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**Video Games and Copyright Protection
Under International, European, and U.S.
Law**

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Abstract

Video games form the most creative world-wide entertainment industry and they foster innovation and development on both computer science and art in today's digitalized world. Since these complex works contain multiple forms of art that have been already subjected to the protection regimes established under copyright, copyright law naturally becomes the most relevant intellectual property right for a discussion to be conducted on them. In order to reveal the current approaches on protecting video games, that has become a billion-dollar industry recently, this thesis aims to reveal different levels of copyright protection and the legal uncertainties occurred due to the existing considerations adopted under International, US and European copyright law. In this point, this thesis discusses the current position of video games in the realm of copyright and it seeks to reveal the deficiencies of the regimes applied in the abovementioned jurisdictions. Accordingly, the preferences on the legal classification of video games together with their consideration under the idea/expression dichotomies and the legal consequences of such preferences are revealed and discussed. Following the discussions and considerations on the current protection regimes, it is found that the current protection regimes are not capable enough to handle such complex work of authorship. Therefore, as a second step, this thesis touches upon and evaluates the measures launched by the industry to cope with the existing issues and reviews the capability of such measures to handle the legal uncertainties. However, it is also observed that the current measures launched by the industry establish unjust applications of rights rather than finding a sustainable solution. Therefore, this thesis aims to carve out a brief sui generis copyright regime for video games that addresses the prominent issues observed throughout this thesis and that would be able constitute medium specific solutions to cope with the current issues and uncertainties on the protection of video games under copyright. Finally, this thesis concludes that the existing copyright laws are inadequate to handle a complex, developing and highly innovative product belonging to a billion-dollar industry in today's digitalized and interactive world and it proposes a new regime that would be able to cover the specific points and needs of video games and that would be discussed internationally for the following years.

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CDPA – Copyright, Designs and Patent Act 1988

CONTU – National Commission of New Technological Uses of Copyrighted Works

DMCA – The Digital Millennium Copyright Act

DRM – Digital Rights Management

ECJ – European Court of Justice

EULA – End-User License Agreement

OSP – Online Service Provider

TOS – Terms of Service

TPM – Technological Protection Measure

TRIPS – The Agreement on Trade-Related Aspects of Intellectual Property Rights

UGC – User Generated Content

UrhG – Act on Copyright and Related Rights of Germany

WCT – WIPO Copyright Treaty

WIPO – World Intellectual Property Organization

WPPT – WIPO Performances and Phonograms Treaty

WTO – World Trade Organization

1. INTRODUCTION

Humans have interacted with games throughout the history and one may assert that the roots of games in history even placed in ancient Egypt with the game named as *Senet* and dates 4,600 years back in time.¹ Such interaction has been studied and defined by several scholars. For instance, game theorists Katie Salen and Eric Zimmerman defined games as “... *system[S]* in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome.”² The abovementioned “*system*” found its place all around the world within social and cultural life. Together with scientific and technological progress, the games enjoyed by humans demonstrated verity and development and finally, this evaluation brought the creation of video games in modern society.

Video game genre has started to reveal itself in early 60s in technological society. It is commonly believed that Spacewar!, a game created by graduate students tinkering with very expensive systems at Boston's MIT, is the birth-date of video games.³ “Spacewar!” and other archaic games which were inspired by it included a black back background, simple geometric shapes and basic functionalities and due to their simple creation it was not always easy to distinguish between an idea and the expression of idea.⁴

Unlike their ancestors, modern video games have become the most creative world-wide entertainment industry in our world today including innovative and complex components both on computer science and multi-media elements. Their annual world – wide revenues in 2019 have reached \$ 152.1 billion and the numbers grow significantly each following year.⁵

¹ Simon Egenfeldt-Nielsen, Jonas Heide Smith, Susana Pajares Tosca, *Understanding Video Games* (3rd edn, Routledge 2016) 61

² Katie Salen, Eric Zimmerman, *Rules of Play: Game Design Fundamentals* (Massachusetts Institute of Technology 2004) 80

³ Greg Lastowka, ‘Copyright law and Video Games: A Brief History of an Interactive Medium’ (2013) <<https://ssrn.com/abstract=2321424>> accessed 17 October 2019

⁴ Andy Ramos and Others, ‘The Legal Status of Video Games: Comparative Analysis in National Approaches’ (2013) WIPO 8, 7

⁵ ‘The Global Games Market 2018 I Per Device & Segment’ (Newzoo) <<https://newzoo.com/key-numbers/>> accessed 17 October 2019

Therefore, the video games are not creation of some geniuses from universities anymore. Rather than that they are creations of worldwide companies operating in the global market.

Having said that technological developments and, in particular, internet provided people with significant accessibility on video games, gaming companies are able to reach mass distribution channels and user interface within today's relative market. Through such developments, video games demonstrate themselves in everyone's daily life through the variety of devices such as computers, consoles and now mobile phones.

In case of video games, copyright law plays a critical role because, as it is stated under the WIPO research on legal status of video games, "*video games are complex works of authorship - containing multiple art forms, such as music, scripts, plots, video, paintings and characters – that involve human interaction while executing the game with a computer program on specific hardware.*"⁶ It would be appropriate to state that they simply include many forms of art within one final product. However, such complex structure also brings legal uncertainties, especially on the determination of the legal classification of video games, since components of video games are also eligible for legal protection separately under different copyright regimes. It creates confusion for the industry and for courts which are obliged to render decisions on disputes arise out from video games.

Court decisions demonstrate that protection regimes provided under copyright law apply differently in accordance with copyright laws of the jurisdiction in which the protection is sought. This legal uncertainty is a crucial matter for gaming industry and courts since it determines which elements of video games are protected and who is entitled to enforce the rights conferred by copyright law.

As a result of the invention of the internet and its demolishing effect on international borders, the abovementioned issue has accelerated because it became possible for actors of the

⁶ Ramos A. (n 4) 7

industry to access different markets without considering any borders. As a result of that video games that have been created under varied jurisdictions started to be distributed under different copyright jurisdictions. In addition to that the internet also enabled all internet actors, who are not even main developers of video games, to access, and engage with video games or even create subsequent contents.⁷

As is mentioned above, video game industry occupies a significant margin in entertainment sector and global market. Due to rapid technological development and significant market interest on video games, it is clear that video games' industry will increase its role in the next decades. Therefore, effective level of intellectual property protection and comprehensive discussion in both academic and business levels have great significance to avoid legal uncertainties and to promote the video game industry.

The purpose of this thesis is to reveal different levels of copyright protection and the legal uncertainties occurred due to the current regimes under International, US and European copyright law. Copyright includes ease of use, power and versatility, it is, therefore, arguably the most significant intellectual property protection for most video game companies.⁸ However, the position of video games is not clear yet when one compares them with other works of authors. Since the importance of video games is undeniable today, such purpose also includes a brief solution to resolve the prevailing legal problems.

In accordance with such purpose, this thesis endeavors to answer three main research questions. The first research question of this thesis focuses on answering the following question: “*to what extent does copyright law provide protection to video games under International, US and European Copyright Law?*” This question endeavors to evaluate the existing copyright regimes for protection of video games and to form a general overview with

⁷ John Kuehl, ‘Video Games and Intellectual Property: Similarities, Differences and a New Approach to Protection’ (2016) 7 Iss2 Cybaris 314, 319

⁸ Gregory Boyd, Brian Pyne, Sean F. Kane, *Video Game Law: Everything You Need to Know About Legal and Business Issues in the Game Industry* (CRC Press 2019) 20

respect to copyright protection conferred upon video games in the jurisdictions stated under the first research question.

The second research question seeks to examine measures which are lunched by the industry to cope with legal uncertainties occurring due to existing copyright system. Under this question, this thesis evaluates technological protection measures and relevant contracts used by gaming companies to protect different components of video games.

The last research question of this thesis tries to answer the necessity of sui generis copyright protection regime which would be designated for video games. This question also examines possible solutions and proposes a sui generis copyright regime to be designed for video games.

This thesis is limited to three jurisdictions for several reasons. International law is touched upon since it establishes main legal sources for copyright law. The Bern Convention⁹ contains comprehensive of minimum rights and also sets forth the conditions under which the rights may be limited.¹⁰ The protection of related rights and computer programs under TRIPS¹¹ and the World Intellectual Property Organization Copyright Treaty¹², on the other hand, set forth general conditions of protection for related rights and computer programs. In order to demonstrate the reflections of these treaties on domestic level, this thesis endeavors to undertake a discussion on US and European copyright laws. Since US and European Union provide 45% of the video games worldwide revenues in 2018 and include rich case law and legal statutes, this thesis is limited to aforesaid jurisdictions.¹³ It is crucial to include the United States of America in this thesis since they have the largest video game industry in the world, which is reflected in the number of judicial cases.¹⁴ On the other hand, the adopted approach

⁹ Bern Convention for the Protection of Literary and Artistic Works 1886

¹⁰ Anette Kur, Thomas Dreier, *European Intellectual Property Law: Text, Cases and Materials* (Edward Elgar, 2013) 21

¹¹ The Agreement on Trade - Related Aspects of Intellectual Property Rights, art 10

¹² The World Intellectual Property Organization Copyright Treaty, art 2

¹³ 'The Global Games Market 2018 I Per Region & Segment' (Newzoo) <<https://newzoo.com/key-numbers/>> accessed 17 October 2019

¹⁴ Ramos A. (n 4) 89

in the European Union did not lead to full harmonization of copyright law.¹⁵ Therefore, implementation of European directives to laws of member states needs to be revealed. In this point, UK and Germany are taken into consideration to demonstrate different approaches towards video games within the European Union. Two reasons may be provided for such limitation; first, they reflect both Anglo Saxon and continental European approach and second, they hold the biggest market share in European video games market. Video games are complex works and they interact with different legal areas. The main topic of this thesis is copyright law and therefore, in addition to jurisdictional limitations, this thesis is also limited to the protections provided under copyright regimes. Although other legal areas such as patent law, trademark law, competition law or consumer law are excluded, they are referred when it is deemed necessary.

Three types of methodology are used under this master thesis. The functional method is referred to compare different legal approaches towards video games. The analytical approach, on the other hand, is implemented to examine different legal sources and jurisprudence. Finally, the historical method is applied to reveal the evolution of legal nature of video games.

The first chapter reveals the elements that qualify works of authors as video games. It starts with identifying different definitions and tries to determine main characteristics of video games. It also refers both history and current industry of video games by comparing the games originating from both eras. In addition to that, interactive nature of video games is also briefly discussed under this chapter. However, interactivity is also discussed in detail for following chapters due to its importance regarding copyrightability of images shown in video games. Finally, after revealing the elements of video games, this chapter provides a brief overview on the elements which might be found eligible for copyright protection.

¹⁵ Kur (n 10) 245

The second chapter evaluates the international copyright law including treaties and other legal sources. It creates a general overview on copyright law and the rules that might be applied on video games while discussing the place of video games under International law. This chapter continues with influences and impacts of international copyright law on US and the European Union. In particular, the acts enacted in compliance with international copyright law are provided. The aim of this chapter is to prepare an introduction to idea/expression dichotomy and general terms of copyright law in order to help further discussions on legal classification of video games.

The third chapter discusses the legal classification of video games under copyright regime. It provides sub-chapters to examine the legal uncertainties in detail. It begins with analyzing possible legal classifications of video games under aforesaid jurisdictions. Before doing so, it identifies the differences between unitary and distributive approaches and continues with possible classifications referred by states such as video games as computer programs and video games as audiovisual works. Following this assessment, US copyright law is taken into consideration as first subchapter. It reveals and discusses the idea/expression dichotomy by referring the relevant acts and court decisions together with historical development. This subchapter also discusses what kind of works of authors are protected as video games under US copyright regime and what kind of conditions have been used by the courts to confer the relevant rights upon the authors of video games. The second subchapter tackles with European copyright law by following a similar path in which it is provided under US regime. As is also mentioned above, copyright within the European Union still is not a unitary right, but only, a bundle of national rights.¹⁶ However, harmonization of copyright law has reached a certain point through directives and judgements of European Court of Justice. Therefore, this subchapter examines relevant directives and court decisions to reveal the applied harmonized

¹⁶ Kur A. (n 10) 246

regime and its contradictory points within the European Union. In order to demonstrate the effects of relevant directives and court decisions on member states, copyright law of UK and Germany are used as examples. Local court decisions and relevant acts of both countries are also examined under this chapter to create better understanding on the legal uncertainties in relation to copyright protections of video games.

The fourth chapter addresses user generated contents and streaming aspects of video games. Streaming games, in other words live broadcasting video games on the internet, has become immensely popular in recent years and it generates tension between streamers and game developers due to generated revenue of streams and the desire to control the context in which games are shown to public.¹⁷ In addition to the content contributed through streaming video games, users of video games are also able to exploit the game environment or user tools as a forum to speak or create other expressive content such as reproduction of object, characters and spaces¹⁸ or wide variety of mods, which alter the game code to add gameplay changes, within today's video games.¹⁹ However, their creators left without much legal protection or ownership in their contributed content.²⁰ As a consequence of that, further legal uncertainties occur on determining the owner of user generated contents. Therefore, this chapter touches upon another area which exceeds the classical scope of protection dedicated to elements of video games. In addition, this chapter endeavors to establish a comparison between aforesaid jurisdictions on relevant rules, principles and policies.

The fifth chapter underlines the measures launched by gaming industry to cope with the legal uncertainties discussed in the above chapters. Since it is not clear that all aspects of video

¹⁷ Eric Jungar, 'Streaming Video Games: Copyright Infringement or Protected Speech?' (2016) 3 (2) Press Start <<http://press-start.gla.ac.uk>> accessed 20 October 2019

¹⁸ Melinda J. Schlinsog, 'Endermen, Creeps and Copyright: The Bogyman of User – Generated Content in Minecraft' (2013) 16 Tulane Journal of Technology and Intellectual Property 185, 186

¹⁹ John Baldrica, 'Mod as Heck: Frameworks for Examining Ownership Rights in User – Contributed Content to Video Games, and a More Principled Evaluation of Expressive Appropriation in User Modified Videogame Projects' (2007) 8(2) J.L Sci. & Tech.< <https://scholarship.law.umn.edu/mjlst/vol8/iss/2/16>> accessed 20 October 2019

²⁰ibid 713

games are eligible for copyright protection, the industry tends to protect their intellectual property out of the protection regime provided under copyright through agreements and other measures. This chapter examines what these specific licensing agreements (such as end user license agreements and terms of service) are and which protection measures are implemented by the industry. It also discusses the enforceability and reliability of such measures in case they contradict with copyright law, in other words, it tries to answer that are these agreements and measures capable enough to replace copyright protection.

The Final chapter endeavors to answer the final research question: *is a sui generis protection regime under copyright law needed for video games?* In order to answer this question, this chapter begins with summarizing the current approaches followed by the jurisdictions discussed above and it explains the insufficiencies of existing rules on video games. It also discusses some alternatives that might be implemented under existing copyright regime. It concludes this part with stating the necessity of a sui generis copyright regime to be designed for video games under international law. Finally, this thesis forms the sui generis regime indicated above under the final chapter. Despite of their outstanding role in the global market, video games still continue to exist together with many legal uncertainties. In order to propose a solution, this final chapter seeks to form a protection regime which addresses the unresolved issues discussed under previous chapters and which would provide legal certainty for protection of video games. It presents a protection regime which considers video games as a separate work protected under a copyright regime designed for video games. However, it also endeavors to tailor distributive approach for certain aspects to adjust the balance between authors, producers, independent contributors and players.

2. THE NOTION OF VIDEO GAMES

Video games, that are the subject matter of thesis, have been understood in various ways due to their complex nature. Before conducting any legal discussion on video games and

copyright, one should be provided with a general overview on what the subject matter to be discussed under following chapters is. To fulfill this requirement, understanding of actual meaning of video games and identifying their characteristics need to be discussed as the first necessary steps before proceeding into following legal discussions on their legal nature and the protection regimes conferred upon them. This chapter reveals the definitions that were addressed for both non-electronical and video games, the most suitable definition of video games for the purpose of this thesis, the gaming industry and the stakeholders and finally, elements of video games that might be taken into consideration under existing copyright regimes.

2.1. Defining the Game

In his book, *“the Study of Games”*, E.M Avedon indicates that it is a really difficult task for one who seeks to answer the question *“what are games?”* since the games are different from one another.²¹ However, he also asks *“are they?”* really different immediately after this indication to question the variety of games.²² These questions reflect that ancestors of video games are also problematic in terms of providing a certain definition. Since non-electronical games founded today’s video games and definitions provided for them may also be valid for video games, one that seeks to answer *“what are video games?”* needs to take one step back to definition of games while trying to answer the question stated above.

There were several attempts to define non-electronical games since 1950s. Johan Huizinga, in his book *“Homo Ludens”*, defined games as follows: *“[...] a free activity standing quite consciously outside “ordinary” life as being “not serious,” but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according*

²¹ Elliot Morton Avedon, Brian Sutoon-Smith, *The Study of Video Games* (Ishi Press International 2015) 419

²² *ibid* 419

to the fixed rules and in an orderly manner.”²³ Huizinga’s definition provides an overview but this definition is too general and it has inconsistencies such as material interests and no profit aspects because excluding such elements significantly narrows the scope of games.²⁴ In 1961, Roger Caillois defined games as “[...] an activity which is essentially: free, separate, uncertain unproductive, governed by rules, make-believe.”²⁵ This definition again could not deliver a solid definition since uncertainty and make-believe elements do not always exist in non – electronic and video games. Bernard Suits, on the other hand, defined games as “[...] engage in activity directed towards bringing about a specific state of affairs, using only means permitted by rules, where the rules prohibit more efficient in favor of less efficient means, and where such rules are accepted just because they make possible such activity.”²⁶ The problem with this definition is that it mainly deals with playing the game rather than the game itself.²⁷ E.M. Avedon and Brian Sutton Smith addressed the games directly instead of the playing aspect.²⁸ They defined games as “[...] an exercise of voluntary control systems in which there is an opposition between forces, confined by a procedure and rules in order to produce a disequilibrium outcome.”²⁹ This definition, unlike previous ones, is compact, clear and it narrows the scope of games.³⁰ It could be considered as a solid starting point but it still lacks providing a comprehensive definition for one seeks to understand the nature of games.

These definitions include some elements that are not applicable for both non-electronical and video games such as games being voluntary or inefficient.³¹ Besides, these definitions are outdated when one tries to apply them to video games since such definitions have been created without considering the games created in modern era. However, some game theorists from

²³ J. Huizinga, *Homo Ludens* (first published 1944, Boston: Bacon Press 1950) 13

²⁴ Salen K. (n 2) 75

²⁵ Roger Caillois, *Man, Play, and Games* (Schocken Books 1961) 10 - 11

²⁶ Bernard Suits, *The Grasshopper: Games, Life and Utopia* (University of Toronto Press 1978) 34

²⁷ Salen K. (n 2) 76

²⁸ *ibid* 77

²⁹ Avedon M. (n 21) 7

³⁰ Salen K. (n 2) 77

³¹ *ibid* 77

early 2000s, Katie Salen, Eric Zimmerman and Jesper Luul, have provided more elaborate and thoughtful definitions which cover both non-electronical and video games.³²

Katie Salen and Eric Zimmerman defined games in their book *“Rules of Play”* as “[...] system[S] in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome.”³³ Although this definition covers many aspects of games, it is still not exclusive to games because the concepts of this definition such as *“artificial conflict”* may be applied to various real life situations as well.³⁴ In addition, as they underlined in their book, all games, such as role playing, do not necessary include a *“quantifiable outcome”* but they cope with this issue by asserting that role playing games are still games since every single mission results with an outcome.³⁵ Nevertheless, this definition is capable of containing video games due to fact that they defined games as systems which provides us with being able to broaden the scope of the definition and such system, therefore, is no longer obliged to define them under a physical medium such as a board or playground.

Jesper Luul, on the other hand, defined them in his book *“Half - Real”* as “[...] a rule-based system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels emotionally attached to the outcome, and the consequences of the activity are negotiable.”³⁶ Luul also focuses on the rule-based aspect of games. He suggests that rules should be well defined that they can be either programmed on a computer or that players do not have to argue about them every time of play.³⁷ The most prevailing part of Luul’s definition lies in the concept of negotiable consequences. As is stated above, Katie Salen and Eric Zimmerman’s *“artificial conflict”* is applicable for both games and real-life situations. However, Luul copes

³² Nielsen S. (n 1) 47

³³ Salen K. (n 2) 80

³⁴ Nielsen S. (n 1) 47

³⁵ Salen K. (n 2) 81

³⁶ Jesper Lull, *Half Real: Video Games between Real Rules and Fictional Worlds* (MIT Press 2005) 36

³⁷ *ibid* 37

with this particular issue by asserting the consequences as optional and negotiable that include player's attitude towards the activity.³⁸

These two definitions show similarities and they overlap since both of them consider that games are rule-based systems and they have quantifiable outcomes.³⁹ One may address these definitions to identify non-electronic and video games due to their comprehensive scope. Notwithstanding, their capability of defining video games is still arguable for one seeks to study exclusively on video games. Therefore, these definitions should be addressed to the extent of defining the game aspect of video games.

Gonzalo Frasca defines video games as *“any forms of computer-based entertainment software, either textual or image-based, using any electronic platform such as personal computers or consoles and involving one or multiple players in a physical or networked environment.”*⁴⁰ This definition is comprehensive and clear. However, more copyright-oriented definition would be more suitable for this thesis. In this point, the WIPO research on *“the Legal Status of Video Games”* provides us with a solid and copyright-oriented definition of video games. It defines them as *“[...] complex works of authorship - containing multiple art forms, such as music, scripts, plots, video, paintings and characters – that involve human interaction while executing the game with a computer program on specific hardware.”*⁴¹ This definition underlines human interaction, the game and the computer program that runs the game on specific hardware as three main elements of video games. The definition of games has been discussed before. Therefore, we need to look at other two elements provided under this definition.

³⁸ Nielsen S. (n 1) 47

³⁹ *ibid* 49

⁴⁰ Gonzalo Frasca 'Video Games of the Oppressed: Video Games as a Means for Critical Thinking and Debate' (2001) Georgia Institute of Technology 4

⁴¹ Ramos A. (n 4) 7

Video games are meant to be played and in order to do so, they provide players with interactivity which means that decisions and actions of the player determined how the story was to unfold.⁴² Video games creates the interactivity through the gameplay that is defined as the degree and nature of interactivity that the game includes.⁴³ In other words, gameplay is the way in which the player can interact with the game world, and the way in which the game world reacts.⁴⁴ Interactivity and the gameplay are common feature for video games. This feature distinguishes video games from other entertainment mediums since people are passive audiences when they watch a movie or listen to music. In video games, on the other hand, players' active participation determines the course of the game to be displayed. This creates issues on copyrightability and confusions on the regime to be conferred upon video games. Since such issues are discussed under following chapters, it will not be discussed any further under this paragraph.

Video games include various genres and other elements but each of them shares the common element, a computer program which in this sector is also known as the game engine, that runs the game on specific hardware.⁴⁵ Under the US Copyright Act, computer programs are defined as “[...] a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result”⁴⁶ However, the effect of computer programs on video games are far beyond than as it is defined under the US Copyright Act. They project the elements that are indented to be shown or to be told to players. This technical instrument helps developers to develop a video game, to present their stories and other art forms and it drives the game in the console, smart phone or computer.⁴⁷ Due to time saving and financial

⁴² Hector Camilio Herrera Gonzales, ‘Protection of Video Game Mechanics through the Patentability of Software’ (2019) La Propiedad Inmaterial N. 27 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3413816> accessed 10 November 2019, 70

⁴³ Richard Rouse, *Game Design: Theory and Practice* (2nd edn, Wordware 2005) 18

⁴⁴ Lull J. (n 36) 88

⁴⁵ Ramos A. (n 4) 7

⁴⁶ 17 U.S.C., s 101

⁴⁷ Ramos A. (n 4) 11

reasons, many video games now share the source code and as a result of that, distinctive elements of video games in recent few years lay in small tailor-made codes and audiovisual elements.⁴⁸

This sub-chapter endeavored to define video games before getting into the legal discussions. Therefore, video games will be considered as *“a complex work of authorship that involve human interaction while executing a rule – based system with quantifiable outcomes through a computer program on specific hardware”* for the discussion to be held under following chapters.

2.2. The Industry

Video games started to show themselves during 50s and 60s as products of personal hobbies or scientific projects that have been created as a result of individual efforts of some geniuses. Modern video games, on the other hand, have become the most creative world-wide entertainment industry in our world today including innovative and complex components both on computer science and multi-media elements.

In the current market structure many major video game titles, in other words “AAA” titles, have budgets comparable to Hollywood blockbuster movies and the future of game studios is mostly determined depending on success or failure of such major titles.⁴⁹ Numbers demonstrate that video game industry has already overtaken other entertainment industries. For instance, the annual world – wide revenues of video games in 2019 have reached \$ 152.1 billion and the numbers grow significantly each following year.⁵⁰ The annual revenues of global movie production and distribution industry, on the other hand, have reached \$103 billion in 2019 with

⁴⁸ *ibid* 11

⁴⁹ David Greenspan, ‘Mastering the Game: Business and Legal Issues for Video Game Developers’ (2014) 959E WIPO 8, 18

⁵⁰ ‘The Global Games Market 2018 I Per Device & Segment’ (Newzoo) <<https://newzoo.com/key-numbers/>> accessed 17 October 2019

0.1% annual growth.⁵¹ In this point, a medium specific example might enlighten the status quo. Marvel's "Avengers: Endgame (2019)"⁵² holds the world record in revenues made from movie industry that amounts to \$2.7 billion.⁵³ In comparison, Rockstar's "Grand Theft Auto V"⁵⁴ has sold 90 million units and generated over \$6 billion in revenues that is more than any other single media title in history and the numbers grow each day.⁵⁵ Therefore, determining video games as products belonging to a serious industry would be a valid consideration under today's market structure.

"AAA" titles that include mass production budgets and over 100 employees are not the only type of games existing in the industry. The independent games, that produced outside the system of big publishers with a modest budget, have in the last years experienced a significant growth through growth of online games and the rise of digital distribution.⁵⁶ Since independent games, also referred as "*indie games*", are not restricted by the big publishers, they brought creativity and variety to the industry.

There are three existing categories for now that run video games on specific hardware: consoles, personal computers and mobile. Console runs video games on a dedicated hardware that connects to a television, monitor or dedicated built – in display.⁵⁷ Personal computers run games via operating systems such as Windows, MacOS or Linux. Windows holds the significant margin of video games due to its compatibility. However, it does not mean that

⁵¹ 'Global Movie Production & Distribution Industry – Market Research Report' (IBIS World) <https://www.ibisworld.com/global/market-research-reports/global-movie-production-distribution-industry/> accessed 29 October 2019

⁵² 'Avengers: Endgame' (Box Office Mojo) <https://www.boxofficemojo.com/title/tt4154796/?ref_=bo_cso_ac> accessed 29 October 2019

⁵³ 'All Time Charts' (Box Office Mojo) <<https://www.boxofficemojo.com/charts/overall/?area=XWW>> accessed 29 October 2019

⁵⁴ 'Grand Theft Auto V' (Rockstar Games) <<https://www.rockstargames.com/games/info/V>> accessed 29 October 2019

⁵⁵ 'The violent video game has made more money than any movie ever' (MarketWatch) <<https://www.marketwatch.com/story/this-violent-videogame-has-made-more-money-than-any-movie-ever-2018-04-06>> accessed 29 October 2019

⁵⁶ Nielsen S. (n 1) 21

⁵⁷ Greenspan D. (n 49) 18

MacOS and Linux are not existing in the market. Due to the financial potential of video games, they also provide compatibility with many video games existing in the industry. Mobile games, on the other hand, run on smart phones, tablets and other kind of mobile devices. The rise of mobile gaming is attention grabbing since with the advent of smart phones, running video games on mobile devices went from simplified games to games having more similarity with modern consoles and PC games.⁵⁸ The numbers demonstrate that mobile gaming has already proved its value and it will continue to grow.⁵⁹ In addition to these categories, a new way of playing video games begins to rise. Through this way that is called cloud gaming, players will be able to play video games via streaming without any requirement of downloading video games on a physical dedicated hardware. Google Inc. releases their cloud gaming service, “Stadia”⁶⁰, in this November. They claim that “Stadia” will run on TVs, laptops, desktops, tablets and mobile devices.⁶¹ This development might change the device categorization in near future.

The traditional stakeholders are: hardware manufacturer, game developer, publisher, distributor, retailer and finally consumer. The hardware manufacturer makes the necessary components to play the game on relevant platforms and the game developers make the game in compliance with the hardware.⁶² Publishers and distributors advertise, promote and make accessible the game to sell and in order to have a product to distribute, they provide developers with financial resources. However, this structure tends to change recently. Digital distribution made video games highly available through internet without borders and consequently it damaged the role of distributors. Freemium business models, on the other hand, found a new way to generate revenues and eased the necessity of publishers for indie studios. This industry

⁵⁸ ibid 28

⁵⁹ Newzoo (n 49)

⁶⁰ Stadia <<https://stadia.dev/about/>> accessed 31 October 2019

⁶¹ ibid

⁶² Nielsen S. (n 1) 21

is innovative and highly open to development and it results rapid changes and necessity to adopt.

Digital distribution, rise of both mobile and indie games, freemium business model, video game streaming services and subscription service base business models have re-shaped and will re -shape the industry. Therefore, it is not easy to state that the industry is stable. This instability and uncertainty not only create business challenges and development but also come with unique legal issues.⁶³ Understanding the industry is, therefore, significant to identify and cope with legal issues occurring in video games.

2.3. Copyrightable Elements of Video Games

As is explained above, video games are complex works of authorship - containing multiple art forms, such as music, scripts, plots, video, paintings and characters.⁶⁴ In light of such structure, it would be fair to state that video games are mostly created by combination of various intellectual properties.

Lipson and Brain assert three creative elements that video games include. The first ones are audio elements that include musical compositions, sound recordings, voice, imported sound effects and internal sound effects.⁶⁵ Video elements such as photographic images, digitally captures moving images, animation and text are listed under second element.⁶⁶ They classified computer programs including primary game engine, ancillary code plug-ins and comments as third creative elements.⁶⁷ These elements reflect the unique nature of video games since it is unprecedented that a single medium consists of many individual form of art.

⁶³ Greenspan D. (n 49) 24

⁶⁴ Ramos A. (n 4) 7

⁶⁵ Lipson A. & Brain R., *Computer and Video Game Law: Cases, Statutes, Forms, Problems & Materials* (Carolina Academic Press, 2009) 54

⁶⁶ *Ibid.* 54; Ramos A. (n 4) 7

⁶⁷ *Ibid.* 54; Ramos A. (n 4) 7

Under this chapter, the notion of video games has been discussed by revealing what video games are, the industry and copyrightable subject matters in order to be prepared for the discussions taking place under following chapters. Discussions held under this chapter show that a strong global industry still suffer from uncertainties and instabilities because of its complex nature. Such issues not only reveal their effects on business and market players but also cause significant legal issues pending to be solved. Following chapters will identify such legal issues and the current copyright system that tries to cope with them.

3. VIDEO GAMES UNDER INTERNATIONAL LAW

Video games are undeniable creations that need to be subjected to intellectual property today. Although the TRIPS Agreements and the WIPO Copyright Treaty include references to software and audiovisual creations, video games as such are not protected as a separate category.⁶⁸ Instead, they enjoy copyright protection through interpretations of pre-existing categories. Such approach also appears in national copyright laws. For instance, some countries prefer to adopt distributive approach that addresses various traditional copyright regimes to confer protection upon video games while others refer to unitary way to protect video games under a single pre-existing copyright regime.

Although, sources of international law, such as Bern Convention, the TRIPS agreements, the WCT and the WPPT, do not cover video games as a category of their own, they still set fundamental rules and global standards to be applied for general copyright protection on video games. Such sources provide us with general understanding and the basis of protection to be conferred upon video games under national laws. Under this chapter, such legal sources and the reflections of the rules set forth by them are discussed.

⁶⁸ Ramos A. (n 4) 94

3.1. Treaties

3.1.1. Bern Convention for the Protection of Literary and Artistic Works

Convention for the Protection of Literary and Artistic Works was signed by ten countries in 1886 and it came into force on December 5, 1887.⁶⁹ It created a union⁷⁰ that was structured to exist separate and apart from any particular act of the treaty.⁷¹ The treaty has been amended several times and the Paris Act is the current text of Bern Convention and entered into force on October 10, 1974.⁷²

The Bern Convention do not contain any specific provision on video games. However, it accords the fundamental copyright protection to authors on their right to their literary and artistic creations⁷³ that affects and influences the copyright protection of video games indirectly. The Bern Convention sets forth its scope of application via article 2 that stipulates as follows; “[t]he expression “literary and artistic works” shall include every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression, such as books, pamphlets and other writings; lectures, addresses, sermons and other works of the same nature; dramatic or dramatico- musical works; choreographic works and entertainments in dumb show; musical compositions with or without words; cinematographic works to which are assimilated works expressed by a process analogous to cinematography; works of drawing, painting, architecture, sculpture, engraving and lithography; photographic works to which are assimilated works expressed by a process analogous to photography; works of applied art; illustrations, maps, plans, sketches and thrensonal works relative to geography, topography, architecture or science.” In addition to the examples stated under article 2(1), subsection (3) and (5) also provide protection for translations, adaptations, musical arrangements

⁶⁹ Paul Goldstein, Bernt Hugenholtz, *International Copyright* (Oxford University Press, 2010) 34

⁷⁰ Bern Convention for the Protection of Literary and Artistic Works 1886 art 1

⁷¹ Goldstein P. (n 69) 35

⁷² *ibid* 37

⁷³ Kur A. (n 10) 19

and other derivative works.⁷⁴ This catalog of works must be granted in all Member States and, therefore, it establishes the minimum standards for subject matter of copyright protection in the international level.⁷⁵ Nonetheless, the relevant article leaves fixation and determination of legal texts at discretion of union members that allows them to imply different rules on the determination of works of authors.⁷⁶

The Bern Convention sets forth comprehensive range of minimum rights applying within the union established as per the first article of the Convention. For instance; in article 7 and 7 bis, it stipulates the minimum term of protection for authors; in article 8, it provides the right of translation; in article 9, it presents the right of reproduction and many more. In addition, it provides minimum standards for both moral and economic rights under Article *6bis*, article 12. Besides the rights conferred upon authors, it also establishes the conditions under which the rights may be limited. The three-step test⁷⁷ detailing the conditions under which the reproduction right may be restricted may be given as a prominent example.⁷⁸

The general rule of idea/expression dichotomy is also stipulated by the Bern Convention under Article 2(1). It states that “[t]he expression *“literary and artistic works”* shall include every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression...” Idea/expression dichotomy is the core discussion point to determine the copyrightability of any work under copyright laws of the US and the European Union. Therefore, it will be discussed in detail under following chapters. However, it would be beneficial to state here that the Bern Convention requires ideas to be expressed in order to grant them protection under copyright. This general requirement is addressed by both jurisdictions and it was referred in order to determine copyrightability of works of creations. It evolved

⁷⁴ Goldstein P. (n 68) 39

⁷⁵ Kur A. (n 10) 21

⁷⁶ Bern Convention for the Protection of Literary and Artistic Works 1886 art 2(2), art 4

⁷⁷ Bern Convention for the Protection of Literary and Artistic Works 1886 art 9(2)

⁷⁸ Kur A. (n 10) 21

under subsequent treaties to the Bern Convention and became the core principle in the copyright law.

3.1.2. Agreement on Trade-Related Aspects of Intellectual Property Rights

The TRIPS agreement is the most comprehensive multi-lateral agreement on intellectual property. The scope of the agreement also covers copyright and related rights. The agreement includes three main features: standards, enforcement and dispute settlement.⁷⁹

Minimum standards of protection including subject matter to be protected, the rights to be conferred, exceptions and minimum duration of protection are set forth under the first feature.⁸⁰ TRIPS agreement is generally described as the “*Paris*” and “*Bern-Plus*” agreement since as per article 2(1) and 9(1), the provisions of both conventions in their most recent versions are underlined as integral parts of TRIPS and the signatories of the agreement are obliged to comply with them.⁸¹ However, protection of moral rights are excluded from such obligation.⁸² The inclusive and obligatory approach of article 9(1) of TRIPS promoted the Bern Convention to be more effective and enforceable in the international area.

TRIPS set forth set of rules on enforcement and dispute settlement. It contains certain principles, civil and administrative procedures, remedies, provisional measures, criminal procedures and remedies in order to provide right holders with effective enforcement of their rights.⁸³ Disputes arising out between WTO members with respect to TRIPS obligations are subject to WTO’s dispute settlement in accordance with the TRIPS agreement.⁸⁴

TRIPS agreement also stipulates specific rules in addition to compliance requirement with the provisions of the Bern Convention. According to article 9.2, copyright protection is

⁷⁹ ‘A More Detailed Overview of the TRIPS Agreement’ (World Trade Organization) <https://www.wto.org/english/tratop_e/trips_e/intel2_e.htm> accessed 17 November 2019

⁸⁰ *ibid*

⁸¹ Kur A. (n 10) 25

⁸² The Agreement on Trade - Related Aspects of Intellectual Property Rights art 9(1)

⁸³ ‘A More Detailed Overview of the TRIPS Agreement’ (World Trade Organization) <https://www.wto.org/english/tratop_e/trips_e/intel2_e.htm> accessed 17 November 2019

⁸⁴ The Agreement on Trade - Related Aspects of Intellectual Property Rights art 64

extended to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such. Such article clarifies the understanding of idea/expression dichotomy and extends the concept stipulated under the Bern Convention.

In accordance with article 10(1) of TRIPS, “[c]omputer programs, whether in source or object code, shall be protected as literary works under the Bern Convention (1971).” This provision makes computer programs eligible for copyright protection under provisions of the Bern Convention as literary works. The particular importance of such article is that the general protection, limitations and minimum term of protection conferred to literary works are also made applicable for the form in which computer programs are.⁸⁵ Such provision also performs a significant role in terms of video games. As is stated above, computer programs run video games on a specific hardware and they find protection via such provision in international law under current legal system.

Article 11 of TRIPS provides rental rights in respect of computer programs and cinematographic works. It establishes so-called impairment test for cinematographic works that allows member states to be exempted from the general obligation provided under the article “...unless such rental has led to widespread copying of such works which is materially impairing the exclusive right of reproduction conferred in that Member on authors and their successors in title.”⁸⁶ Article 12 clarifies the situations when the term of protection is calculated on a basis other than the life of natural person and it states that it shall not be less than 50 years from the end of the calendar year of authorized publication, or, failing such authorized publication within 50 years from the making of the work, 50 years from the end of the calendar year of making.⁸⁷

⁸⁵ ‘A More Detailed Overview of the TRIPS Agreement’ (World Trade Organization) <https://www.wto.org/english/tratop_e/trips_e/intel2_e.htm> accessed 17 November 2019

⁸⁶ The Agreement on Trade - Related Aspects of Intellectual Property Rights art 11

⁸⁷ The Agreement on Trade - Related Aspects of Intellectual Property Rights art 12

TRIPS agreement includes important features that endeavored to harmonize international copyright law on certain areas. It introduced new subject matters, protection regimes and limitations that improve and comply with the Bern Convention. Furthermore, it strengthened the enforceability of the Bern Convention by requiring mandatory subjection to the provisions of the Convention. Regarding video games, it does not contain any specific points. Instead, it sets forth general protection regimes that may be applicable on the separate elements of video games such as computer programs and cinematographic works. In addition to that, it re-shaped the general understanding of idea/expression dichotomy by excluding procedures, methods of operation or mathematical concepts as such.⁸⁸ TRIPS agreement and following treaties have been reflected into national laws of their signatories. In the following chapters, such effects are revealed and discussed.

3.1.3. The WIPO Copyright Treaties

The WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty were adopted in the end of 1996 due to fact that the final text of TRIPS agreement could not address the issues regarding digital communication. The intention of both treaties is to bring copyright and neighboring rights in line with requirements of digitalization and internet.⁸⁹

The World Trade Organization defines the WCT as “... *a special agreement under the Bern Convention that deals with the protection of works and the rights of their authors in the digital environment.*”⁹⁰In line with article 10 of TRIPS agreement, the article 4 of WCT constitutes the explicit provision on protection of computer programs as literary works within the meaning of article 2 of the Bern Convention.⁹¹ In addition to the rights conferred by the Bern

⁸⁸ The Agreement on Trade - Related Aspects of Intellectual Property Rights art 9(1)

⁸⁹ Kur A. (n 10) 32

⁹⁰ ‘Summary of the WIPO Copyright Treaty (1996)’ (World Trade Organization) <https://www.wipo.int/treaties/en/ip/wct/summary_wct.html> accessed 17 November 2019

⁹¹ Paul Göttlich ‘Online Games from the Standpoint of Media and Copyright Law’ (2007) IRIS Plus, Iss. 2007-10, 3

Convention, the WCT constitutes the right of distribution⁹², the right of rental⁹³ and a broader right of communication to public.⁹⁴ In terms of limitations, it extends the limitations provided under the Bern Convention and TRIPS to digital environment in accordance with article 10.⁹⁵ The attention grabbing provision of the WCT lays under article 11 that sets forth the obligations concerning technological measures. Such obligation requires contracting parties to adopt necessary measures against the circumvention of technological measures.⁹⁶ This provision is the legal source of the protection measures lunched by countries against activities of digital piracy and usage of unlicensed products. Since digital environment, in particular internet, and computer programs are integral parts of today's video games, the WCT establishes an important legal ground as to copyright protection of video games at the international level.

The WIPO Performances and Phonograms Treaty, on the other hand, deals with the rights of performers and producers of phonograms in the digital environment.⁹⁷ Similar to the WCT, The WPPT provides performers with the right of reproduction, the right of distribution, the right of rental and the right of making available in their performances fixed in phonograms.⁹⁸ In article 6 of the WPPT, however, unfixed performances are also granted with economic rights such as broadcasting and communication to public.⁹⁹ Moral rights are also adopted under article 5 of the WPPT independently of a performer's economic rights that covers the post transfer period of economic rights. The WPPT treaty should also be taken into consideration when video games are considered because video games contain vocal artists, actors and many

⁹² The World Intellectual Property Organization Copyright Treaty art 6

⁹³ *ibid* art 7

⁹⁴ *ibid* art 8

⁹⁵ *ibid* art 10

⁹⁶ 'Summary of the WIPO Copyright Treaty (1996)' (World Trade Organization) <https://www.wipo.int/treaties/en/ip/wct/summary_wct.html> accessed 17 November 2019

⁹⁷ 'Summary of the WIPO Performances and Phonograms Treaty' (World Trade Organization) <https://www.wipo.int/treaties/en/ip/wppt/summary_wppt.html> accessed 17 November 2019

⁹⁸ *ibid*

⁹⁹ The World Intellectual Property Organization Copyright Treaty art 6

more. Therefore, their economic and moral rights are also significant matters that need to be taken into consideration when a discussion on video games is launched.

The treaties provided above set the general points and rules as to international copyright law that determine minimum requirements for works to be considered as eligible for copyright protection. Such minimum requirements are constituted in a way that allows their signatories to adopt them at their discretion and as a result of that they are reflected under national laws of their participants in different ways. As is explained before, they do not contain specific provisions on the protection of video games. Nevertheless, such treaties regulate various aspects such as provisions on protection of computer programs and cinematographic works that provide us with being able to seek protection on video games under international copyright law. However, such approach encourages states to grant copyright protections to video games in light of pre-existing categories stipulated under the treaties provided above. Under such structure, it is expected to observe that video games are granted with different copyright protection regimes and classifications. In order to demonstrate inconsistencies of application of such treaties in the national level, the following subchapter endeavors to reveal the implementations of such treaties into national laws of US and the European Union. Since states establish their copyright provisions on subject matters, limitations and other aspects in line with abovementioned treaties, it is important to understand the reflections of international treaties into national copyright laws before examining the legal classification of video games.

3.2. The effects of the Treaties on US and European Copyright Law

The above-stated treaties formed the general points and rules of international copyright law although such law does not specifically refer to video games. Under this chapter, the effects of such treaties on the evaluation of US and European copyright law that would have indirect effect on video games are discussed.

3.2.1. The effects on the copyright law of the United States of America

3.2.1.1. Effects of the Bern Convention

The United States of America adopted the Bern Convention, provisions of TRIPS, WCT and WPPT. The provisions of such agreements are reflected in the copyright statute of the US.¹⁰⁰ Since the provisions of such agreements are not directly applicable, they went through the process of adoption before revealing themselves in the US Copyright Act.

The United States of America adhered the Bern Convention on March 1, 1989. Before its adherence, it was the only major western country that was not entered into the Convention and such situation meant an isolation for the US in terms of copyright.¹⁰¹ Adherence of the Bern Convention did not create dramatic changes under US copyright law because the 1976 Copyright Act has already minimized the obstacles that prevented US from entering into the Bern Convention but the act still lacked certain provisions that are required to be a member of the Bern Convention.¹⁰² The Bern Convention Implementation Act of 1988¹⁰³ was enacted on March 1, 1989 and it declared the Bern Convention as not self-executing under US law.¹⁰⁴ Since the subject matters, terms of protection, the limitations and most of the provisions of the act were in line with and even were providing more than the minimum requirements of the Bern Convention, the Implementation Act only changed minimal points such as the mandatory notice provision, requirement of transferees record of assignment before suing and jukebox compulsory license.¹⁰⁵

Since some changes are not relevant to subject matter of this thesis, only the relevant ones are evaluated under this sub-chapter. Before adherence to the Bern Convention, notification

¹⁰⁰ An Act for the general revision of the Copyright Law, title 17 of the United States Code, and for other purposes, Pub.L. 94-553

¹⁰¹ Marshall Leaffer, 'International Copyright from an American Perspective' (1990) 665 *Maurer Faculty* 373, 383

¹⁰² *ibid* 384

¹⁰³ Pub L. No. 100-568, 102 Stat. 2853 (1988) (codified as amended in scattered sections of 17 U.S.C)

¹⁰⁴ Leaffer M. (n 101) 384

¹⁰⁵ William Patry, 'The United States and International Copyright Law: From Bern to Eldred' (2003) *Houston Law Review* 40:3, 749, 751

requirement was existing and registration was provided as a prerequisite action in order to file a lawsuit and to claim remedies.¹⁰⁶ The Implementation Act, as the most important change, abolished the notice requirement for publicly distributed works meaning that authors are no longer subject to any formality to enjoy and exercise their rights under US Copyright regime.¹⁰⁷ Nevertheless, fulfilling the notification requirement is still recommended because of the evidentiary weight of notice.¹⁰⁸

Another obstacle to enter into the Bern Convention was recordation requirement that accorded as a condition precedent for bringing a copyright infringement case.¹⁰⁹ The Implementation Act has also abolished such requirement but it is still recommended to fulfill the requirement because it determines the priority between conflicting transfers.¹¹⁰ Registration, on the other hand, was debated whether it was in line with the Bern Convention since it was designed as a prerequisite for bringing an infringement suit.¹¹¹ As a result of that a two tier approach was adopted by the Implementation Act.¹¹² Although registration is no longer required for works from a Bern country, it is still intended because it provides a prima facie evidentiary value that shifts the burden of proof to the copyright owner.¹¹³ In addition to that, registration is still needed to claim statutory damages and attorney fees.¹¹⁴ In light with such provisions, it would be difficult to state that the adherence to the Bern Convention has eliminated the formalities constituted under the US Copyright Act.

The moral rights are specifically recognized under the Bern Convention article 6bis. However, the concept of moral rights is an alien subject for the US. According to the US, the copyright act, provisions of unfair competition, defamation, privacy and contract law have

¹⁰⁶ 17 U.S.C. s.401, s.411

¹⁰⁷ Leaffer M. (n 101) 385

¹⁰⁸ 17 U.S.C. s. 401(d)

¹⁰⁹ *ibid* 386

¹¹⁰ *ibid*

¹¹¹ *ibid*

¹¹² 17 U.S.C. s.411, s.101

¹¹³ Leaffer M. (n 101) 386

¹¹⁴ 17 U.S.C. s.412

already included sufficient protection to comply with moral rights provided under the Bern Convention.¹¹⁵ As a result of such approach, WIPO, as administrating institution of the Berne Convention, allowed the US to join the Convention without express moral rights.¹¹⁶

As is stated above, entering into the Bern Convention did not cause dramatic changes on the US copyright law. Nevertheless, it allowed the US Copyright Act to preserve its existing provisions despite of the changes adopted due to the adherence to the Bern Convention. For instance, the fixation requirement, that obliges the works to be fixed under any tangible medium of expression in order to be granted with copyright protection,¹¹⁷ is constituted under the US Copyright Act and in accordance with the Bern Convention article 2 (2), the fixation requirement has been left at the discretion of the members of the Convention. Therefore, such provision could prevail according the article 2 of the Bern Convention. In addition to that the Bern Convention lists the category of works as examples and it allows its members to determine their catalog of works as open or close catalog systems.¹¹⁸ As a result of that the US Copyright Act could also preserve the open catalog system that establishes a wider point of view on classifying works under copyright.¹¹⁹

The effects of the Bern Convention on the US Copyright Act did not cause major changes. However, it affected the formality requirements and furthermore, it strengthened the approach that has already been taken by the US before its adherence the Bern Convention. Yet, formality requirements are not abolished in the US while there is still no such requirement in the Europe. In case of video games, it would be valid to state that the Bern Convention did not provide any specific provision into the US Copyright Act. However, it provided the US with being able to classify them under the traditional categories and enforcing the requirements to be protected

¹¹⁵ Leaffer M (n 101) 384

¹¹⁶ Patry W. (n 105) 751

¹¹⁷ 17 U.S.C. s.102

¹¹⁸ Bern Convention for the Protection of Literary and Artistic Works 1886 art 2

¹¹⁹ 17 U.S.C. s.102

under copyright that have already been constituted before the adherence of the Bern Convention.

3.2.1.2. The effects of the WIPO Treaties

The TRIPS agreements, WCT and WPPT have also affected the US Copyright Law in different ways. The TRIPS agreements strengthened the position of the Bern Convention on US Copyright Act through imposing the subject matters and limitations of the Convention. Alongside with its contributions on the scope of idea expression dichotomy, protection of computer programs and many more, it would also be stated that US has also affected the TRIPS agreements since the Bern Convention's moral rights have been expressly excluded by TRIPS because of objections asserted by the US.¹²⁰

The WCT and WPPT have brought several concepts into the US Copyright Law but a specific provision needs to be emphasized among others. In particular, they imposed an obligation to enact provisions on: (1) circumvention of technological protection measures to be enacted for copyright owners to protect them from unauthorized uses¹²¹ and (2) preservation of copyright management information inserted into copies of work by the copyright owner.¹²² In accordance with the obligations enacted under WCT and WPPT, the US has constituted the Digital Millennium Copyright Act (DMCA)¹²³ in 1998 that might be considered as one of the most important effects of the WIPO Treaties on the US Copyright Law.

The main purposes of DMCA might be outlined as protecting access to or copying of works of copyright owners¹²⁴ including user generated contents and granting a safe harbor from copyright infringement claims in case certain take down procedures¹²⁵ are applied.¹²⁶ As per

¹²⁰ Goldstein P. (n 69) 74

¹²¹ The World Intellectual Property Organization Copyright Treaty art 11

¹²² Patry W. (n 105) 753

¹²³ Pub. L. No. 105 – 304, 112 Stat. 2860 (1998)

¹²⁴ 17 U.S.C. s.1201

¹²⁵ 17 U.S.C. s.512

¹²⁶ Henna Salo, 'Video Game Related User Generated – Content in the Digital Age – in Search of Balance Between Copyright and its Exceptions Master Thesis' (2017) Tallinn University of Tech., 29

article 116 of the US Copyright Act, copyright owners are entitled with right to reproduce the copyrighted work, create and modify the derivative works, distribute copies of works by sale, lease, loan or other means of transfer and perform or display the copyrighted work publicly.¹²⁷ Furthermore, the DMCA stipulates a way to seal of technology by restricting access through reverse engineering that might be also understood as circumvention in the digital age.¹²⁸ In accordance with article 1201(a)(1)(A), the circumvention of a “*technological measure that effectively controls access to a work under this title*” is prohibited by the DMCA meaning that a new form of legal protection, that is anti-circumvention, is now provided to any digital work protected under copyright.¹²⁹ Such legal protection is limited in two ways. First, anti-circumvention actions are limited to works that are “*protected under this title*”¹³⁰ meaning that the limitation is restricted by the statutory subject of copyright in compliance with article 102¹³¹ and second, they are limited by allowing reverse engineering for only limited purposes.¹³²

The DMCA includes provisions that are highly significant for video games because it endeavors to enact and change provisions on anti-circumvention measures, copyright owner’s rights, and fair use in the digital world in which video games operate. Yet, the DMCA has been criticized by scholars due to its over restrictive nature. For instance, Joe Linhoff, in his article *Video Games and Reverse Engineering*, asserts that “[t]he DMCA’s anti-circumvention provisions upset the balance between the rights of copyright holders, fair use and competition”¹³³ because he believes that reverse engineering is an essential tool for video games industry to maintain competition and consequently, to establish a healthy industry.¹³⁴ Subject matters included under the DMCA are highly relevant to video games since it accords

¹²⁷ 17 U.S.C. s.116

¹²⁸ John Linhoff, ‘Video Games and Reverse Engineering: Before and after the Digital Millennium Copyright Act’ (2004) 3 J on Telecom & High-Tech L 209, 210

¹²⁹ *ibid* 229

¹³⁰ 17 U.S.C. s.1201 (a)(1)(A)

¹³¹ Linhoff J. (n 128) 229

¹³² *ibid* 230

¹³³ *ibid* 235

¹³⁴ *ibid*

the technological protection measures and take down regimes that are highly addressed by video game industry. In addition to that the DMCA has affected US Copyright Law significantly on other areas as well due to its abovementioned provisions and it was constituted as a result of requirements imposed by the WCT and the WPPT with respect to circumvention of technological protection measures. In short, it might be highlighted as one of the most prominent effect of international law on the US Copyright system.

3.2.2. The Effects on the Copyright Law of the European Union

The European Union is divided into various supra-national communities having their own harmonized or unified legal regimes.¹³⁵ However, member states maintained their national copyright laws since a community-wide copyright has not been established by the European Union.¹³⁶ Nevertheless, certain degree of harmonization of copyright within the Union has been structured through directives and the decisions of the European Court of Justice and international law reflected its effects via such directives into the copyright laws of the European Union. Several directives exist in the field of copyright but only two of them will be specifically mentioned under this chapter due to their relevance on the effects of international law on the copyright laws of the European Union.

The effects of international copyright provisions on the European Union can be clearly observed especially on the Directive on the Harmonization of Certain Aspects of Copyright and Related Rights in the Information Society (Information Society Directive).¹³⁷ This directive, as the most important goal, endeavors to guide member states on implementation of the WCT and the WPPT into their national copyright laws.¹³⁸ It is also apparent that

¹³⁵ Willem Grosheide, Herwin Roerding, Karianne Thomas, 'Intellectual Property Protection for Video Games: A View from the European Union' (2014) *Journal of International Commercial Law and Technology* Vol.9 N.1, 1, 3

¹³⁶ *ibid*

¹³⁷ Directive 2001/2009/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 *OJL 167, 22.6.2001*

¹³⁸ Roberto Garza Barbosa, 'Revisiting International Copyright Law' (2007) 8 *Barry L Rev* 43, 103

Information Society Directive not only implements the WIPO treaties but also goes well beyond the obligations provided under them.¹³⁹ Article 2 of Information Society Directive would be given as an example to show how the Bern Convention and WCT are reflected into the Information Society Directive and the progressive nature of it. Article 1(4) of WCT requires the contracting parties to comply with the Bern Convention articles 1 to 21 and through this reference, article 2 of Information Society Directive incorporates the abovementioned articles of the Bern Convention and establishes the reproduction right included in the Bern Convention covering digital temporary reproductions.¹⁴⁰ Right of communication to public contained under the Bern Convention, on the other hand, has also been improved by the WIPO treaties by including the “on – demand availability right” to cover internet transmissions and article 3 of Information Society Directive again incorporates them with its own improvements.¹⁴¹ Finally, the “*three step test*”, “*protection against the circumvention of any effective technological measures*” and many other provisions provided under the Bern Convention and the WIPO treaties are also implemented into the Information Society Directive.¹⁴²

As is explained above, the provisions of international copyright have been elaborately reflected by the Information Society Directive. This directive is comprehensive and alongside with other subjects, it focuses on rights and exceptions, related rights, definitions of several technical terms, extension of expressions but not including ideas, procedures, method of operation or mathematical formulas as such as provided under TRIPS and WIPO treaties.¹⁴³ In the context of video games, this directive is particularly important because it is usually

¹³⁹ Grosheide W. (n 135) 5

¹⁴⁰ Barbosa R. (n 138) 104

¹⁴¹ *ibid* 106

¹⁴² Directive 2001/2009/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 *OJL 167, 22.6.2001* art 5, art 6

¹⁴³ Grosheide W. (n 135) 5

considered as the governing directive in the European Union in case copyright protection on video games is taken into consideration.¹⁴⁴

The Directive on the Legal Protection of Computer Programs (Computer Programs Directive)¹⁴⁵ intended to abolish differences between the laws of member states on computer programs.¹⁴⁶ Computer Programs Directive does not include any definition of computer program. It prefers to confer protection upon computer programs as literary works within the meaning of the Bern Convention.¹⁴⁷ As a consequence of this structure, the direct link between the international copyright provisions provided under the Bern Convention and the European copyright protection regime dedicated to computer programs has been established by this article. Therefore, as far as the effects of international law are considered, it seems that the direct reference to the Bern Convention¹⁴⁸ made the Computer Programs Directive applicable to nationals of nonmember states participating to the Bern Convention and in addition to that, TRIPS member states that are not members of the European Union may also invoke the Computer Programs Directive through the TRIPS article 10(1) establishing computer programs as literary works as is established under the Computer Program Directive.¹⁴⁹

Computer programs are vital elements of video games because they provide them with necessary technological means to exist as an entertainment medium. Due to importance of computer programs on video games, this directive is attention grabbing and will be discussed in detail under the legal classification of video games. However, it is important to state in this point that international law, again, effects this vital element enacted in the Computer Programs

¹⁴⁴ Case C-355/12 Nintendo Co Ltd and others v PC Box Srl [2014] ECLI:EU:C:2014:25

¹⁴⁵ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs *OJL 111, 5.5.2009*

¹⁴⁶ Grosheide W. (n 135) 4

¹⁴⁷ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs *OJL 111, 5.5.2009* art 1

¹⁴⁸ *ibid*

¹⁴⁹ Barbosa R. (n 160) 91

Directive that provides certain harmonization with respect to computer programs in the Union through the concept of protection as a literary work contained under the Bern Convention.

Besides, international law has also directly or indirectly affected the national laws of the member states. For instance, both Germany and United Kingdom have ratified the Bern convention in September 5, 1887 that is the date far before the establishment of any European institution. In other words, the provisions and principles of the Bern Convention has already existed in the copyright laws of Germany and United Kingdom far before the European Union.

In addition to that, although the European copyright directives have harmonized certain areas, national laws of member states may differ from each other due to fact that the directives and the copyright system of the European Union provide member states with opportunity to implement the provisions both provided under the Directives transposing the provisions of international law into the European Union and the rules of international copyright law.¹⁵⁰ This understanding also allows international copyright law to affect member states directly. For instance, requirements for copyrightability is formed under the Bern Convention, TRIPS agreement, the WCT and the Information Society Directive. Nevertheless, the scope of eligible works for copyright protection has been reflected differently under copyright laws of Germany and United Kingdom. Copyright, Designs and Patent Act 1988 (the CDPA) provides a close-list system of subject matters that are eligible for copyright protection.¹⁵¹ On the other hand, Act on Copyright and Related Rights of Germany (the UrhG) lists seven types of works as examples and provides an open list system for the eligible works for copyright protection.¹⁵² As is discussed under chapter 4, the results of such distinction do not create dramatic changes due to certain harmonization on this issue provided by both the *Infopaq* and other decisions of the European Court of Justice.¹⁵³ However, it goes without saying that effects of international law

¹⁵⁰ Kur A. (n 10) 245

¹⁵¹ Copyright, Designs and Patent Act 1988, c.48, s.1(1).

¹⁵² Copyright Act of 9 September 1965, as last amended by Article 1 of the Act of 1 September 2017 s.2

¹⁵³ Case C-5/08 *Infopaq International A/S v. Danske Dagblades Forening* [2009] ECR I-6624

and the way of determination of protected works still differ on these two jurisdictions. Therefore, it would be valid to state that the influence of international law on Europe can be observed on both the directives enacted by the European Union and the national laws of member states.

International copyright law neither includes video games as a subject matter nor provide any answer on how to protect them under copyright as works of authors. The Bern Convention, the TRIPS agreements, the WCT and WPPT form the general framework of copyright law to be applied at the national level. Therefore, as is discussed above, it contributes to legal protection of video games to the extent to provisions that might grant protection regimes under existing traditional copyright subject matters, general rules and principles of copyright. Under this chapter, effects of international law on the US and the European copyright law has also been discussed and it is observed that such effects resulted different bundle of rules on copyright laws when they went through implementation processes. For example, the technological protection measures provided under the WCT has been created the DMCA in the US and Information Society Directive in Europe that is enacted differently by Germany and UK. One may observe that these acts tackled with related measures in different ways and provided different exceptions to such measures although they were stipulated in accordance with the same international copyright treaty. Differences are clear even under a regulated area. In such a scenario, it needs to be stated again that video games are not mentioned at all under the provisions of international copyright law.

As a result of neglected protection on video games, countries tended to classify video games under different traditional copyright regimes. Such structure causes legal uncertainty on the position of video games in the international and national copyright systems. Under following chapter, the legal classification of video games is discussed to reveal the protection regimes devoted to video games.

4. LEGAL CLASSIFICATION OF VIDEO GAMES

As is explained above, video games are complex works of authors that combine different traditional copyrightable works on one medium in a digitalized format such as images, sounds, texts and many more.¹⁵⁴ However, it is indisputable that they contain two main parts that are namely; audiovisual elements and software.¹⁵⁵ The software used in video games manages the audiovisual and other elements and determines the way in which they are presented to the players.¹⁵⁶ In other words, software and audiovisual elements of video games are strictly intertwined due to the effect of software on other elements of video games and classification of video games, therefore, is highly debated.

This two-sided nature of video games leads qualifying them as computer programs and audiovisual works and consequently, different protection regimes become applicable for video games as a whole. Classifying video games as whole under audiovisual works or computer programs brings unique legal issues. Some scholars suggest that video games should be classified mainly as audiovisual works. However, it also causes legal issues once the nature of video games is taken into consideration. First, video games provide their players with an interactive experience while images belonging to audiovisual works are intended to be shown with passive viewer participation.¹⁵⁷ Second, the determination of originality criteria for the audiovisual works displayed in video games is also problematic. In addition to that the co-authors of video games are not similar to audiovisual works, the rights of producers show variety and the neighboring rights of audiovisual works are not always present at video games.¹⁵⁸ Therefore, classifying video games under the protection regime accorded for

¹⁵⁴ Irini A. Stamatoudi, *Copyright and Multimedia Products: A Comparative Analysis* (Cambridge University Press, 2002) 166

¹⁵⁵Ramos A. (n 4) 10

¹⁵⁶ *ibid*

¹⁵⁷ *ibid*

¹⁵⁸ *ibid*

multimedia and audiovisual works as whole has been subjected to various legal debates in different jurisdictions.

Protecting video games as whole under computer programs, on the other hand, seems relatively an easy task since all video games include a software that run the game. However, it provides a thin protection regime since the nature of the copyright protection devoted to computer programs is protected as a literary work under the Bern Convention¹⁵⁹ reduces the level of protection to the code that excludes the protection of multimedia and audiovisual works displayed in the video games. Such approach would cause a limited protection regime that covers only technical side of video games. Nevertheless, some jurisdictions still prefer to do so due to its advantages on solving the classification problem.

In contrast, some countries such as the United States of America, Germany and United Kingdom prefer a distributive classification that protects different elements of video games separately according to the specific nature of each work.¹⁶⁰ This situation causes confusion because modern video games include significant number of different works within one medium together with various authors. In addition to that video games contain some elements that are considered as non-copyrightable although they are found in both audiovisual works and computer programs.

Legal classification of video games is a primary issue because it determines the protection regime to be conferred upon video games where the protection is sought. As is underlined under the above paragraphs, there are two prevailing approaches to carry out such classification that is varying according to the jurisdiction. Despite of the unitary approach that classifies them as audiovisual works or computer programs as whole or the distributive approach, the legal classification of video games has not been clarified yet.¹⁶¹ Under this chapter, the legal

¹⁵⁹ The Bern Convention for the Protection of Literary and Artistic Works 1886 art 2

¹⁶⁰ Ramos A. (n 4) 11

¹⁶¹ *ibid*

classification of video games under US and European law will be examined in order to reveal approaches taken by both legislative and judiciary actors of abovementioned jurisdictions. In order to do so, the idea/expression dichotomy for video games and the various legal classifications of video games such as video games as audiovisual works and video games as computer programs will be separately discussed under the copyright law of the US and the European Union.

4.1. Legal Classification of Video Games under US Copyright Law

Copyright is used as the main tool to protect video game industry. In the US, the legal basis of copyright comes from the US Constitution¹⁶² providing that “*Congress shall have power ... to promote the Progress of Science and useful arts, by securing for limited times to Authors and Investors to exclusive right to their respective Writings and Discoveries.*”¹⁶³ Accordingly, section 102 of the US Copyright Act constitutes that “*copyright protection subsists [...] in original works of authorship fixed in any tangible medium of expression [...] from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device, including, among others, the following categories: (1) literary works; (2) musical works; (5) pictorial, graphic, and sculptural works; (6) motion pictures and other audiovisual works; and (7) sound recordings...*”

In accordance with section 102, an open catalog is provided for the works that might be found copyrightable including literary works, motion pictures and audiovisual works. Therefore, even though video games are not included as such under this section, they can find protection under existing categories of the US Copyright Act¹⁶⁴ as long as they are original, fixed in a medium and can be perceived and reproduced.¹⁶⁵ This approach leads us to the

¹⁶² The Constitution of the United States of America 1789

¹⁶³ The Constitution of the United States of America 1789, I s. 8(8)

¹⁶⁴ Ramos A. (n 4) 89

¹⁶⁵ Williams Electronics Inc. v. Artic International Inc. [1982] 685 F.2d 870 3rd Cir.

discussion on the idea/expression dichotomy for the elements of video games. Since there is no provision regarding to video games within the scope of the US Copyright Act, US courts endeavored to determine copyrightability of such elements by evaluating them in accordance with the requirements set forth under section 102. In *Atari Inc. v. Amusement World Inc.*¹⁶⁶ this approach has revealed itself. The court primarily considered the principle that ideas are not protected by copyright but only the expression of an idea could be found protectable and the court has confirmed the copyrightability of video games as audiovisual works.¹⁶⁷

As is mentioned before, the US does not have a common legal classification of video games. Their classification is determined in accordance with predominance of copyrightable subjects of games.¹⁶⁸ Therefore, they can be treated whether as computer programs and are classified as literary works or; as motion picture/audiovisual work in case motion picture or audiovisual work predominates.¹⁶⁹ For instance in *Stern Electronics Inc. v. Kaufman* case, the court stated that “... *the repetitive sequence of a substantial portion of the sights and sounds of the game qualifies for copyright protection as an audiovisual work*”.¹⁷⁰ This judgment demonstrates that it is possible to register video games as audiovisual works under US Copyright Law. In addition to that US Copyright Office states in the Copyright Registration of Computer Programs as follows; “[a] videogame typically contains two major components: *audiovisual material that appears on screen and the computer program that runs the game. You can register the audiovisual material for a videogame and the computer program that runs it with one application if the same party owns the copyright in the program and the audiovisual material. If the works have been published, they must have been published together as a single unit. If the program and the audiovisual material were published separately, or if different*

¹⁶⁶ *Atari Inc. v. Amusement World Inc.* [1981] No. Y-81-803 D.Md.

¹⁶⁷ Ramos A. (n 4) 90

¹⁶⁸ Kateryna Dmytrenko, ‘Protection of Video Games by Copyright: Comparative Analysis of the US, the UK and German Legal Frameworks’ (2018) CEU eTD Collection <<https://library.ceu.edu>> accessed 14 May 2020, 9

¹⁶⁹ Ramos A. (n 4) 89

¹⁷⁰ *Stern Electronics Inc. v. Kaufman*, [1982] 669 F.2d 852, 855, 213 U.S.P.Q. (BNA) 443 2d Cir.

parties own them, each element is considered a separate work, and you must submit a separate application for each."¹⁷¹ Therefore, determination of characteristics of video games is essential for their legal classification.

Legal classification of video games determines the protection to be provided to videogames. As is outlined at the above paragraphs, there are three points that need to be discussed to reveal the legal classification and consequently the copyright protection provided to video games under US law. Therefore, this subchapter begins with the idea/expression dichotomy for video games to understand what elements are eligible for copyright protection and the requirements for their copyrightability under US Copyright Law. Since video games are in part audiovisual works and in part computer programs, this subchapter discusses video games as audiovisual works and as computer programs.¹⁷²

4.1.1. Idea and Expression Dichotomy for Video Games

According to the US Copyright Act, a work must be original, fixed in a tangible medium and more than a mere idea.¹⁷³ Section 102(b) of US Copyright Act also excludes "*... any idea procedure, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated or embodied in such work.*" Therefore, US Copyright Act denies copyright protection for the works that are mere ideas and provides originality and fixation requirements to be considered as copyrightable under US copyright system.

In early infringement cases, absence of fixation was referred pretty often by infringers. Since the software codes of video games are static and permanently fixed¹⁷⁴, the fixation of

¹⁷¹ The United States Copyright Office, 'Circular 61 Copyright Registration of Computer Programs' <<https://www.copyright.gov/circs/circ61.pdf>> accessed 12 December 2019

¹⁷² Irini A Stamatoudi, 'Are Sophisticated Multimedia Works Comparable to Video Games' (2001) 48 J Copyright Soc'y USA 467, 472

¹⁷³ 17 U.S.C. s.102 (a)

¹⁷⁴ Greg Lastowka, 'Copyright law and Video Games: A Brief History of an Interactive Medium' (2013) <<https://ssrn.com/abstract=2321424>> accessed 17 December 2019

computer programs running the video games was indisputable and the fixation of audiovisual elements was the center of the discussions on the fixation requirement. It was usually argued by defendants that the work is not fixed because interactivity makes video games generate different works for every single time when it is played.¹⁷⁵ However, this approach has not been embraced by courts. In fact, the entire expression of author including the computer program, characters, auditory effects and the interaction of elements embodied in the audiovisual display is fixed.¹⁷⁶ In *Midway Mfg. Co. v. Artic Int. Inc.*, the court stated that “*the images generated by the character ROMs move on the screen in a finite but enormous number of sequences.*”¹⁷⁷ Through this statement, the court underlined that numbers of possibilities are limited and therefore, audiovisual elements displayed in video games are fixed. The court has also projected video games as “*changing channel on television*”¹⁷⁸ in order to demonstrate the limited control of players on video games.¹⁷⁹ Furthermore in *Stern Electronics Inc. v. Kaufman* case, defendant claimed that video games cannot be copyrighted because they are not fixed in any tangible medium.¹⁸⁰ However, the court again considered memory devices as a “copy” in which the works are fixed¹⁸¹ and considered that “*player participation does not withdraw the audiovisual work from copyright eligibility.*”¹⁸² Since the early copyright cases on video games, fixation requirement has been considered as a fulfilled requirement by several courts even though there are still discussions on that in case massive multiplayer online games, that include limitless possibilities depending on players’ participation, are taken into consideration. Nevertheless, discussions on fixation requirement are outdated in today’s legal environment. Therefore, the main discussions and arguments against copyright infringements took place on

¹⁷⁵ Mary Patricia Culler, ‘Copyright Protection for Video Games: The Courts in the Pac-Man Maze’ (1983) 32 *Clev. St. L. Rev.* 531, 559

¹⁷⁶ *ibid* 559

¹⁷⁷ *Midway Manufacturing Co. v. Artic International Inc.*, [1982] 547 F. Supp. 999, 1002

¹⁷⁸ *ibid* 1012

¹⁷⁹ Culler M. (n 175) 560

¹⁸⁰ *Stern Electronics Inc. v. Kaufman*, [1982] 669 F.2d 852, 855, 213 U.S.P.Q. (BNA) 443 2d Cir.

¹⁸¹ *Dmytrenko K.* (n 168) 15

¹⁸² *Stern Electronics Inc. v. Kaufman*, [1982] 669 F.2d 852, 855, 213 U.S.P.Q. (BNA) 443 2d Cir.

the originality requirements that determine the copyrightable subject matters within the scope of expression of an idea.

In *Feist Publications v. Rural Telephone Service*¹⁸³ case, the concept of “original work” is discussed by applying a two-prong test.¹⁸⁴ In accordance with this test, an author must establish that the work is an independent creation and such work must include “*minimum level of creativity on the part of the author.*”¹⁸⁵ In other words, a work of authorship is required to be created by a person using the minimum requisite level of creativity.¹⁸⁶ This originality requirement does not have to be groundbreaking. As is stated in *Stern Electronics Inc. v. Kaufman* case, “*if a work is the product an artist’s individual efforts, it is original and one need not prove that it is either novel or unique.*”¹⁸⁷ Therefore, in the realm of video games, an example would be given as not being able to copyright the idea of ‘a soldier fighting against local warlords to bring peace to the people living in such area.’ However, such idea may be expressed in games such as *Far cry*, *Just Cause*, *Call of Duty*, etc. and may find copyright protection.¹⁸⁸

Nevertheless, in early cases the originality concept created confusion for administrative bodies and courts dealing with video games. According to the Copyright Office Atari’s “Breakout” game was a combination of simple colors, sounds and geometric shapes and therefore the Office has initially rejected Atari’s copyright registration for its game “Breakout” by stating that the game was insufficiently creative to be considered as a work of authorship.¹⁸⁹ Atari has appealed such decision and in *Atari Games v. Oman*, Judge Pratt described the “Breakout” as “... *little more than a stock description of paddle-and-ball game, inseparable in*

¹⁸³ *Feist Publ’ns Inc. v. Rural Tel. Serv. Co. Inc.*, [1991] 499 U.S. 340, 345

¹⁸⁴ Brian Casillas, ‘Attack of The Clones: Copyright Protection for Video Game Developers’ (2013) 33 *Loy. L.A. Ent. L. Rev.* 137, 145

¹⁸⁵ *Feist Publ’ns*, 499 U.S. at 345

¹⁸⁶ Stephen M. Mcjohn, *Copyright: Examples & Explanations* (3d ed. 2012) 25

¹⁸⁷ *Stern Electronics Inc. v. Kaufman*, [1982] 669 F.2d 852, 855, 213 U.S.P.Q. (BNA) 443 2d Cir.

¹⁸⁸ Sam Castree, ‘A Problem Old as Pong: Video Game Cloning and the Proper Bounds of Video Game Copyrights’ (2013) <<https://ssrn.com/abstract=2322574>> accessed 17 December 2019

¹⁸⁹ Lastowka G. (n 3) 9

any principled manner from the idea which it embodies.”¹⁹⁰ In the appealing of this case¹⁹¹, Judge Ruth Bader Ginsburg has rejected both the analysis of the register and Judge Pratt for failing to understand the audiovisual combination of simple elements and stated that the whole “Breakout” was greater than the sum of its parts.¹⁹² As a result of these considerations, Atari could register its game as an audiovisual work.

In order to draw the line between idea and expression in video games and determine which elements of video games are copyrightable, courts apply so-called “limiting doctrines” of merger, functionality and *scènes à faire*.¹⁹³ Such “limiting doctrines” provide courts with the opportunity to exclude some elements existing in video games from copyright protection. Since far before video games, there is a long-standing rule of copyright stating that the game rules are not copyrightable.¹⁹⁴ This rule has also been confirmed by courts.¹⁹⁵ In addition, the Copyright Office has also stated that¹⁹⁶ others are not prevented from developing another game basing on similar principles.¹⁹⁷ However, game rules may find copyright protection against exact copying when they contain a sufficient style or a proper formulation of rules, such as a game guide prepared to explain rules and concepts of *Dungeon and Dragons* board game, as long as they do not implicate the “merger doctrine”.¹⁹⁸

Merger doctrine simply means merging of expression with the underlying idea when number of possibilities are limited to express a concept. Since granting protection to an expression that has merged with an idea would mean granting protection to the idea itself and establishing a monopoly on such idea, courts prefer to declare the expression as unprotectable

¹⁹⁰ Atari Games v. Oman, [1988] 693 F. Supp. 1207 D.D.C.

¹⁹¹ Atari Games v. Oman, [1988] 888 F. 2d 878 D.C. Cir.

¹⁹² Lastowka G. (n 3) 9

¹⁹³ Drew S. Dean, ‘Hitting Reset: Devising A New Video Game Copyright Regime’ (2016) 164 U. Pa. L. Rev.1239, 1252

¹⁹⁴ Castree S. (n 188) 7

¹⁹⁵ Whist Club v. Foster 42 F.2d 782 (S.D.N.Y. 1929)

¹⁹⁶ Castree S. (n 188) 7

¹⁹⁷U.S. Copyright Office, ‘Copyright Registration of Games, FL-108’ (2011) <<http://www.copyright.gov/fls/fl108.html>> accessed 17 December 2019

¹⁹⁸ Castree S. (n 188) 7

alongside with the idea.¹⁹⁹ In *Herbert Rosenthal Jewelry Corp. v. Kalpakian* where both parties produced jeweled bee pin, the court has stated that there is almost one way of making realistic bee pin that is found in nature and “[a] jeweled bee pin is therefore an ‘idea’ that defendants were free to copy.”²⁰⁰ This decision is relatable to video games because when this decision is interpreted in the context of video games, it would be stated that merger doctrine allows developers to implement common features such as zooming the rifle or inventory slots in their video games. It allows them to do so because the way in which such elements can be demonstrated are really limited. In case of a merger, the protection of expression is narrowed to the nearly identical copying.²⁰¹ Since video games consist of game mechanics and rules and granting copyright protection on these elements would mean a monopoly on the ideas designing limited ways of expression, application of merger doctrine has significant impact on them due to fact that their copyrightability is particularly vulnerable to limitations of such doctrine.²⁰²

The functional aspects are also excluded from copyright protection. This doctrine particularly revealed itself on the cases regarding computer programs²⁰³ by pushing functional aspects of such programs outside of the copyright protection.²⁰⁴ In case of video games, functionality doctrine has been discussed in *Atari Inc. v. Amusement World Inc.*²⁰⁵ Two games created by such companies, namely *Asteroids* and *Meteors*, based on a spaceship shooting the rocks in space like black backgrounds.²⁰⁶ In this case, the court has listed numerous similarities between two games. Apart from the similarities determined under the “substantial similarity test” that is discussed below, the court determined remaining similarities such as the controls

¹⁹⁹ Dean D. (n 193) 1255

²⁰⁰ *Herbert Rosenthal Jewelry Corp. v. Kalpakian* [1971]446 F.2d 738, 739, 743

²⁰¹ *Apple Comput., Inc. v. Microsoft Corp.*, [1994] 35 F.3d 1435, 1444 9th Cir.

²⁰² Dean D. (n 193) 1256

²⁰³ *Sega Enterprises Ltd. v. Accolade, Inc.* [1992] 977 F.2d 1510, 1524 9th Cir.

²⁰⁴ *Computer Associates Intl. v. Altai*, 982 F.2d 693, 705

²⁰⁵ *Atari Inc. v. Amusement World Inc.* [1981]547 F. Supp. 222 D. Md.

²⁰⁶ *Castree S.* (n 188) 9

for moving the spaceship as functional game mechanics and rules by stating that such similarities were “*inevitable, ... given the technical demands of the medium of video game.*”²⁰⁷ It is hard to state that this would be the case when today’s video games are taken into consideration because the “demand of the medium of video game” has significantly changed during the course of technological development. Nevertheless, this case is the first case that these principles were applied and will be referred again for further discussions. Since limiting doctrines revealed themselves in this case, it is a significant milestone for the discussions of idea and expression dichotomy and its limiting doctrines.

Scènes à faire, the French term for “*scenes that must be done*”, on the other hand, indicates the features that are necessary or common to genre.²⁰⁸ In *Atari Inc. v. N. Am. Philips Consumer Electronics Corp.*, the court defined this doctrine as²⁰⁹ “*... incidents, characters or settings which are as a practical matter indispensable or, at least standard, in the treatment of given topic.*”²¹⁰ Therefore, according to this doctrine, common elements of a genre that might be football in a video game on football, dragons and other mythological characters used in fantasy games or implementing a maze²¹¹ in a video game are not copyrightable. Stephen C. McArthur in his article ‘Clone Wars: The Five Most Important Cases Every Game Developer Should Know’ provides a clear example for the concept of scènes à faire in the realm of video games. He states that in a video game that is developed regarding the theme of vampires, “*stakes through the heart, coffins, garlic, and an antagonist who sucks blood from his victims and avoids the sunlight are all standard to the vampire genre, and thus are scènes à faire,*

²⁰⁷ *Atari Inc. v. Amusement World Inc.* [1981] 547 F. Supp. 222 D. Md.

²⁰⁸ Stephen C. McArthur, ‘Clone Wars: The Five Most Important Cases Every Game Developer Should Know’ (2013), GAMASUTRA <http://www.gamasutra.com/view/feature/187385/%20clone_wars_the_five_most_.php> accessed 17 December 2019

²⁰⁹ Castree S. (n 188) 10

²¹⁰ *Atari, Inc. v. N. Am. Philips Consumer Electronics Corp.* [1982] 672 F.2d 607, 616 7th Cir.

²¹¹ [1982] 672 F.2d 607 7th Cir.

unprotected elements of a video game”²¹² As is stipulated under merger doctrine, the copyright protection, again, is narrowed²¹³ to “*virtual identical copying.*”²¹⁴ There is no single application of this doctrine because it contains common and stereotypical elements belonging both real life and video games. The case law with respect to *scènes à faire* doctrine draws better understanding on its application on video games.

As is mentioned above, elements of video games categorized under *scènes à faire* doctrine, and consequently, found uncopyrightable, contained situations or concepts from both real life and video game world. In case of implementation of real world into video games, there are several cases in which the courts rendered decision. In *Data East USA Inc. v. Epyx Inc.*²¹⁵ where Data East creator of “*Karate Champ*” sued Epyx due to similarities on Epyx’s game “*World Karate Championship*”, the court has identified similarities on the move set of fighter’s avatars.²¹⁶ However, the court found these features unprotectable under copyright by determining that these features “*encompass the idea of karate*” because the court underlined that any illustration of karate would need to contain elements of martial art that “*is not susceptible of a wholly fanciful presentation.*”²¹⁷ In other words, the court determined the elements of “*Karate Champ*” such as moves and presence of referee as inherent in the martial arts and consequently, identified them as *scènes à faire*. Similarly, in *Incredible Technologies Inc. v. Virtual Technologies Inc.*²¹⁸ where the court rendered a decision by citing *Data East USA Inc. v. Epyx Inc.* case,²¹⁹ the court dealt with similarities between two golf games, the “*Golden Tee*” and “*PGA Golf Tour.*” Again, the court stated that the golf, like karate, “*is not*

²¹² Stephen C. McArthur, ‘Clone Wars: The Five Most Important Cases Every Game Developer Should Know’ (2013), GAMASUTRA <http://www.gamasutra.com/view/feature/187385/%20clone_wars_the_five_most_.php> accessed 17 December 2019

²¹³ Dean D. (n 193) 1256

²¹⁴ *Atari, Inc. v. N. Am. Philips Consumer Electronics Corp.* [1982] 672 F.2d 607, 617 7th Cir.

²¹⁵ *Data East USA Inc. v. Epyx Inc.* [1988] 862 F.2d 204 9th Cir.

²¹⁶ *Castree S.* (n 188) 11

²¹⁷ *Data East USA Inc. v. Epyx Inc* [1988] 862 F.2d 209 9th Cir.

²¹⁸ *Incredible Technologies Inc. v. Virtual Technologies Inc* [2005] F.3d 1007, 1015 7th Cir.

²¹⁹ *Castree S.* (n 188) 11

a game subject to totally fanciful presentation”²²⁰ and referred the necessary elements such as a golfer, a golf field, wind mater, sand traps and water hazards that any golf game needs to include.²²¹

Scènes à faire doctrine has also been referred by courts for elements coming from literary genres and stories. For instance, ancient Greece and mythological Greek gods displayed in Sony Computer Entertainment’s game God of War have been subjected to a lawsuit by Bissoon-Dath.²²² The plaintiff claimed an infringement over similarities on ancient places and relationships between the Greek gods.²²³ The court considered such elements as “*generic and clichéd for stories involving ancient Greece and Greek gods*”²²⁴ and excluded them from the copyright protection. Similarly, in *Capcom Co. v. MKR Group Inc.*²²⁵ where Capcom sought a declaratory judgment as to non-infringement of George Romero’s movie “Dawn of Death” by its game “Death Rising”, MKR Group claimed that there are similarities over two mediums such as a shopping mall, a gun shop, the creative use of items to kill zombies and a parody of rampart consumerism.²²⁶ Again, the court held that “*the few similarities MKR has alleged are driven by the wholly unprotectable concept of humans battling zombies in a mall during a zombie outbreak.*”²²⁷

Application of scènes à faire doctrine on concepts of video games has also extended its scopes to game rules, genres and mechanics. In the abovementioned Amusement World decision, the court found twenty-two similarities between two games.²²⁸ However the court has stated that “*most of these similarities are inevitable, given the requirements of the idea of a game involving a space ship combating space rocks and given the technical demands of the*

²²⁰ *ibid*

²²¹ *Incredible Technologies, Inc. v. Virtual Technologies, Inc.* [2005] 400 F.3d 1007, 1015 7th Cir.

²²² *Bissoon-Dath v. Sony Computer Entm't Am., Inc.* [2010] F. Supp. 2d 1071 N.D. Cal.

²²³ *Sam Castree* (n 216) 12

²²⁴ *Bissoon-Dath v. Sony Computer Entm't Am., Inc.* [2010] 649 F. Supp. 2d 1071 N.D. Cal.

²²⁵ *Capcom Co. v. MKR Group Inc.* [2008] U.S. Dist. LEXIS 83836 N.D. Cal.

²²⁶ *Castree S.* (n 188) 12

²²⁷ *Capcom Co. v. MKR Group Inc.* [2008] U.S. Dist. LEXIS 83836 N.D. Cal.

²²⁸ *Atari Inc. v. Amusement World Inc.* [1981]547 F. Supp. 224 D. Md.

medium of the game.”²²⁹ Therefore, the court has considered these similarities, that were not originating from real life, under merger and *scènes à faire* doctrine and although it has admitted that Amusement World took Atari’s idea, it found no copyright violation.²³⁰ Following this case, in *Capcom U.S.A v. Data East Corp.*²³¹ where constituent elements of a game were taken into consideration in more detail, again two fighter games were considered. Apart from *scènes à faire* discussions on the fighting movements, this case considered them in the context of fighting games genre. Both games included three different punch buttons and three different kick buttons for light, medium and heavy attacks.²³² Therefore the court, this time, had to deal with two games from same genre and having similar gameplay. The court admitted the similarities on gameplay.²³³ However, it held that “[t]hese figures must be cast against the fact that *Street Fighter II* has a total universe of twelve characters and six hundred and fifty moves. *Capcom concedes, as it must, that the vast majority of the moves are unprotectable because they are commonplace kicks and punches.*”²³⁴ As a result of this consideration, the court did not find copyright infringement. This decision has also strengthened the idea that video games consist of abstract rules and mere ideas and therefore they are not eligible for copyright protection as such.²³⁵

In *Atari Inc. v. North American Philips Consumer Electronics Corp.* (Pac - Man case), the court identified “Pac-Man” as “[a] maze-chase game in which the player scores points by guiding a central figure through various passageways of a maze and at the same time avoiding collision with certain opponents or pursuit figures which move independently about the

²²⁹ *ibid* 229

²³⁰ Dean D. (n 193) 1261

²³¹ *Capcom U.S.A v. Data East Corp.* [1994] No. 93-3259, 1994 WL 1751482 N.D. Cal.

²³² Stephen C. McArthur, ‘Clone Wars: The Five Most Important Cases Every Game Developer Should Know’ (2013), GAMASUTRA <http://www.gamasutra.com/view/feature/187385/%20clone_wars_the_five_most_.php> accessed 17 December 2019

²³³ *Capcom U.S.A v. Data East Corp.* [1994] No. 93-3259, 1994 WL 1751482 N.D. Cal.

²³⁴ *ibid* 12

²³⁵ Dean D. (n 193) 1262

maze”²³⁶ and consequently, some elements of Pac-Man such as maze, scoring table and tunnel exits have been excluded from copyright protection by the court considering them as *scènes à faire*.²³⁷ Nevertheless, “Pac-Man” found copyright protection due to expression of ideas providing something additional to the ideas.²³⁸ Finally, *Capcom Co. v. MKR Group Inc.* case needs to be referred again since this case has also confirmed *scènes à faire* doctrine on genres. In this case, the court tends to accept that survival horror games are meant to include dark, violent, isolated locations overrun with zombies including ‘safe heavens’ where players are able to remain safe from attacks.²³⁹ Therefore, the court tended to consider abovementioned features as *scènes à faire* in the survival horror genre meaning that these features can be included by any developer wishing to create a video game in survival horror genre.

Courts in the US have also developed idea/expression tests to distinguish a protectable expression from an idea.²⁴⁰ There is no single test that has been accepted generally. Therefore, several tests are applied by the courts in different occasions. The concept of “substantial similarity”, has been applied by the courts to analyze which elements of the original work are protected and their similarity in the infringing work.²⁴¹ After separation of ideas and expressions, the courts exclude elements falling within merger and *scènes à faire* from copyright protection.²⁴² Therefore, substantial similarity only considers the elements that have already found copyrightable. Substantial similarity needs to exist between the protectable elements of two works to claim copyright infringement.²⁴³ Therefore, it is usually the center for analysis conducted in copyright infringement cases. The concept of substantial similarity has been used in the all of the cases stated above. For instance, in *Atari Inc. v. Amusement*

²³⁶ *Atari Inc. v. North American Philips Consumer Electronics Corp.* [1982] 672 F.2d 607, 610-13 7th Cir.

²³⁷ *ibid*

²³⁸ *ibid*

²³⁹ Castree S. (n 188) 14

²⁴⁰ Dmytrenko K. (n 168) 16

²⁴¹ Dean D. (n 193)

²⁴² *ibid*

²⁴³ McArthur S. (n 232)

World Inc., Data East USA Inc. v. Epyx Inc. and Capcom U.S.A v. Data East Corp. cases the courts found similarities between the original works and their copies. However, as is stated above, courts from these cases found that the remaining similarities after excluding the elements falling within the scope of merger and scènes à faire were not substantially similar²⁴⁴ and consequently, the courts found no copyright infringement. However, in Atari Inc. v. North American Philips Consumer Electronics Corp. (Pac - Man case) the court found copyright infringement based on substantial similarity by reasoning that Pac-man character and “ghost” chasing it in the maze were “fanciful and expressive” elements and the manifestations of defendant’s game were substantially similar to the expression presented in Pac-man.²⁴⁵

“Ordinary Observer Test”, on the other hand, has been referred by courts to understand whether an ordinary person would recognize unlawfully copying of the original work to the infringing work of author.²⁴⁶ However, in case of video games this test is applied by courts on the elements as long as they are protected under copyright.²⁴⁷ The final test to be mentioned here is the “Abstract Filtration Comparison” test that separates and distinguishes the unprotected elements from protectable ones.²⁴⁸ In Computer Associates International Inc. v. Altai, the court stated that AFC tests “... *is adaptable to computer programs*”²⁴⁹ meaning that this test might also be used as a method to segregate the protected elements of computer programs.²⁵⁰ This test has also been applied in the “Pac-man case”. The court has underlined the abstract terms existing in Pac-man and stated that “... *one would articulate the rules to such game.*”²⁵¹ Therefore, the court extended the copyright protection “*to at least a limited*

²⁴⁴ Data East USA Inc. v. Epyx Inc [1988] 862 F.2d 204 9th Cir.

²⁴⁵ Atari Inc. v. North American Philips Consumer Electronics Corp. [1982] 672 F.2d 618, 610-13 7th Cir.

²⁴⁶ N. Am. Philips Consumer Elecs. Corp., 672 F.2d 614

²⁴⁷ Christopher Lunsford, ‘Drawing a Line Between Idea and Expression in Videogame Copyright: The Evolution of Substantial Similarity for Videogame Clones’ (2013)18 INTELL. PROP. L. BULL. 87, 102

²⁴⁸ Dean D. (n 193) 1258

²⁴⁹ Computer Associates International Inc. v. Altai [1992] 982 F.2d 693, 76-108

²⁵⁰ Stephen H. Eland, ‘The Abstraction-Filtration Test: Determining Non-Literal Copyright Protection for Software’ (1994) 39 Vill. L. Rev. 665, 671; Dmytrenko K. (n 168) 17

²⁵¹ Atari Inc. v. North American Philips Consumer Electronics Corp. [1982] 672 F.2d 618, 610-13 7th Cir.

extent the particular form in which [a game] is expressed (shapes, sizes, colors, sequences, arrangements, and sounds).”²⁵² Since these tests were applied by courts on different situations in order to support the limiting doctrines on how to separate an idea from an expression, they have utilized the limiting doctrines determining which elements find protection under copyright.²⁵³

The limiting doctrines and idea/expression tests draw a line between ideas and expression through the early video game copyright infringement cases. The one of the most important observations on these cases would be the exclusion of game rules, generic motives and subjects, mechanics or gameplay elements from the scope of copyright protection. This approach has intensified the long-standing traditional rule indicating that games as such are not protected under copyright and it has accelerated the copying movement in video game industry. However, some shifts in the case law, making determination of which elements of video games might find copyright protection even more confusing, have been observed for recent years.

In 1984 Alexey Pajitnov created the one of the most popular video game in history, namely Tetris, inspired by the board game *Pentominos*.²⁵⁴ Tetris has shaped the puzzle genre with its “falling pieces” allowing players to arrange clear lines and eliminate the completed ones.²⁵⁵ In 2009, Xio Interactive developed a video game called *Mino* that is stringy similar to Tetris because it included exact game pieces that were shaped and colored as they were in Tetris.²⁵⁶ In addition to that, Xio Interactive published *Mino* through the Apple Store and reached to a significant amount of consumers.²⁵⁷ As a response, Tetris Holding issued a takedown notice to Apple within the scope of Digital Millennium Copyright Act and Apple removed *Mino* from

²⁵² Ibid; Casillas B. (n 184) 158

²⁵³ Dean D. (n 193) 1258

²⁵⁴ About Tetris, *Tetris*, < <https://tetris.com/about-us>> accessed 2 January 2020

²⁵⁵ Tetris Holding LLC v. Xio Interactive Inc., [2012] 863 F. Supp. 2d 396 D.N.J.

²⁵⁶ *ibid* 397

²⁵⁷ Casillas B. (n 184) 153

its store accordingly.²⁵⁸ Upon the counter notification of Xio Interactive, Apple informed Tetris Holding on necessity of filing a lawsuit to disable the reinstalling of Mino.²⁵⁹ As a result of that, Tetris Holding filed a lawsuit before New Jersey District Court in December 2009.²⁶⁰

Alongside with other claims, Tetris Holding brought a copyright infringement claim before the court and Xio Interactive has indicated the valid ownership of Tetris Holding on Tetris²⁶¹ and admitted that they downloaded Tetris to develop their own video game.²⁶² However, having reviewed copyright laws applying on video games Xio Interactive has also stated that there were little copyrightable expressions left in Tetris due to merger and scènes à faire doctrines²⁶³ since according to Xio Interactive, Tetris was a puzzle game of abstract mechanics possessing minimal artistic expressions.²⁶⁴ The court did not agree with Xio Interactive on the claims provided against the copyright infringement.

The court started with reviewing the relevant precedents including merger and scènes à faire discussions²⁶⁵ and found that since Tetris and other similar games are “purely fanciful”, they have no ground in real life and they include no standard elements common to an abstract puzzle game, scènes à faire doctrine has little relevance to such games.²⁶⁶ The court has also considered prior decisions on idea expression dichotomy and tests applied to determine substantial similarity.

Following these considerations, the court defined the idea of Tetris as “... *a puzzle game where a user manipulates pieces composed of square blocks, each made into a different geometric shape, that fall from the top of the game board to the bottom where the pieces accumulate. The user is given a new piece after the current one reaches the bottom of the*

²⁵⁸ *ibid*

²⁵⁹ Tetris Holding LLC v. Xio Interactive Inc., [2012] 863 F. Supp. 2d 397 D.N.J.

²⁶⁰ *ibid* 396

²⁶¹ Casillas B. (n 212) 154

²⁶² *ibid* 397

²⁶³ Dean D. (n 193) 1265

²⁶⁴ Tetris Holding LLC v. Xio Interactive Inc., [2012] 863 F. Supp. 2d 394 D.N.J.

²⁶⁵ Dean D. (n 193) 1265

²⁶⁶ Tetris Holding LLC v. Xio Interactive Inc., [2012] 863 F. Supp. 2d 408 D.N.J.

available game space. While a piece is falling, the user rotates it in order to fit it in with the accumulated pieces. The object of the puzzle is to fill all spaces along a horizontal line. If that is accomplished, the line is erased, points are earned, and more of the game board is available for play. But if the pieces accumulate and reach the top of the screen, then the game is over."²⁶⁷

Through this definition, the court stated the general ideas of Tetris that could not be protected under copyright law.²⁶⁸ In addition to inapplicability of scènes à faire, the court, however, has also found merger doctrine inapplicable due to existence of many novel ways in which Xio Interactive could have chosen to express the rules of Tetris.²⁶⁹ The witness statement of Xio Interactive's expert witness has also contributed to this approach. The expert witness has underlined that Xio Interactive had almost unlimited number of ways to design pieces and board and the game would still function perfectly well.²⁷⁰ As a result of that the court has ignored the doctrines of merger and scènes à faire and found that "[n]one of these elements [such as falling pieces and displays of lines] are part of the idea of Tetris, but rather are means of expressing those ideas."²⁷¹ The court has also considered that Xio Interactive could have chosen many ways to express the ideas of an abstract puzzle game given the development of technology and graphics to be used in video games.²⁷² Therefore the court finally found that Xio Interactive's game Mino has literally copied visual elements of Tetris.

Even though it is a decision of a district court, the Tetris case needs to be taken into consideration because it demonstrates the shifts in the case law regarding the discussion on the protectability of game rules. Besides, the court preferred to provide an explanation on inapplicability of the doctrines of merger and scènes à faire instead of rendering an infringement decision basing on identical copying. Before Tetris, there has been a long

²⁶⁷ *ibid* 409

²⁶⁸ Dean D. (n 193) 1265

²⁶⁹ *ibid*

²⁷⁰ Tetris Holding LLC v. Xio Interactive Inc., [2012] 863 F. Supp. 2d 412 D.N.J.

²⁷¹ *ibid* 413

²⁷² *ibid* 412

precedent in the United States indicating that the game rules and other abstract rules of video games were outside of the copyright protection. However, the Tetris court considered the rules of Tetris as unique expressions and excluded them from the scope of doctrines of merger and scènes à faire. In other words, the court has granted protection to the expression of game rules such as falling specifically shaped objects and backgrounds underlying Tetris by hypnotizing that there are other ways to express the ideas of Tetris to create a puzzle game. It blurs the distinction between an idea and the expression of an idea. According to the Tetris decision, therefore, a game developer should consider possible copyright infringements in case of implementing game rules belonging to a video game genre.

In addition to that, the effects of technological development have also been indicated by the court in the Tetris case. In the early video game cases, the number of ways to express ideas in video games were strictly limited due to given computer power and graphics. Therefore, courts tend to find no copyright infringement in order to provide game developers with being able to create video games. However, as is seen in Tetris decision, technological advance has been referred to indicate the opposite approach that underlines the easing effect of technology to create video games. In accordance with the Tetris decision, one may ask which game rules are protected as expressions under copyright law or where does the line stand between an idea and expression of such idea regarding the rules, mechanics and gameplay elements of video games. Within the scope of this discussion, it would be stated that the Tetris case caused confusion on understanding the framework of copyrightable elements of video games.

Idea/expression dichotomy constitutes the core discussion on protectability of video games under copyright law. In the United States of America, such discussion has been evaluated through the doctrines, legal considerations and case laws in last decades. As is discussed above, the scope of copyright protection on video games have been endeavored to be arranged by referring fixation requirement, originality criteria, the limiting doctrines and the copyright

infringement tests. In the early cases, courts found no copyright infringement on copies of video games due to simplicity of video games leading them to be considered under the doctrines of merger and *scènes à faire*. However, the Tetris case has demonstrated that the scope of copyright protection on elements of video games is not clear yet. It also demonstrates that the understanding of idea/expression dichotomy shifts under the influence of technology. Therefore, it would not be easy to state which elements of video games might find copyright protection at today's technologically advanced video game industry. Nevertheless, the discussions held under this chapter led to the distributive approach that consider video games as dominantly audiovisual works or computer programs under US Copyright Act. The following sub-chapters tent to discuss this two-sided nature of video games and the rights and obligations conferred upon them accordingly.

4.1.2. Video Games as Audiovisual Works in the United States of America

Video games are consisted of different forms of expressions in a digitalized format and images and sounds, together with texts in the form of commands, pathways and menu interferences, are the most frequently combined expressions used in video games.²⁷³ All these elements establish the visual element of video games that is an audiovisual expression as long as they fulfill the requirements discussed in the above sub-chapter.²⁷⁴ As is mentioned before, video games are not included as such in the US Copyright Act as a subject matter even though they were existing before the US Copyright Act enacted in 1976. Therefore, video games' developers operating in the jurisdiction of US have tried to seek copyright protection under audiovisual works constituted under the US Copyright Act section 102(6) due to prominent existence of audiovisual elements in video games.²⁷⁵

²⁷³ Stamatoudi I. (n172) 471

²⁷⁴ *ibid* 471

²⁷⁵ *Stern Electronics Inc. v. Kaufman*, [1982] 669 F.2d U.S.P.Q. (BNA) 443 2d Cir.

In section 101 of US Copyright Act, audiovisual works are defined as “... *works that consist of a series of related images which are intrinsically intended to be shown by the use of machines or devices such as projectors, viewers, or electronic equipment, together with accompanying sounds, if any, regardless of the nature of the material objects, such as films or tapes, in which the works are embodied.*” This definition has raised some issues and needed to be interpreted by courts in case video games are taken into consideration within the scope of audiovisual works.

The first issue that has been raised was copyrightability of audiovisual elements of video games that are presented by a computer program. However, the communication of the display via mechanical means and electronic equipment have been specifically mentioned by the definition.²⁷⁶ As a matter of fact, the district court in Stern case has also confirmed this observation by stating that “*[a]n audiovisual display is an appropriate subject for copyright even if the underlying computer program is not copyrighted. The program and the display are quite separate in form and function.*”²⁷⁷ In other words, the court has confirmed the stand-alone copyright protection for audiovisual works existing in video games without considering the copyrightability of the underlying computer program and as a consequence, the court actually enabled developers to register their video games solely as audiovisual work.

The second issue was the fixation requirement on audiovisual elements existing in video games. Unlike other audiovisual works such as films, video games are interactive products meaning that they are meant to be played and they require active participation of their consumers. Modern video games include realistic and complex graphics and, in some cases, they provide an actual movie combined with player interaction to demonstrate a narrative. As a result of interactivity and variety of possibilities to process player inputs, one may argue that

²⁷⁶ William Patry, 'Electronic Audiovisual Games: Navigating the Maze of Copyright' (1983) 31 J Copyright Soc'y USA 1, 21

²⁷⁷ Stern Electronics Corp. v. Kaufman, [1981] 523 F. Supp. 635 E.D.N.Y.

the visuals displayed in video games are not fixed in a tangible medium. In particular, in massive multiplayer online games, such as “World of Warcraft”, the number of possible visuals to be demonstrated to the players are almost infinite because every player experiences such games the way they prefer to follow. Therefore, discussions still exist on the fixation requirement. However, even in early video games in which they were presented by simple geometric shapes, this feature has also been considered as contradictory to the concept of audiovisual works by defendants of early video game copyright infringement cases.

In *Atari Inc. v. Amusement World Inc.* case, the defendant, indeed, claimed that the “Asteroids” display was not copyrightable as a result of fixation requirement.²⁷⁸ However, Judge Young has rejected this claim by considering defendant’s argument as faulty because of failing to distinguish between the medium in which it is fixed and by acknowledging the desire of the plaintiff to protect the visual presentation of “Asteroids” game.²⁷⁹ Consequently, the court has found “Asteroids” as a copyrightable audiovisual work.²⁸⁰ Similarly, in *Midway Manufacturing Co. v. Dirkschneider* case, the court again found that audiovisual elements of the video game were fixed in a tangible medium.²⁸¹

In *Midway Mfg. v. Artic International* case, the court has provided a better interpretation of the definition of audiovisual work and the fixation requirement.²⁸² The court has focused on the phrase “series of related images” and explained this phrase as “*any set of images displayed at some kind of unit and not an entirely fixed sequence of sights and sounds which reappear every time the game is activated.*”²⁸³ Therefore, the court has cleared the way for audiovisual elements of video games that are displayed differently to be considered as fixed in a tangible

²⁷⁸ Patry W. (n 276) 22

²⁷⁹ *Atari Inc. v. Amusement World Inc.* [1981] 547 F. Supp. 226 D. Md.

²⁸⁰ *ibid*

²⁸¹ *Midway Mfg. Co. v. Dirkschneider et al.* [1981] 543 F. Supp 466 D. Neb.

²⁸² Dmytrenko K. (n 168) 36

²⁸³ *Midway Manufacturing Co. v. Artic International Inc.*, [1982] 547 F. Supp. 999 N.D. Ill.

medium and confirmed that video games are eligible for copyright protection under audiovisual works.

The role of players also establishes a separate discussion from the fixation requirement, especially when the complex nature of modern video games is considered. This discussion will be examined in detail in user generated content section. However, it is also relevant to this sub-chapter because it has been frequently argued by defendants that since audiovisual elements to be displayed depend on player inputs in video games, players were the true authors of audiovisual elements of video games instead of game developers.²⁸⁴ As is explained before, this approach has not also been favored by courts in the US for early video games copyright infringement cases.

Again, in *Midway Mfg. v. Artic International* case, the court considered player participation as non-creative effort because they decided that a player has no control on the images that appear in video games and cannot create any sequence other than stored images within a video game.²⁸⁵ Basically, the court has considered players as tools that are able to move within the limits and finite number of sequences established by the game in which they play. This was a valid and solid consideration for a video game developed in 1980s. However, it might be argued that this would not be the case when modern video games having almost infinite number of sequences and player customization options are evaluated. For instance, a video game called “Minecraft”²⁸⁶ allows its players to create their own world to survive in it in which they wish to design and as a result of that it is almost impossible to produce an entirety similar audiovisual sequence from game to game.²⁸⁷ Therefore, if the *Midway* court held the case today, it could decide differently due to given circumstances.

²⁸⁴ Lastowka G. (n 3) 13

²⁸⁵ *Midway Manufacturing Co. v. Artic International Inc.*, [1982] 1011 F. Supp. 999 N.D. Ill.

²⁸⁶ See Minecraft main web-site < <https://www.minecraft.net/en-us/> > accessed 7 January 2020

²⁸⁷ Kyle Coogan, ‘Let’s Play: A Walkthrough of Quarter-Century-Old Copyright Precedent as Applied to Modern Video Games’ (2018) 28 *Fordham Intell. Prop. Media & Ent. L.J.* 381, 402

Nevertheless, most audiovisual elements of video games find copyright protection under current distributive US copyright regime as long as they are original and fixed in a tangible medium. Yet it is still not clear that audiovisual sequences of gameplay, that transfers player inputs to a visual sequence, are copyrightable due to consideration games as systems that has been excluded from copyright protection as per section 102 of US Copyright Act. As is discussed under chapter 4.1.1., some courts have considered audiovisual sequences arising out from gameplay as ineligible for copyright protection in accordance with the requirements set out by idea/expression dynamics while others, such as the court in Tetris case, have found them copyrightable. Therefore, considering video games as audiovisual works under US copyright regime brings registration problems before Copyright Office. In addition to that considering video games solely under audiovisual works causes confusion on to what extend the audiovisual sequences are protected in case a copyright infringement occurs.

Since such audiovisual works are displayed through a computer program and computer programs are one of the most integral parts of video games, the next sub-section discusses video games as computer programs under US copyright law.

4.1.3. Video Games as Computer Programs in the United States of America

Video games include various traditional work of authorship together with different genres, concepts and art forms. However, each game shares a common element: computer programs containing game engines, ancillary codes, plug ins and comments that run the game.²⁸⁸ Therefore, computer programs establish the core mechanics of video games that allow players to interact with audiovisual and any other elements.²⁸⁹

As is provided under the second chapter, provisions of TRIPS agreements and WCT oblige their members to protect computer programs under copyright as literary works under article 2

²⁸⁸ Ramos A. (n 4) 10

²⁸⁹ Dmytrenko K. (n 168) 47

of the Bern Convention. Accordingly, computer programs find copyright protection under US Copyright Act as literary works.²⁹⁰ Section 101 of US Copyright Act defines computer programs as “... a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result.” This definition was enacted by 1980 amendment²⁹¹ upon the recommendations stated in the Final Report of the National Commission of New Technological Uses of Copyrighted Works (CONTU).²⁹²

An important point of this definition was the phrase “directly or indirectly” because there was a discussion on the protection of both source and object code. Object code consisting of electronic pulses which are represented by zeros and ones is used by machines as a language to execute their basic functions and source code, on the other hand, is written by humans in a high end programming language which must be translated into object code before the computer can execute the program.²⁹³ Copyright protection of object code was debated because this machine language cannot be understood by a human and therefore, it is difficult to suggest that object code fulfills the requirements of copyright protection set forth under US Copyright Act.²⁹⁴ In this regard, this definition has been interpreted as both source and object code were included under copyright protection.

Indeed, the copyrightability of object code has been confirmed by the courts as well. In *Williams Electronics Inc. v. Artic International Inc.*, the court has conferred copyright status to the object code contained in ROM²⁹⁵ and in *Apple Computer Inc. v. Franklin Comp. Corp.*, the court has stated that “a computer program in object code embodied in a ROM chip is an appropriate subject of copyright.”²⁹⁶ Therefore, the court of Apple case reaffirmed the

²⁹⁰ 17 U.S.C. s 102(1)

²⁹¹ P.L.96-517

²⁹² Patry W. (n 276) 24

²⁹³ *Williams Electronics Inc. v. Artic International Inc.* 685 F.2d 876

²⁹⁴ 17 U.S.C. s.102

²⁹⁵ *Williams Electronics Inc. v. Artic International Inc.* 685 F.3 Cir. 870

²⁹⁶ *Apple Computer Inc. v. Franklin Comp. Corp.* [1983] 714 F. 2d 1240

copyrightability of object codes. Finally, the *Midway Mfg. Co. v. Strohon*²⁹⁷ case, copyrightability of object code has been considered under the definition contained in the US Copyright Act that states “*instructions to be used directly or indirectly in a computer*”²⁹⁸ and the court has interpreted the intention towards protection of object code as well as the source code.²⁹⁹ In addition to that both article 10(1) of the TRIPS agreement and article 4 of the WCT have enacted provisions to protect the object code together with the source code of computer programs. Therefore, object codes also find copyright protection under US copyright law as well as source codes of computer programs.

Williams case is an important one because among other points, it has also raised the discussion on copyrightability of computer programs in video games in general. Unlike in *Stern Electronics* case, *Williams* has also registered the underlying computer program along with the audiovisual elements³⁰⁰ and the video game of defendant did not only copy the audiovisual elements but it has also copied the underlying computer program that was virtually identical as imbedded copyright notice.³⁰¹ *Williams* was the first case that raised the question on whether copyright protection could be used to protect computer programs as well as the audiovisual display.³⁰² Upon the infringement claim, the defendant claimed that they were not making a “copy” because the program that they have transferred was not copyrightable and consequently there were no infringement.³⁰³ The court has rejected the arguments raised by the defendant on the fixation and copying and favored “*an expensive interpretation of “fixation” and “copy” which encompass technological advances such as those represented by the electronic devices*”

²⁹⁷ *Midway Mfg. Co. v. Strohon*, [1983] 564 F. Supp. 741 N.D. Ill.

²⁹⁸ 17 U.S.C. s. 101

²⁹⁹ Dmytrenko K. (n 168) 52

³⁰⁰ Theodore J Grabowski Jr, 'Copyright Protection for Video Game Programs and Audiovisual Displays; and - Substantial Similarity and the Scope of Audiovisual Copyrights for Video Games' (1983) 3 Loy LA Ent LJ 139, 146

³⁰¹ *Williams Electronics Inc. v. Artic International Inc.* 685 F.3 Cir. 872

³⁰² Grabowski T. (n 300) 146

³⁰³ *ibid* 146

*in this case.*³⁰⁴ Therefore, this case has confirmed the copyrightability of both object and source code of video game programs contained in ROMs in terms of fixation and other requirements.

Computer programs are protected as literary works under US Copyright Act and in addition to that, copyright protection also extends to non-literal parts of works. In the context of computer programs, such non-literal elements demonstrate themselves as structures, sequences and organizations. Thus, once non-literal elements of computer programs are copied that fall within the copyright protection, an infringement might occur even though there is no copying of literal elements of such program.³⁰⁵ However, there has been a long debate on copyrightability of non-literal elements in case they embody uncopyrightable functional elements of computer programs because section 102(b) of US Copyright Act states that “[i]n no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.” This provision caused the discussion on whether non-literal elements are within the scope of method of operations. Nevertheless, in *Softel Inc. v. Dragon Med. and Sci. Comm’ns Inc* case, the court has also stated that “[i]t is well- established . . . that non-literal similarity of computer programs can constitute copyright infringement.”³⁰⁶ Similarly, in *Lotus Development Corp. v. Paperback Software International*³⁰⁷ case, non-literal elements have been found copyrightable if they are original works of author and do not embody uncopyrightable functional elements as is stated under section 102(b) of US Copyright Act.³⁰⁸ Besides, decompaction of computer

³⁰⁴ *Williams Electronics Inc. v. Artic International Inc.* 685 F.2d 877

³⁰⁵ Ralph Oman, ‘Computer Software as Copyrightable Subject Matter: Oracle v. Google, Legislative Intent, and the Scope of Rights in Digital Works’ (2018) *Harvard Journal Law & Tec.* V. 31 Special Issue 639, 649

³⁰⁶ *Softel Inc. v. Dragon Med. and Sci. Comm’ns Inc.* [1997] 118 F. 3d 955, 963 2d Cir.

³⁰⁷ *Lotus Development Corporation v Paperback Software International*, [740 F Supp 37 (D Mass 1990)]

³⁰⁸ *Dmytrenko K.* (n 168) 52

programs that is a tool used to access video game program code of another is also widely allowed in US for various valid purposes.³⁰⁹

Regarding the registration process, the Copyright Office has also recognized the protection of computer programs and their screen displays³¹⁰ by establishing that “*a single registration is often sufficient to protect the copyright in a computer program and related screen displays, including video games, without a separate registration for the screen displays or a specific reference to them on the application for the computer program.*”³¹¹ Therefore, video game developers may also register their video games as computer programs as they could register the underlying computer program together with audiovisual elements.

It is evident that US copyright law provides a comprehensive and rich copyright protection for computer programs used in video games due to its long- and well-established system throughout the decades. Since the distributive copyright protection approach has been adopted, both audiovisual elements and computer programs existing in video games find copyright protection in the United States of America. However, classifying video games as computer programs and seeking protection under the copyright regime accorded for computer programs are not favored by the industry because copyright protection established for computer programs provides a thinner protection regime although it includes less problems in terms of idea/expression dynamics. In the US, three main reasons might be given to demonstrate this preference. Firstly, today’s video games usually share the computer code, or in other words game engines, to present themselves to the players and developers usually obtain licenses from third parties for such engines instead of creating their own due to financial and time concerns. Therefore, the distinction between such video games lies in the audiovisual elements that are

³⁰⁹Gary J Nelson, 'The Sufficiency of Copyright Protection in the Video Electronic Entertainment Industry: Comparing the United States with the European Union' (1996) 27 Law & Pol'y Int'l Bus 805, 811

³¹⁰ Ramos A. (n 4) 91

³¹¹USCopyrightOffice, 'CopyrightRegistrationforComputerPrograms' <<http://www.copyright.gov/circs/circ61.pdf>> accessed 14 January 2020

highly advanced due to technological development. The second reason is that the final consumers, or players, interact with the audiovisual elements rather than the underlying computer program and infringements usually take place on the violation of audiovisual elements of video games. Finally, only the particular expression of a computer program that brings a certain result find copyright protection and once such result is expressed in a different way, in case of a computer program the number of ways is almost limitless, that expression would not cause any copyright infringement.³¹² Therefore, it would be valid to state that copyright protection regime conferred upon video games as computer programs would be a thinner copyright protection under US copyright law.

4.2. Legal Classification of Video Games in the European Union

Legal classification of video games in the European Union is a highly complex and confusing issue due to several reasons. As is stated under chapter 3.2.2., the Union is divided into various supra-national communities having their own harmonized or unified legal regimes³¹³ and in case of copyright, full harmonization has not been yet reached in the Union. As a result of such structure, member states could keep their national copyright laws and consequently there are different copyright protection regimes between the members of the Union. However, certain harmonization has been reached through community – wide copyright directives such as Information Society Directive³¹⁴, Computer Programs Directive³¹⁵ and Database Directive³¹⁶, and decisions of the European Court of Justice. Nevertheless, such

³¹² Grabowski T. (n 300) 142

³¹³ Grosheide W. (n 135) 3

³¹⁴ Directive 2001/2009/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 *OJ L 167, 22.6.2001*

³¹⁵ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs *OJ L 111, 5.5.2009*

³¹⁶ Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases *OJ L 77, 27.3.1996*

harmonization movement could not abolish the classification approaches and differences in the Union.

As is discussed before, distributive and unitary approaches that determine the consideration of elements of video games as whole or separated have been adopted by legislative bodies in order to confer copyright protection to video games under copyright regime. The preferred approach is significant because the legal classification of video games is determined and shaped in accordance with it. Most European countries prefer the distributive approach and consequently they protect parts of video games under different copyright regimes. Therefore, video games are subject to different copyright regimes in both national and community – wide level in case such subject matter is within the scope of the directives regulated by the Union. However, the Union tends to favor the unitary approach as it can be seen in the Term Directive³¹⁷ and in *Nintendo v. PC Box*³¹⁸ case despite of not providing specific clarification for video games.³¹⁹ *Nintendo v. PC Box* case needs to be discussed because it demonstrates how complex works such as video games are considered by the Union and consideration of scope of directives in case multiple subject matters are clashed into one medium.

In *Nintendo v. PC Box* case, Nintendo used technological protection measures to prevent uses of illegal copies of their games in their consoles and PC Box has developed a software to circumvent such protection measure. The Italian court referred to the European Court of Justice to ask whether the implanted TPMs are permissible under European copyright regime. The main discussion in this case was the meaning of European copyright regime when video games are taken into consideration. Therefore, through this case, CJEU has touched upon two points. The first point was should audiovisual elements and computer codes of video games be

³¹⁷ Directive 2006/116/EC Of the European Parliament and of the Council on the Term of Protection of Copyright and Certain Related Rights *OJL 372, 27.12.2006*

³¹⁸ Case C-355/12 *Nintendo Co Ltd and others v PC Box Srl* [2014] ECLI:EU:C:2014:25

³¹⁹ James Russell, 'Pawnership: Is Copyright Appropriately Equipped to Handle Videogames' (2018) Uppsala Universitet Master Thesis <<http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-350135>> accessed 15 May 2020 1, 12

protected separately under Information Society and Computer Programs directives or should video games as whole be protected as a new entity which could be governed either by the one directive or the other, in other words should distributive or unitary approach be adopted in case of video games.³²⁰ The court, as the second point, has also endeavored to clarify *Lex Specialis* doctrine between Information Society Directive and Computer Programs Directive in case of computer programs that are used in video games.

Video games are hybrid products containing computer programs and various audiovisual elements within one medium. This subject will be discussed further under following sub-chapters but it should be stated here that the Computer Programs Directive has been enacted to provide copyright protection for computer programs in the Union and the Information Society Directive covers the audiovisual elements in general. According to the distributive approach, therefore, the computer program part would be protected under Computer Programs Directive and audiovisual elements would be protected under Information Society Directive that provides general copyright protection for works in the Union. However, the court has stated that “[i]n accordance with Article 1(1) thereof, the protection offered by Directive 2009/24 [Computer Programs Directive] is limited to computer programs. ... [V]ideogames ...constitute complex matter comprising not only a computer program but also graphic and sound elements, which, although encrypted in computer language, have a unique creative value which cannot be reduced to that encryption. In so far as the parts of a videogame, in this case, the graphic and sound elements, are part of its originality, they are protected, together with the entire work, by copyright in the context of the system established by Directive 2001/2924 [Information Society Directive].”³²¹

³²⁰ *ibid* 13

³²¹ Case C-355/12 Nintendo Co Ltd and others v PC Box Srl [2014] ECLI:EU:C:2014:25

By rendering such a decision, the court has considered video games greater than their sums and moved towards the unitary approach by quoting the Infopaq³²² decision that underlines the shared originality for whole work.³²³ Therefore, the court has considered that computer programs that are used in video games and that are not “pure” software should be protected under Information Society Directive as whole rather than the Computer Programs Directive in the European Union.

Through this case, the court has also touched upon the *lex specialis* doctrine in video games. The *lex specialis* doctrine in general determines that when special and general laws contradict each other, the special one prevails and it should apply to the exclusion of more general law.³²⁴ In fact, the Information Society Directive indicates the special nature of the Computer Programs Directive by stating in its recitals paragraph 50 that “*[s]uch a harmonized legal protection does not affect the specific provisions on protection provided for by Directive 91/250/EEC [the prior Computer Programs Directive]. In particular, it should not apply to the protection of technological measures used in connection with computer programs, which is exclusively addressed in that Directive.*”³²⁵ Therefore, there is no dispute on which directive is *lex specialis*. However, computer programs used in video games falls only partially within the scope of the Computer Programs Directive because they contain different elements and therefore, they are not purely computer programs.³²⁶

Indeed, in *Nintendo v. PC Box* case, Advocate General Sharpston has relied upon such feature and has stated that “... *provisions of Directive 2009/24 take precedence over those of Directive 2001/29, but only where the protected material falls entirely within the scope of the*

³²² Case C-5/08 Infopaq International A/S v. Danske Dagblades Forening [2009] ECR I-6624

³²³ *ibid* 38

³²⁴ Tito Rendas, ‘Lex Specialis(sima): Videogames and Technological Protection Measures in EU Copyright Law’ (2015) 37(1) European Intellectual Property Review 39 <<https://ssrn.com/abstract=2456273>> accessed 14 May 2020, 12

³²⁵ Directive 2001/2009/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 *OJ L 167, 22.6.2001* recital 50

³²⁶ Rendas T. (n 324) 10

former. If Nintendo and Nintendo-licensed games were computer programs and no more, Directive 2009/24 would therefore apply, displacing Directive 2001/29."³²⁷ Accordingly, the court has also underlined such feature of video games in which computer programs used in video games are more than other computer programs and decided that the technological protection measures used in Nintendo consoles need to be considered under Information Society Directive together with the entire works by ignoring the *lex specialis* position of Computer Programs Directive.³²⁸ Therefore, the court has tried to designate the Information Society Directive as the governing directive for video games through such decision.

Such decision is especially important for TPMs, that will be discussed under following chapters, because the Computer Programs Directive and the Information Society Directive confer different rights to them. For instance, article 5 of the Computer Programs Directive confers reproduction, back up copying and decompilation rights to the lawfully owner of computer programs that results less generous protection allowing owners to operate on the program while Information Society Directive confers more generous general protections that accorded for general copyright subject matters.³²⁹

In accordance with the decision provided by the court in *Nintendo v. PC Box* case, one may assert that video games are considered greater than the sum of their parts and therefore, unitary approach is adopted in the Union for copyright protection of video games. However, that consideration does not reflect the actual situation with respect to copyright protection of video games. First of all, the subject matter of this case were TPMs because the question referred to ECJ was limited to TPMs used in Nintendo consoles and games and therefore it only covered a minimal aspect of a greater discussion³³⁰. Therefore, it would be really optimistic to state that

³²⁷ Case C-355/12 *Nintendo Co Ltd and others v PC Box Srl* [2014] ECLI:EU:C: 2014:25, Opinion of AG Sharpston, para 34

³²⁸ Case C-355/12 *Nintendo Co Ltd and others v PC Box Srl* [2014] ECLI:EU:C: 2014:25

³²⁹ *Rendas T.* (n 324) 9

³³⁰ *Russell J.* (n 319) 14

Information Society Directive governs all individual parts of video games by relying upon the Nintendo case decision.

Besides, A. Ramos and others, in the WIPO study on legal classification of video games, demonstrate that distributive approach to copyright protection of video games still prevails in the Union despite of the Nintendo v. PC Box decision. For instance, both Germany and United Kingdom have adopted the distributive approach to the copyright protection of video games although they reflect different approaches of law, namely continental European and Anglo-Saxon, and they include different classification systems under their national copyright acts.

The German Copyright Act (the Gesetz über Urheberrecht und verwandte Schutzrechte – UrhG) establishes no specific rules for video games and as per such act, an open list system is provided and therefore, video games can also find protection under such act.³³¹ The German Copyright Act considers computer programs used in video games as a “*speech work*”³³² and classifies audiovisual elements of video games as a “*film work*”³³³. Consequently, it confers different protection regimes to the parts of video games as distributive approach stipulates.

In the United Kingdom, on the other hand, Copyright, Designs and Patent Act 1988 (CDPA) provides close list categories of works to be protected under copyright³³⁴ and video games are not included as such.³³⁵ Nevertheless, individual parts of video games still find copyright protection under CDPA.³³⁶ Consequently, it is apparent that the distributive approach has also been adopted in the United Kingdom as per provisions of the CDPA.

³³¹ Ramos A. (n 4) 41

³³² Copyright Act of 9 September 1965 (Federal Law Gazette I, p. 1273), as last amended by Article 1 of the Act of 1 September 2017 (Federal Law Gazette I, p. 3346), s. 2(1)

³³³ Copyright Act of 9 September 1965 (Federal Law Gazette I, p. 1273), as last amended by Article 1 of the Act of 1 September 2017 (Federal Law Gazette I, p. 3346), s. 5

³³⁴ Copyright, Designs and Patent Act 1988, s. 3 - 6

³³⁵ Julian Stein, ‘The Legal Nature of Video Games – Adapting Copyright Law to Multimedia’ (2015) Press Start Vol.2 Iss. 43, 44

³³⁶ *ibid*

Despite of the decision rendered in Nintendo v. PC Box case, the distributive approach is still preferable in the Union. Therefore, member states have classified video games under different copyright regimes and consequently, individual parts of video games find various copyright protection regimes throughout the Union. Nevertheless, the court's discretion that designate the Information Society Directive as the governing directive for the computer programs used in video games has leded the confusion on the protection regime to be adopted on the computer programs that run video games. Therefore, the results of Nintendo v. PC Box case have contributed the discussion rather than providing a solution. However, the ECJ has endeavored to unify the idea/expression dichotomy by its recent decisions in the Union. The reflections of such decisions are also highly significant to determine the originality and other criteria referred to determine copyrightability of video games in the Union. Under this chapter, therefore, the idea/expression dichotomy at the community wide and national level is discussed as the starting point as is provided under the chapter devoted to the United States of America. Following such discussion, video games will be discussed under the copyright regimes adopted in the Union for audiovisual works, computer programs and databases. In order to provide tangible examples, both German and British approaches will be discussed as well.

4.2.1. Idea Expression Dichotomy for Video Games

The idea / expression dichotomy for copyright is harmonized in the current status of the European Union and it contains relatively low thresholds for a work of authorship to be eligible for copyright protection. As is explained under chapter 4.1.1. the idea / expression dichotomy is the main discussion point before getting into any further evaluation on copyright law. Therefore, this chapter endeavors to evaluate the idea / expression dichotomy in the Union and its effects on video games.

The Information Society Directive that is the main and most general directive in the field of European copyright has adhered the provisions of international agreements on idea /

expression dichotomy by extending it to expressions but not to ideas, procedures and methods of operation or mathematical concepts.³³⁷ However, the Information Society Directive neither provides any definition on works of authorships nor a list of subject matters that are within the scope of the copyright protection in the Union. Instead, the European Court of Justice, in its case law, has established the criteria of originality that unifies different type of works into the single criteria.³³⁸ Such requirement, in fact, has been referred only in article 1(3) of the Computer Programs Directive, article 6 of the Term Directive and article 3(1) of the Database Directive. However, they did not specifically define the criteria itself.

In Infopaq decision, the ECJ has considered that even 11 words might attract copyright protection by stating that any work that is original may be eligible for copyright protection if *“it is its author’s own intellectual creation.”*³³⁹ Therefore, the originality criteria has been established on solely being the author’s own intellectual creation and consequently, the threshold to be original is, therefore, significantly low in the Union. The court has also underlined that *“there is nothing in Directive 2001/29 [the Information Society Directive] or any other relevant directive indicating that those parts are to be treated any differently from the work as a whole.”*³⁴⁰ This determination, in fact, harmonizes and ignores other requirements that are constituted by other directives such as the Computer Programs Directive and Database Directive for specific works of authorships. In other words, the court has underlined again that Information Society Directive harmonize the originality of works subject to copyright in general.

³³⁷ Grosheide W. (n 135) 5

³³⁸ Case C-5/08 Infopaq International A/S v. Danske Dagblades Forening [2009] ECR I-6624

³³⁹ *ibid* 37

³⁴⁰ *ibid* 38

Since Infopaq decision, such approach has been referred constantly by the ECJ. For instance, in BSA³⁴¹ and Football Association Premier League³⁴² cases the court has indicated that “*author’s own intellectual creation*” is the starting point for all works protected by the Information Society Directive, although this creation has been formulated by the Union only relating to computer programs, databases and photographic works.³⁴³ In addition to that, the court has also tried to set out the exceptions that might be applied to approach of the idea/expression dichotomy established by the Infopaq decision that sets the criteria of being author’s own intellectual creation. In Football Association Premier League case, the court has stated that “*sporting events cannot be regarded as intellectual creations classifiable as works within the meaning of the Copyright Directive. That applies in particular to football matches, which are subject to rules of the game, leaving no room for creative freedom for the purposes of copyright.*”³⁴⁴ In BSA decision, on the other hand, the court has stated that “*...where the expression of those components is dictated by their technical function, the criterion of originality is not met, since the different methods of implementing an idea are so limited that the idea and the expression become indissociable.*”³⁴⁵ Therefore, the ECJ has further interpreted the originality criteria and established the exceptions to such criterion as is constituted in the United States through the merger, functionality and scene a faire doctrines.

In this point, these considerations made uncertain the position that might be taken in relation to gameplay aspects of video games. As is provided under chapter 4.1.1., the Tetris case has created some legal confusion on the protectability of gameplay in the US. In the European Union, on the other hand the Infopaq decision and following ones stated above

³⁴¹ Case C – 393/09, *Bezpečnostnísoftwarová asociace v Ministerstvo kultury*, [2010] ECR I-13990

³⁴² Cases C – 403/08 and C – 429/08, *Football Association Premier League v. QC Leisure and Karen Murphy v. Media Protection Services*, [2011] ECR I-9159

³⁴³ *Kur A.* (n 10) 293

³⁴⁴ Cases C – 403/08 and C – 429/08 *Football Association Premier League v. QC Leisure and Karen Murphy v. Media Protection Services*, [2011] ECR I-9159, para 8

³⁴⁵ Case C – 393/09, para 49

paragraph that have accorded the idea/expression dichotomy have created a similar uncertainty because it is unclear in this point that whether gameplay aspects of video games amount to copyright protection due to their nature that provides players with the displays presenting the rules and mechanics of video games. British courts have tended to deny copyright protection on the gameplay by providing relatively weak grounds. Moreover, it may be also indicated that the Nintendo case has established a unitary approach for the consideration of elements of video games as whole under Information Society Directive but as is explained, this consideration has not been tested yet to understand its validity in terms of elements of video games rather than the technological protection measures. However, it is still not clear that when one should amount copyright protection to them under the new legal doctrine that is being author's own intellectual creation. Indeed, the effects of established idea/expression dichotomy on gameplay are still questionable in the Union level. Therefore, the approach of the European Court of Justice brought legal uncertainty on the copyright protection of gameplay in the Union.

In the Painer case³⁴⁶, with regard to photographic works, the court has also identified an intellectual creation as a work reflecting the author's personality and added that national courts have discretion to determine whether the work expresses authors free and creative choices in the production of the work.³⁴⁷ In Football Dataco and others case³⁴⁸, the court has also found that mere intellectual effort and skill of creating data as such is not sufficient to confer copyright protection to databases.³⁴⁹ The important point that might be extracted from these cases is that the ECJ does not consider works as copyrightable if there is no expression of originality even though significant labor and skill exist into a work considered under copyright.

³⁴⁶ Case C-145/10 *Eva-Maria Painer v Standard Verlags GmbH, Axel Springer AG, Süddeutsche Zeitung GmbH, Spiegel - Verlag Rudolf Augstein GmbH & Co KG, Verlag M. DuMont Schauberg Expedition der Kölnischen Zeitung GmbH & Co KG* [2012] ECR I - 12594

³⁴⁷ Kur A. (n 10) 293

³⁴⁸ Case C – 604/10, *Football Dataco and others v. Yahoo! UK* [2010] ECLI:EU:C:2012:115

³⁴⁹ Kur A. (n 10) 293

Therefore, as a consequence of harmonization of originality creation member states are bound to follow such determination of the ECJ when deciding upon conferring copyright protection to a work of authorship.³⁵⁰ Consequently, it has affected the copyright laws of member states with respect to the determination on copyrightability of works of authorships.

The section 2(2) of the German Copyright Act³⁵¹, for instance, confers protection only to works that are personal intellectual creations that is in line with the criteria provided by the Infopaq decision. Before the adoption of Information Society Directive and Infopaq decision, German Federal Court of Justice has required higher standards of originality such as determination of relative public³⁵² to define author's own intellectual creations.³⁵³ Nevertheless, the approach that has been adopted by the ECJ regarding the originality criteria was closer to the continental approach and, therefore, the German copyright doctrine in general. Thus, the adoption of the Information Society Directive and the Infopaq decision did not result significant changes in the German Copyright Act but they directed them to lower their threshold for the being author's own intellectual creations. The real visible impact of European copyright law on the German Copyright Act was the implementation of the Computer Programs Directive because the threshold for computer programs to be protected under copyright was significantly high. In *Inkassoprogram*³⁵⁴ case, before the implementation of the Computer Programs Directive, the German Federal Supreme court decided to protect computer programs if it displayed a degree of creativity "*which surpassed the general average of ability present in the works of that kind.*"³⁵⁵ As a result of the originality criteria set out by the Computer Programs

³⁵⁰ Grosheide W. (n 135) 6

³⁵¹ Copyright Act of 9 September 1965 (Federal Law Gazette I, p. 1273), as last amended by Article 1 of the Act of 1 September 2017 (Federal Law Gazette I, p. 3346), s. 2(2)

³⁵² BGH, Jan. 27, 1983, Case I ZR 177/80—Brombeer-Muster (blackberry pattern)

³⁵³ Dmytrenko K. (n 168) 22

³⁵⁴ BGH GRUR 1985, 1041/1047

³⁵⁵ Eleonora Rosati, 'Judge-made EU copyright harmonization: the case of originality' (2012) Florence: European University Institute, EUI PhD theses, Department of Law Retrieved from Cadmus, European University Institute Research Repository <<http://hdl.handle.net/1814/24616>> accessed 15 May 2020

Directive, Germany had to lower its threshold with respect to computer programs adopted at the Inkassprogram case.

In contrast, the harmonized originality criteria set out in Infopaq and following decisions has been criticized and rejected in the United Kingdom. As per section 1(1) of the Copyright Designs and Patents Act, copyright is briefly defined by a close-list system as a property right subsist in the original literary, dramatic, musical or artistic works, sound recordings, films or broadcasts and the typographical arrangement of published editions. Traditionally, originality has been understood as a work originating from an author in the UK and such loose understanding of originality opted for creative labor to grant copyright protection instead of creativity.³⁵⁶ For instance, in *Express Newspaper Plc. v. News Ltd.*³⁵⁷ the originality requirement was considered under a sufficient degree of skill, labor or judgment.³⁵⁸ However, requirements of such traditional approach have been raised before the harmonization movement of the Union through the Infopaq case. For instance, the CDPA 1988 has been amended to implement the originality criteria presented by the Computer Programs Directive, the Term Directive and the Database Directive. Nevertheless, the Infopaq decision has been criticized in the UK because it has generalized the originality criteria for all works of authorship and it ignored the skill, labor and judgment test of originality and therefore, a strict application of Infopaq would abolish the flexibility of the UK courts in case they determine a substantial part of work.³⁵⁹ The *Newspaper Licensing Agency Ltd. and others v. Meltwater Holding BV and Others* case has demonstrated the rejection of the harmonization provided by the Infopaq decision. In this case, Proudman J has considered substantial parts of works apart from the work as whole as is reflected under Infopaq decision and she stated that such substantial parts

³⁵⁶ *ibid* 80

³⁵⁷ *Express Newspaper Plc. v. News Ltd.* [1990] FSR 359 (Ch D)

³⁵⁸ Rosati E. (n 355) 90

³⁵⁹ Tanya Aplin, 'United Kingdom', in B Lindner – T Shapiro (eds), *Copyright in the Information Society. A guide to national implementation of the European Directive* (Edward Elgar 2011) 558, 560

can amount to copyright infringement.³⁶⁰ Therefore, the harmonization movement of the Union with regard to idea/expression dichotomy would not result to the same abolishing effects as occurred in Germany. The originality criteria presented by the Infopaq decision has clashed the traditional British skill, labor and judgement test and it brought legal confusion in case of a determination of a work to be protected under copyright regime. In Football Dataco and others case, the court has also challenged the copyrightability of mere intellectual effort and skill and consequently, it has also established a contradiction to the traditional originality test that has been applied in the United Kingdom.

Both German and British approaches demonstrate that European countries might apply different criteria for a work of authorship to be considered original and therefore copyrightable although the relevant issue has been de-facto harmonized by the European Court of Justice in the Infopaq decision. This situation causes even more confusion when copyrightability of work of authorship is subject to a discussion.

In the realm of video games, the Infopaq decision has revealed itself in the Nintendo v. PC Box case in which the court has tried to designate the governing directive for video games as is explained under chapter 4. 2.. The court has specifically stated that “...*[i]n so far as the parts of a videogame, in this case, the graphic and sound elements, are part of its originality, they are protected, together with the entire work, by copyright in the context of the system established by Directive 2001/2924 [Information Society Directive].*”³⁶¹ The phrase of “together with the entire work” is a direct reference to the Infopaq decision that has unified the originality criteria in accordance with the Information Society Directive. Therefore, the Infopaq decision has also directly affected the copyrightability of the video games in the Union

³⁶⁰ The Newspaper Licensing Agency Ltd & Ors v Meltwater Holding BV & Ors [2011] EWCA Civ 890

³⁶¹ Case C-355/12 Nintendo Co Ltd and others v PC Box Srl [2014] ECLI:EU:C:2014:25

and it has been applied in different ways when different parts of video games are taken into consideration. Such effects will be discussed under following sub-chapters.

Moreover, the directives of the Union do not require any fixation or registration requirement as is provided under the US Copyright Act. Therefore, a work of authorship is not required to be fixed to be conferred copyright protection in the Union. However, as per article 3(2) of the CDPA 1988, “[c]opyright does not subsist in a literary, dramatic or musical work unless and until it is recorded, in writing or otherwise; and references in this Part to the time at which such a work is made are to the time at which it is so recorded.” Therefore, despite of the approach adopted by the Union, traditional fixation requirement is sought for copyright subject matters to be copyrightable in the UK.

The copyright law of the European Union sets out a low threshold for a work of authorship to be original that has been endeavored to be harmonized by the phrase of ‘author’s own intellectual creation. After discussing the idea/expression dichotomy and evaluating its features, the following subchapters continue with possible legal classifications of video games in the copyright regimes that have been adopted in the Union.

4.2.2. Video Games as Audiovisual Works in the European Union

In the European Union, it has been accepted that video games contain graphic and sound elements creating creative value that cannot be encrypted to the underlying computer program.³⁶² In other words, the existence of audiovisual elements within video games is recognized in the Union at the community level.

Nevertheless, there is no harmonizing directive adopted for audiovisual or cinematographic works or a clear definition for them in the Union. However, article 2 (c) of Rental Directive defines films as a representative category of audiovisual works by stating that “‘film’ means a

³⁶² C-355/12 Nintendo Co Ltd and others v PC Box Srl [2014] ECLI:EU:C:2014:25

cinematographic or audiovisual work or moving images, whether or not accompanied by sound.” In addition to that article 2 of the Term Directive, as another reference to audiovisual works in the Union, also sets forth the provisions on authorship and terms of protection for cinematographic and audiovisual works. Therefore, the term of audiovisual works reveals itself through films in the Union and most national definitions of audiovisual work are able to contain visuals used in video games under cinematographic or audiovisual works or moving images.³⁶³ There are various classifications throughout the Union. However, in German Copyright Act, for instance, audiovisual elements of video games are considered as film works as long as they are personal intellectual creations according to section 2(2) of the German Copyright Act.³⁶⁴

Reducing audiovisual elements of video games into the copyright protection provided for film works have been considered as inaccurate by early decisions of various courts in the members of the Union due to interactive nature of video games that allows players to manipulate the images to be displayed during the course of the game. Traditionally, films require passive participation of their audiences in order to be consumed. As is stated several times in this thesis, video games, as their main distinguishing feature from other works of authorships, require active participation of their players to demonstrate themselves in the realm of artistic creations. As is discussed under US jurisdiction, such feature has also been subjected to the discussion on their compatibility to the provisions designed for film works in the Union.

The approach that has been adopted in the UK is a proper example to demonstrate such understanding. In the Nova Productions case, the court has considered audiovisual elements of the video game in question as works created and generated by the computer program.³⁶⁵ Therefore, it held that visual elements of the plaintiff’s video game should be protected as computer program and consequently the court has denied the separate protection of audiovisual

³⁶³ Grosheide W. (n 135) 10

³⁶⁴ Ramons A. (n 4) 41

³⁶⁵ Nova Productions v. EWCA Civ 219; [2007] Bus. L.R. 1032, 101-105

elements of video games. In fact, this case has only addressed the issue briefly and dismissed the case by asserting that defendants would not have copied the video game by photographic copying.³⁶⁶ Thus, although it has been asserted that video games are protected as computer programs in the UK, deeper evaluation of Nova Productions case reflects that the issue itself left open by the court. Besides, this decision has been rendered in 2007 meaning that it has been rendered before Nintendo v. PC Box case that has indicated the complex nature of video games and their protection regime under Information Society Directive ‘together with the entire work’. Therefore, the protection regime accorded for video games in the UK is still subject to legal discussion and it is not easy to provide a clear answer to such issue.

In Germany, by more elaborated reasoning, classification of video games as film works has been rejected by early decisions of courts due to interactive nature of video games. In Donkey Kong Junior case, the German Court of Appeal in Frankfurt has considered that video games were not films because they generate different sequences of images.³⁶⁷ In this decision the court has underlined the uniformed and unchanged nature of films that were not existing in the video game in question.³⁶⁸ Besides, the displayed visuals have been considered as just a “*translation of underlying program*” and “*an evaluation of reaction and skill of the player.*”³⁶⁹ Again in Pongo case³⁷⁰, although the court has indicated that it is possible for a video game to be considered as audiovisual work, the court did not find sufficient originality for the video game in question to be protected as audiovisual work because it has considered that it was the computer program that created, operated and arranged the images that appear on the screen.³⁷¹ Therefore, it is apparent that the Frankfurt court has struggled to distinguish computer programs and audiovisual elements to confer proper copyright protection to them.

³⁶⁶ Stein J. (n 335) 51

³⁶⁷ OLG Frankfurt am Mein, GRUR 1983, C.H. Beck, Munich 1983, pp. 757-758 on Donkey Kong Junior I

³⁶⁸ Dmytrenko K. (n 168) 38

³⁶⁹ OLG Frankfurt am Mein, GRUR 1983, C.H. Beck, Munich 1983, pp. 753 on Donkey Kong Junior I

³⁷⁰ Judgment of the Court of Appeal in Frankfurt, 13 June 1983, [1983] GRUR 753

³⁷¹ Stamatoudi I. (n 199) 479

However, this approach has been abandoned in Germany through the subsequent decisions of German courts. The Bavarian Supreme Court has considered sequences of images in video games as predefined and fixed.³⁷² In other words, the Bavarian Supreme court has ignored the dependency of images to be displayed on the actions of a player interacting with the video game in question. In Puckman decision³⁷³, the court has also found that the interactivity that allows players to interact with video game is restricted by boundaries set up by the developer and therefore, it does not affect the nature of video games as being considered under audiovisual works.³⁷⁴ Again, in Amiga Club case³⁷⁵ the court has rejected the approach adopted by the Frankfurt court and considered player's interaction through the program loops "*as comparable to the playing back of individual parts of films.*"³⁷⁶ This basically means that the interaction occurred due to a player's inputs are no different than fast forwarding a film to display a specific part of it at the discretion of its audiences. Finally, being computer generated images has been found irrelevant to qualify a video game as a film or an audiovisual work in Germany.³⁷⁷ This decision particularly demonstrates the approaches that have been taken by the UK and Germany because the UK considers them as computer generated images and therefore tends to protect them under the regime regulated for computer programs while Germany tends to ignore such approach and confer upon them copyright protection under film works.

Germany is a solid example to show how the case law has been shifted with respect to qualifying the visual elements displayed in video games. In Germany, visual elements displayed on screen may be protected as film works under current German copyright regime. In addition to that it is also possible to protect single frames as a photographic work as per

³⁷² 12 May 1992, (1992) ZUM 545, 546

³⁷³ Judgment of the Court of Appeal in Hamburg, [1983] GRUR 436, 437

³⁷⁴ Stamatoudi I. (n172) 481

³⁷⁵ Court of Appeal in Köln, 18 Oct. 1991, [1992] GRUR 312

³⁷⁶ Göttlich P. (n 91) 4

³⁷⁷ Judgment of the Court of Appeal in Karlsruhe, 14 Sept. 1986, [1986] CR, 723

chapter 2 section 2(1)(5) of the German Copyright Act. The German copyright regime, that has reversed the case law on non-copyrightability of visual elements in video games under audiovisual works, provides a distributive regime for the protection of multimedia elements of video games such as moving images and single frames. Moreover, if a work does not attain sufficient level of originality, it is also possible to protect them as “*moving images*” under German copyright regime.³⁷⁸ Therefore, one may assert that audiovisual elements of video games find a wide copyright protection under today’s German copyright regime after going through controversial decisions adopted by the German courts.

Indeed, the copyrightability of audiovisual elements has been confirmed in the Union by the decision of the European Court of Justice in Nintendo v. Pc Box case even though it has been criticized due to reasons provided under chapter 4.2. In this case, video games are considered as mediums that contain not only computer programs, but also graphic and sound elements although they are encrypted in programming languages.³⁷⁹ Therefore, this decision rejects the difference for images to be displayed in video games on being generated by computer programs. In addition to that, the court has stated that such graphic and sound elements, or in other words audiovisual elements, shall be protected “*together with the entire work*” under the provisions of Information Society Directive.³⁸⁰ Therefore, apart from designating Information Society Directive as the governing directive for computer programs existing in video games, the ECJ held that audiovisual elements of video games may be protected by copyright under Information Society Directive if they fulfill the requirements to be original in the Union. This designation also brings issues on referring limitations and exceptions of computer programs established under the Computer Programs Directive.

³⁷⁸ Copyright Act of 9 September 1965 (Federal Law Gazette I, p. 1273), as last amended by Article 1 of the Act of 1 September 2017 (Federal Law Gazette I, p. 3346), s. 95

³⁷⁹ Case C-355/12 Nintendo Co Ltd and others v PC Box Srl [2014] ECLI:EU:C:2014:25, paras, 21, 22

³⁸⁰ *ibid* 23

However, this issue is not discussed under this sub-chapter again since it has been discussed under chapter 4.2.

Classifying video games as audiovisual works brings some issues regarding the authorship rights. As per article 2(2) of the Rental Directive, for instance, the principal director of cinematographic or audiovisual works is considered as the author of the work in question. However, the same article also states that “[m]ember states may provide for others to be considered as its co-authors.” In addition to that, the Term Directive also stipulates that designation of co-authors is at the discretion of the member states of the Union.³⁸¹ Therefore, there is no harmonization in the Union on the designation of co-authors of audiovisual works. This situation is even more problematic for video games because the rightsholders of them are almost innumerable and they do not always fit in the traditional authorship structure of film, cinematographic or audiovisual works.³⁸² As an example on the legal status of co-authors, persons who have contributed in a creative manner and if their contribution is inseparable from the completed work, they are considered as joint authors in Germany and as a result of that their work cannot be exploited separately in accordance with the German Copyright Act.³⁸³ In the realm of video games, this structure would mean that the game designer might be designated as the author and animation artists might be considered as co-authors of a video game at the same time and obtaining mutual or even contractual consent is necessary to exploit to work in question.³⁸⁴ As is apparent in the above example, classifying video games as audiovisual works in the Union causes legal uncertainty on designating the authors in particular when it is considered that other member states are also entitled to establish their own authorship structure for the co-authors of video games. Besides, there is also moral rights aspect of the

³⁸¹ Directive 2006/116/EC of the European Parliament and of the Council of 12 December 2006 on the term of protection of copyright and certain related rights *OJ L 372, 27.12.2006* art 2(1)

³⁸² Ramos A. (n 4) 42

³⁸³ Copyright Act of 9 September 1965 (Federal Law Gazette I, p. 1273), as last amended by Article 1 of the Act of 1 September 2017 (Federal Law Gazette I, p. 3346), s. 8

³⁸⁴ *ibid*

issue in question. Unlike in the US, the concept of moral rights performs a significant role in the Union. This thesis will not go further in the moral rights issue. However, it should be stated that moral rights remain with contributors of the final product even though all of the economic rights are transferred.

Protecting video games under the audiovisual copyright regime is possible and highly preferable in the Union since it provides a wide copyright protection for the elements of video games that are more exploitable in economical senses. Nevertheless, classifying video games solely on the regime provided for audiovisual works is also highly problematic in the Union. As is discussed, different approaches still exist in the Union that were adopted by various bodies. The ECJ moves towards the unitary approach to confer protection upon them together with the entire work under Information Society Directive and although this consideration seems really attractive to confer copyright protection upon video games as whole, it still lacks a lot of considerations on its validity on the other elements of video games rather than technological protection measures. Consequently, such protection scheme would leave open more important parts of video games for possible copyright infringements. Some member states, in contrast, still prefer the distributive approach and provide copyright protection to audiovisual works separately under existing copyright subject matters such as films, cinematographic works or moving images. The German copyright law provides a solid example to demonstrate how audiovisual works existing within video games are understood and protected. However, it should be kept in mind that such designation brings certain legal uncertainties because of the lack of harmonization of the provisions on the audiovisual works in the Union as well. The prevailing example to demonstrate such situation is highly visible in the current structure of authorship, in particular, the highly complex authorship structure of video games is taken into consideration. Some countries on the other hand, such as the United Kingdom, has opted for rejecting such classification and moved towards the protection regimes established for

computer programs due to fact that the audiovisual elements displayed in video games are sequence of images that have been generated by a computer program.

After this discussion, the next sub-chapter will discuss the video games under the regime established for the other prevailing element of video games, namely computer programs, in the Union that was reached to the certain level of harmonization through the Computer Programs Directive.

4.2.3. Video Games as Computer Programs in the European Union

Computer programs are the main element of every single video game because they run the game on a specific hardware or on a platform. Copyrightability of computer programs is harmonized in the Union by the Computer Programs Directive that has adopted provisions of international treaties and that provides computer programs with the protection regime established for literary works within the meaning of the Bern Convention.³⁸⁵ However, there is no definition of computer programs in this directive because it has been considered that a definition would be outdated due to rapid development of technology in this field. Nonetheless, computer programs are defined as “*set of instructions the purpose of which is to cause an information processing device, a computer, to perform its functions*” in the Explanatory Memorandum to the Information Society Directive.³⁸⁶

As per article 1(3) of the Computer Programs Directive, computer programs are protected under this directive as long as they are original in the sense that they are author’s own intellectual creation. In addition to that this article does not allow member states to apply any other criteria to determine the eligibility of computer programs for copyright protection. Therefore, it can be observed that the Computer Programs Directive has also established an

³⁸⁵ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs *OJL 111, 5.5.2009* art 1

³⁸⁶ Explanatory Memorandum to the Proposal for the European Parliament and Council Directive on Harmonization of Certain Aspects of Copyright and Related Rights on the Information Society, COM (1997) 628 final, Brussels, 10 December 1997, art 1(3)

originality criterion that reflects the common approach of the Union that has lowered the thresholds with regard to being original. Consequently, it forced some member states to adjust their national laws on originality requirements applied for consideration of copyrightability of computer programs. For instance, as is explained in German Inkassoprogram³⁸⁷ case, a high threshold for computer programs to be considered protectable under copyright has been established by the Supreme court. However, subsequent case law has been abandoned the approach that has been adopted in the Inkassoprogram case and following the implementation of the Computer Programs Directive in Germany. It has been constituted in the German Copyright Act that “[c]omputer programs shall be protected if they represent individual works in the sense that they are the result of the author’s own intellectual creation. No other criteria ... shall be applied to determine its eligibility for protection.”³⁸⁸

The Computer Programs Directive covers both source and object code by stating that “[p]rotection in accordance with this Directive shall apply to the expression in any form of a computer program.”³⁸⁹ Therefore, a possible legal confusion on copyright protection of source and object codes has been eliminated by the Directive through this provision. In terms of video games, this would mean that source and object codes that constitute the game engine, plug-ins and scripts are covered by this provision. In BSA case³⁹⁰, the ECJ has also confirmed that both source and object codes are within the scope of the protection regime provided by the Computer Programs Directive. However, this case has also excluded graphic user interferences which are existing in video games in forms of, for instance, health bars, mini maps, menu structures from being protected as computer programs. They have not been considered as a form of a computer

³⁸⁷ BGH GRUR 1985, 1041/1047

³⁸⁸ Copyright Act of 9 September 1965 (Federal Law Gazette I, p. 1273), as last amended by Article 1 of the Act of 1 September 2017 (Federal Law Gazette I, p. 3346), s.2

³⁸⁹ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs *OJL 111, 5.5.2009* art 1(2)

³⁹⁰ Case C - 393/09 *Bezpečnostnísoftwarová asociace v Ministerstvo kultury* [2010] ECR I-13990

program because the court has stated that the reproduction element does not exist in GUIs and they are used by users to use the features of computer programs only.³⁹¹

In *SAS Institute Inc. v. World Programming Ltd.* case³⁹², following the abovementioned *BSA* case, the court has also excluded their functionality, programming languages and format of data files from copyright protection conferred by the Computer Programs Directive. The court has again considered that such elements do not constitute a form of expression of a computer program for the purposes of article 1(2) of the Computer Programs Directive by reasoning that adhering copyright protection to such elements would result a monopoly on ideas that would affect for further technological development.³⁹³ More importantly, the ECJ has opted for an interesting approach with respect to the protection regime that might be suitable for GUIs and data structures in these two cases. In the *BSA* and *SAS Institute* cases, the ECJ has indicated that the works, that cannot be protected under the Computer Programs Directive as such, might nevertheless find copyright protection under the general copyright regime established by the Information Society Directive.³⁹⁴ This approach has also been consolidated by the ECJ in *Nintendo v. PC Box* case, that has opted for conferring copyright protection to “pure software” for the purposes of the Computer Programs Directive and that has excluded technological protection measures from the protection regime provided by the Computer Programs Directive.

Therefore, it can be observed that the ECJ tends to restrict the copyright protection provided for computer programs for the purposes of the Computer Programs Directive to literal elements of computer programs. However, this preference creates a legal uncertainty on the protection regime to be applied on computer programs because accordingly, the non-literal elements are subject to the general originality criteria to be considered as copyrightable under general copyright regime and the real economic value lies in the non-literal elements of computer

³⁹¹ *ibid*

³⁹² Case C-406/10 *SAS Institute Inc. v World Programming Ltd* [2012] ECLI:EU:C: 2012:259

³⁹³ *ibid*

³⁹⁴ Russell J. (n 319) 26

programs under today's software industry. This also brings the issue that such elements are not also subject to the exceptions and limitations specifically established for computer programs by the Computer Programs Directive. Besides, the literal copying of a computer program is not a common way to conduct a copyright infringement since obtaining the same functions that might be provided by a computer program might be achieved by rewriting the program in question via a different programming language.

From a simplistic point of view, it might be asserted that classifying video games as computer programs would be preferable since it is harmonized by the Computer Programs Directive in the Union and it is the common element that every video game possesses. Indeed, since it is more facilitated and computer programs establish the core element of video games, many countries have opted for this approach in the early years of video game cases. However, such consideration is far from the reality itself in the presence of modern video games. Before stating the Union oriented reasons, it should be stated that most video games share the same code or game engine that generates and displays the audiovisual elements of video games. Therefore, the distinctive elements that might be exploited economically or desired to be protected against competitors lie in the audiovisual parts or non – literal parts of computer programs such as GUIs. In this point, the ECJ has reduced the level of protection by considering solely the literal parts of computer programs under the protection regime harmonized by the Computer Programs Directive through the BSA, SAS Institute and Nintendo v. PC Box cases and consequently, the non-literal parts that represent the feeling part of programs were excluded from this harmonized regime. In addition to that, such approach has also provided potential infringers with facilitated copying due to nature of computer programs that allows programmers to code the program in question in a different programming language to obtain the same or similar result. This would create a significant issue for the industry because it indirectly means that there is no substantial element for video game developers to protect against their

competitors if the copyright protection that might be conferred upon video games is reduced to the boundaries of literal copying of computer programs.

A more Union oriented issue on the classification of video games as computer programs in the Union demonstrates itself in the article 5 and article 6 of the Computer Programs Directive. The Computer Programs Directive allows persons having right to use a copy of a computer program to make back – up copies, observe, study or test the functioning of the program without the authorization of the rightsholder.³⁹⁵ Furthermore, rightful users of a copy of a computer program are entitled to make decompactions if the conditions set forth under the Computer Programs Directive are met.³⁹⁶ These exceptions do not actually preferable when video games are taken into consideration as whole. Firstly, being able to make back-up copies as per article 5(2) of the Computer Programs Directive does not comply with the nature of video games because they are not meant to be used as traditional computer programs and, furthermore, the industry has recently moved towards distributing digital copies instead of physical mediums and as a result of that such right seems incompatible in today's market structure. In case of testing, the system requirements that are needed to run a video game on a specific hardware are clear in video games. Therefore, the provided testing exception would have no significant effect for consumers. Finally, the decompilation process is used for interoperability reasons that involve a translation from the object code to the source code. Such process makes the object code available and therefore, it may result circumvention of technological protection measures in case of video games. In short, classifying video games as whole under the regime provided by the Computer Programs Directive would also create legal uncertainties and issues due to provisions on exceptions and limitations constituted under the respective articles of the Directive.

³⁹⁵ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs *OJL 111, 5.5.2009* art 5(2), art 5(3)

³⁹⁶ *ibid* art 6

Classifying video games as computer programs does not seem realistic, even though the regime itself provides a harmonized and a well-established system for the purposes of copyright protection. The legal discretions of the ECJ, that opted for containing computer programs within the scope of the Computer Programs Directive insofar as they reflect only the literal elements and designating Information Society Directive as the governing one for other works, have established a thin protection regime for video games in case they are considered as computer programs and it, of course, created a legal uncertainty on the protection of video games as computer programs. Nevertheless, such regime might be referred in case a copyright protection is sought for computer programs used in video games when distributive approach is adopted.

4.2.4. Video Games as Databases in the European Union

The main characteristics of video games are, in fact, similar to databases because both of them include collection of works of authorships arranged in a systematic way. Unlike other jurisdictions, the European Union provides authors of databases with a *sui generis* protection regime if the database in question consists of “*collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means.*”³⁹⁷ This particular definition definitely brings the question of whether they can be classified as databases under European copyright law due to fact that both of them are a form of collections that is arranged in a systematic or methodical way and they are accessed by electronic means.

The Database Directive provides a well harmonized *sui generis* copyright regime in the Union and classifying video games under this regime would be beneficial for solving legal uncertainties on the legal position of video games because the provisions with respect to

³⁹⁷ Directive 96/9 EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases *OJ L77/20 27.3.1996* art 1(2)

authorship, rights, exception and limitations would provide video games with being considered in a same manner throughout the borders of the Union. However, although a video game includes collection of works, it is not possible to protect video games under the Database Directive due to two main reasons.

Firstly, databases are constructed from works that might still preserve their meaning once they are separated from the collection arranged to construct a database. However, these works are not independent in video games and therefore they cannot be defined as collection of independent works as is stipulated under the article 1(2) of the Database Directive because there is an interaction between each work of a video game that should be experienced together with the entire work and it has no meaning once it is separated from the work itself.³⁹⁸

The second issue is that it is not possible to access such works individually as well. Such works are only accessible under the terms that has been dictated by the computer program that is designed according to the intention of developer towards playing the video game.³⁹⁹ Therefore, video games are not designed to make it possible for their players to access their parts individually by electronic or other means and there is no intention to do so because they are meant to be consumed together with the entire work. Besides, the legal protection of computer programs is explicitly excluded from the scope of the protection provided by the provisions of the Database Directive.⁴⁰⁰ Therefore, it would not be possible to confer copyright protection upon video games under the current Database Directive. Since it is not possible to classify video games under this directive, a further examination of its provisions will not take place under this thesis. Nonetheless, this directive has been subjected to this thesis because it

³⁹⁸ Stein J. (n 335) 49

³⁹⁹ *ibid*

⁴⁰⁰ Directive 96/9 EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases *OJ L77/20 27.3.1996* art 2(a)

reflects a well-established example to understand a possible sui generis copyright regime that might be arranged for video games for future.

4.3. A Comparison between Two Jurisdictions

As is revealed under this chapter, both jurisdictions have considered the legal classification of video games in accordance with their copyright laws. First of all, it should be stated that their administrative construction caused the differences on understanding and applying the provisions that might be applied on copyright protection of video games because according to the US Constitution, copyright is considered at the federal level and it causes a single regime to be applied in the US. In the European Union, on the other hand, a full harmonization has not been reached yet and as a result of that bundle of national copyright laws become relevant when the copyright protection of video games is in question. Therefore, the first difference between two jurisdictions on the legal classification of video games lies in the unified application of the provision enacted with respect to copyright.

In terms of the idea/expression dichotomy, a low threshold for being original, that is in line with the provisions of the Bern Convention, has been established to be eligible for copyright protection by both jurisdictions. In the US, the minimum level of creativity has been considered as sufficient for the originality requirement while in Europe, it has been related to the term of author's own intellectual creation. Since these approaches have provided video games with copyright protection, it has contributed the development of video game industry. However, the US has established more elaborated exceptions to the originality criteria distinguishing ideas from their expressions by applying the so-called limiting doctrines. The European Union has also set forth some limitations to prevent a monopoly on ideas by the case law of the ECJ. Nevertheless, the US approach draws a better understanding on the protectable elements of video games due to its video games-oriented case law.

Regarding the fixation requirement that has been repeatedly subjected to discussions on the copyrightability of video games in the early cases, the copyright regime of the US requires works to be fixed in a tangible medium to be copyrightable. It is now clear that fixation requirement is no longer an obstacle for video games. The European Union has not constituted the fixation requirement under the copyright regime and in line with this consideration, Germany has refused to form a fixation requirement in its copyright act. Nevertheless, fixation requirement is sought in the UK for works to be considered copyrightable under CDPA 1988.

The US has adopted the distributive approach conferring copyright protection to the elements of video games separately. However, there is also an approach that designate them under the prevailing element and currently the audiovisual elements are prevailing in the US as is explained under chapter 4.1.1. In contrast, the European Union has tried to established a unitary approach in relation to protecting the elements of video games as whole under the Information Society Directive by the Nintendo v. PC Box decision rendered by the ECJ. However, this did not affect copyright laws of member states such as Germany and the UK that opted for distributive approach to confer copyright protection to video games. This situation caused application of different copyright regimes such as audiovisual works and computer programs for a single medium in the respected jurisdictions.

With respect to audiovisual works, both jurisdictions had some struggles to distinguish the visuals displayed in video games from computer programs in the early cases. The US has provided a clear definition and a copyright protection regime on audiovisual works while a substantial definition and a harmonized regime has not been established in the European Union. Therefore, the copyright protection regime accorded for audiovisual works would vary where the protection is sought in the European Union. In addition to that gameplay elements are excluded from the copyright protection in the European Union. However, visuals generated by the gameplay elements seems copyrightable in the US following the decision of the district

court in the Tetris case. Nevertheless, it should be stated as a disclaimer that the Tetris decision is highly debated and the copyrightability of visuals being part of the gameplay aspects is not certain yet in the US.

Both jurisdictions, on the other hand, provides computer programs with a sui generis copyright regime containing specific provisions on computer programs. Literal elements such as source and object code find copyright protection in both jurisdictions. However, the European Union tends to protect the non-literal elements under the general copyright regime rather than the one constituted for computer programs, although some member states grant copyright protection to them to some extent under a copyright regime established for computer programs. In the US, on the other hand, user interfaces, structure and organization of computer programs are protected if they are original and not mere ideas. However, copyright protection designed for computer programs would, regardless, provide a thin protection regime to video games in both jurisdictions.

Under this chapter, the legal classification of video games under the copyright law of US and the European Union has been discussed. As is observed, it is possible to classify video games under different copyright regimes due to their complex nature containing different works of authorships. It is not yet clear that which protection regime would prevail over the other one because opting for one of them would mean that a significant element of a video game would be neglected in terms of copyright protection. For instance, classifying them simply as computer programs would result loss of rights on the audiovisual elements that hold the real economic value under today's market structure. As is discussed, the legal classification under the regime established for audiovisual works is more preferable for both legislative bodies and industry players. However, the provisions that has been stipulated for traditional audiovisual works do not fit for a product evolves each day due to rapid technological development Therefore, conducting such an act with the provisions of traditional audiovisual

works brings significant legal uncertainties even though if it is hypothetically accepted that video games are classified as audiovisual works in the two jurisdictions. On top of that, the distributive approach does not also solve the issue because it creates bundle of different rights on a single medium and therefore, it accelerates the legal uncertainty existing in the legal nature of video games even more.

5. COPYRIGHT PROTECTION OF STREAMING AND OTHER USER GENERATED CONTENTS

The rise of internet has dramatically changed the position of video games in the realm of copyright because it changed the way in which video games are consumed and it made it possible for players to exploit the game environment that might be shared with millions of users playing the same video game. Therefore, internet and its potential that provided people with being able to contribute video games as non-developers have opened new frontiers for the discussion on the copyright protection of video games. In particular, the effects of such phenomenon reveal itself through streaming, lets play videos and mods under today's gaming environment. Therefore, this chapter endeavors to discuss copyright issues occurring when audiovisual elements of video games are used in streams and let's play videos and when the assets of video games are altered by user generated contents such as mods developed by players.

5.1. Streaming and Let's Play Videos

Streaming, in terms of video games, is live broadcasting of the playing of video games on the platforms such as twitch.tv, mixer.com or YouTube gaming that includes audiovisual elements of video games, a streamer in a small box and a chat where viewers and the streamer interact with each other.⁴⁰¹ Although there is a variety on the style of streams, it is still possible

⁴⁰¹ Jungar E. (n 17) 23

to divide them into three main categories: e-sport streams, streams of professional players that such player streams mostly single video games in which the player plays professionally and streams in which variety of video games are broadcasted at the discretion of the streamer and the chat.⁴⁰² Let's play videos, on the other hand, are prerecorded videos broadcasted on video on demand services that might include reviews of video games that shows part of gameplay with an audio solely coming from the reviewer that criticized the game as it is shown in movie reviews; or audiovisual elements of video games and commentary of the content creator that might be relevant or not with the video game; or the whole or part of a video game without a commentary such as full playthroughs or episode guides.⁴⁰³

Streams and Let's Play videos trigger copyright infringement cases because it is clear that both of them include audiovisual elements of video games which are protected under copyright in the US and Europe as is discussed under chapter 4. However, there are not many infringement cases on this basis because they provide developers with free publicity for their video games and, besides, developers are afraid of the backlash from gaming community if they ban such contents. Therefore, the developers prefer to let content creators to stream or publish videos while reserving their rights on every single aspects of their video games through contractual relationships. Nevertheless, it does not mean that it is not possible to file a copyright infringement lawsuit because it is clear that interests of game developers and content creators clash on some aspects. Indeed, some developers such as Nintendo have tried to have control on videos on their products and to claim some of the revenues that made by content creators in

⁴⁰² *ibid*

⁴⁰³ Conrad Postel, 'Let's Play: YouTube and Twitch's Video Game Footage and a New Approach to Fair Use' (2017) *Hastings Law Journal* Vol. 68, 1169, 1173

YouTube.⁴⁰⁴ Such actions and policies of Nintendo on Let's Play videos have been criticized by the gaming community and created protests and boycotts on Nintendo products.⁴⁰⁵

In the United States, streams and Let's Plays might constitute copyright infringement due to two reasons according to the US copyright law. First, as per article 106 of the US Copyright Act, in case of audiovisual works the owner of copyright has exclusive right to perform the copyrighted work publicly.⁴⁰⁶ When content creators of streams and Let's Play videos exploit the audiovisual elements of video games publicly, this provision becomes relevant and, therefore, it constitutes a copyright infringement in terms of article 106(4) of the US Copyright Act. Second, they would be identified as derivative works because the US Copyright Act defines derivative works as “... a work based upon one or more preexisting works such as translation, musical arrangement, dramatization ... or any other form in which a work may be recast, transformed or adopted. A work consisting of editorial revisions, annotations, elaborations, or other modifications, which, as a whole, represents an original work of authorship, is a “derivative work”.”⁴⁰⁷ Again, the article 106 also includes preparation of derivative works basing upon the copyrighted work as an exclusive right for the author of the original copyrighted work.⁴⁰⁸ Therefore, such videos also constitutes copyright infringement in case they are considered as derivative works under the US Copyright Act.

In Europe, on the other hand, authorization or prohibition of any communication to public on copyrighted works by wire or wireless means including in a way that viewers may access them from a place and at a time individually chosen by them is stipulated as an exclusive right for owners of copyrighted works under the Information Society Directive.⁴⁰⁹ It is clear from

⁴⁰⁴ ibid 1172

⁴⁰⁵ Julia Alexander, ‘ YouTubers are Calling Out Nintendo or its Policy on Streaming, uploads’ (2017) polygon.com < <https://www.polygon.com/2017/11/6/16612080/youtube-nintendo-super-mario-odyssey-demonetization>> accessed 11 March 2020

⁴⁰⁶ 17 U.S.C. s. 106(4)

⁴⁰⁷ 17 U.S.C. s. 101

⁴⁰⁸ 17 U.S.C. s. 106(2)

⁴⁰⁹ Directive 2001/2009/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 *OJ L 167, 22.6.2001* art 3

the wording of the article that the directive aims to contain videos on demand and internet streams. According to the Information Society Directive, communication to public should be also understood in a broad sense covering all communication to public including broadcasting.⁴¹⁰ The ECJ has also consolidated this approach by even considering television sets in private hotel rooms as communication to the public within the meaning of article 3(1) of the Information Society Directive.⁴¹¹ In case law, communication to public has been determined under two criteria; (i) a communication and (ii) new public.⁴¹² Internet streams and videos are also considered under these two criteria by the ECJ. For instance, in *ITV Broadcasting Ltd.* case where live internet streaming of free television broadcasts was discussed on whether such an act constitutes a communication to public, the ECJ found that existence of an act of communication to a new public or a specific technical means that is different from the original communication is necessary to decide that there is a communication and a new public and therefore an infringement of article 3 of the Information Society Directive.⁴¹³ Therefore, it is possible in Europe that video game streams and videos on demand would be identified as a communication to a new public under the Information Society Directive because when streamers or content creators publish their work, they make audiovisual elements of video games available for people to watch live or at a time they are choosing. Therefore, such acts constitute an act of communication to a new public and as a result of that the article 3 of the Information Society Directive would be triggered.

Although developers do not usually seek to file lawsuits due to copyright infringements of such cases, streaming and Let's Play videos amount to possible copyright infringements due to the provisions of both jurisdictions stated in the above paragraph. Nevertheless, both

⁴¹⁰ *ibid* recital 23

⁴¹¹ Case C-306/05, *SGAE v. Rafael Hoteles*, [2006] ECR I-11519

⁴¹² C-466/12, *Nils Svensson and Others v Retriever Sverige AB*, [2014] ECL I:EU:C:2014:76

⁴¹³ Case C-607/11, *ITV Broadcasting Ltd. and others v. TV Catch up Ltd* [2013] ECLI:EU:C:2013:147

jurisdictions include bundle of provisions that might be referred by streamers and content creators to justify and defend the copyright infringements caused by the contents created by them, even though such provisions might be considered as insufficient in terms of video game contents.

In the United States, abovementioned exclusive rights subject to limitations accorded by the article 107 of the US Copyright Act. Therefore, streams and Let's Play videos need to establish a fair use defense as per article 107 of the US Copyright Act in order to be exempted copyright infringement cases relying on article 106A.⁴¹⁴ The fair use test established under article 107 includes four factors, namely; (i) *“the purpose and character of use, including whether such use is of a commercial nature or is nonprofit educational purposes”*, (ii) *“the nature of copyrighted works”*, (iii) *“the amount and the substantiality of the portion used in relation to copyrighted work as a whole”* and (iv) *“the effect of the use upon the potential market for or value of the copyrighted work”*.⁴¹⁵ However, these factors need to be applied on “a case by case basis”.⁴¹⁶

The first factor evaluates two aspects. First, whether the use is transformative and second, the use is commercial or nonprofit. In Campbell case⁴¹⁷, the US Supreme Court has interpreted being transformative as adding something new to the original work that changes it for another purpose.⁴¹⁸ In this point, streams and Let's Play videos that review video games would amount to the first factor of fair use since they might be considered as transformative due to fact that their purpose is criticism that helps consumers to decide on buying a video game and the audio parts come almost solely from the commentator and the audiovisual elements being used in such videos only reflect insignificant amount of video games. The real debate lies in the

⁴¹⁴ 17 U.S.C. s. 107

⁴¹⁵ *ibid*

⁴¹⁶ *Campbell v. Acuff-Rose Music Inc.* [1994] 510 U.S., 577

⁴¹⁷ *ibid* 579

⁴¹⁸ *Postel C.* (n 403) 1175

discussion on streams and Let's Play videos consisted of playthroughs with commentary. In these videos, video games are fully revealed by adding commentaries from content creators. Therefore, their transformative nature is questionable. The case law has also contributed such uncertainty because in *Cariou* case⁴¹⁹, the court has considered purposes of comments other than the ones listed under the US Copyright Act that altered such works with additional works under fair use.⁴²⁰ This case might be referred as a pro argument for protection of streaming and Let's Play videos because it extends the scope of contents that might be considered under the fair use exception. However, in *Castle Rock Entertainment* case in which a trivia book about a television show is discussed under the fair use, the court has generally considered that commentaries have minimally altered the original work and, therefore, the court found no transmission that might amount to fair use.⁴²¹ Indeed, playthroughs with commentary of video games consisted of a linear story would constitute a valid argument against fair use protection. Such videos reveal video games fully and they only add some commentaries while the parts of original works are exposed to new viewers. Therefore, the amount of the transformation is significantly low in this kind of videos because adding some audio and some visuals in a small box does not tangibly alter the original work especially when the number of ways in which such video games can be played are highly limited and when cut - scenes of video games are displayed, streamers or content creators usually only watch and react without any interaction. The contra argument would be on acts and comments inserted on multiplayer or open word video games because these games are repayable and, in such games, the content creators contribute video games with different strategies, tactics and tips that sometimes are not even planned by the developers as well.⁴²² Therefore, they might be considered as transformative when the nature of multiplayer games are taken into consideration. Nevertheless, the courts

⁴¹⁹ *Cariou v. Prince* [2013] 2d Cir.714 F.3d 694, 796

⁴²⁰ *Postel C.* (n 403) 1176

⁴²¹ *Castle Rock Entertainment Inc. v. Carol Pub. Grp. Inc.* [1998] 2d Cir. 150 F.3d 132,142

⁴²² *Postel C.* (n 403) 1179

would consider the transformation as non-substantial and therefore, they would not be considered as transformative by the courts in the US. Playthroughs without commentary, on the other hand, would not be considered as transformative at all because such videos only demonstrate the audiovisual elements of video games without any original creation. Finally, streams and Let's Play videos have commercial value in today's market structure. Therefore, such videos would fail to fulfill the first requirement of the fair use test, although they include some original and transformative works.

The second factor, on the other hand, strictly favors the game developers.⁴²³ In Campbell case, the court has stated that “...[t]his factor calls for recognition that some works are closer to the core of intended copyright protection than others, with the consequence that fair use is more difficult to establish when the former works are copied.”⁴²⁴ In terms of video games, the audiovisual elements that are demonstrated in such videos, indeed, constitute the core of intended copyright protection. Therefore, the second factor is more straightforward than the first factor that includes some debatable points and it means that streams or Let's Play videos of video games would not amount to the second requirement of the fair use test.

The factor three evaluates the amount and the substantiality of the portion used in relation to copyrighted work as a whole. Therefore, the question regarding acceptability of the amount used in videos rises to evaluate such videos under the fair use. The courts in the US tolerate copying up to some certain amount.⁴²⁵ However, such amount might differ in case “*the hearth*” of the copyrighted work is copied in the altered work of authorship.⁴²⁶ Therefore, both quantity and quality are relevant when a work in question is evaluated within the scope of such factor.

⁴²³ Ivan O. Tylor Jr. ‘Video Games, Fair Use and the Internet: The Plight of the Let's Play’ (2015) Journal of Law Technology and Policy Vol. 2015, 247, 256

⁴²⁴ Campbell v. Acuff-Rose Music Inc. [1994] 510 U.S., 586

⁴²⁵ Postel C. (n 403) 1180; New Era Publications Int'l, ApS v. Carol Publication Group [1990] 2d Cir. 904 F.2d 152, 158

⁴²⁶ *ibid*; Harper & Row Publishers Inc. v. Nation Enters [1985] 471 U.S. 539, 579

In terms of video games, video game reviews would fulfill the amount and the substantiality criteria since they present even less amount of the copyrighted work than the amounts accepted by the courts and in addition, they usually display insignificant audiovisuals of video games to establish a general overview on the game in which they comment on. Playthroughs with or without commentary, on the other hand, are not capable of comply with such requirement. To begin with, they display all audiovisual parts of video games and therefore, it is not possible to discuss the amount and the substantiality to justify the use under factor three of the fair use. Besides, In Midway case, copying a single frame of a video game has also been considered as copying whole audiovisual elements of the video game in question.⁴²⁷ Therefore, the factor three also clashes with the decision taken by the court in relation to protection on audiovisual elements of video games. As a result of that, streams and Let's Play videos that exploits game plays with or without commentary are destined to fail the third requirement of fair use exception.

The final factor deals with the effect of use upon the potential market. In case of streams and Let's Play videos on video games, the actual effect is highly debatable and the arguments given by both content creators and developers are hypothetical. Nonetheless, there are some visible positive effects, especially, online multiplayer games that do not solely depend on their stories are taken into consideration because they are highly replayable and streamers and content creators of Let's Play videos increase the popularity of such video games and contribute developers with higher number of players. As a result of that, the industry observes almost none lawsuits filed against streams and videos. However, it would not be appropriate to suggest the same argument when single player games containing a story line are in question. The replayability of such games is debatable since once their story is experienced, such games have nothing to offer to players for further playing. Therefore, once it is consumed through such

⁴²⁷ Midway Manufacturing Co. v. Artic International Inc., [1983] 704 F. 2d. 1009, 1011

videos, one may assert that viewers of such videos would have no incentive to buy the video game in which they have consumed through streaming or Let's Play videos. A contra argument against such approach would focus on the interactive nature of video games that cannot be experienced through the videos in question. It might be asserted that streaming or Let's Play videos would not be considered as substitute for video games due to lack of interactivity. Regardless, a further market research, that is beyond this master thesis, is needed to reveal the actual effect of such videos on the sales of video games. However, it would be appropriate to state that the final factor that evaluates the potential effect of market would create different results in accordance with the video game to be taken into consideration.

Streaming and Let's Play videos are amount to copyright infringement under the US Copyright Act and the traditional fair use exception established under the article 107 of the US Copyright Act to justify copyright infringement is not capable of coping with the issues raised due to plight of internet and consequently, the rise of streaming and e sport tournaments. As is explained above, case by case approach has been taken and it is not clear whether such works are protected under fair use exception. Therefore, instead of providing safe zones to streamers and content creators who financially depend on such works, the current fair use doctrine left them with complicated legal uncertainty in the US.

Besides, the provision that have been adopted in the US Copyright Act due to the implementation of the Digital Millennium Copyright Act of 1998⁴²⁸ needs to be taken into consideration when streams and Let's Play videos of video games are discussed. The DMCA has extended the rights of copyright owners by granting them power to remove contents from internet that have used their works of authorship while providing Online Service Providers with some "*safe harbors*" exempting them from the liability on the content published in their

⁴²⁸ 17 U.S.C. s. 512

platforms.⁴²⁹ As per article 512 of the US Copyright Act, such safe harbors are available if an OSP “(A)(i) does not have actual knowledge that the material or an activity using the material on the system or network is infringing; (ii) in the absence of such actual knowledge, is not aware of facts or circumstances from which infringing activity is apparent; or (iii) upon obtaining such knowledge or awareness, acts expeditiously to remove, or disable access to, the material; (B) does not receive a financial benefit directly attributable to the infringing activity, in a case in which the service provider has the right and ability to control such activity; and (C) upon notification of claimed infringement as described in paragraph (3), responds expeditiously to remove, or disable access to, the material that is claimed to be infringing or to be the subject of infringing activity.”⁴³⁰ Therefore, an OSP would tent to remove a content upon notification to be not held liable for possible copyright infringements. Indeed, this theory has been commonly experienced on removal of internet videos upon notifications of the right holders. The article itself provides content creators with counter notifications. Nevertheless, the notifications issued by the right holders of original works result initial removal of the videos on weak grounds. Consequently, the DMCA provisions also contributes the legal uncertainty on the protection of streams and Let’s Play videos.

In the European Union, a general exception such as fair use in the US does not exist. Instead of that, the article 5 of the Information Society Directive sets forth the exceptions and limitations that might be referred in case of a potential copyright infringement. As is discussed under above paragraphs, US fair use exception would at least provide such videos with a ground to discuss their protection against the owners of the original works. However, the exceptions and limitations established under the article 5 of the Information Society Directive are not sufficiently equipped to deliver the same result. In fact, two specific exceptions might

⁴²⁹ Nicholas Ribaud, 'Youtube, Video Games, and Fair Use: Nintendo's Copyright Infringement Battle with Youtube's Let's Plays and Its Potential Chilling Effects' (2017) 6 Berkeley J Ent & Sports L 114, 121

⁴³⁰ 17 U.S.C. s. 512(C)1(A) – (C)

be related to streaming and Let's Play videos. In this regard, the article 5 lists quotations for purposes of such as criticism or review⁴³¹ and use of the purpose of caricature, parody or pastiche.⁴³² Therefore, it would be possible for review videos to be exempted from copyright infringement under the purposes of criticism or review. However, it would not be straightforward to state that parody exception would grant protection to videos including the audiovisual elements of video games as whole. According to the ECJ, a parody should show differences while using the original work in question and expression of humor and mockery is needed to be considered as parody.⁴³³ Indeed, streams and Let's Play videos contain humor and mockery but it cannot be designated as the general purpose of them because one may also observe that there are many streams and Let's Play videos that focus on demonstrating the exceptional playstyles of a video game. Besides and more importantly, such videos only add comments and other contributions that do not change the original work at all.⁴³⁴ Therefore, the factors sought by the ECJ to be exempted as a parody under the article 5(3)(k) of the Information Society Directive are not fully comply with streams and Let's Play videos that exploit audiovisual elements of video games as whole. Another weak point of this article lies in the wording of it since adoption of the exceptions and limitations listed under such article have been left at the discretion of the member states of the Union. Therefore, streams and Let's Plays that are interchanged regardless any boarder would be treated differently according to national copyright law of member states. Consequently, it would be stated that the legal protection of such videos is amounted to even greater legal uncertainties in the European Union as is in the US.

⁴³¹ Directive 2001/2009/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 *OJL 167, 22.6.2001*, art 5(3)(d)

⁴³² *ibid* art 5(3)(k)

⁴³³ Stein J. (n 335) 30; C-201/13 Johan Deckmyn and Vrijheidsfonds VZW v Helena Vandersteen and Others ECLI:EU:C: 2014:2132, para 20

⁴³⁴ *ibid*

The European Union, on the other hand, could cope with this situation through the Digital Single Market Directive that might be considered as a similar act to the DMCA in the US.⁴³⁵ As a disclaimer, the directive is quite new and some period of time is still needed to observe its actual effects on internet videos. However, it would be asserted in this point that the provisions set forth under the article 17 have threatened streaming and Let's Play industry more than before because as per article 17, content-sharing service providers such as YouTube or Twitch are obliged to seek the authorization of rightsholders and when such authorization is not obtained, they shall be liable for the listed acts unless the service providers demonstrate that they have complied with the requirements listed under such article.⁴³⁶ Therefore, streams and Let's Play videos would be taken down by the content-sharing service providers without a notice from the actual right holders since the article 17 holds them liable for the actions taken by the content creators. It is clear that the potential effect of this directive on internet needs comprehensive research and it is beyond the purposes of this thesis. However, such videos are usually allowed by the authors of original works in the video game industry due to their publicity value, although their legal position might constitute copyright infringements. In terms of video games, therefore, this directive brings the possibility of being taken down for streams and Let's Play videos by the content-sharing service providers without a notification from the copyright owners of the original works and as a result of that, the content creators might find themselves in a more disadvantaged position that would amount to not being able to share their content that they mostly depend on for their financial means. It might be observed that the European Union seeks to establish a safe harbor system for content-sharing service providers as is established under the DMCA in the US. However, the current provisions impose more excessive liabilities on such providers than the ones established by the DMCA.

⁴³⁵ Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC *OJ L 130/92* 17.5.2019

⁴³⁶ *ibid* art 17(4)

5.2. Other User Generated Contents

The UGCs, other than the streams and Let's Play videos, exist in various forms in the realm of video games. Some of them may appear through playing the video game such as in game items obtained due to investment of time and labor in the game or contents that may be created by using the in-game tools.⁴³⁷ On the other hand, such UGCs may reveal themselves by altering the video game or creating a piece of art that might be completely independent from the video game itself.⁴³⁸ Therefore, UGCs are capable of pushing the boundaries of creativity and consequently, the existing copyright laws.

The UGCs that appear merely playing video games would mostly be observed in the Massive Multiplayer Online games because such games provide their players with opportunity to interact with each other by establishing a vast digital environment that host thousands or even millions of people and they usually include items and other achievements that could be obtained by investing significant amount of time and effort. The ownership status of in game items and contents created through the in-game actions is not clear when the current copyright laws are taken into consideration since, as is explained under chapter 4, active participation of players in video games has not been considered as sufficiently creative to constitute a work of authorship under the respected jurisdictions. Another factor is that these items or character designs are obtained or created through the ways that are designed by the game developers and these assets are stored in their servers. Nevertheless, it would be still possible to argue that some of these creations might amount to copyright protection under the copyright idea/expression dichotomies of the US and the European Union because some of them certainly constitutes an original expression of their authors with significant financial value. In any circumstances, video game developers claim ownership of every single aspect that occurs

⁴³⁷ Baldrice J. (n 19) 687

⁴³⁸ *ibid*

within their servers and they seek to control such creations completely. Therefore, rather than in a discussion on copyright, the legal uncertainty reveals itself at the enforceability of the contracts dictated by the developers.

Some UGCs, on the other hand, alter the gameplay and audiovisual elements through an original code apart from the ones existing in a video game in question. Therefore, these kind of UGCs usually include a computer program and audiovisual elements as is observed in video games and therefore, they might also be considered as eligible for the copyright protection.⁴³⁹ However, they might also constitute copyright infringement since they alter another work of authorship that is already copyrighted.⁴⁴⁰ In the realm of video games, such UGCs mostly appear as mods.

In the US, the discussion on the copyright protection of such UGCs concentrates on the infringement of a protectable expression and being considered as derivative works.⁴⁴¹ In *Micro Star v. Formgen Inc.* case, the court has considered that the MAP files of a video game directing what is displayed on the screen did not constitute a protectable expression in terms of article 102 of the US Copyright Act.⁴⁴² Instead, the court has amounted the copyright protection to the story told by the files in the game.⁴⁴³ Since the court has excluded the general ideas belonging to the gameplay elements and focused on their expression through the story part, this decision is in line with the general understanding of the idea/expression dichotomy applied for video games in the US. Therefore, mods that exploit protectable expressions of video games such as audio, video or story elements have been found infringing and this argumentation directed the discussion to the scope of the derivative works.⁴⁴⁴

⁴³⁹ Schlinsog M. (n 18) 195

⁴⁴⁰ 17 U.S.C. s. 103

⁴⁴¹ Schlinsog M. (n 18) 197

⁴⁴² *Micro Star v. Formgen Inc.*, [1998] 154 F.3d 1107, 1112 n.5 9th Cir.

⁴⁴³ *ibid*

⁴⁴⁴ Schlinsog M. (n 18) 197

As is discussed under the chapter 5.1., the authorization from the right holder of the original work needs to be obtained when mods are considered as derivative works.⁴⁴⁵ In terms of derivative work considerations, the US courts have provided us with different approaches and results. In *Midway Manufacturing v. Artic Int.* case where a computer chip inserted to the video game to alter the audiovisual displays, the court found that a commercial modification that created audiovisual displays constitute a derivative work⁴⁴⁶ because the chip has copied and replaced and, therefore, substituted the original chip distributed by the game developer.⁴⁴⁷ However, in *Lewis Galoob Toys Inc. v. Nintendo of America Inc.* case where a device called “*Game Genie*” inserted into Nintendo consoles that allowed players to temporarily alter number of lives, player speed and player movement has been considered, the court has not determined such device as derivative work because the court has found that audiovisual elements displayed in the original game have been merely altered by this device.⁴⁴⁸ It seems that the court has reversed the *Midway* precedent due to two factors; first, the court has distinguished a device physically incorporated into the original game from the non-physical interaction and second, the noneconomical nature of the *Game Genie* has played a significant role for this distinction.⁴⁴⁹ However, this approach indicating that audiovisual elements generated by a device did not constitute a derivative work has also been reversed again by the Ninth Circuit in the *Micro Star* case. In this case, the developer of the video game called *Duke Nukem 3D* incorporated a “*Build Editor*” to allow the players with creating their own levels and sharing them online.⁴⁵⁰ A software company decided to combine them in a CD and sell them under the name “*Nuke It*”. In this case, the court has evaluated whether the mode in question is in temporary or permanent form and decided that audiovisual elements generated

⁴⁴⁵ 17 U.S.C. s. 106(2)

⁴⁴⁶ *Midway Mfg. Co. v. Artic Int’l, Inc.*, [1983] 704 F.2d 1009 7th Cir.

⁴⁴⁷ *ibid* 969; Schlinsog M. (n 18) 198

⁴⁴⁸ *Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc.*, [1992] 964 F.2d 965, 968 9th Cir.

⁴⁴⁹ Schlinsog M. (n 18) 198

⁴⁵⁰ *Micro Star v. Formgen Inc.*, [1998] 154 F.3d 1107, 1109 n.5 9th Cir.

by the mode were in permanent form because the displays were provided by the MAP files of Nuke It instead of the original game.⁴⁵¹ Following this consideration, the court has applied the substantial similarity test between two mediums and found that Nuke It has constituted a derivative work since audiovisual elements of Nuke It have copied the source art library of the original work.⁴⁵² Therefore, the court consider the “Nuke It” as a derivative work. It needs to be mentioned that the commercial factor has not been deeply considered in this case. In addition, this case has also indicated that, a mod that generates audiovisual elements by using the source code of the original video game would also constitute a derivative work in the US. Therefore, the Micro Star precedent would be applicable to wide verity of mods existing in video games, in particular, the complexity of modern modes that are capable of altering video games far beyond than the cases mentioned above are considered.

Once such UGCs are labelled as derivative works in terms of the US Copyright Act, the fair use exception becomes relevant to exempt these UGCs from the copyright infringement of original works. Since the factors of fair use are required to be considered on case by case basis, the precedent established on this matter by the US courts has not been unified. In the Galoob case, the court found that the “*Game Genie*” has constituted a non-commercial use, was from a work that has already been published and did not affect the market in which the original copyrighted work is sold.⁴⁵³ Therefore, the court has considered that the “*Game Genie*” was eligible for the fair use exception under the first, second and fourth factor of fair use.⁴⁵⁴ Regarding the third factor, the court has considered that audiovisual elements that has been paid for would be viewed at the player’s discretion without infringing the rights of the copyright holder of the original work and, therefore, the court also found that the “*Game Genie*” did not

⁴⁵¹ ibid 1111

⁴⁵² ibid 1112

⁴⁵³ Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc., [1992] 964 F.2d 965, 970-71 9th Cir.; Schlinsog M. (n 18) 202

⁴⁵⁴ 17 U.S.C. s. 107

violate such factor although it used the entire copyrighted work.⁴⁵⁵ However, this precedent has been reversed by the Ninth Circuit in the *Micro Star* case. In this case, the court found that copying a fictional work has violated the second factor of fair use and the fourth factor has not also been fulfilled since the mod has infringed the right of the owner of the original work to sell new versions of their video game.⁴⁵⁶ The significant shift in the case law exists in the fact that instead of the rights of players to exploit the work as they wish after the purchase, the *Micro Star* decision favored the potential marketing option of the copyright owner for new versions of the product.⁴⁵⁷ Therefore, mods would not be considered under the fair use exception in the light of the *Micro Star* decision. However, mods would be considered as fair use in the future because both cases did not consider the transformative use stipulated under the first factor of the fair use exception and they did not conduct a significant market research on their effects, especially once the features that could be contributed to video games by mods, that significantly increase the re-playability of video games, are taken into consideration.

In the European Union, the discussions carried out under the streaming and Let's Play videos are mostly valid for the other UGCs. Therefore, this discussion will only refer to the ones conducted under the streaming and Let's Play videos part. However, it needs to be added that mods could be considered under the reproduction right that is established under the Information Society Directive as an exclusive right for the copyright owners.⁴⁵⁸ Again, the exceptions and limitations are enforceable as per article 5 of the Information Society Directive. Therefore, apart from the non-commercial private uses of such mods or other UGC that alter the elements of video games, the content creators of UGCs are required to obtain authorization from the right holders of the original work in question. Due to different applications caused by

⁴⁵⁵ *ibid*

⁴⁵⁶ *Micro Star v. Formgen Inc.*, [1998] 154 F.3d 1107, 1113 n.5 9th Cir.

⁴⁵⁷ Schlinsog M. (n 18) 203

⁴⁵⁸ Directive 2001/2009/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 *OJL 167, 22.6.2001* art 2

the wording of the directive and absence of mechanisms such as fair use in the European Union, the legal position of such UGCs has not been cleared in terms of copyright yet and since such creations would establish speeches and constitute issues under the freedom of speech, the possible solutions might exist at the fundamental rights of the European Union. However, such discussion is beyond copyright and therefore, it is also beyond this thesis.

In this chapter, the capability of current copyright regimes to respond the current developments on video games through the user generated contents has been evaluated. This discussion is deemed necessary for this thesis due to two reasons; first, it reflects the features of video games demonstrating that how much reflexivity is needed when such an interactive medium is discussed under copyright and; second, a copyright discussion on video games, especially under today's circumstances, would be extended to the areas exceeding the limits established by a video game. In this regard, it has been observed that the US copyright regime provides such mediums with protection to some extent due to the mechanisms that have been incorporated into their copyright acts. Nevertheless, the US Copyright Act is not also sufficiently equipped to establish the balance between the content creators and video game developers as it can be observed in the decisions rendered by the US courts included in the above paragraphs. The community wide copyright acts of the European Union, on the other hand, do not even provide the amount of the protection that is granted by the ill-equipped US regime. The laws of member states also become irrelevant because the UGCs are shared through internet without any border limits. In any circumstances, the copyright laws that would be discussed in relation to UGCs have little importance since this area of video games is strictly restricted by the video game developers via contractual obligations imposed by click-wrap agreements. Therefore, in order to demonstrate the measures taken by the industry in the absence of solid provisions, the next chapter will evaluate the contracts used by the video game developers to enforce their rights on their video games.

6. MEASURES LAUNCHED BY THE INDUSTRY

In the previous chapters, the legal issues on the copyright protection granted to video games have been revealed. Since the current copyright regimes applied in the relevant jurisdictions could not provide video games with a reliable protection regime, the industry sought ways in which they could enforce their rights in line with their interests. Accordingly, it has been observed that the industry executes their policies on this matter by two mechanisms; (i) technical measures and (ii) contractual relationships.

Technical protection measures and digital rights management are the prevailing examples of the first category that is used to prevent the circumvention of video games. TPMs include mechanisms that control protection techniques on passwords, encryption and other aspects while DRMs deal with larger set of technological tools that are also be able to cover monitoring user behaviors occurring in the copyrighted material.⁴⁵⁹ In the context of video games, such measures are attached partly into consoles and video games and they include codes, chips or copying restrictions that are used to prevent piracy and additional programs that survey the programs used by users to alter video games. The legal source of TPMs relies on the article 11 of the WCT. As per this article, contracting parties are required to *“provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights.”*⁴⁶⁰ Accordingly, the US and the European Union provide authors with such legal protection and remedies. However, these measures also create a contradiction between rights of authors and rights of players, in particular, when they are combined with the contractual obligations imposed by the authors since the authors seek to prevent all kind of uses that might even be considered under copyright exceptions such as fair use in the US or private uses in the Union.

⁴⁵⁹ Peter K. Yu, ‘Anticircumvention and Anti-anticircumvention’ (2006) 84 Denv. U. L. Rev. 13, 61

⁴⁶⁰ The World Intellectual Property Organization Copyright Treaty art 11

Indeed, the regime established by the DMCA⁴⁶¹ in the US has been heavily criticized due to its harmful effects on reverse engineering and private uses. In Europe, on the other hand, the Nintendo case has subjected them to the Information Society Directive and, therefore, more demanding formulation of article 6 of the Information Society Directive became the relevant article instead of the article 7 of the Computer Programs Directive that forbids circumvention of TPMs under the condition of “*the sole intended purpose of which is to facilitate the unauthorized removal or circumvention of any technical device which may have been applied to protect a computer program.*” Nevertheless, TPMs and DRMs become less popular due to shifts on the industry moving towards implementing online requirements and subscription business models. Therefore, it seems that they would not be reliable mechanism for the industry to enforce their rights on consumers. However, combining them with contractual obligations explained below and digitalization brings legal issues on both copyright law and other areas such as consumer protection and anti-competition law.

Since the existence of the current legal uncertainty on the protection regime applied on video games, the industry sought to establish the legal protection of video games by various contracts. These contracts take place between business to business and business to consumer relationships. The publishing agreement is a common example for B2B contracts in the video game industry. Such agreement is entered into when a publisher seeks a developer to create a video game to market or when a developer seeks a publisher to distribute its video game. In this agreement, a developer and a publisher enter into agreement to set forth the business and legal relationship that determines rights and obligations including the development process, ownership rights, maintenance and other areas relating to the development and distribution of a video game in question.⁴⁶² The measures taken by the industry to protect the rights on video

⁴⁶¹ 17 U.S.C. s. 1201

⁴⁶² Greenspan D. (n 49) 39

games are mostly revealed in the provisions regarding the ownership rights because as is explained under this master thesis, the ownership rights varies according to the approach adopted on the legal classification of video games in a territory in which the protection is sought. Therefore, the ownership rights are the most important part of the publishing agreements since such provisions deal with the exploitation of the video game. The ownership rights on source and object code, audiovisual elements and derivative works are common elements that are agreed on by the parties. This agreement is particularly important for game developers when they enter into an agreement with publishers for solely benefiting publishers' distribution channels because in order to keep the source and object code of the video game for further commercial exploitations or right to create sequels need to be secured to avoid possible legal issues.⁴⁶³ The contracts on B2B level are mostly permissible under the existing copyright laws. Therefore, they are frequently used by the industry to fill the gaps of the copyright regimes applying on video games. Nevertheless, such provisions might also be vulnerable against the claims on enforceability in the context of law of contracts.

The end-user license agreement and terms of service are the business to consumer contracts that are entered into with the players of video games. Although EULA and TOS share some mutual provisions, they serve different functions; the EULA is used to grant permission to players to play the video game under the terms of such licensing and TOS sets forth the terms concerning the rules of playing the video game and interaction with other players in a shared service.⁴⁶⁴ Therefore, it means that a video game that include downloadable content but does not include any online service establishing interactions between players would need a comprehensive EULA but no TOS.⁴⁶⁵ These "*click-wrap*" contracts are highly one sided because, as a common practice, these contracts need to be signed by players before being able

⁴⁶³ *ibid*

⁴⁶⁴ Boyd G. (n 8) 96

⁴⁶⁵ *ibid* 96

to access the video game in which they wish to play and publishers and developers seek to cover all rights on their video games excessively against any act of players. Most EULA include highly restrictive licensing limitations such as; restrictions on selling, leasing or any other transfer of game; on copying, modifying or creating any kind of derivative works; and on using a third-party software to interfere with the game and its data.⁴⁶⁶ Regarding the ownership rights, EULA, on behalf of publishers, claims that all rights including but not limited to accounts, titles, computer code, themes, objects, currencies, artifacts, characters and every single aspect on such character, locations, stories, audiovisual elements and even the moral rights belong to the publisher. Besides, some EULAs require players to acknowledge and agree that they have no ownership rights on the game and the product is not sold to them but only licensed for limited period of time.⁴⁶⁷ TOS, on the other hand, restricts the ownership rights on accounts of players created in publishers' or developers' service and sets forth the rights of the publisher to terminate such accounts in case of existence of prohibited activities listed by them.⁴⁶⁸ Among other provisions, TOS also restricts the user generated contents created through the service and the usage of the service in general. These contracts are the most common measures that the industry refers to protect their interests and to restrict players' actions that might amount to a copyright claim on their product. However, since the provisions imposed by these contracts are highly restrictive and they result to an excessive protection regime, their enforceability is also debatable when existing rule of law is considered. In fact, enforceability of the terms of these contracts is a discussion that needs to be discussed from a wider point of view including various disciplines of law such as consumer protection law, contract law and fundamental rights granted under free speech. Therefore, the scope of the

⁴⁶⁶ *ibid* 99

⁴⁶⁷ End User License Agreement < https://store.steampowered.com/eula/42160_eula > accessed 29 March 2020

⁴⁶⁸ Gregory Boyd (n 8) 105

issue exceeds the discussion on copyright law. Nevertheless, their enforceability is also questionable in accordance with the copyright laws of the respected jurisdictions.

In the US, the restrictions stipulated by EULA and TOS regarding the ownership rights would amount to a discussion on the first sale doctrine constituted under article 109 of the US Copyright Act stipulating that a rightful owner of a copyrighted work is allowed to sell or dispose such work without the authorization of the original right holder.⁴⁶⁹ Subsection B(1)(A) of this article, on the other hand, exempts computer programs from the first sale doctrine. However, this subsection is not applicable for “*a computer program embodied in or used in conjunction with a limited purpose computer that is designed for playing video games and may be designed for other purposes.*”⁴⁷⁰ In fact, this subsection has been designed to be applicable on the limited purpose computers that are solely designed for playing video games such as consoles.⁴⁷¹ Therefore, this provision covers insignificant amount of video games because video games that might be played on computers that are capable of doing tasks other than playing video games would not be considered under this provision and it would not also be effective when today’s online and digitally distributed video games are taken into consideration. Nonetheless, since the exception of first sale doctrine is applicable for computer programs this consideration relies on classifying video games as computer programs under the US Copyright Act. Regardless, the industry would specifically indicate the term of “*no ownership*” since the first sale doctrine is not applicable for any person who acquired possession of a copyrighted work from the copyright owner without acquiring ownership of it.⁴⁷² Thus, the wording of these contracts makes a significant difference in case of a discussion regarding the first sale doctrine. US courts tend to uphold contractual and EULA terms if the

⁴⁶⁹ 17 U.S.C. s. 109(a)

⁴⁷⁰ 17 U.S.C. s. 109(b)(1)(B)(ii)

⁴⁷¹ Alice J. Won, ‘Exhausted? Video Game Companies and the Battle Against Allowing the Resale of Software Licenses’ (2013) 33 J. Nat’l Ass’n Admin. L. Judiciary Iss. 1 388, 403

⁴⁷² 17 U.S.C. s. 109(d)

user is designated as a licensee or the provisions of such contracts constitute rights outside of the copyright.⁴⁷³ For instance, in *Davison & Associates Inc. v. Internet Gateway* case, where a third party program for hacking that is used as an alternative service replacing Blizzard's "Battle.net" launcher, the court found that contractual claims of Blizzard on banning players, who paid for Blizzard's game and entered into the EULA and TOS, from their servers due to cheating and hacking have constituted rights that were not within the scope of copyright.⁴⁷⁴ Again, in *MDY Industries v. Blizzard Entertainment Inc.* case, copyright infringements due to contractual relationships have been limited to existence of "*nexus between the condition and the licensor's exclusive rights to copyright.*"⁴⁷⁵ Therefore, since most provisions of EULA and TOS are regulated with respect to how to play the game in question and non-permissible activities, they have been considered under the ordinary contract law even though they affect the terms of the first sale doctrine. Nevertheless, their enforceability is not yet clear when rights, exceptions and remedies established under the US Copyright Act are considered. Consequently, terms of the contracts imposed by the industry would be permissible under the state contract law, however, the terms restricting rights of copyright would be considered as non-permissible in the US and, therefore, EULA and TOS would not provide the industry with the protection regime that they seek to imply.

In the European Union, the copyright directives set forth different approaches on the relationship between contractual freedom and the copyright law. For instance, article 9 of the Information Society Directive states that "[t]his directive shall be without prejudice to provisions concerning [...] the law of contract."⁴⁷⁶ In contrast, article 6(4) allows agreements between rightsholders and concerned third parties on TPMs to make exceptions under article

⁴⁷³ Won A. (n 471) 414

⁴⁷⁴ Won A. (n 471) 412; *Davidson & Assocs., Inc. v. Internet Gateway*, [2004] 334 F. Supp. 2d 1164, 1175

⁴⁷⁵ *MDY Indus., LLC v. Blizzard Entm't, Inc.*, [2011] 629 F.3d 928, 941 9th Cir.

⁴⁷⁶ Directive 2001/2009/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 *OJL 167, 22.6.2001* art 9

5 inapplicable.⁴⁷⁷ This provision is also strengthened by the recital 53 of the Information Society Directive⁴⁷⁸ stating that where interactive on demand services “*are governed by the contractual arrangements, the first and second subparagraphs of Article 6(4) should not apply.*” In other words, this recital states that when such services are governed by agreements, the exceptions and limitations established under article 5 of the directive would be made inapplicable. Video games are mostly consumed with interactive on demand services. Therefore, the above-mentioned provisions of the Information Society Directive make the enforceability of such contracts uncertain. However, it needs to be mentioned that provisions of EULA and TOS might not be permissible under other areas of law in the European Union. Since such a consideration would exceed the purpose of this thesis, it will not be discussed any further. However, this discussion also includes copyright concerns as is discussed under the US copyright law.

Similarly, the Information Society Directive and the Computer Programs Directive establish the exhaustion doctrine that is known as the first sale doctrine in the US.⁴⁷⁹ In the European Union, the important issue on the exhaustion principle centers the applicability of this principle on downloadable content. In *UsedSoft* case, ECJ found that within the context of the Computer Programs Directive, the exhaustion principle is also applied for downloadable software.⁴⁸⁰ On 17 September 2019, accordingly, the Paris Court of First Instance delivered a decision on applicability of the exhaustion principle on video games that have been marketed through the online stores.⁴⁸¹ In this case, among other claims, a French consumer organization claimed that prohibition of resealing video games that has been stipulated under the agreement enforced by Valve to use their online service called “*Steam*” was illegal and the court found

⁴⁷⁷ *ibid* art 6(4)

⁴⁷⁸ Russell J. (n 319) 48

⁴⁷⁹ Directive 2001/2009/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 *OJ L 167, 22.6.2001*, art 4(2)

⁴⁸⁰ Case C-128/11, *UsedSoft GmbH v. Oracle Int’l Corp.* [2012] ECLI:EU:C:2012:407

⁴⁸¹ 2019 TGI Paris, 17 Sep N° RG: N° RG 16/01008 - N° Portalis 352J-W-B7A-CHASA

Computer Programs Directive as the governing directive and by referring the UsedSoft case it has considered that the exhaustion principle covers both tangible and intangible copies, therefore, consumers are allowed to resale video games that have been digitally purchased.⁴⁸² These cases have been interpreted that the ownership rights in relation to digital copies accorded in EULA and TOS are inapplicable in the European Union. However, such considerations do not reflect the reality. Firstly, the UsedSoft case has been rendered on a “*pure software*” and the ECJ has excluded service and maintenance agreements, that cover updates in digitally sold video games, from the scope of the exhaustion principle. As is discussed under the legal classification of video games in the European Union, in Nintendo v. PC Box case, the Information Society Directive has been assigned as the governing directive for “*hybrid works*” such as video games. Therefore, the decision of the Paris court that considered video games as computer programs and applying the exhaustion principle by referring the Computer Programs Directive as *lex specialis* and UsedSoft decision contradicts with the decision rendered by the ECJ in Nintendo case. Secondly, other member states and the ECJ have been rendered decision on the application of the exhaustion principle on downloadable mediums. In 2010, before the UsedSoft decision, a German consumer protection group has sued Valve due to account registration on their online service “*Steam*” to play their video game and prohibition of resealing this game between the registered accounts and the court has distinguished the physical copy from compulsory registration of accounts that results a restriction on the resale of digital copies and it upheld the provisions stipulated under the EULA of Valve.⁴⁸³ After the UsedSoft decision, the same consumer protection group reissued the case by relying on the UsedSoft case but, again, the court has not considered video games as software and refused to

⁴⁸² Melinda Rucz, ‘Does the doctrine of exhaustion apply to videogames purchased digitally? French court says oui’ (2019) Kluwer Copyright Blog <<http://copyrightblog.kluweriplaw.com/2019/12/12/does-the-doctrine-of-exhaustion-apply-to-videogames-purchased-digittally-french-court-says-oui/>> accessed 30 March 2020

⁴⁸³ I ZR 178/08

apply the exhaustion principle on digital sales.⁴⁸⁴ The ECJ also applies the German approach for hybrid works subject to the Information Society Directive. For instance, in *Allposters* case, the ECJ found the exhaustion principle applicable for only tangible mediums of works within the scope of the Information Society Directive.⁴⁸⁵ In the recent *Tom Kabinet* case where the exhaustion principle on downloadable e-books are discussed, the ECJ has considered the action of the reseller as communication to public under the Information Society Directive rather than the distribution right that provides the exhaustion principle for copyrighted works.⁴⁸⁶ This decision has been rendered on 19 December 2019 and, therefore, it has been rendered after the decision of the Paris court. A consideration on e-books is important for an exhaustion discussion on video games because both mediums are hybrid works considered under the Information Society Directive. In light of these decisions, opinions on European disregard to EULA and TOS terms would not reflect the reality. In case of digitally sold video games, the terms of EULAs and TOSs regarding the ownership rights would be permissible. However, it not yet clear whether other copyright subjects could be restricted by contractual relationships.

The protection measures launched by the industry, in fact, reveals the lack of a consistent protection regime on video games. The current measures would not be sufficient to deliver the protection regime that would establish the balance between the rights of the industry and players. TPMs and DMR technologies seem outdated and insufficient because the industry moves towards to subscription systems as is observed in music and movie industry. Regarding to the contracts, the enforceability of such contracts is debatable and if they are deemed fully

⁴⁸⁴ 15 O 56/13; *Rucz M.* (n 482)

⁴⁸⁵ *Russell J.* (n 319) 50; Case C-419/13 *Art & Allposters International BV v Stichting Pictoright* [2015] ECLI:EU:C:2015:27

⁴⁸⁶ Case C-263/18 *Nederlands Uitgeversverbond, Groep Algemene Uitgevers v. Tom Kabinet Internet BV and others* [2019] ECLI:EU:C:2019:1111

permissible, they provide the industry with excessive rights that restrict and violate rights of players. Such provisions force video game players to undertake bundle of terms that would grant them nothing on a medium that they have purchased. Therefore, the established one-sided relationship would not be a sustainable solution when the aims of copyright promoting science and art are considered.

7. A SUI GENERIS COPYRIGHT REGIME FOR VIDEO GAMES

Video games have evolved to a product that contributes cultural heritage and generates significant amount of revenues under today's entertainment market. Yet, the legal protection amounted to them under the current copyright regime is not capable enough to handle such complex work of authorship. This phenomenon has been endeavored to be revealed under the above chapters in this thesis. It has been observed that the prominent issues are; the legal classification of video games that affects and determines the protection regime and, therefore, the authorship distribution, to be conferred upon them; current copyright laws' disability to respond the technological and industry developments in the field of user generated contents that played a significant role after the inclusion of internet in video games; and the unjust environment established by the one sided contractual impositions carried out by the industry stakeholders to the final consumers. In addition, it has been also observed that such approaches show variety according to the country in which the protection is sought due to different understandings towards the provisions of the copyright protections.

As a result of the lack of provisions regulated for video games in international or domestic level, the legal classification of video games moved towards classifying video games under the existing copyright regimes whether through the distributive or unitary approaches in the jurisdictions subjected to this thesis. Therefore, video games have been granted with bundle of rights that have been prominently observed as rights established for audiovisual works and computer programs. This movement has constituted an uncertainty on which elements of video

games are protectable according to the classification preferred in a jurisdiction in question. Both considerations have neglected the protection of certain parts because these traditional works of authorships are designed for handling the works that are not necessarily similar to video games in many ways. Besides, the traditional rights accorded for abovementioned works such as authorship rights and exceptions and limitations have created significant legal gaps since application of such authorship distribution and the rights created multiple right holders on one medium and bundle of rights that are not capable of being applied to establish a fair system on the exploitation of video games.

This issue has been particularly tested in the context of the UGCs. In this thesis, it has been tried to demonstrate that the existing exceptions and limitations of copyright are far from being able to cope with the possible justifications of the acts of third parties on video games that seek to create subsequent contents to the original work of authorships. In this point, it has been observed that both US and European mechanism to justify such acts were established for traditional works of authorships and they could not be adjusted properly to the exploitations of video games. In other words, the US fair use doctrine and European copyright exceptions constituted under the Information Society Directive are not capable of dealing with an interactive, complex and constantly developing work of authorship. Therefore, considering such actions under the exceptions accorded for traditional works of authorships has caused an uncertain and unprotected environment for people who seek to create such contents and, indeed, it hindered the development and variety in the realm of video games.

The industry's distrust, on the other hand, would be observed through the TPMs and contracts launched by them. Since the current copyright regimes left many points open, the industry moved towards the excessive protection measures that caused an imbalanced relationship between the industry stakeholders and the final consumers. The current status of such relationship is not sustainable and threatens the rights of the consumers in various aspects.

Three considerations would be inserted in this point. The first one would be the take hands off approach that means preserving the current system. As is discussed in this thesis, the current copyright protection regimes are the reasons of the legal uncertainties and issues in this area.

The second would be classifying video games under an existing copyright regime. First of all, all jurisdictions have different understanding and applications for traditional works of authorships. Therefore, this approach would also result different protection regimes in line with the consideration of the idea/expression dichotomy and other copyright doctrines applied in the jurisdiction in which the protection is sought. Furthermore, it would not also disable the different classifications of video games in an existing category. For instance, notion of audiovisual works in US, UK and Germany are different from each other and Germany provides audiovisual works with different classifications under film works, moving images or photogenic works that grants different levels of protection to the work in question. Second, such approach would provide a thinner protection regime than the existing regime because classifying video games under certain traditional category would disregard the other elements of video games that are highly valuable. For instance, classifying them solely as computer programs would exclude audiovisual elements from the scope of the protection and, this would mean that the stakeholders would not obtain protection on the visuals that contain the real financial value in today's video games market. Therefore, the current regime, especially the distributive approach that allows the industry to seek protection on different elements of video games, provides them with even more than a regime to be established under a traditional work of authorship. It would be stated that such approach would create harmonization for the copyright regime to be applied on video games to some extent. Nevertheless, it would also undermine the protection and leave video games with even more lack of certainty and would endorse the excessive contractual impositions to higher levels.

The third would be establishing a sui generis copyright regime for video games. This approach would address and cope with the issues discussed under this thesis since it could be able to provide a regime adjusted for video games specifically. In this point, this thesis endeavors to carve out a sui generis copyright regime for video games briefly. Before starting, it should be stated that such regime needs to be discussed in international level as is observed for the regime adopted for computer programs because video games operate regardless any borders due to the last developments on internet and its demolishing effects on borders of countries. It, of course, is a complicated and difficult process when the necessity of agreeing upon the terms in the presence of policies and approaches adopted by different countries. Nevertheless, a tangible solution is destined to be discussed internationally. This would not only provide video games with mutual understanding and consideration but also consolidate the enforceability of the provisions that would be enacted upon such law-making process. Therefore, the regime briefly proposed here aims to be discussed in international level.

The sui generis copyright regime would no longer classify video games under existing copyright regimes. Rather than that it would classify video games as separate work of authorship with the rights to be applied on products considered as video games within the scope of such regime. In order to do so it needs to determine the scope of the regime. Since video games are constantly developing and changing materials, determining the scope of the sui generis regime should be handled delicately. In this point, a regime without a definition would be suggested as it is observed in the European Union regarding the computer programs. It might be a pragmatic approach to provide the regime with reflexivity for the developments or innovations to be observed. However, this would also mean that the scope of such regime would be subjected to national courts' discretions that would ultimately cause different applications on the determination of the subject matters. In order to avoid the similar legal uncertainties, a definition should be enacted to determine the subject matter to some extent.

Accordingly, a definition that would form the scope of this regime needs to be flexible enough to be able to cover the possible deviations that might be observed in the future. The definition that is provided under chapter 2.1 by compiling Lull's, Zimmermann's and Ramos's definitions and defining video games as *"a complex work of authorship that involve human interaction while executing a rule – based system with quantifiable outcomes through a computer program on specific hardware"*, would be referred in the regime to be established. However, *"on specific hardware"* part would be problematic although it is a valid consideration for today's video games because dependence of a hardware to play video games slowly becomes an irrelevant phenomenon due to the technological developments and this might not be the case for following years. Therefore, the definition should be considered without attaching video games to a specific hardware. In addition, the provided definition is capable of including various forms of video games while narrowing the scope of subject matters in order to distinguish them from other works of authorships.

Regarding the idea/expression dichotomy, a similar approach to the current idea/expression dynamics would be appropriate for video games. However, it still needs some specific adjustments to make certain points clear. It would be better to avoid a fixation requirement to be considered as eligible for copyright protection under this regime because the fixation requirement is an outdated concept and video games are mostly considered as fixed. Besides, this approach would ease the fixation discussions on massive multiplayer games and the games that allow players with altering the environment of such game. One may assert that it could promote the reach of the industry on the contents to be created by third parties because such approach could provide them with having rights on the contents that were not intended to be created by developers. However, this could be adjusted through the rights to be designed for authorship distribution that will be discussed below.

In terms of originality, video games should be considered as whole under the requirements to be established for video games instead of evaluating the originality requirements for each element. The US approach before the Tetris case would be preferable in this point to adjust the originality criteria for video games because it has provided video games with being considered as work of authorships while excluding mechanics and features belonging to the mere gameplay aspect. The new regime should also exclude mere gameplay mechanics since they might constitute unbreakable monopolies on ideas that would hinder the process of developing new video games. As an alternative solution, the mechanics and technical aspects of gameplay could be subjected to patent protection instead of a copyright-based solution.

One challenging point would be determining which originality criteria to be applied on the works of authorships that might be found eligible for copyright protection under the existing copyright regimes and that are included in video games since such works might also be exploited apart from the final product. In this point, a dual mechanism would be suggested. In general, all separate works such as audiovisual elements and computer programs should be considered under the new regime when they are used and referred in the context video games. Therefore, the originality requirements need to cover the features considered for both computer programs and audiovisual elements such as GUIs, source and object code, and single frames. On the other hand, such elements need to be considered under the regime that has been already adjusted for them when they are exploited separately. For instance, a computer program used in a video game should be evaluated in the context of the originality criteria to be established for video games. However, when it is exploited separately such as licensing the game engine, it could be considered under the regime established for computer programs. The new regime needs to provide such system because video games usually use same game engines due to time and financial concerns. Besides, the audiovisual elements are exploitable separately in many

ways. Therefore, such system could secure being able to exploit the elements commercially to satisfy industry needs.

Issues regarding the authorship distribution occupies significant amount of legal discussions on video games. This new regime, indeed, is required to touch upon the authorship rights. The complex authorship schemes as is observed in the system established for audiovisual works cause issues on the distribution of authorship for video games because video games include significant amount of people in a single project. Therefore, the new regime would carve out an authorship distribution by considering video games as whole rather than referring the authorship rights established for separate elements of video games. In the realm of video games, publishers are the ones who bear the financial risk of video games during the creation and distribution processes. Game directors, on the other hand, create the final version of video games by composing the separate parts created by artists and software engineers. Therefore, publishers and game developers, in fact, establish the most significant part of the creation process and consequently, they should be nominated as main authors of video games in the new regime. Accordingly, automatic transfer of authorship rights to publishers and game directors on the works used in video games would be the solution to disable the issues occurring due to co-authorship mechanism and other authorship rights of traditional works. However, this new regime should also allow parties to agree on the terms that could constitute different authorship structures. Such structure is necessary because video games are not always created under employer and employee relationship. Therefore, third parties that contribute the creation process should also be able to negotiate the terms in which they would agree upon. The automatic transfer of rights would solve numerous issues when the video game in question is commercially exploited. Nonetheless, it would be more beneficial to limit this structure with agreements entered into in B2B level because the rights regarding the business to consumer level needs to be adjusted specifically due to the reasons discussed under above chapters.

The clashes between the rights of the industry and players of video games have been discussed under the chapter devoted for user generated contents and measures launched by the industry. Regarding the user generated contents, content creators exploit assets of video games in order to create new forms of expressions and generate revenues. As is discussed before, the existing mechanisms that might be referred to justify such uses are not capable of establishing a balance between the interests of the industry and the content creators. Therefore, a compulsory licensing system would tackle with the issues regarding the authorship discussions on the UGCs. This compulsory licensing system could be adjusted separately for streams and Let's Play videos or any other equivalent form of expression, and for UGC that might alter video games on technical basis.

The issues regarding streaming and Let's Plays could be solved by obliging the industry to enter into automatic licensing agreements that would secure the authorship rights of the industry on the parts used in such contents and rights of content creators on the new form of expressions for further commercial exploitations. In addition, this compulsory license would kick in when content creators use the audiovisual assets of video games through the videos in question in order to make revenues. Through such system, the industry could keep their rights on the works to be created by the content creators and the content creators would obtain more secure environment that could prevent the industry from taking the content down by unreasonable take down notices. In this point, rights to issue a takedown notice should be limited to acts of illegal uses that might damage the reputation and dignity of the author of the original work. The contents created for criticism created by using insignificant amount of assets should be excluded from the scope of such licensing system and exempted from the scope of copyright infringements completely because taking the opposite approach that would force content creators of reviews to enter into licensing agreements would hinder the transparency and authenticity of such contents. Therefore, the compulsory license should be

adjusted for the other categories of videos that have been already explained under chapter 5 and, indeed, instead of a fee to be paid to the author of the original work, the license needs to adjust a revenue distribution system in order to compensate the industry's potential loss of a right. However, such revenue distribution system needs to be adjusted delicately since the amount might show verity depending on the way in which the elements of video games are exploited.

Regarding other UGCs, mods that are created for private uses in video games that do not allow players to interact with other players and to affect the gameplay experience of other players do not create issues. However, once they are subjected to the market of mods, they could hinder the rights of authors of the original work since they might affect the right of authors to create subsequent works depending on the original work. On the other hand, these mods increase the re-playability of existing video games that might increase the number of sales on the original work because these modes usually operate within the original works and therefore, obtaining the original work is required to set these mods up. Again, a compulsory license that would secure the authorship on the original work and allow mod creators to market such modes in exchange of the amount of revenues to be made out of such moods could be a just solution. Nevertheless, a distinction between video games that do not provide an online multiplayer environment and video games that establish the abovementioned feature needs to be enacted. Since fair and just environment needs to be secured by the developers in multiplayer games for establishing a playable multiplayer game, right to restrict the usage of some modes that could put other players in a disadvantaged position could be excluded from the scope of such compulsory license. Other UGCs such as in game items and character designs brings another discussion on property rights of virtual assets. This subject needs to be discussed in a wider research because it includes various aspects that would exceed the limits of this master thesis. Therefore, the legal consideration of such works is not included here any further.

TPM and DMR technologies should be considered out of the scope of the new regime. The scope of these anti-piracy tools exceeds the limits of a discussion on video games. Therefore, they need to be considered under the legal acts constituted for them. However, the new regime would address the contracts executed between consumers and the industry. The new regime should not allow derivations from the provisions to be enacted regarding business to consumer relationships. Therefore, provisions existing in EULAs and TOSs with respect to copyright should be enforceable as long as they comply with the provisions to be constituted under the new regime. In this point, digital exhaustion should be accepted for video games in this new act and compulsory account registration on digital markets should be disregarded because such terms existing in EULA and TOS, in fact, establish an unbalanced relationship favoring the industry and cartels in video game industry. Therefore, the buyers should be considered as owners instead of mere licensees. However, if the video game in question is provided as a service that include servers to play, the developers should be able to shut the servers down or terminate the services by financially compensating players' losses. Also, this provision needs to be limited for certain period of time since it is not also reasonable to impose such obligation to the industry for indefinite period of time. In line with this approach, the ownership rights on accounts and in game characters that are not transferred to players in accordance with EULA and TOS would be transferred to players in accordance with the time period to be established. However, the game developer needs to be able to terminate such accounts and characters in case of an act of a player that violate rules of games in online multiplayer environments.

In this chapter, two possible approaches to solve the current issues on copyright and video games have been discussed and it has been observed that they are not capable of handling video games under the current circumstances because video games develop and evolve each day and it is not possible to handle them by copyright regimes designed for stable and traditional works of authorships. Following such consideration, it has been proposed that a sui generis copyright

regime established for video games could be the solution to cope with such issues. Although, this thesis has endeavored carve out a brief sui generis regime that only touches upon the prevailing points, the possible solutions demonstrated in the above paragraphs could cope with the various issues that are observed under today's video game market. Therefore, further discussions are needed in the international level to establish a fair and just protection system for the most valuable entertainment product.

8. CONCLUSION

Video games are the mainstream entertainment products of this century and they are enjoyed by billions of people today. Consequently, it became a billion-dollar industry in today's market. Therefore, they cannot be considered as a product associated with some "nerds" anymore. Rather than that it is a strong industry dominating the entertainment market and promoting the art and science through its innovations and developments on both technology and forms of art. Yet, the number of academic researches on the legal status of video games are quite limited although the existence of significant amount of legal uncertainties is apparent in this field. These legal uncertainties have occurred due to the nature of video games that pushed the boundaries of intellectual property rights by unique expressions that blurred traditional roles of artists and people who consumed such creations. In this point, it has been considered that copyright is the most relevant intellectual property right with respect to video games since the works used in video games could be already considered under the existing traditional copyright regimes. Therefore, capability of copyright on handling video games has needed to be tested in order to understand the reasons of such uncertainties. Therefore, this thesis has indented to conduct a research on this subject matter to reveal what current copyright acts have to offer to handle such a complex and developing product. The subsequent aim was to discuss possible solutions in case the current copyright regimes are found inadequate to cope with such issues.

Accordingly, video games have been discussed in this thesis within the scope of copyright regimes applied in the jurisdictions subjected to this thesis. It has been observed that the legal classifications adjusted in accordance with the existing copyright laws have established bundle of rights in a single product that are applied differently in respected jurisdictions. In line with this observation, the current status of video games and the issues have been discussed throughout the chapter 3 and 7. As a concluding finding, video games are mostly protected as audiovisual works and computer programs. Since the provisions adjusted for these works are meant to deal with products reflecting the common features of such works, the existing copyright regimes could not be considered as capable enough to handle video games because their provisions do not include mechanism to deal with the features existing in video games. Application of such provisions has caused complex authorship structures and excessive contractual impositions. In addition, since the technological developments have included players into the creation processes, the exceptions and limitations doctrines of copyright has been tested again and it has been observed that the existing doctrines are not also capable to cope with these new forms of expressions. Therefore, this thesis has proposed a sui generis copyright regime for video games that could cope with the issues observed due to the abovementioned deficiencies.

A sui generis copyright regime classifying video games as a separate work and adjusting the authorship, related and neighboring rights needs to be discussed internationally for video games. Such movement could cover most of the legal issues observed today and it would be beneficial to take such action internationally because the video games' industry operates without any borders. In this thesis, a brief sui generis regime has been provided. The proposed regime has addressed the prominent points that were subjected to legal discussions and cases. In particular, the new regime could solve issues on authorship by automatic transfers and could cope with unjust practices carried out by the industry through compulsory licensing systems.

Indeed, such process needs to be handled delicately by considering national policies on copyright and it should endeavor to establish the balance between the industry and consumers.

It is evident that video games need a sustainable and reliable protection regime when their position in the international market is taken into consideration. They are developing each day and they bring something new to discuss. Therefore, further academic researches and discussions on a specific regime to be adjusted for video games are required. It should be admitted that carving out such a regime is not an easy task. However, video games deserve the attention in our world today. Finally, it would be appropriate to conclude this thesis by stating that “once a gamer always a gamer.”

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