⁹ DRM-systems can be divided into two basic categories: DRM that utilise TPMs and those that do not. Since an increasing amount of DRM-systems relies on TPMs to manage the rights attached to digital content the use of the term DRM will, for the remainder of the thesis, refer to TPM-enabled DRM-systems.⁸⁰ In terms of TPM, there are many different technological protection measures available. Two very common TPMs used to identify whether someone is authorised to access material are passwords and cryptography, the latter is the science of encryption and decryption. As regards video games, using TPMs modelled on cryptography is commonplace. Methods have been developed which enable encrypted files to be linked to devices, comprised of hardware and/or software, so that the encrypted information can only be decrypted using that particular device.⁸¹ Other examples of TPMs are registration keys, that requires the end-user to correctly type a registration code, and internet product registration, ensuring that a specific video game copy can only be installed on one device by verification of an online serial number. Generally TPMs can be divided into two groups: ones that control access (access control) or ones that control use (copy control).⁸² However, many TPMs display characteristics of both types. Another common type of DRM attached to games is a requirement of online activation when first installed. Connectivity to internet, so that the activation can be re-affirmed now and then, can also be required and certain games even demand that the user go online and stay online while playing. A more subtle form of DRM is the type which requires users to create online accounts in order to access all parts of the game, in other words users are required to sign up to an online distribution platform through which games can be purchased and bound to the user's online account. It provides access to the purchased games to the concerned user whilst ensuring that only legitimately bought copies are accessible.⁸³

The use of DRM-systems is internationally justified by the previously mentioned WIPO treaty WCT, and its article 11 is the precursor to article 6 of the InfoSoc Directive, which requires Member States to provide adequate legal protection of TPMs.⁸⁴ Recital 47 of the InfoSoc Directive acknowledges that TPMs increasingly will enable right holders to control access to and use of works, but also considers that techniques for illegal circumvention of such measures will develop at a comparable pace and therefore TPMs put in place by right holders needs legal protection.⁸⁵ For clarification, circumvention of a TPM refers to the avoidance or removal of

⁷⁹ Wilson, Arlene, *Digital Rights Management – An Overview*, Business Law Review January 2010, p. 2.

⁸⁰ Kerr, Ian, Maurushat, Alana & Tacit, Christian, *Technical Protection Measures: Tilting at Copyright's Windmill*, 34 Ottawa Law Review 7 2002-2003 (Kerr et. al), p. 25-26.

⁸¹ Kerr et. al, p. 13-15.

⁸² Office of the privacy commissioner of Canada, *Fact Sheets: Digital Rights Management and Technological Protection Measures*, November 2006 (online source).

⁸³ Parker, Laura, *The DRM Dilemma*, May 21 2009 (online source).

⁸⁴ WCT, article 11 and the InfoSoc Directive, article 6.

⁸⁵ InfoSoc Directive, recital 47.

a TPM put into place by right holders to prevent or restrict unauthorised use of their works.⁸⁶

In legal terms, DRM components are defined either as “effective technological measures”, pursuant article 6(3) of the InfoSoc Directive, or as “right management information” pursuant article 7(2) of the same directive. According to Mazziotti, the distinct targets of each article indicate that “anti-circumvention protection is afforded each DRM component or device in accordance with the task that that the component or device is intended to perform within the architecture of a certain system.” Mazziotti exemplifies by asserting that components, for example encryption technologies, are protected under article 6(3), as such measures enable access control and the protection process. Furthermore, Mazziotti claims that both articles imply that the circumvention of a DRM-system is illegal regardless of whether the purpose of the circumvention is infringing copyright or not. Subsequently, the articles, contrary to article 11 of the WCT, do not guard the permitted lawful acts, following copyright exceptions and limitations, that end-users are to benefit from. It prohibits both the single user from circumventing the technology with the purpose of engaging in a legitimate free use and the technology provider from offering tools enabling decryption, circumvention, alteration or removal of DRM components and related information.⁸⁷

However, recital 48 of the directive provides some limit to any further extension of protection for TPMs as it requires TPMs to not prevent “[...] the normal operation of electronic equipment and its technological development” and it also states that TPMs “[...] 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” (italics added).⁸⁸ Further, article 6(1) stipulates that the obligation for Member States to provide adequate legal protection for TPMs is dependent on the concerned TPMs being effective.⁸⁹ The second sentence of article 6(3) stipulates that technological measures are deemed effective “where the use of a protected work or other subject matter is controlled by the right holders through application of an access control or protection process”.⁹⁰ Both copy control and access-control is included.⁹¹ Accordingly, there are certain conditions, which TPMs must meet in order to qualify for legal protection according to the InfoSoc Directive.

⁸⁶ Kerr et. al, p. 23.

⁸⁷ Mazziotti, p. 180-181.

⁸⁸ InfoSoc Directive, recital 48.

⁸⁹ InfoSoc Directive, article 6(1).

⁹⁰ InfoSoc Directive, article 6(3).

⁹¹ Ficsor I, p. 10.

3 The Nintendo preliminary ruling

In the case *Nintendo v PC Box* (C-355/12) the Italian court (the Tribunale di Milano) referred two questions to the CJEU for preliminary ruling. The case is to date still in progress and the outcome has not yet been finalised. However, AG Sharpston recently released her opinion (September 19 2013) on this case in which she addresses the referred questions and make her recommendations. Among the issues addressed are classification of video games, as previously discussed in section 2.3.3, and the reach of anti-circumvention regulation concerning devices that facilitate circumvention.

3.1 Background

Nintendo is a major developer of video games and gaming consoles.⁹² The case in question concerns three companies in the Nintendo group (referred to as Nintendo) which are suing the Italian company PC Box for the production and distribution of devices that can circumvent the TPM that Nintendo has put in place in its game mediums as well as in its gaming consoles. PC Box markets devices such as 'mod chips' and 'game copiers' and these devices enable video games other than those designed by Nintendo, or independent licensed producers, to be playable on the Nintendo consoles.⁹³ Nintendo has, to ensure that no unauthorised game copies are playable on their consoles, attached encrypted information to the video game mediums that needs to be exchanged with encrypted information contained within the consoles. Simply put, unless the correct encrypted information exists on the medium in which the video game is stored, i.e. cartridges for Nintendo DS and DVD's for Nintendo Wii, the game in question will not be playable on the consoles. Authorised producers of video games are granted access to mediums with the relevant encrypted information already stored.⁹⁴ According to Nintendo, these TPMs are lawful and equipped with the legitimate aim of ensuring that only authorised copies of Nintendo and Nintendo-licensed games are used with its consoles. Nintendo also states that the principal purpose of PC Box's devices is to circumvent these lawful measures.⁹⁵

PC Box on the other hand enquires whether a video game could at all be the object of protection in copyright law and, if it is protected, whether a video game is to be regarded as a computer program or an intellectual work. Furthermore, PC Box claims that it markets original Nintendo consoles with a "software pack comprising applications specifically created by

⁹² Nintendo corporation homepage, *Company history* (online source).

⁹³ Opinion of the Advocate-General, para. 19-21.

⁹⁴ Opinion of the Advocate General, para. 2.

⁹⁵ Opinion of the Advocate-General, para. 23.

independent producers for use on such consoles in conjunction with mod chips or game copiers” designed to disable the built in blocking mechanism, or TPM. The purpose is to allow so called ‘homebrews’, i.e. legitimate software independently produced, to be playable on the original Nintendo consoles. Subsequently, the purpose of the devices is not to facilitate the use of illegal copies of original Nintendo video games on their consoles, contrary to the claims made by Nintendo. PC Box additionally considers Nintendo’s true purpose to be 1) to prevent the use of independent software not connected with the illegal video games copies sector and 2) to compartmentalise markets (competition law) so that games purchased in one geographical sector will not function on a console purchased in another sector. Further, PC Box asks whether Nintendo’s application of TPMs to both its video game mediums and its hardware, is contrary to article 6(3) of the InfoSoc Directive.⁹⁶

For clarification, PC Box’s devices undisputedly circumvent the intended blocking effect of Nintendo’s required encrypted information exchange.⁹⁷ Furthermore, it is undisputed that Nintendo’s technological measures prevent both unauthorised acts and acts that require no authorisation and that PC Box’s devices circumvent that blocking in both cases.⁹⁸

3.2 The referred questions and the AGs assessment

The referring court (Tribunale de Milan) asks two 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

⁹⁶ Opinion of the Advocate-General, para. 24.

⁹⁷ Opinion of the Advocate-General, para. 22.

⁹⁸ Opinion of the Advocate-General, para. 74.

criteria of a qualitative nature, that is, relating to the nature and importance of the uses themselves?”⁹⁹

The AG perceives these two questions as actually constituting three questions, the first one being divided into two parts.¹⁰⁰ According to AG Sharpston, the essence of the referred questions is as follows.

3.2.1 First referred question, part one

The first part ask whether the meaning of technological measures in article 6(3) of the InfoSoc Directive include both measures physically linked to the copyrighted material itself (e.g. cartridges or DVD’s containing the video game) and measures linked to devices required to use or enjoy the material (e.g. consoles on which the games are playable)?¹⁰¹ In answer to this, the AG notes that the definition of technological protection measure is broad, “[...] any technology, device or component”, and nothing in the wording of article 6 in the InfoSoc Directive excludes measures as those in question. Additionally, the AG claims that excluding such measures, which are in part incorporated in devices other than those that house the copyrighted material itself, could potentially deny a broad range of technological measures, which the directive aims to protect.¹⁰² Subsequently, the clear-cut answer to the question is yes; the kind of measure at hand qualifies as a TPM in accordance with article 6(2), even though the TPMs are also incorporated in devices designed to access the intellectual works.¹⁰³

3.2.2 First referred question, part two

The second part enquire if such technological measures are lawful pursuant article 6 if their effect is not merely to restrict unauthorised reproduction of copyrighted material, but also to preclude any use of that material with other devices or of other material with those devices? In other words, does Nintendo’s TPM qualify for legal protection pursuant article 6, even if it prevents or restricts unauthorised acts, even if interoperability is also restricted and acts that require no authorisation is prevented or restricted along with it?¹⁰⁴

According to the AG, a TPM must firstly be deemed effective in accordance with article 6(3) to benefit from legal protection pursuant article 6. Thus, following article 6(3), the TPM in question must be designed, in the normal course of its operation, to prevent or restrict unauthorised acts and it must also allow the use of the material to be controlled by the right holder. The acts that it must be designed to restrict or prevent must additionally be such

⁹⁹ Opinion of the Advocate-General, para. 26.

¹⁰⁰ Opinion of the Advocate-General, para. 40-41.

¹⁰¹ Opinion of the Advocate-General, para. 40.

¹⁰² Opinion of the Advocate-General, para. 43.

¹⁰³ Opinion of the Advocate-General, para 79(1).

¹⁰⁴ Opinion of the Advocate-General, para. 69.

acts that requires right holder authorisation in accordance with the InfoSoc Directive.¹⁰⁵ The AG stresses that finding of facts is a matter for the national court, but that Nintendo’s TPMs seem likely to be effective, at the very least insofar as restricting unauthorised acts is concerned (regardless of whether the TPMs in question can be circumvented), and she consequently assumes this to be true for the purpose of the following elaboration.¹⁰⁶ The AG continues by emphasising that to the extent that such other effects, e.g. restrictions of permitted acts, are generated, the InfoSoc Directive does not require that legal protection be awarded the concerned TPMs – on the contrary, there is no justification for granting protection for measures that restricts acts that require no authorisation.¹⁰⁷ The AG proceeds by highlighting the core of the issue: the difficulty lies in that the TPM that restricts acts that requires authorisation is the very same TPM that simultaneously restricts acts that do not require authorisation.¹⁰⁸ As regards this, the AG submits that a test of proportionality, referred to in recital 48 in the preamble of the InfoSoc Directive, must be applied.¹⁰⁹ The classic test involves determining whether a legitimate aim is pursued, whether it is suitable to achieve that aim and whether it does not go beyond what is necessary to achieve it.¹¹⁰ To determine if a TPM is proportionate, the national court must examine whether the “desired effect of preventing or restricting acts which require the right holder’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?”¹¹¹ The national court must examine the degree of restriction on acts that do not require authorisation: what type of acts are restricted and how important is it that such rights are not restricted?¹¹² Regardless of the result of the assessment of the degree of interference, it is also necessary to determine whether other measures could have offered comparable protection for right holders’ rights, but with less interference.¹¹³ However, the protection must also be considered “in the light of the devices, products, components or services against which it is sought”, addressed in question two.¹¹⁴

3.2.3 Second referred question

The second question asks whether protection has to be granted, pursuant article 6(2), against the supply of PC Box’s devices, due to the fact that they allow or enable the performance of such unauthorised acts. The national

¹⁰⁵ Opinion of the Advocate-General, para. 45.

¹⁰⁶ Opinion of the Advocate-General, para. 47.

¹⁰⁷ Opinion of the Advocate-General, para. 50.

¹⁰⁸ Opinion of the Advocate-General, para. 51.

¹⁰⁹ Opinion of the Advocate-General, para. 53.

¹¹⁰ Opinion of the Advocate-General, para. 56.

¹¹¹ Opinion of the Advocate-General, para. 54.

¹¹² Opinion of the Advocate-General, para. 61.

¹¹³ Opinion of the Advocate-General, para. 62.

¹¹⁴ Opinion of the Advocate-General, para. 64.

court wants to know which criteria should be applied when assessing the purpose and use of devices (such as PC Box's) which can circumvent TPMs that qualify for protection.¹¹⁵ The national court, in the words of the AG, “seeks guidance on the relevance of ‘the particular intended use attributed by the right holder 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)”.¹¹⁶

Regarding the first aspect of the question, the AG agrees with the national court and considers that the particular use intended by Nintendo for its consoles is irrelevant to the assessment whether protection should be provided against the supply of PC Box’s devices. Instead, what matters is whether the latter falls within the scope of article 6(2) and subsequently, it is the second aspect, concerning the extent, nature and importance of the uses of PC Box’s devices, which must be examined.¹¹⁷ The AG argues that if a technological measure qualifies for protection pursuant article 6(2) of the InfoSoc Directive, then protection must be offered against the manufacture, import, distribution, sale, rental, advertisement for sale or rental, or possession for commercial purposes of the concerned devices enabling circumvention. There is however a minimum requirement concerning the purpose of the devices: in order for this protection to be activated the devices themselves must meet at least one of the following three criteria: (1) the devices are promoted, advertised or marketed for the purpose of circumventing the technological measure in question, or (2) have only a limited commercially significant purpose or use other than to circumvent, or (3) are primarily designed, produced or adapted for the purpose of enabling or facilitating circumvention. To clarify, if one of these criteria is met the protection is required pursuant the abovementioned provisions, it is only if *none* of these criteria are met that protection is not provided.¹¹⁸ According to the AG, the referring court seems to have no particular trouble with the interpretation of criteria (1) and (3), but apparently, this is not the case with criteria (2). Essentially, the question pertains to what criteria should be assessed when determining whether PC Box’s devices “have only a limited commercially significant purpose or use other than to circumvent” Nintendo’s technological measures.¹¹⁹

Determining the extent to which PC Box’s devices may be used for purposes other than allowing copyright infringement is necessary not only when deciding whether concerned devices fall within the definition in article 6(2) of the InfoSoc Directive, but also when evaluating if Nintendo’s technological measures meet the required proportionality. If it can be ascertained that the primary use of the devices are for such other purposes then not only are they not infringing any exclusive right guaranteed by the

¹¹⁵ Opinion of the Advocate-General, para. 41 and 42.

¹¹⁶ Opinion of the Advocate-General, para. 65.

¹¹⁷ Opinion of the Advocate-General, para. 67.

¹¹⁸ Opinion of the Advocate-General, para. 68.

¹¹⁹ Opinion of the Advocate-General, para. 69.

InfoSoc Directive, but there will also be a strong indication that the technological measures are disproportionate. Reversely, if it can be established that the primary use of the devices is facilitating infringement of exclusive rights there will be a strong indication that the measures are proportionate. Subsequently, it will be relevant to make a quantitative assessment of the ultimate purposes for which the circumvention occur both when determining whether Nintendo's technological measures qualify in general for legal protection and whether protection should be granted against the marketing of PC Box's devices. However, the AG stipulates that this assessment is a matter for the national court.¹²⁰

Additionally, as the AG points out, the question of qualitative criteria has barely been addressed in the observations to the court though it seems the national court envisioned that the importance of allowing Nintendo's consoles to be used for purposes that did not infringe any exclusive rights might outweigh the importance of preventing or restricting unauthorised acts.¹²¹ The AG agrees that the implementation of technological measures, in some cases more than others, should not interfere with user's rights to carry out acts not requiring authorisation. However, the AG makes the reservation that to the extent that these end-user's rights are not fundamental rights, the importance of protecting copyright and related rights must be recognised. At any rate, the qualitative criteria should be viewed in light of the quantitative criteria discussed, i.e. the relative extent and frequency of uses which do enable infringement and those which do not should be examined.¹²²

In sum, the AG answers the question by suggesting that when determining whether protection must be provided against any supply of devices, components or products designed to allow access to protected works pursuant article 6(2) of the InfoSoc Directive, it is not necessary to consider the particular intended use of such devices, products or components attributed by the right holder - on the contrary, the extent to which alleged circumvention devices, products or components can be used for legitimate purposes is a relevant consideration.¹²³

3.3 Additional comments by the AG

Besides answering the two, in actuality three, core questions referred by the national court, AG Sharpston makes a few other noteworthy statements. As aforementioned in chapter 2, concerning the applicability of either the Software Directive or InfoSoc Directive as regards video games, the AG initially states that the Software Directive "[...] only concerns computer programs, whereas the InfoSoc Directive concerns copyright and related

¹²⁰ Opinion of the Advocate-General, para. 75.

¹²¹ Opinion of the Advocate-General, para. 76.

¹²² Opinion of the Advocate-General, para. 78.

¹²³ Opinion of the Advocate-General, para. 79(3).

rights in intellectual works in general”.¹²⁴ As previously mentioned in section 2, the AG refers to the case *UsedSoft* (C-128/11) which states, in its paragraph 51, that provisions of the Software Directive is viewed as *lex specialis* in relation to provisions of the InfoSoc Directive. In her opinion, this statement infers that the Software Directive takes precedence over the InfoSoc Directive, but “only when the protected material falls *entirely* within the scope of the former (italics added)”. In other words, the computer program directive would be applicable only if the concerned video games were considered mere computer programs. If separate TPMs had been used for computer programs and other material then it should have been possible to apply each directive to the appropriate TPM.¹²⁵ The AG points out that the national court has concluded that the video games in question cannot be classified as mere computer programs since they include intellectual works, in narrative and graphic form, inextricable from the programs themselves. Additionally, AG Sharpston states that the protection granted against unauthorised acts is slightly more restricted than the protection offered by the InfoSoc Directive. In her opinion, where complex intellectual works comprising inseparably of both computer program and other material are concerned the greater, and not the lesser, protection should be accorded.¹²⁶ The AG also addresses the possible applicability of exceptions set out in article 5 and 6 for the acts that PC Box’s devices allow. According to AG Sharpston, none of the exceptions seems applicable, but she emphasizes that this particular issue pertains to the national court’s assessment of facts.¹²⁷

3.4 Opinions concerning the Nintendo preliminary ruling

The main issue at hand in this particular referral to the CJEU is the scope of protection afforded to TPMs under article 6 of the InfoSoc Directive. According to the AG, in order for TPMs to qualify for protection pursuant article 6 the national court must assess whether the application of the TPMs in question complies with the principle of proportionality. The national court must therefore consider whether the TPMs can achieve their objective without disproportionately preventing or restricting the end-user’s right to perform acts which otherwise would have been considered non-infringing, for example playing so called homebrew games. The AG also underline the importance of determining the ultimate purpose or use of the circumvention devices: to what extent can they be used for non-infringement purposes? The AG proceeds by stating that if the primary use of said devices was for infringing, then it would seem that the TPMs in question are proportionate. However, if on the other hand the primary use was for non-infringing purposes then the use of TPMs may be disproportionate and subsequently not qualify for protection according to article 6. The facts in each case must

¹²⁴ Opinion of the Advocate-General, para. 34.

¹²⁵ Opinion of the Advocate-General, para. 34.

¹²⁶ Opinion of the Advocate-General, para. 35.

¹²⁷ Opinion of the Advocate-General, para. 36.

be established by the national court, which then must assess the proportionality based on those facts.¹²⁸

Mihaly Ficsor, member and honorary president of the Hungarian Copyright Council and former assistant director general of the WIPO, has a dissenting point of view as regards the issue at hand. Initially, he states that the obligation to provide adequate protection against circumvention is applicable both to access-control TPMs and copy-control TPMs. Nintendo's TPMs seem to incorporate both types and Nintendo's TPMs thus qualify for protection.¹²⁹ It is plain that Ficsor is of a different view than the Advocate-General since according to him, 'mod chips' and 'game copiers' are such devices that they have nothing to do with devices which have only a limited commercial purpose or use other than to circumvent as the concerned devices are designed *exclusively* for the purpose of circumvention. On account of this, Ficsor believes that the answer to the second question referred should be answered with a resounding 'No'. The national court should not need to consider whether or not the actual use of a device, whose purpose is to circumvent a TPM, predominates over other commercially important purposes or uses.¹³⁰ Ficsor explains his view by referring to recital 48 and article 6(2). Ficsor is critical towards the referring courts focus on, and interpretation of, recital 48. In his view, while an assessment of proportionality, which the recital demands, is indeed needed, the principle of proportionality should not only be applied from the point of view of whether or not it is justified to disregard the need for protection of TPMs in the particular case. One must also assess whether or not it would be proportionate to remove the protection for "the key element of the ecosystem of the game industry". In his opinion, removal of the protection of TPMs is to deprive the game industry of an "indispensable means of protection against piracy". Moreover, recital 48 is not the only provision offering guidance concerning the proportionality assessment, on the contrary: article 6 introduces detailed norms that aim to regulate how the protection of TPMs against unauthorised circumvention should be applied in a proportionate way.¹³¹ It is all about striking a fair balance between ensuring adequate protection whilst duly recognising legitimate interests of third party actors as well as the public interests that justifies certain exceptions and limitations. Article 6(2) regulates the scope of devices, products or components that are prohibited to manufacture, import or distribute. Paragraph 4 of said article then presents exceptions and limitations concerning which measures are needed in order to guarantee that beneficiaries can indeed enjoy them. However, he claims that beneficiaries of exceptions and limitations are not allowed to simply circumvent TPMs – preference must first be given to voluntary agreements by the right holders and secondly, when such agreements are not applied, the governments of the

¹²⁸ Ohta, Tom, *Case C-355/12 Nintendo v PC Box – Advocate-General's Opinion on circumvention methods used in Nintendo game consoles*, Bristiws, September 19 2013 (online source).

¹²⁹ Ficsor I, p. 5-6.

¹³⁰ Ficsor I, p.20-21.

¹³¹ Ficsor I, p. 18.

member states must apply appropriate measures. The proportionality principle must also take into account the right holders' legitimate interests, which includes consideration of the interest that adequate protection of TPMs is not undermined. Ficsor additionally points out that paragraph 4 states that any intervention measures applied in member states must not exceed "the extent necessary to benefit from exception or limitation". According to Ficsor, this means that if an exception is made to serve purposes of a certain group then the TPM may only be circumvented in such a way that it is guaranteed that only that group of people can benefit. In other words, if an exception is granted for a certain purpose, then the access and use facilitated by the intervention measure must be limited to that specific purpose.¹³² Furthermore, Ficsor states that the referring courts reference to recital 48 in the first question, concerning definition of technological protection measures, is not justified since the recital has nothing to do with the concept or definition of TPMs.¹³³

As regards the second question, Ficsor believes the answer to be clear-cut. He states that the proportionality principle stipulated in recital 48 should be applied in accordance with article 6. Article 6(2) determines the scope of devices, products etc which manufacture and distribution etc is prohibited. Three categories are listed in the paragraph prohibiting the production, import, distribution etc of devices, products or components which: (a) are promoted, advertised or marketed for the purpose of circumvention of effective technological measures, (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 such circumvention.¹³⁴ 'Mod chips' and 'game copiers' are not only primarily, but specifically and exclusively, designed to circumvent TPMs according to Ficsor, who states that they without a doubt fall under point (c) of paragraph (2) and subsequently the TPMs should be protected against these devices. Consequently, there is no need to evaluate whether the devices could fall under point (a) or (b) as well since only one of these three criteria needs to be met in order for the protection of the TPMs to be activated.¹³⁵

Another scholar, Giorgio Spedicato, comments that AG Sharpston makes an interesting point in para. 49-50 of the opinion, essentially stating that no legal protection must be granted to TPMs preventing or restricting acts which do not require the right holder's authorisation under the InfoSoc Directive. Spedicato argues that, although he welcomes the standpoint, the statement is "too easy going" since the wording in article 6(3) of the InfoSoc Directive differs from its precursor, article 11 of the WCT, in that it provides protection for TPMs regardless of whether the prevented or restricted acts are permitted by law (either due to falling outside the scope of copyright or from benefiting from an exception or limitation to copyright) or

¹³² Ficsor I, p. 19.

¹³³ Ficsor I, p. 20.

¹³⁴ InfoSoc Directive, article 6(2) (a-c).

¹³⁵ Ficsor I, p. 21.

not. Consequently, AG Sharpston's interpretation is more restrictive from a right holder perspective and according to Spedicato, this specific statement is "more innovative than the AG herself seems to acknowledge, and finally puts the InfoSoc Directive back on the tracks marked by article 11 of the WCT."

Spedicato also comments on AG Sharpston's evaluation of the legitimacy of circumvention devices under article 6(2) arguing, not completely in line with AG Sharpston's standpoint, that even though it is relevant to determine the ultimate purpose of the concerned device, the assessment of the primary purpose of the device must be made on an abstract level, i.e. looking into what the device is suitable to do rather than at the factual level examining what users do with the devices.¹³⁶

3.5 Concluding remarks

In my opinion, one of the most important points that the AG make is that TPMs that prevents or restricts acts which do not require right holder authorisation are not legally protected under the InfoSoc Directive. Another is that when it comes down to deciding whether a device, which can be used to circumvent TPMs but also to enable lawful use of independent games (or "homebrews"), is indeed unlawful it is a matter of factual proportionality: is the device mainly used for unlawful circumvention or not? Clearly, there are dissenting voices pertaining to the interpretation of article 6, and the opinion of AG Sharpston does indeed seem to cast a new light on the subject matter. Sharpston's point of view represents a slightly new legal direction within the EU, one that to a greater degree reflects that DRM, and TPMs, should not be allowed to prevent or restrict lawful end-user acts in the name of copyright protection: there seem to be a line that must not be crossed. From an end-user point of view, this is welcomed news. Notably, Ficsor partially disagree with the AG as he recommends a stricter approach favouring the right holder interest as regards protection of copyright through TPMs, for example by arguing that the alleged circumvention devices in the Nintendo preliminary ruling should not be perceived as anything but circumvention devices as that the factual uses of the devices should not be considered. Another relevant statement the AG makes is the suggestion that video games ought to be classified as intellectual works under the InfoSoc Directive, regardless of the fact that all video games are inextricably linked to a computer program. According to Sharpston, the Software Directive should be perceived as *lex specialis*, but should only be applied to a video game if it is considered a mere computer program. Additionally, the AG states that computer programs are protected to a lesser degree than those intellectual works that fall within the scope of the InfoSoc Directive and as a video game is a complex work it should receive the greater protection.

¹³⁶ Spedicato, Giorgio, *Some remarks on AG Sharpston's opinion in the Nintendo case (C-355/12)*, September 30 2013, Kluwer Copyright Blog (online source), (Spedicato).

4 Are TPMs the solution or part of the problem?

4.1 The Justification of TPMs

Proponents of the legal protection of TPMs argue that such measures merely help maintain the status quo already established by copyright law.

Opponents respond to this by arguing that it is not preserving status quo – it is tilting the balance firmly in favour of copyright holders, and consequently it is detrimental to the public interest.¹³⁷

A recurring argument for the use of DRM-systems, and inherently TPMs, is that the amount of revenue lost due to illegal access and publishing of said content online is staggering.¹³⁸ However, the economic figures supporting this claim are contested, as will be discussed shortly.

Proponents of the view that preserving incentives through DRM-systems is essential argue that the right to receive remuneration when providing access to intellectual works will be essential regardless of possible technological changes. This point of view is in certain regards flawed since theories of incentive are largely based on presumptions inherent in the business model of the former technological generation and therefore new possible developments as regards information exchange and distribution are simply not considered. Consequently, this viewpoint is inherently limited and due to an unwillingness to adapt one could imagine that it runs the risk of becoming outdated as well as leading to complacent and non-progressive behaviour, especially concerning possible new business models or even new forms of unconsidered incentives.¹³⁹ However, this position could be used as a basis for an entire new thesis and therefore it is merely mentioned, although it is an interesting approach in its own right.

4.2 The Drawbacks of TPMs

According to Samartzi, TPMs do more than just protect copyrighted works: for example, they can limit the end-user's period of view, restrict the number of copies that can be made or put a time-limit on them.¹⁴⁰ It is

¹³⁷ Kerr, Ian, Maurushat, Alana & Tacit, Christian, *Technical Protection Measures: Tilting at Copyright's Windmill*, 34 Ottawa Law Review 7 2002-2003, (Kerr et al.) p. 31.

¹³⁸ Patry, William, *Moral Panics and the Copyright Wars*, New York: Oxford University Press, 2009, (Patry) p. 15.

¹³⁹ Schollin, Kristoffer, *Digital Rights Management The New Copyright*, Stockholm: Jure Förlag AB, 2008, p. 160.

¹⁴⁰ Samartzi, Vasiliki, *Optimal vs sub-optimal use of DRM-protected works*, European Intellectual Property Review, Vol 33 Issue 8, 2011, (Samartzi) p. 1.

evident that TPMs, especially access-control TPMs, can create difficulties for legitimate end-users. One such example is when an end-user has purchased online access to content that is protected through device binding. Device binding, simply put, means that content is bound to a specific device and the end-user, which has purchased access, can only access the online content from a specific device even though he or she has purchased access legitimately. In addition to the inconvenience of not being able to use different devices, it also means that if the hard drive of the designated device fails and needs replacing the end-user loses all access despite being a legitimate user.¹⁴¹

Another issue, which accompanies TPMs, is the lack of interoperability which is built into some platforms. Essentially, this means that right holders can limit the end-users ability to use other digital devices than the content providers preferred device since the DRM-protected digital content can be prescribed to only work on a particular type of digital device. This particular problem is more of a competition law issue, but nonetheless it is a drawback with the use of TPMs from an end-user point of view.¹⁴² Even before the modern day legal approach to DRM, i.e. TPMs and RMI, was put in place there were those who voiced concerns as to the foreseen lack of interoperability, and how frustrating and unacceptable end-users would find it.¹⁴³

According to Mazziotti, the InfoSoc copyright legislation is unfit to pursue an effective enforcement of statutory copyright exceptions with the ever-increasing implementation of TPMs and other control technologies.¹⁴⁴

Bhatt states that the use of DRM-systems confines digital media and interferes with end-users lawful use of copyrighted works, such as movies or music, since TPMs can prevent the end-user from making back-ups of legally attained copies. The author also states that the development of DRM-systems does not actually stop copyright piracy, but rather is disastrous for 'innovation, free speech, fair use and competition'.¹⁴⁵

4.3 Are TPMs necessary and *de facto* effective?

As the abovementioned opposing views of proponents and opponent of TPMs suggest, the necessity of utilising TPMs and the *de facto* effectiveness of such measures are debatable. Hence, a presentation of certain relevant issues pertaining to this follows.

¹⁴¹ Kerr et. al, p. 17.

¹⁴² Wilson, Arlene, *Digital Rights Management – An Overview*, Business Law Review, January 2010 (Wilson), p. 5.

¹⁴³ Kerr et al, p. 29.

¹⁴⁴ Mazziotti, p. 37.

¹⁴⁵ Bhatt, p. 41-42.

4.3.1 Magnitude of piracy as validation for TPMs – the threat exaggerated?

The need for TPMs is claimed by the game industry to be substantial, mainly due to the estimated magnitude of the illegal sharing of video games. However, it is quite problematic, from an end-user perspective, that it is associations and corporations within the game industry sector itself which conducts most studies and produce statistics on video game piracy – the game industry can hardly be considered entirely objective.

Indeed, a recent study¹⁴⁶ highlights that despite the current substantial interest in video game piracy there is surprisingly little objective information available, particularly as regards its magnitude. This study was conducted by monitoring the BitTorrent peer-to-peer sharing protocol and the sample included 173 games and was collected for three months, late 2010 to early 2011.¹⁴⁷ According to the researchers, BitTorrent was chosen primarily because it is regarded as one of the main channels for online piracy and the *de facto* standard for distribution of digital files via peer-to-peer network. The study shows that of 173 game titles, 127 was available on BitTorrent and approximately 12.6 million unique peers accessed the files under the three months period, indicating the prevalence of game piracy via distribution based on BitTorrent.¹⁴⁸ They conclude that there is a notable discrepancy between the figures produced in their study and the figures presented by international game industry associations, such as the Entertainment Software Association (ESA). For example, the ESA claimed that 9.78 million illegal downloads of approximately 200 game titles had occurred - in December 2009 alone.¹⁴⁹ The implication being that the information provided by game industry associations can be questioned as being not entirely objective nor fully accurate, but rather tends to exaggerate the actual extent of digital game piracy.¹⁵⁰

Another critical voice is Cvetovski, who also criticises the lack of neutrality and proper empirical research which he argues is evident in some reports by industry associations. For example, the report ‘The impact of internet piracy on the Australian economy’, which was commissioned by the Australian government and relied on heavily by the popular media industry, presents alarming statistics: in 2010 no less than 4.7 million Australian internet users accessed online content illegally, the annual retail value lost to Australian content industries was \$900 million and an excess of 8000 jobs were lost in the content industries sector as a result of internet piracy. However, the methodology used to reach abovementioned conclusions was based on data

¹⁴⁶ Drachen, A, Veitch, R & Bauer, K, *Digital Game Piracy: Analyzing the Illegal Distribution of Digital Games via BitTorrent*, in Lugmayr, A, Franssila, H, Safran, C & Hammouda, I, (eds), *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments, MindTrek 2011*. Association for Computing Machinery, New York, pp. 233-240., 2011, (Drachen et al.).

¹⁴⁷ Drachen et al., p. 1.

¹⁴⁸ Drachen et al., p. 7.

¹⁴⁹ Drachen et al., p. 2.

¹⁵⁰ Drachen et al., p. 1 and 7.

collected from previous studies on five European nations and Cvetovski argues that it is difficult to see “how objective and reliable conclusions might be reached” when the data primarily relied on were secondary sources from an unrelated study. Cvetovski suggests that little weight should be attached to such non-neutral and non-objective reports and that one could regard these reports as mere PR exercises aiming to influence attitudes without real evidence to back up the claims.¹⁵¹ Moreover, Cvetovski even goes so far as to call it a fallacy to perceive copyright industries as victims: the video game industry alone generate an estimated US\$ 42 billion globally (as at 10 July 2011) and contributed almost US\$ 5 billion to the US gross domestic products in 2009. The industry representatives however still claims that the sheer magnitude of piracy is so large that the entire community is hurt.¹⁵²

In my opinion, this is of relevance since a part of the ongoing debate on the *de facto* need for TPMs and their protection is based on the presupposed magnitude of the piracy problem. Even though the magnitude of video game piracy might be exaggerated, the fact that pirated versions of video games are being illegally shared to a non-dismissible degree does not change.

4.3.2 TPMs: end-user justification for infringement?

When discussing video game piracy, Electronic Arts (EA) game title ‘Spore’ is generally mentioned since it is viewed as the most pirated game at its release in 2008. The game utilised a TPM called SecuROM, which limits the number of devices it can be installed on by the legitimate end-user to three as well as requiring internet connection each time the end-user want to play.¹⁵³ Once the prescribed three uses are up, the end-user can only install it on another device through contacting EA by phone to obtain verification and authorisation. Because of the use of such a limiting DRM-system, parts of the gaming community was fuming and began to encourage others to download the illegal versions with the aim of demonstrating discontent to the game developers. Despite the TPM, or, as some claim, indeed because of the TPM, it only took ten days for the pirated version shared online to be downloaded no less than 500.000 times across various peer-to-peer networks. Over time the number of illegal downloads just kept rising (from early September to early December 2008 it was downloaded 1.7 million times) effectively making the game the most illegally downloaded game of 2008.¹⁵⁴ The response from EA to these, and other, negative end-user

¹⁵¹ Cvetovski, p. 193-195.

¹⁵² Cvetovski, p. 185.

¹⁵³ Fritz, Ben, ‘Spore’s’ DRM restrictions irk gamers, September 19 2008 (online source).

¹⁵⁴ Kamizuru, Stephen, *Spore Becomes Most Pirated Game in History*, DailyTech.com, December 10, 2008 (online source).

reactions was to relax the terms of the DRM to allow more use and even relax the DRM terms on one planned future product.¹⁵⁵

In my opinion, it is unlikely that *Spore* would have been illegally downloaded to such an extent in such a short time unless parts of the gaming community had not decided to act in order to demonstrate their discontent. Subsequently, the possibility that restrictive DRM may actually contribute to an increase in video game piracy, rather than act as a deterrent should be recognised.

It is also quite clear that parts of the targeted end-users are not happy with the limitations that DRM-systems pose on the way they can use the legally obtained video game copy. Indeed, some express the view that they are being treated as potential infringers rather than valued customers. To some it is a matter of principle: they accept no DRM restrictions on the video game copy as they perceive themselves as legitimate owners, not licensees.¹⁵⁶

It seems that even though DRM-systems are viewed as legally effective, and thus qualifies for protection in accordance with article 6 of the InfoSoc Directive, the reality seem quite different. Based on the amount of illegal consumption of video games, in spite of attached DRM-systems, it does not seem as TPMs, are *de facto* effective in preventing piracy.

4.3.3 End-user empowerment and the co-dependency of game developers

Cvetkovski proposes that digitalisation has lead to a convergence of illegitimate and legitimate behaviour as regards popular media consumption. Customers (or end-users) of today are equipped with the tools to challenge the manner and form of product delivery. In fact, Cvetkovski believes it to be very likely that certain consumers simultaneously access material legally and illegally, without really considering the consequences. Cvetovski argues that this reflects the ignorance and prevalent attitudes, which, to a certain extent, explains the purposed magnitude of illegal accessing to copyrighted material today according to him. Cvetovski also purposes that genuine consumer discontent plays a part in the illegitimate consumption.¹⁵⁷ Further, organised piracy, Cvetovski claims, is generally deemed criminal and inappropriate by consumers whilst individual piracy is morally acceptable and merely opportunistic. This coupled with the perceived constraints and arbitrary power of corporations and government regulators creates an attitude that to an extent justifies illegal consumption in the eyes of the

¹⁵⁵ Yeh, Charles, *Spore, DRM and pirates: UCITA and market realities*, Duke Law & Technology Review, No. 4 2009, p. 2.

¹⁵⁶ Wheaton, Wil, *Why I hate DRM (Example 147,000,000)*, June 24 2010 (online source) and Talkjack's Weblog: *Is DRM killing PC games?* and attached online commentaries, June 22 2008 (online source).

¹⁵⁷ Cvetovski, p. 223-224.

consumers, consequently making it very difficult to curb.¹⁵⁸ Indeed, Cvetovski argues that the copyright governance policies currently used needs to be critically examined because of the overall lack of success in stemming the flow of illegal consumption.¹⁵⁹ Indeed, according to the Electronic Frontier Foundation (EFF), there is no evidence that DRM helps combat copyright infringement online, no matter how ardently corporations claim that DRM is necessary.¹⁶⁰ The material that I have examined does, if not outright support, at the very least not contradict his position and, as has been discussed above, consumer discontent does seem to contribute to illegal consumption.

Additionally, certain stakeholders within the game industry, concerned about the loss of sales and keeping good will and consumer support, are paying heed to the discontented end-users. For example, when Microsoft initially presented its new gaming console Xbox One earlier this year it was revealed that several constraints of the DRM kind had been put in place, such as a daily online authentication requirement and restrictions to pre-owned sales. The response from the gaming community was overwhelmingly negative, mainly because the planned DRM would restrict and prevent acts which, up until that point, had been allowed gamers and was essential parts of the gaming experience according to the end-users. Due to this feedback from the end-users, Microsoft decided to remove all of the contested DRM restrictions saying, and I quote, "You told us how much you loved the flexibility you have today with games delivered on disc. The ability to lend, share, and resell these games at your discretion is of incredible importance to you. Also important to you is the freedom to play offline, for any length of time, anywhere in the world." Basically, end-users made it clear that they would not support these constraints and Microsoft chose to adapt to their wishes.¹⁶¹ Another example is that the renowned polish game developer CD Projekt Red recently announced in an open letter to the community that there will be no DRM whatsoever attached to the PC version of the upcoming third installation of the *Witcher* game series, an announcement that was met with approval and encouragement from the gaming community.¹⁶² When asked about why this decision was made Marcin Iwinski, co-founder of CD Projekt Red, said: "We pay for a type of protection (DRM) that requires users to go through a series of authenticating measures, then it fails to work, while the pirated version is actually more user-friendly, easier for gamers to deal with." According to Marcin Iwinski, the word "user-friendly" is the key and the game industry needs to "[...] educate the consumer and [...] create a myriad of easy, extremely user-friendly and legal ways to buy content."¹⁶³ However, it needs to be pointed

¹⁵⁸ Cvetovski, p. 260.

¹⁵⁹ Cvetovski, p. 258.

¹⁶⁰ Electronic Frontier Foundation, *DRM* (online source).

¹⁶¹ Stuart, Keith, *Xbox One DRM restrictions dropped after gamer outcry*, The Guardian, June 19, 2013 (online source).

¹⁶² Iwinski, Marcin, *No DRM in the Witcher 3 Wild Hunt: an open letter to the community* (online source).

¹⁶³ Klepek, Patrick, *CD Projekt RED Waves Goodbye to DRM*, Giant Bomb News, November 11, 2013 (online source).

out that the abovementioned opinions do not represent a consolidated game industry viewpoint.

4.4 Concluding remarks

DRM-systems does not seem to be truly effective when it comes to actually preventing piracy – indeed some scholars suggest that intrusive DRM might actually increase the magnitude of video game piracy. However legally sound it may be to allow, or even encourage, the use of DRM in video games, there remains one big issue: DRM-systems are far from unbeatable and most TPMs put in place are quickly circumvented. Essentially, this means that even though DRM-systems are theoretically an effective way to protect copyrighted works and prevent or restrict piracy, it does not seem to be *de facto* effective.

Additionally, it seems the end-users have quite a bit of influence on the development of games today, including what level of DRM is deemed acceptable. I cannot help but think that today's level of communication and cooperation between game developers and would-be consumers are made possible partly because of the ease with which would-be consumers can get their hands on free, illegal video game versions if they so desired, making it even more important for game developers to develop games that consumers will appreciate enough to want to support and consequently pay the full price for. From an end-user perspective, the rapid technological development and subsequent easy access to illegal consumption has worked in their favour, strengthening their position.

The solution to the particular problem of video game piracy does not seem to be as simple as rigorously enforcing DRM-systems through legislation, but rather to address the issues and attitudes that leads many otherwise lawful citizens to obtain illegal copies of video games – for example the inconvenience and restrictiveness attached to most DRM, often making it easier to deal with a pirated version. In this regard, DRM could be considered part of the problem rather than the solution.

5 Conflicting fundamental rights and DRM-systems

Until recently, EU law did not expressly incorporate any reference to human rights, but the CJEU has confirmed multiple times that it nonetheless regards itself as bound to the principles expressed in the ECHR. In addition, the main principles of human rights protection are part of international customary law as *jus cogens*, thus having binding effect regardless of whether they have been expressly codified or not.¹⁶⁴ The enactment of the EU Charter also codifies principles from the ECHR and invests competence in the CJEU to adjudicate on alleged violations of human rights in parallel to the ECtHR.¹⁶⁵

According to the European Commission, protecting intellectual property rights in an online environment is part of the ‘Digital Agenda’ and it is therefore desired to achieve balance between the right holder’s copyright and the end-user rights. Furthermore, the author’s right to his or her own intellectual property is a fundamental right, but so is the public’s right to freedom of expression and information.¹⁶⁶ Subsequently, in trying to protect the property rights of the right holder by restricting available actions of the end-user, an apparent risk of ensuing conflict between the two fundamental rights arises and presents a problem: is the exercise of the right of property interfering with the right to freedom of expression and information and, if so, what may the outcome be?

5.1 Right of property

Pursuant article 1 of the first protocol to the ECHR, the right to property is protected as a fundamental right. It states that: “Every natural or legal person is entitled to the peaceful enjoyment of his possession. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law.”¹⁶⁷ In light of the ECtHR case law, the term ‘possession’ entails “an autonomous meaning which is certainly not limited to ownership of physical goods: certain other rights and interests constituting assets can also be regarded as ‘property rights’ and thus as ‘possessions’”¹⁶⁸ and the ECtHR accordingly interprets the term widely. As further clarified in the case of *Anheuser-Busch Incl. v Portugal*, which concerns a trademark dispute,

¹⁶⁴ Kur & Dreier, p. 82.

¹⁶⁵ Kur & Dreier, p. 83.

¹⁶⁶ European Commission, Digital Agenda for Europe, *Action 6: Protecting intellectual property rights online* (online source).

¹⁶⁷ Article 1, First Protocol: Protocol to the Convention for the Protection of Human Rights and Fundamental Freedoms as amended by Protocol No. 11, Paris, 20.III.1952.

¹⁶⁸ Bruun, Niklas (Ed.), *Intellectual property beyond rights*, Helsinki: WSOY, 2005, p. 202.

intellectual property is undoubtedly included in the right to property pursuant article 1 as the court states that: “Article 1 of Protocol No. 1 is applicable to intellectual property as such”¹⁶⁹.

In the EU Charter, the right to property is expressed in article 17:

”Everyone has the right to own, use, dispose of and bequeath his or her lawfully acquired possessions. No one may be deprived of his or her possessions, except in the public interest and in the cases and under the conditions provided for by law, subject to fair compensation being paid in good time for their loss. The use of property may be regulated by law in so far as is necessary for the general interest.”¹⁷⁰

In comparison, this article is more detailed in its description of the right to property than that of the ECHR and the fact that intellectual property is included is expressly stated in the second part of the article.¹⁷¹

Consequently, the right holder’s copyright is considered a fundamental right according to both the ECHR and the EU Charter.

5.2 Freedom of expression and information

Freedom of expression is the right to actively communicate one’s thoughts or creative works.¹⁷² Article 11(1) of the EU Charter stipulates that the right of freedom of expression and information, to which everyone is entitled, includes “freedom to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers”. Subsequently there exists, on an EU level, a fundamental right to spread, exchange and receive information without any public authority interfering.¹⁷³

The ECHR emphasises the right of freedom of expression, including freedom of information, in its article 10(1). The wording is to a large degree identical to article 11(1) of the EU Charter and according to the ECtHR, the term “expression”¹⁷⁴ include all expression, regardless of its form.¹⁷⁵ The fundamental right is elaborated upon in article 10(2), or rather the limits of the right are. Article 10(2) states that: “The exercise of these freedoms, since it carries with it duties and responsibilities, may be subject to such formalities, conditions, restrictions or penalties as are *prescribed by law* and

¹⁶⁹ Appl. No. 73049/01 *Anheuser-Busch Incl. v Portugal*, ECtHR Grand Chamber, January 11 2007, para. 72.

¹⁷⁰ EU Charter, article 17(1).

¹⁷¹ EU Charter, article 17(2).

¹⁷² Golash, Deirdre (Ed.), *Freedom of Expression in a Diverse World*, London: Springer, 2010, p. 163.

¹⁷³ EU Charter, article 11(1).

¹⁷⁴ As in ”Everyone has the right to freedom of expression.” Article 10(1) Sentence 1.

¹⁷⁵ Danay, Robert Jacob, *Copyright vs. Free Expression: The Case of Peer-to-peer File-Sharing of Music in the United Kingdom*, 8 *Yale Journal of Law & Technology* 32(2005), p. 10.

are *necessary in a democratic society* [...] for the protection of the reputation or the *rights of others*” (italics added). The right to freedom of expression can subsequently be lawfully restricted as long as it is prescribed in law and is “necessary in a democratic society”¹⁷⁶, the interpretation of which will be discussed in section 5.4.

5.3 The tension between copyright and freedom of expression

In early 2013, the ECtHR issued judgement in the French case *Ashby Donald v France*¹⁷⁷ that specifically addressed the tensions between copyright law and the freedom of expression.¹⁷⁸ The court clarified that a conviction due to copyright infringement, because of illegally reproducing or publicly communicating copyrighted material, can be regarded as an interference with the right to freedom of expression and information pursuant article 10 of the ECHR. The court concluded that it is no longer sufficient to justify a sanction, or any other judicial order, restricting the artistic or journalistic freedom of expression solely on the basis that a copyright law provision has been infringed. Through this case, the ECtHR have asserted that article 10 of the ECHR is indeed applicable whenever a copyright case interferes with the right of freedom of expression and information – in other words an external human rights perspective has been added to the justification of copyright enforcement. However, a wide margin of appreciation was granted member states in this particular case, effectively making the impact of article 10 minimal.¹⁷⁹ The court stated that the unauthorized publication of copyrighted fashion pictures online, which the case revolved around, was not related to an issue of general interest for society, but instead had a “commercial speech”-character. Such speech, messages, pictures and content that are merely money driven do not enjoy the protection guaranteed by article 10, according to the court. This in conjunction with the fact that the two conflicting fundamental rights need to be carefully balanced called for a wide margin of appreciation and on these grounds the ECtHR concluded that there was no violation of article 10 of the convention.¹⁸⁰ This case confirms that copyright enforcement, restrictions on the use of copyrighted works and sanctions pursuant copyright law is to be regarded as interfering with the right of freedom of expression and information. The question is then ultimately if the concerned interference is justifiable and whether a fair balance is struck between the

¹⁷⁶ ECHR, Article 10(2).

¹⁷⁷ *Ashby Donald v France*, Appl. nr. 36769/08.

¹⁷⁸ Voorhoof, Dirk, *European Court of Human Rights: Ashby Donald v France*, IRIS Merlin (Database on legal information relevant to the audiovisual sector in Europe) 2013-3:1/1 (online source).

¹⁷⁹ Voorhoof, Dirk & Hoedt-Rasmussen, Inger, *ECHR: Copyright vs. freedom of expression*, January 25, 2013, Kluwer Copyright Blog (online source), (Voorhoof et al.), p.1.

¹⁸⁰ Voorhoof et al., p. 2-4.

conflicting fundamental rights.¹⁸¹ In addition, according to Akester, one possible interpretation concerning the freedom of expression is that since the precursor to article 10 of the ECHR is article 19 of the International Covenant on Civil and Political Rights (ICCPR), the ECtHR, when in doubt, must make sure that the interpretation of article 10 of the ECHR is made in the light of article 19 of the ICCPR. Article 19 includes the right to seek information and ideas within the scope of freedom of expression. Akester therefore believes that attempts to regulate internet, in order to protect copyright, may jeopardise freedom of expression.¹⁸² Moreover, the ECtHR has addressed the issue of freedom of speech in context of intellectual property before, specifically concerning advertising regulations, and the ECtHR found that the right to free speech is not only applicable to political statements and similar statements, but to commercial expressions as well.¹⁸³

As regards copyright protection interfering with fundamental rights, it seems appropriate to briefly discuss the case *Scarlet Extended v SABAM* (C-70/10), which expressly addresses the following question: is it acceptable pursuant the fundamental rights of freedom of expression and information for right holders to impose an injunction upon internet service providers (ISPs) obliging the ISPs to monitor the activity of its internet users, identify files that right holders claim are their intellectual property, determine which files are unlawfully shared and finally block such unlawful file-sharing?¹⁸⁴ Since this type of preventive monitoring would require “active observation of all electronic communications conducted on the network of the ISP concerned”, it would oblige the ISP to monitor all the data relating to each of its customers.¹⁸⁵ According to the court, the effects of the injunction might indeed infringe the fundamental rights of the ISPs customers as regards their right to protection of personal data and their freedom to receive or impart information pursuant articles 8 and 11 of the EU Charter.¹⁸⁶ The court states that the injunction could undermine freedom of information since the monitoring system might not “distinguish adequately between lawful and unlawful content”, possibly resulting in lawful communication being blocked.¹⁸⁷ Consequently, the court held that, in relation to the customers, requiring the ISP to utilise the monitoring system would not result in achieving the required fair balance between the right to intellectual property and the freedom of expression and information as well as the right to protection of personal data. On these ground the court decided that such an injunction was precluded.¹⁸⁸ However, one must bear in mind that there is a difference between installing a comprehensive internet monitoring system and attaching DRM-systems, for example copy protection, to a specific copyrighted work. Nonetheless, certain aspects are of relevance: the

¹⁸¹ Voorhoof et al., p. 7.

¹⁸² Akester, Patricia, *The political dimension of the digital challenge – copyright and free speech restrictions in the digital age*, 2006 (1) Intellectual Property Quarterly 16, p. 11.

¹⁸³ Kur & Dreier p. 81.

¹⁸⁴ *Scarlet Extended v SABAM*, C-70/10, para. 29 and 38.

¹⁸⁵ *Scarlet Extended v SABAM*, C-70/10, para. 39 and 40.

¹⁸⁶ *Scarlet Extended v SABAM*, C-70/10, para. 50.

¹⁸⁷ *Scarlet Extended v SABAM*, C-70/10, para. 52.

¹⁸⁸ *Scarlet Extended v SABAM*, C-70/10, para. 53 and 54.

CJEU stated that, in context of adopted measures protecting copyright holders, “[...] national authorities and courts must strike a fair balance between the protection of copyright and the protection of the fundamental rights of individuals who are affected by such measures”.¹⁸⁹ In my view, it does seem to indicate that whether or not a restrictive system prevents not only unlawful use, but also lawful use, is of importance to the assessment. On that note, it is also possible that the previously discussed opinion of the AG¹⁹⁰ could be of relevance in the context of conflicting fundamental rights and the legitimacy of TPMs. The TPMs must, as stated previously, be proportionate¹⁹¹ and the test of proportionality is comprised of three conditions that need to be determined: (1) the measure must pursue a legitimate aim, (2) it must be suitable to achieve that aim and (3) it must not go beyond what is necessary to achieve that aim.¹⁹² According to the AG, the first condition is met, (the aim is even encouraged by the legal protection provided by article 6 of the InfoSoc Directive), and the second condition of suitability is a question for the concerned national court, insofar that it must determine whether the degree of restriction provided by the measure results in effective protection of unauthorised acts.¹⁹³ The prevalent issue following the third condition is highlighted by the AG: “The difficulty lies in the fact that the same measures prevent or restrict acts which do require authorisation and those which do not.”¹⁹⁴ According to the AG, the question boils down to whether Nintendo could have “protected its own or licensed games without preventing or restricting the use of its consoles to play ‘homebrew’ games” or not, i.e. whether the desired effect of the TPMs used could be achieved without preventing or restricting acts which do not require authorisation.¹⁹⁵ Accordingly, if Nintendo could have achieved the desired protection without restricting legitimate use, then the TPMs should not be legally protected pursuant article 6 of the InfoSoc Directive. In my view, this interpretation seems to recognise the end-user right of freedom of expression and information to a greater degree than before, making the new interpretation less favourable towards the right holder’s right of property as it questions the legitimacy of the restrictiveness of the DRM-systems utilised. One could possibly even argue that the reservation the AG put forward, that to the extent that these end-user’s rights are not fundamental rights, the importance of protecting copyright and related rights must be recognised¹⁹⁶, indicates *e contrario* that where end-user fundamental rights are concerned, they are to be awarded importance. The AG also stresses the importance of the purpose of and factual use of a circumvention device, such as a ‘mod chip’, which facilitate circumvention. In my opinion, AG Sharpston’s interpretation is less favourable to copyright holders than end-users since it entails that a circumvention device could be considered lawful if the primary purpose and use of the device is lawful. The emphasis that the

¹⁸⁹ *Scarlet Extended v SABAM*, C-70/10, para. 45.

¹⁹⁰ See chapter 3.

¹⁹¹ InfoSoc Directive, recital 48.

¹⁹² Opinion of the Advocate-General, para. 56.

¹⁹³ Opinion of the Advocate-General, para. 57 and 58.

¹⁹⁴ Opinion of the Advocate-General, para. 51.

¹⁹⁵ Opinion of the Advocate-General, para. 54.

¹⁹⁶ Opinion of the Advocate-General, para. 78.

AG places on the factual purpose of ‘circumvention devices’, as opposed to stressing the fact that it can circumvent DRM-systems, and the factual legitimate uses of the concerned devices seem to be a step towards a more fair balance between the concerned conflicting fundamental rights.

5.4 Article 6 of the InfoSoc Directive

As stated in recital 3 of the preamble to the InfoSoc Directive, the proposed harmonisation in said directive will help to “implement the four freedoms of the internal market and relates to compliance with the fundamental principles of law and especially of property, including intellectual property, and freedom of expression and the public interest.”¹⁹⁷ Accordingly, the directive is designed to increase harmonisation and guide the implementation of fundamental freedoms such as the right of property and the right to freedom of expression.

According to article 6(1) of the InfoSoc Directive, member states must provide adequate legal protection against circumvention of effective technological measures. This includes circumvention devices or services according to article 6(2). However, article 6(4) requires member states to ensure that technological measures do not prevent end-users from enjoying the benefit of copyright exceptions. In terms of what exceptions and limitations are to be provided for in national law, article 6(4) stipulates that they should be in accordance with the provisions of article 5.¹⁹⁸ Examples of such exceptions are “use for the sole purpose of illustration for teaching or scientific research”¹⁹⁹ and “use for the purposes of public security or to ensure the proper performance or reporting of administrative, parliamentary or judicial proceedings.”²⁰⁰ But when, exactly, must member states act? To what degree must the end-user be able to enjoy the benefit of copyright exceptions? Is it only necessary to act when beneficiaries are not able to benefit at all, or are member states obliged to act when benefit of exceptions exists, but is conditioned or qualified in some way, i.e. if the benefit of exceptions are sub-optimal? An example of such sub-optimal benefit of exceptions would be if an end-user would suffer inconveniences, delays, expenses or similar issues if he or she exercised the exception. Alternately, there could be a complete inability to exercise the exception. An example of that would be if a student needed to access the original digital version of a video game in order to study its interactivity since the derived version does not contain the information needed to perform the study. Samartzi argues that if technological measures impose such inconvenience that it is practically impossible to use works in accordance with the purposes granted by the exceptions, then the benefit of the exception is not merely sub-optimal, but a denial of the exception.²⁰¹ Furthermore, Akester makes a

¹⁹⁷ InfoSoc Directive, recital 3.

¹⁹⁸ InfoSoc Directive, article 6(4).

¹⁹⁹ InfoSoc Directive, article 5(3)(a).

²⁰⁰ InfoSoc Directive, article 5(3)(e).

²⁰¹ Samartzi, p. 2.

valid point in stating that DRM systems cannot easily cater for public concerns such as copyright exceptions and limitations. Akester also stresses that it seems impossible for DRM-systems to flawlessly incorporate fair use concepts since such concepts are difficult to define and differ from jurisdiction to jurisdiction.²⁰²

Akester also comments on article 6 of the InfoSoc Directive stating that since article 6(4) is only applicable to article 6(1) and not to 6(2), member states are indeed required to allow for circumvention of specified lawful excepted uses, but this is not applicable to circumventing devices or services. In Akester's view, this means that even when such devices or connected services would enable users to benefit from exceptions in article 6, the manufacturing or dealing with them would still be unlawful²⁰³, contrary to the interpretation indicated in AG Sharpston's opinion in the Nintendo preliminary ruling. Altogether, Akester argues that right holders can fail to provide the beneficiaries of the exceptions specified in article 6(4) with the means for benefiting from those exceptions and additionally that they cannot get their hands on lawful devices that enables circumvention of TPMs so that they can benefit from said exceptions. Consequently, DRM systems can clearly interfere with the right to freedom of expression, pursuant article 10 of the ECHR. Such interference is not justifiable according to article 10 unless it is prescribed by law, pursues at least one of the legitimate aims listed in article 10(2) and is "necessary in a democratic society" to achieve concerned aim or aims. As regards the requirement that it be prescribed by law, a citizen must be able to reasonably foresee the consequences of any action, and unless national legislation has left a very wide margin of interpretation to concerned domestic courts, the ECtHR would be able to conclude that the interference was prescribed by law. Secondly, the aim of DRM-systems is to protect the rights of others, which is one of the legitimate aims specified in article 10. Concerning the final demand that the interference be necessary in a democratic society, Akester points out that the ECtHR considers the freedom of expression to be an essential foundation of any democratic society and that even though there are exceptions to this freedom, the ECtHR interpret them strictly. Moreover, Akester state that in light of case law, the use of "necessary" indicates a "pressing social need".²⁰⁴ Additionally, according to Bonadio it is essential to determine whether such restriction is really useful to meet the purposes of copyright, the verification of which he believe to be a necessity in order to decide whether the imposed restrictions are "necessary in a democratic society" in accordance with article 10(2).²⁰⁵ Akester continues by stating that member states certainly have margin of appreciation as regards the assessment of whether such a need is present and that ultimately the ECtHR must conclude whether the interference was "proportionate to the legitimate

²⁰² Akester, Patricia, *Digital rights management in the 21st century*, European Intellectual Property Review, 2006 28(3) (Akester), p. 4.

²⁰³ Akester, p. 4.

²⁰⁴ Akester, p. 5-6.

²⁰⁵ Bonadio, Enrico, *File sharing, copyright and freedom of speech*, European Intellectual Property Review 2011, 33(10) -631 (Bonadio), p. 14.

aim pursued” and whether the reasons presented by the national court are “relevant and sufficient”.

Additionally, Akester state that the European case law implies that public interest in the speech is highly relevant for the assessment and that it is likely that freedom of expression will be favoured in those cases where right holders utilise restrictive DRM-systems whilst not ensuring that beneficiaries actually benefits from the exceptions in article 6(4).²⁰⁶

5.5 Concluding remarks

It seems that scholars agree that DRM-systems, including TPMs, as a means to exercise the right of property can be said to interfere with the right of freedom of expression and information. Case law also supports this interpretation. As regards DRM-systems, e.g. TPMs, some scholars claim that they neither adequately assure that beneficiaries of copyright limitations and exceptions benefit from them, nor adequately distinguish between restricting acts that requires authorisation, i.e. protecting the right of property in accordance with copyright law, and acts that do not require authorisation, i.e. acts that should be allowed in line with the freedom of expression and information. For instance, in the case *Scarlet Extended v SABAM* it is stated that the intrusive internet monitoring DRM-system concerned constituted interference and it is suggested that it could be considered a violation, but the court concludes that it was not due to the wide margin of appreciation awarded member states. In sum, there seem to be consensus regarding the fact that DRM-systems can interfere with the right of freedom of expression and information, but so far relevant EU case law does not consider the particular interference of DRM-systems a violation. However, current case law does not seem to entirely preclude the possibility that it could be considered a violation of fundamental rights.

²⁰⁶ Akester, p. 5-6.

6 Conclusions

The primary purpose of the thesis was to investigate the anti-circumvention law within the EU pertaining to DRM-systems, in particular TPMs, attached to video games and examine the *de facto* effect and effectiveness, focusing on conflicting interests of right holders and end-users. The secondary aim was to examine the potential interference of such DRM-systems/TPMs from a fundamental rights perspective. The following questions were to be answered:

1. How do TPMs affect end-users and are TPMs *de facto* effective?
2. Can the use of DRM-systems, in particular TPMs, interfere with end-users' fundamental right to freedom of expression and information, and, if so, is it considered a violation or not?

Firstly, video games are amalgamations of different intellectual works and there are three main modes of classification: 1) as mainly a computer program, 2) as a mainly an audiovisual work and 3) viewing the different elements as separate and individual intellectual works. As far as EU Member States are concerned, the most relevant classifications are as a computer program and as individual intellectual works. Full harmonisation is not yet achieved within the EU and regulations differ between jurisdictions.

In terms of the applicable EU anti-circumvention law, either the Software Directive, applicable on computer programs, or the InfoSoc Directive, applicable on intellectual works in general, could potentially be applied. Further, there does not seem to be any provisions within the legislation that indicates that the application of either precludes the applicability of the other, insofar as they are applied on their respective, separate subject matter, and do not overlap. Indeed, the InfoSoc Directive leaves all existing directives intact. However, as the audiovisual and other parts of a video game are often inextricable from the computer program element, it may be difficult to clearly separate the elements. Also, one and the same TPM generally protects the intellectual work elements of a video game as a whole, not just the one part that is, for example, the computer program, thus making it difficult to apply the two different anti-circumvention directives simultaneously. To classify the video game as a whole as either a computer program or a complex intellectual work is therefore desirable, although the regulation itself does not provide a clear-cut answer. However, AG Sharpston, in her opinion on the Nintendo preliminary ruling, addresses the classification issue and argues that a video game should not be considered a mere computer program as it is comprised of a variety of intellectual works, thus making it more than a mere computer program, and that it consequently is appropriate to classify it as an intellectual work under the InfoSoc Directive as that directive offers the greater protection. The AG also highlights that the Software Directive should be considered *lex specialis*,

and should as such precede the InfoSoc Directive, but only as regards mere computer programs without additional copyrightable features. In keeping with the opinion of the AG, the complex nature of video games indicate that they should be accorded the greater protection awarded by the InfoSoc Directive and consequently said directive is applicable concerning DRM-systems attached to video games. DRM is a term describing a combination of electronic management and content protection that utilises technological, organisational and other means to control the use of digital works. In the context of video games, DRM-systems are used by right holders to control access to and use of the copyrighted material even after a copy of it has been legitimately purchased by an end-user. For example, by utilising electronic copy protection or encrypted information exchange as well as limiting the number of times, or the number of devices on which, a video game can be installed. Essentially, DRM-systems are utilised by right holders to protect and manage the copyright attached to video games and, in legal terms, a distinction is made between TPMs, pursuant article 6, and RMI pursuant article 7. Basically, the term TPM refer to technological protection measures that restrict or prevent the use of and access to copyright protected digital media content on electronic devices with such technologies installed, whilst the article 7 describes RMI as any electronic “information provided by right holders which identifies the work or other subject matter, the author or any other right holder, or information about the terms and conditions of use, [...] and any numbers or codes that represent such information”. Article 6 and 7 are referred to as anti-circumvention provisions, prescribing that certain DRM-systems are lawful under given conditions and must be provided with adequate legal protection, i.e., circumvention of lawful DRM-systems is illegal. Examples of TPMs are registration keys, prompting the end-user to correctly type a series of specific letters or numbers when installing or running the video game, internet product registration, requiring an online serial number registration ensuring that a specific copy of a video game can only be installed on one device, and the use of encryption, ascertaining that only authorised and legitimate uses of the work is allowed.

As mentioned above, TPMs restrict or prevent end-users available actions and in doing so creates restrictions and inconveniences for the legitimate end-user. In fact, pirated versions of video games are often more user-friendly than legitimate versions, which, unsurprisingly, is a thorn in the side of lawful end-users. Proponents of TPMs argue that such systems are necessary to protect the copyright attached to works in the modern day digital era and that the lack of such adequate protection of copyright would/could be detrimental to innovation and creativity, as copyright is viewed as a core incentive. The sheer magnitude of piracy and illegal consumption is also used to validate the use of TPMs as a countermeasure, and the presented figures on revenue loss are staggering.

Opponents on the other hand, question not only the factual effectiveness of current DRM-systems to achieve the abovementioned goals, but also doubts the validity of studies and figures that proponents rely upon regarding the magnitude of piracy and illegal consumption. Opponents argue that the

material is often wrongly interpreted and that the figures regarding revenue loss attributed to piracy are not nearly as staggering in reality. Additionally, many of the studies are commissioned and/or performed by right holders, casting doubt as regards objectivity, particularly as certain recent and more impartial studies indicate that some figures in earlier studies are exaggerated. Concerning the *de facto* effectiveness of TPMs to combat piracy and protect attached copyright, there is little evidence to suggest that it is factually effective as studies show that most video games are pirated and illegally shared regardless of attached TPMs. Moreover, some scholars claim that TPMs, contrary to its purpose, actually contributes to video game piracy as end-users, individually or collectively, express their discontent by deliberately choosing to circumvent TPMs, share illegal reproductions or simply use available pirated versions. Additionally, end-users do not tend to view individual circumvention of video game copyright as a real crime and uses the intrusiveness and encumbrance that TPMs entail to defend infringement. In light of this, the current forms of TPMs cannot be said to be *de facto* effective in terms of preventing copyright infringement, and there are some evidence that suggests that the use of TPMs might even exacerbate the problem. However, it cannot be ruled out that DRM-systems might temporarily slow down the process of illegally accessing copyrighted content, even if it is just for a day. To summarise, TPMs often restrict both unlawful and lawful actions of end-users, limits interoperability and creates other inconveniences for end-users, whilst at the same time not being *de facto* effective as evidence suggest that TPMs are often quickly circumvented, thus not adequately combating piracy.

Secondly, the use of TPMs on video games is also interesting from a fundamental rights perspective, as a conflict between fundamental rights can be said to occur between the right holder's right of property, pursuant article 1 of the first protocol of the ECHR and article 17 of the EU Charter, and the end-user right of freedom of expression and information, following article 10 of the ECHR and article 11 of the EU Charter. TPMs restricting the access to and the end-users lawful and unlawful use of a video game can thus be considered as interfering with the fundamental rights of end-users, as indicated/supported by case law.

A regards the possible justification for such interference with fundamental rights, article 10(2) of the ECHR states that: "The exercise of these freedoms, since it carries with it duties and responsibilities, may be subject to such formalities, conditions, restrictions or penalties as are *prescribed by law* and are *necessary in a democratic society* [...] for the protection of the reputation or the *rights of others*" (emphasis added). As protecting the (copy)right of others is a legitimate aim according to article 10 of the ECHR the right to freedom of expression can subsequently be lawfully restricted as long as it is prescribed in law and is "necessary in a democratic society".²⁰⁷ Unless there is a particularly wide margin of appreciation in the national legislation, the requirement of the restriction being prescribed in law is not

²⁰⁷ ECHR, Article 10(2).

likely to pose a problem and subsequently it is the third condition which warrants further examination. The choice of the word “necessary” refers to a “pressing social need” and in order to assess if such a need exists for the concerned interference, one must evaluate whether or not the interference is proportionate.

In the case *Scarlet Extended v SABAM* the use of a intrusive internet monitoring system, that an ISP was required to use *vis-a-vis* its end-users, was precluded as the court believed that it could undermine freedom of information since the monitoring system might not “distinguish adequately between lawful and unlawful content”, possibly resulting in lawful communication being blocked. The court concluded that such a system would not achieve the goal of fair balance between the right to intellectual property and the freedom of expression and information. However, even if the injunction was precluded, the court decided not to label the interference a violation, in part because of the wide margin of appreciation which is awarded member states. However, the ECtHR considers the freedom of expression and information to be an essential foundation of any democratic society, implying that said fundamental right is especially important.

As regards the case *Ashby Donald v France*, the ECtHR concluded that it is not sufficient to justify a judicial order restricting the freedom of expression and information solely based on the infringement of copyright. The case concerned the unauthorised act of publication of copyright protected fashion pictures online and the court discussed the commercial speech-character of the pictures, as opposed to the general interest-character, concluding that content that it is merely money-driven does not enjoy the protection guaranteed by article 10 ECHR. In light of this, the ECtHR concluded that there was no violation of article 10 of the ECHR. As video games are generally regarded as entertainment with commercial value, it is close to hand to classify video games as merely money-driven content, although there is room for debate on this. Assuming that the concerned video game is classified as merely money-driven content, then the end-users of video games consequently has a diminished right of freedom of expression and information in this context. Accordingly, a TPM can be viewed as justifiable, or at least as not entailing a violation, even though it interferes with end-user fundamental freedoms. However, the ECtHR concluded that the fact that the concerned fundamental rights need to be carefully balanced calls for a wide margin of appreciation for member states, effectively leaving significant leeway for member states to decide in the matter.

Additionally, although the previously discussed opinion of AG Sharpston is not legally binding, it is still an indication of a suggested legal route within the EU placing greater emphasis on upholding end-user rights. It seems to me that the AG recognises that there is a need for a slightly more cautious approach as regards restrictions on other rights in the name of copyright protection. Further, Sharpston stresses the necessity of applying the principle of proportionality as regards restrictions of lawful acts otherwise available to the end-users and Sharpston argues that TPMs that restrict or

prevent end-user acts permitted by law are not provided protection in accordance with article 6 of the InfoSoc Directive. However, Sharpston also highlights that the fact that one and the same TPM often restrict both unlawful and lawful acts presents a problem, and she argues that the national court must consider the degree of interference caused by the TPM and determine whether the TPM is proportionate to achieve the legitimate aim or whether it goes beyond what is necessary for that purpose.

Ultimately, TPMs as an expression of the right to property can interfere with the right of freedom of expression and information of end-users. Although relevant case law is not showing any confirmed violation of the freedom of expression and information, it is not unimaginable that it may in the future. In light of the fact that TPMs not only seem to be *de facto* ineffective, at combating piracy and protecting copyright, as well as being cumbersome for end-users, but also considered as interfering with the fundamental rights of end-users (violation or no violation), TPMs in its current form do not seem a preferable solution, although further research is warranted.

Supplement A

Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society

Article 6

Obligations as to technological measures

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. 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.

4. Notwithstanding the legal protection provided for in paragraph 1, in the absence of voluntary measures taken by rightholders, including agreements between rightholders and other parties concerned, Member

States shall take appropriate measures to ensure that rightholders make available to the beneficiary of an exception or limitation provided for in national law in accordance with Article 5(2)(a), (2)(c), (2)(d), (2)(e), (3)(a), (3)(b) or (3)(e) the means of benefiting from that exception or limitation, to the extent necessary to benefit from that exception or limitation and where that beneficiary has legal access to the protected work or subject-matter concerned.

A Member State may also take such measures in respect of a beneficiary of an exception or limitation provided for in accordance with Article 5(2)(b), unless reproduction for private use has already been made possible by rightholders to the extent necessary to benefit from the exception or limitation concerned and in accordance with the provisions of Article 5(2)(b) and (5), without preventing rightholders from adopting adequate measures regarding the number of reproductions in accordance with these provisions.

The technological measures applied voluntarily by rightholders, including those applied in implementation of voluntary agreements, and technological measures applied in implementation of the measures taken by Member States, shall enjoy the legal protection provided for in paragraph 1.

The provisions of the first and second subparagraphs shall not apply to works or other subject-matter made available to the public on agreed contractual terms in such a way that members of the public may access them from a place and at a time individually chosen by them.

When this Article is applied in the context of Directives 92/100/EEC and 96/9/EC, this paragraph shall apply *mutatis mutandis*.

Bibliography

Legislation

International instruments

Berne Convention for the Protection of Literary and Artistic Works, September 9, 1886, as revised at Paris on July 24, 1971 and amended in 1979, S. Treaty Doc. No. 99-27 (1986)

European Convention for the Protection of Human Rights and Fundamental Freedoms, November 4, 1950 in Rome

International Covenant on Civil and Political Rights, adopted by the General Assembly of the United Nations on December 19, 1966

Protocol No.1 to the Convention for the Protection of Human Rights and Fundamental Freedoms as amended by Protocol No. 11, Paris, March 20, 1952, ETS No. 155

WIPO Copyright Treaty, adopted in Geneva, December 20, 1996 (WCT)

WIPO Performances and Phonograms Treaty, adopted in Geneva, December 20, 1996 (WPPT)

EU

Charter of Fundamental Rights of the European Union, OJ 2007, C-303/1

Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society

Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs

Sweden

Swedish Copyright Act, Lag (1960:729) om upphovsrätt till litterära och konstnärliga verk

Literature

Akester, Patricia, *Digital rights management in the 21st century*, European Intellectual Property Review, 2006 28(3), p. 159-168 (Akester)

- Akester, Patricia, *The political dimension of the digital challenge – copyright and free speech restrictions in the digital age*, 2006 (1) Intellectual Property Quarterly 16
- Bhatt, Vidyadhar, *Is Digital Rights Management an IPR?*, Journal of Library and Information Technology, Vol. 28, No. 5, September 2008
- Bonadio, Enrico, *File sharing, copyright and freedom of speech*, European Intellectual Property Review, 2011, 33(10) -63
- Bruun, Niklas (ed.), *Intellectual property beyond rights*, Helsinki: WSOY, 2005
- Cvetovski, Trajce, *Copyright and popular media liberal villains and technological change*, Hampshire: Palgrave Macmillan, 2013
- Danay, Robert Jacob, *Copyright vs. Free Expression: The Case of Peer-to-peer File-Sharing of Music in the United Kingdom*, 8 Yale Journal of Law & Technology 32(2005)
- Golash, Deirdre (Ed.), *Freedom of Expression in a Diverse World*, London: Springer, 2010
- Kerr, Ian, Maurushat, Alana & Tacit, Christian, *Technical Protection Measures: Tilting at Copyright's Windmill*, 34 Ottawa Law Review 7 2002-2003 (Kerr et al.)
- Kur, Anette and Dreier, Thomas, *European Intellectual property law, text, cases & materials*, UK Cheltenham: Edward Elgar, 2013 (Kur & Dreier)
- Lipson, Ashley S. and Brain, Robert D., *Computer and Video Game Law – Cases, Statutes, Forms, Problems & Materials*, Durham: Carolina Academic Press, 2009
- Mazziotti, Guiseppe, *EU Digital Copyright Law and the End-User*, Berlin: Springer Verlag, 2008 (Maziotti)
- Patry, William, *Moral Panics and the Copyright Wars*, New York: Oxford University Press, 2009
- Schollin, Kristoffer, *Digital Rights Management The New Copyright*, Stockholm: Jure Förlag AB, 2008
- Samartzi, Vasiliki, *Optimal vs sub-optimal use of DRM-protected works*, European Intellectual Property Review, Vol 33 Issue 8, 2011 (Samartzi)
- Still, Viveka, *DRM och upphovsrättens obalans*, IPR University Center, Helsinki: Oy Nordprint AB, 2007 (Still)

Tritton, Guy, *Intellectual property in Europe*, London: Thomson Sweet & Maxwell, Third Edition, 2008 (Tritton)

Wilson, Arlene, *Digital Rights Management – An Overview*, Business Law Review, January 2010

Wolk, Susanne, *Det upphovsrättsliga programskyddets gränser*, Nordiskt Immateriellt Rättsskydd year 2012, omnibus 80, p. 295

Yeh, Charles, *Spore, DRM and pirates: UCITA and market realities*, Duke Law & Technology Review, No. 4 2009

Research studies and conference material

Drachen, A, Veitch, R & Bauer, K, *Digital Game Piracy: Analyzing the Illegal Distribution of Digital Games via BitTorrent*, in Lugmayr, A, Franssila, H, Safran, C & Hammouda, I, (eds), *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments, MindTrek 2011*. Association for Computing Machinery, New York, pp. 233-240., 2011 (Drachen et al.)

Ficsor, Mihály, *TPM systems to protect video games and illegal "mod chips" to circumvent them – in the light of a referral to the CJEU, 21st Annual Intellectual Property Law & Policy Conference*, Fordham University School of Law, April 4-5, 2013 (Ficsor I)

Ramos, Andy et.al., *The Legal Status of Video Games: Comparative Analysis in National approaches*, July 29 2013 WIPO (Ramos et al.)

Online sources

All online sources last visited on January 7, 2013.

Electronic Frontier Foundation, *DRM*, <https://www EFF.org/issues/drm>

EU Law Radar, *Monitoring References to the Court of Justice of the European Union, C-458/13, Grund and others – video games and technological protection mechanisms*, October 14, 2013, <http://eulawradar.com/case-c-45813-grund-and-others-video-games-and-technological-protection-mechanisms/>

European Commission, *Digital Agenda for Europe, Action 6: Protecting intellectual property rights online*, <https://ec.europa.eu/digital-agenda/en/pillar-i-digital-single-market/action-6-protecting-intellectual-property-rights-online>

Fritz, Ben, *'Spore's' DRM restrictions irk gamers*, September 19 2008, <http://variety.com/2008/digital/news/spore-s-drm-restrictions-irk-gamers-1117992527/>

IPKat, *Game Copiers and Mod Chips – AG Sharpston issues Opinion in Case C-355/12 Nintendo v PC Box*, September 19 2013, <http://ipkitten.blogspot.se/2013/09/game-copiers-and-mod-chips-ag-sharpston.html>

Iwinski, Marcin, *No DRM in the Witcher 3 Wild Hunt: an open letter to the community*, <http://cdpred.com/no-drm-in-the-witcher-3-wild-hunt-an-open-letter-to-the-community/>

Jervell, Catherine, *Video Games: 21st Century Art*, WIPO Magazine, August 2012, http://www.wipo.int/wipo_magazine/en/2012/04/article_0003.html

Kamizuru, Stephen, *Spore Becomes Most Pirated Game in History*, DailyTech.com, December 10, 2008, <http://www.dailytech.com/Spore+Becomes+Most+Pirated+Game+in+History/article13648.htm>

Klepek, Patrick, *CD Projekt RED Waves Goodbye to DRM*, Giant Bomb News, November 11 2013, <http://www.giantbomb.com/articles/cd-projekt-red-waves-goodbye-to-drm/1100-4783/>

Nintendo corporation homepage, *Company history*, <http://www.nintendo.com/corp/history.jsp>

Ohta, Tom, *Case C-355/12 Nintendo v PC Box – Advocate-General's Opinion on circumvention methods used in Nintendo game consoles*, September 19, 2013, Bristows, <http://www.bristows.com/articles/case-c-355/12-nintendo-v-pc-box-advocate-generals-opinion-on-circumvention-methods-used-in-nintendo-games-consoles-by-tom-ohta-and-nick-cross>

Oxford Dictionaries, *Definition of video game*, <http://www.oxforddictionaries.com/definition/english/video-game?q=video+game>

Parker, Laura, *The DRM Dilemma*, May 21 2009, <http://www.gamespot.com/articles/the-drm-dilemma/1100-6209660/>

Spedicato, Giorgio, *Some remarks on AG Sharpston's opinion in the Nintendo case (C-355/12)*, September 30 2013, [http://kluwercopyrightblog.com/2013/09/30/some-remarks-on-ag-sharpstons-opinion-in-the-nintendo-case-c-%E2%80%9135512/](http://kluwercopyrightblog.com/2013/09/30/some-remarks-on-ag-sharpstons-opinion-in-the-nintendo-case-c%E2%80%9135512/) (Spedicato)

Stuart, Keith, *Xbox One DRM restrictions dropped after gamer outcry*, The Guardian, 19th June 2013, <http://www.theguardian.com/technology/2013/jun/19/xbox-one-drm-second-hand-restrictions-abandoned>

Talkjack's Weblog, *Is DRM killing PC games?* and attached online commentaries, June 22 2008, <http://talkjack.wordpress.com/2008/06/22/is-drm-killing-pc-games-part-1/>

Voorhoof, Dirk, *European Court of Human Rights : Ashby Donald v. France*, IRIS Merlin (Database on legal information relevant to the audiovisual sector in Europe) 2013-3:1/1, <http://merlin.obs.coe.int/iris/2013/3/article1.en.html>

Voorhoof, Dirk & Hoedt-Rasmussen, Inger, *ECHR: Copyright vs. freedom of expression*, January 25 2013, Kluwer Copyright Blog <http://kluwercopyrightblog.com/2013/01/25/echr-copyright-vs-freedom-of-expression/> (Voorhoof et al.)

Wheaton, Wil, *Why I hate DRM (Example 147,000,000)*, June 24 2010, <http://techland.time.com/2010/06/24/why-i-hate-drm-example-147000000/>

WIPO, About IP, *Video Games*, http://www.wipo.int/copyright/en/activities/video_games.html

WIPO *Intellectual Property Handbook*, WIPO publication No. 489 (E), Second edition, 2008, <http://www.wipo.int/about-ip/en/iprm/>

Office of the privacy commissioner of Canada, *Fact Sheets: Digital Rights Management and Technological Protection Measures*, November 2006, http://www.priv.gc.ca/resource/fs-fi/02_05_d_32_e.asp

Table of Cases

The Court of Justice of the European Union

- C-393/09 Bezpečnostní softwarová asociace v Ministerstvo kultury (BSA), December 22 2010
- C-70/10 Scarlet Extended SA v Société belge des auteurs, compositeurset éditeurs SCRL (*Scarlet Extended v SABAM*), November 25 2011
- C-406/10 SAS Institute v World Programming (*SAS Institute*), May 2 2012
- C-458/13 Request for a preliminary ruling from the Bundesgerichtshof (Germany) Andreas Grund acting as administrator in the insolvency proceedings concerning the assets of SR-Tronic GmbH, and Others v Nintendo Co. Ltd. and Nintendo of America Inc. (*Grund and Others*), lodged August 19 2013

Opinions

- C-355/12 Opinion of Advocate General Sharpston on case C-355/12 Nintendo Co. Ltd, Nintendo of America Inc, Nintendo of Europe GmbH v PC Box and 9Net Srl (*Nintendo v PC Box*), issued September 19 2013

The European Court of Human Rights

Appl. No.:

- 73049/01 Anheuser-Busch Incl. v Portugal, Grand Chamber, January 11 2007
- 36769/08 Ashby Donald and others v France, January 10 2013

Sweden

The Swedish Market Court

MD 2011:29