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Legal Dimensions of Video Game Modding

A Comparative Analysis of EU, US, and
International Legal Frameworks

Marisa Pauline Rabiolo

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Abstract

This thesis investigates the legalities surrounding the creation of modifications (mods) for video games, focusing primarily on European Union law with comparisons to U.S. and international legal frameworks. The subject matter addresses how user-generated content, such as game mods, interacts with copyright laws and the challenges that arise in the digital era. The purpose of the study is to examine under what circumstances, if any, video game modifications are legal under EU law, and to explore the implications of these legalities on the broader gaming industry.

The research questions driving this investigation are: In which circumstances are modifications of video games legal under the laws of the European Union? How do these laws compare to those in the U.S. and other international jurisdictions? What are the potential legal exceptions and defences available to modders?

The methodology involves a legal dogmatic approach, analysing primary EU laws, including directives such as the Computer Programs Directive and the InfoSoc Directive. The study also incorporates case law and articles from legal journals to provide a comprehensive understanding of the legal environment.

The conclusions indicate that while EU law provides robust protection for the original works, there are nuanced exceptions and defences such as implied license, cultural preservation, and new technological advancements that can apply to video game mods. Additionally, the study highlights the importance of alternative dispute resolution mechanisms in managing cross-border legal issues in the gaming industry.

Keywords: Video game modding, copyright law, EU law, mods, implied license, InfoSoc Directive, alternative dispute resolution, digital rights management

Abbreviations

API	Application Program Interface
BIOS	Basic Input/Output System
CFAA	Computer Fraud and Abuse Act
CJEU	Court of Justice of the European Union
DMCA	Digital Millennium Copyright Act
DOTA	Defence of the Ancients
DRM	Digital Rights Management
DVD-ROM	Digital Versatile Disc - Read Only Memory
EPC	European Patent Convention
EPO	European Patent Office
EU	European Union
EULA	End User Licencing Agreement
IP	Intellectual Property
Mods	Modifications
PC	Personal Computer
RQ	Research Question
SAS	Statistical Analysis System
SKSE	Skyrim Script Extender
TOS	Terms of Service
TPM	Technological Protection Measure
UCC	Uniform Commercial Code
US	United States
USD	United States Dollars
VCR	Videocassette Recorder
WIPO	World Intellectual Property Organization
WPL	World Programming Ltd
WPS	World Programming System

1 Introduction

1.1 Background

The digitalization of entertainment and widespread access to the internet have revolutionized the video game industry, leading to the rise of amateur and semi-professional content production. An example of this community-driven creativity is the popular life simulation game, *The Sims*, wherein approximately 90% of the game content is created by users.¹ The growing global aspect of the game industry, exemplified by platforms like Steam, host video game communities in 237 countries and offer services in 21 languages², demonstrating the global and extensive nature of modern gaming.

Over the last several decades, the video game industry has grown into one of the most profitable sectors in entertainment. *Forbes* reported that the global market was expected to reach about \$82 billion in 2017, up from an estimated \$67 billion in 2012.³ However, the growth far outpaced predictions, and by 2022, the market's value had surged to over \$200 billion USD.⁴ This rapid growth highlights the industry's economic impact and its rising cultural importance.

Due in part to this success, the industry faces significant legal challenges and grey areas, largely involving the most valuable aspects of the industry, intellectual property (IP) rights. The primary concern of most developer companies is therefore protecting their works from being exploited without their consent.⁵ Additionally, stringent targets set by publishers have fostered a risk-averse environment, leading to a heavy reliance on established franchises and unwillingness to take risks and develop innovative content.⁶ This trend has prompted criticism that the industry's approach to innovation has become increasingly conservative, hindering genuine creative advancements.⁷ Instead of fostering competition and diversity, originality is often seen as a risky venture.

In this context, user-driven innovation has become increasingly popular. A prime example is *Counterstrike*, originally a user-created modification of the popular PC game *Half-Life*, turned into a game of its own, which has sold over 4.2 million units to date.⁸ This underscores the economic possibilities and significance of video game modifications. As users become more aware of the financial value of their

¹ Hofman-Kohlmeyer M, 'Brand-Related User-Generated Content in Simulation Video Games: Qualitative Research Among Polish Players' (2021) 29(1) CEMJ, p. 62.

² *Ibid.*, p. 63.

³ Münch M, 'Fooling the user? Modding in the video game industry' (2013) 2(2) IPR, p. 1, 2.

⁴ Toscano L, Suarez O and Gkoritsa A, 'Resolving Video Games and eSports Disputes: How Can WIPO's Alternative Dispute Resolution Options Help?' (2023) WIPO <https://www.wipo.int/wipo_magazine_digital/en/2023/article_0018.html> accessed 14 May 2024.

⁵ Münch M, 'Fooling the user? Modding in the video game industry' (2013) 2(2) IPR, p. 1, 2.

⁶ *Ibid.*, p. 1, 2.

⁷ *Ibid.*, p. 1, 2.

⁸ *Ibid.*, p. 2.

contributions, game companies have also become more inclined to secure legal ownership of user-generated content.

The video game industry, being digitally native, follows various distribution models and generates revenue from multiple sources. Digital sales have become the dominant revenue stream, with digital revenues averaging five times higher than those from physical sales.⁹

The interplay between digitalization, community-driven content creation, and evolving revenue models has significantly shaped the video game industry. As the market continues to grow, with community contributions becoming increasingly vital to sales and longevity of game franchises, the balance between corporate control and user innovation will be crucial in determining the future trajectory of game development.

1.2 Purpose and research questions

This paper aims to examine the legalities surrounding the creation of modifications (mods) for video games. This topic is highly relevant because many mods are user-generated content that often lack a clear commercial aim and typically do not negatively impact the profitability of the original games. Given the complexities of European law and the cross-border nature of video games, this study seeks to address the following research question:

RQ: In which circumstances, if any, are modifications of video games permitted under the laws of the European Union?

Furthermore, this paper will include a comparison with US and international laws, as well as an assessment of the consequences of the international environment of the internet on cross-border use and modification.

1.3 Delimitations

The primary focus of this study will be on the legal framework within the European Union, with comparisons made to US law and international law, though the in-depth analysis will be limited to EU legislation.

The study will concentrate on PC and console games, as these platforms are most associated with user-generated mods, while mobile games and other platforms will not be extensively covered.

The research will specifically address copyright law, intellectual property rights, and user agreements, without delving into other legal areas such as trademark law or privacy issues. The analysis will be limited to user-generated content that modifies

⁹ Trapova A and Fava E, 'Aren't we all exhausted already? EU copyright and video game resales in the Games-as-a-Service era' (2020) 3(2) IELR, p. 77.

existing game mechanics, graphics, or features, with total conversion mods and standalone games created from mods discussed only to illustrate specific points.

The legal framework considered will be current as of the year 2023, with historical legal cases and precedents referenced only when directly relevant to current laws. The study will evaluate the legal implications and economic impacts of mods on original game profitability but will not explore broader economic theories or models. The perspectives considered will include those of game developers, publishers, and modders, with other stakeholders, such as gamers or legal experts outside the gaming industry, mentioned but not extensively analyzed. Specific case studies will be used to illustrate points, but the number of case studies will be limited.

1.4 Method and materials

This paper employs the legal dogmatic research method to examine its sources, focusing on primary EU law, specifically directives. The primary directives scrutinized are the Computer Programs Directive and the InfoSoc Directive. Following the principles of the legal dogmatic research method, these directives are analyzed internally, considering them within the context of the broader legal system.¹⁰ While societal, economic, and foreign contexts will be discussed, they will not influence the interpretation of these legal sources. Given the technical nature and specificity of this topic, the legal dogmatic research method is particularly suitable as it allows for detailed exploration and acknowledgment of nuances within the legal framework.

For EU legal sources, the works will be considered under a systematic interpretation, wherein the legal text is assumed to be cohesive in the grander scheme of the legal system.¹¹ This allows for a more nuanced discussion in terms of the *lex specialis* doctrine.

Additionally, court cases in this field, predominantly concentrated in the US, will be lightly examined. This examination is necessary due to the potential for US case law to inadvertently influence future EU cases, as well as to identify possible points of contention in cross-national disputes.

US cases are examined using Carr's process of merging law and the body.¹² This merges an understanding of the legal syntax and the framework giving context to the laws.¹³

Finally, relevant articles from law journals will be reviewed to provide a comprehensive understanding of the legal landscape surrounding video game modifications.

¹⁰ Smits, J. M., *What is Legal Doctrine? On the Aims and Methods of Legal-Dogmatic Research* (2015) Maastricht University, Maastricht European Private Law Institute.

¹¹ Lenaerts K and Gutiérrez-Fons J A, *To Say What the Law of the EU IS: Methods of Interpretation and the European Court of Justice* (2013) European University Institute, Academy of European Law, p.13, 14.

¹² Carr H, *Exploring the Law/Bodies/Space Regulatory Conundrum* (2022) Interdisciplinarity Research Process, Method, and the Body of Law, Palgrave Socio-Legal Studies, p. 53.

¹³ *Ibid.*, p. 54.

1.5 Outline

The text will be divided into five sections. The first section will be an introductory chapter that discusses the specific technical elements of the question and how they can fit into the EU's legal system. The second section will discuss US Law and Court cases to give an international baseline and provide a background to the next section. The third section will discuss what laws are applicable in the European Union as well as relevant court cases. The fourth section will discuss societal and economic factors. The final section contains the analysis and conclusions.

2 How modding is qualified

2.1 Definition of a video game

In order to preface modifications of video games, the technicalities that comprise aspects of video games must first be examined. A video game is an interactive digital entertainment medium created using a game engine, which is a collection of reusable software modules. These modules include a renderer, physics engine, sound system, and artificial intelligence, all of which require both significant time and financial investment to develop. The game engine serves as the backbone, providing the essential framework for game development by enabling rapid creation and implementation of various game elements. Game content encompasses art, sound, characterization, story, visual style, genre, and objectives, which are all designed and built using the game engine. Essentially, the game engine is the computer program that dictates how the game functions, facilitating the entire development process.¹⁴

2.1.1 How video game content is protected

In early 2001, a group of modders released a modification for the popular first-person shooter Quake 3, titled "Duke it out in Quake." This mod imported characters, weapons, and maps from the Apogee title Duke Nukem 3D into the Quake 3 game engine. This posed various copyright concerns for Apogee because players who did not own Duke Nukem 3D could now experience elements of the game if they owned Quake 3 and installed the mod.¹⁵ This incident highlights the complex nature of copyright issues surrounding game modifications. Though there was consent by the developers of Quake 3 for modifications to take place, the modders created a liability by unwittingly committing a copyright infringement against a third party, the developers of Duke Nukem 3D.

Although most mods are technically against the copyright of the original creators, the consent of game developers has allowed mods to thrive despite a lack of explicit legal protection. From a legal perspective, game mods are often considered as derivative works because they are based on preexisting works, such as the original game engine. A derivative work is one that has been recast, transformed, or adapted from its original form.

However, according to some legal scholars like Zvi Rosen, the classification of mods can be more nuanced.¹⁶ While traditional mods are considered derivative works, total conversion mods—which rely on the underlying engine of a game but produce a

¹⁴ 'Spare the Mod: In Support of Total-Conversion Modified Video Games' (2012) 125(3) HLR 791; Thomas A, 'Modding the Implied License Doctrine: An Estoppel License Framework for Video Game Mods' (2019) 47(4) AIPLA Q J, p. 553.

¹⁵ Postigo H, 'Video Game Appropriation through Modifications' (2008) 14(1) IJRNMT <<http://77cvg.sagepub.com>> accessed 12 March 2024.

¹⁶ Deng Z and Li Y, 'Players' rights to game mods: Towards a more balanced copyright regime' (2021) 43 CLSR, p. 4.

seemingly new game—might not be classified as derivative works. Instead, these total conversion mods could be seen as independent works deserving their own copyright protection. This has been the case for a number of high-profile works, such as the aforementioned Counterstrike, as well as Defense of the Ancients (DOTA) which was a modification of Warcraft III, which became independent games which the modders profited from.

The perception of the legal status of video games and their modifications varies across different jurisdictions. For instance, in Spain, some scholars reject the protection of video games as audiovisual works on the grounds that they are meant for interactive use rather than public projection.¹⁷ Conversely, certain court decisions in France have considered video games as complex works that cannot be classified uniquely.¹⁸ A comparative study on the legal status of video games commissioned by the World Intellectual Property Organization (WIPO) suggests that video games are hybrid products, blending elements of various types of intellectual property.¹⁹

Understanding the protection of video game content requires navigating these diverse legal landscapes and recognizing the evolving nature of game mods and what Intellectual Property Rights they possess. The different avenues of IPR protection are discussed in the following section.

2.1.1.1 Copyright law

Modern video games are complex works, composed of multiple elements subject to copyright protection. These elements can be divided into two main categories: audiovisual elements and software.²⁰ Audiovisual elements include literary works, images, video recordings, musical compositions, sound effects, and voice acting.²¹ The software is comprised of computer code, which manages the different audiovisual elements and enables interaction between the user and these elements.²²

Computer programs (software and databases) and audiovisual or cinematic works are both protected by copyright. This protection encompasses primarily the copyright in the code embedded in the medium, such as a DVD-ROM, cartridge, or downloadable file.²³ The code relates to all features of the game, both in its entirety or specific functional parts such as the graphical user interface, the artwork, the music score, and the spoken words.²⁴ Each of these various copyrights may be subject to different regimes and owned by different copyright holders. For instance, if a programmer copyrights a computer program, they are only copyrighting one of the many ways the program could have been written. To illustrate, the number 12

¹⁷ Rendas T, 'Lex specialis(sima): videogames and technological protection measures in EU copyright law' (2015) 37(1) EIPR, p. 3.

¹⁸ *Ibid.*, p. 3.

¹⁹ *Ibid.*, p. 3.

²⁰ Grosheide W, Roerdink H and Thomas K, 'Intellectual Property Protection for Video Games: A View from the European Union' (2014) 9(1) JICLT, p. 9.

²¹ *Ibid.*, p. 9.

²² *Ibid.*, p. 9.

²³ *Ibid.*, p. 9.

²⁴ *Ibid.*, p. 9.

can be written as $6 + 6$, $4 + 8$, $13 - 1$, 2×6 , $24 \div 2$, etc., the same principle applies to computer programs, where one expression of 10 is able to be copyrighted.²⁵

Source code clearly manifests the literary character of computer programs. Programs are typically written in human-readable source code in a particular programming language. Source code sets forth detailed instructions for performing specified functions in the microprocessor of a computer. When these instructions are transformed into machine-executable form, known as object code, the specified functions can then be carried out by the computer hardware and software platforms for which they were designed.²⁶ Object code consists of a set of electronic signals representing high and low voltages that instantiate source code instructions. Object code can be transformed back into a printable or viewable textual form by making a dump of the program code from a computer's memory or by decompilation. Object code is as much a literary work under the directive as source code. The scope of copyright protection for computer programs under the InfoSoc directive extends beyond source and object code. Translations of programs from one programming language to another and other adaptations, arrangements, or alterations to programs are within the scope of protection that the directive provides. Detailed preparatory design materials, such as flowcharts, are manifestations of program design that copyright law protects under the European Union.

Copyright law protects video games both as audiovisual works and as literary computer programs. This protection arises because modifications to a game, even minimal ones, create a new work saved in a permanent form. Such modifications, if unauthorized, would infringe on a developer's statutory rights unless the developer grants a license to the modder. Derivative works have the same rights and obligations under the Copyright Act as regular copyrighted works, but these rights and obligations extend only to the new elements added by the derivative work, not to the preexisting elements found in the source material.²⁷ Consequently, the owner of the source copyrighted work cannot claim ownership over the new elements in an unauthorized derivative work, although they can block the release of the derivative work.

2.1.1.2 Contract law

Another way that games can and are protected is through contracts. Often, when purchasing a game, you must agree to a game's Terms of Service (TOS) or End User Licensing Agreement (EULA) by clicking "agree" to log in and use the software. Licensing contracts in terms of video games, often boilerplate or non-negotiable agreements, are issued to multiple parties simultaneously. Today, TOS agreements serve as instruments for the secondary distribution of rights in the virtual world,

²⁵ *Ibid.*, p. 9.

²⁶ Toscano L, Suarez O and Gkoritsa A, 'Resolving Video Games and eSports Disputes: How Can WIPO's Alternative Dispute Resolution Options Help?' (2023) WIPO <https://www.wipo.int/wipo_magazine_digital/en/2023/article_0018.html> accessed 14 May 2024.

²⁷ Thomas A, 'Modding the Implied License Doctrine: An Estoppel License Framework for Video Game Mods' (2019) 47(4) AIPLA Q J, p. 554, 555.

allowing game developers to control how their copyrighted products and outputs are accessed, used, and regulated.²⁸

These agreements can be even more effective than copyright law in protecting and expanding copyright owners' rights, as they can cover areas not thoroughly addressed by copyright law. This includes control over game derivatives and players' creations within and beyond the virtual world. Smart click-wrap agreements require only that a player clicks on a button to agree to the terms. However, this method does not ensure that players have read or understood the content. Studies have shown that very few users read the contractual documents they sign, implying that most users enter into these agreements without any knowledge of their contents or potential implications.

This practice does not conform to general contract rules, which stipulate that the party providing the contract terms must inform the other party of any exclusions or restrictions of liabilities in a reasonable way. Some national laws have addressed this issue. For example, Article 497 of the Chinese Civil Code states that if the party providing the standard terms exempts itself from liabilities, increases the liabilities of the other party, or deprives the other party of material rights, the terms shall be invalid.²⁹ Some players believe this clause can be used as a defense against unreasonable TOS terms. Similarly, in the US, unconscionable contracts or clauses are unenforceable. Unconscionability is identified by unfair results (substantial substantive unconscionability) or an unfair negotiating procedure (procedural unconscionability) that cannot be implemented or enforced by the disadvantaged party.

Despite these protections, courts generally enforce click-wrap contracts regardless of potential inequity, because such contracts are made on the premise that parties have been given ample opportunity to read the terms of the contract. This highlights a significant disparity between the theoretical protection offered by these agreements and the practical reality faced by users who often remain unaware of the terms they are bound by.

2.1.1.3 Reverse Engineering

Reverse engineering is a process that may involve dismantling a copyrighted item to create a new product.³⁰ This is occasionally a process undergone for the purposes of modifying a game or gaming console. The EU Software Directive is notably permissive regarding "black box" reverse engineering, which involves running software under various conditions to observe its operations, understand the program's functioning, and infer the underlying ideas and principles from the program code.³¹ Significantly, the privilege of black box testing cannot be overridden by contract. This rule was adopted with the intent of ensuring that

²⁸ Deng Z and Li Y, 'Players' rights to game mods: Towards a more balanced copyright regime' (2021) 43 CLSR, p. 5.

²⁹ *Ibid.*, p. 5.

³⁰ Lee C, 'Video Game Modding in the U.S. Intellectual Property Law: Controversial Issues and Gaps' (2022) 3(4) DLJ <<https://doi.org/10.38044/2686-94136-2022-3-4-8-31>> accessed 13 March 2024.

³¹ Samuelson P, Vinje T and Cornish W, 'Does copyright protection under the EU Software Directive extend to computer program behaviour, languages and interfaces?' (2012) 34(3) EIPR, p. 4.

potential competitors can lawfully purchase copies of other programs to study them and develop similar products.³²

In contrast, the directive takes a more restrictive approach to other forms of reverse engineering, such as decompilation of the program's object code. Decompilation, or the unlicensed effort to recreate a facsimile of a program's source code through reverse compilation, is permitted only when it is the sole means to obtain the information necessary to achieve interoperability with other programs.³³

2.1.1.4 Patent law

Patents can cover almost any novel aspect of a video game product, including hardware, software, game engines, methods of communication between applications, and game interfaces.³⁴ Patentable innovations may include new technologies such as a novel way of communicating between avatars or a new hardware component integrated into a controller. Patents can also be obtained for improvements to existing technologies. Aspects of a video game that can be covered by patents include applied algorithms, display representations, menu arrangements, editing functions, control functions, user interface features, compiling techniques, programming languages, translation methods, utilities, formulas, and methods for controlling program execution or processing data.

The patentability of software is a contentious issue, ranging from no patent protection to protection only under strict conditions. In Europe, patenting computer programs as such is excluded by the European Patent Convention (EPC). According to this exclusion, the European Patent Office (EPO) maintains that software is not patentable unless it has the potential to cause a so-called "further technical effect" beyond the inherent technical interactions between the hardware and software. This policy ensures that only software innovations contributing to a technical field beyond their basic interactions are eligible for patent protection.

2.2 Definition of a mod

In the video game industry, modding is the act of changing a game, usually through computer programming with software tools not part of the game. These modifications, or mods, add new content to existing games and can range from minor bug fixes to complete overhauls, making the underlying game almost unrecognizable. Mod creators, or modders, are typically fans of the game and unaffiliated with the developer.³⁵ They may use official tools provided by developers or third-party applications. In the cartridge-based era of gaming, modding even involved unofficial hardware modifications.³⁶ Modding has been part of gaming

³² *Ibid.*, p. 4.

³³ *Ibid.*, p. 4.

³⁴ Grosheide W, Roerdink H and Thomas K, 'Intellectual Property Protection for Video Games: A View from the European Union' (2014) 9(1) JICLT, p. 11.

³⁵ Lindstrom C, 'Mod Money, Mod Problems: A critique of Copyright Restrictions on Video Game Modifications and an Evaluation of Associated Monetization Regimes' (2020) 11(3) WMBLR, p. 814.

³⁶ *Ibid.*, p. 814.

since its earliest days and has significantly impacted the industry, with many current blockbuster games tracing their origins to unofficial mods.³⁷

A mod alters a game or creates files for a game engine that modifies the gameplay style, graphics, environments, and models.³⁸ Modders do not have the same access to game resources as licensees do. For instance, licensees of the source engine have legal and physical access to almost every part of the engine, except for third-party proprietary sounds and physics libraries.³⁹ In contrast, modders do not have access to significant portions of the engine, including the source code for rendering, networking, and physics systems.⁴⁰ This limitation ensures that while modders can create significant changes, they cannot entirely replicate or replace the original proprietary technology.

Modifications of video games come in all different shapes and sizes. Sometimes the mods manifest as physical equipment, as will be discussed in *Galoob v. Nintendo of America* and *Nintendo Co. Ltd v. PC Box and 9Net* and sometimes they are purely net-based.

Video games are particularly well suited for 'transformative play,' where players modify the game to create a different experience for others.⁴¹ This involves decontextualizing and reshaping the computer code that represents images and gameplay.⁴² Fan developers often pass this code through a community, incorporating elements from their cultural experiences into the new gaming worlds they create.⁴³ Eventually, these modified versions are shared on the internet, where thousands can download and play the new code layered onto the old.

Players can generate new levels, challenges, characters, and even entire games by modifying game code using either in-game editors or external software development kits.⁴⁴ The most extensive type of mod is the total conversion, where modders replace the original game's content, including artwork, characters, plot, story, and music, with entirely new content that runs on the same engine.⁴⁵ While the game industry now invites controlled participation from game modifiers, it significantly limits how modders can profit from their creations.⁴⁶ Copyright is utilized as a key tool in maintaining the industry's control over user-generated mods.

2.2.1 Mod classification

According to John Baltica, user contribution in video games exists on a spectrum, ranging from minimal input by the user to substantial modifications or independent projects. This spectrum can be divided into four main levels. At the simplest and

³⁷ *Ibid.*, p. 814.

³⁸ 'Spare the Mod: In Support of Total-Conversion Modified Video Games' (2012) 125(3) HLR, p. 791.

³⁹ *Ibid.*, p. 791.

⁴⁰ *Ibid.*, p. 791.

⁴¹ Postigo H, 'Video Game Appropriation through Modifications' (2008) 14(1) IJRNMT <<http://77cvg.sagepub.com>> accessed 12 March 2024.

⁴² *Ibid.*

⁴³ *Ibid.*

⁴⁴ *Ibid.*

⁴⁵ *Ibid.*

⁴⁶ *Ibid.*

lowest level, content is generated strictly through the investment of time while playing or working within the game's rules. The second level involves exploiting the game environment or user tools to create other expressive content. The third level, which involves redefining the game, is achieved by modifying, adding, or enhancing the game's engine or original code to create a different type of game or a new game extension. The fourth and most complex level is repurposing the game, using the game engine, graphics, or other elements to create a new expression that is no longer a game.⁴⁷

A four-quadrant analysis of game mods considers the benefit-harm analysis. The first quadrant includes mods that are mutually beneficial to both the industry and players. These mods contribute to product branding without requiring additional investment from game developers, prolonging a game's shelf life and increasing its profitability through a long-tail sales effect.⁴⁸ Modders often seek to contribute to their communities by patching, updating, fixing, or improving games, thereby enhancing their enjoyment of gameplay.⁴⁹ Additionally, modding helps modders develop valuable skills that can make them more attractive to potential employers in the digital games industry.

The second quadrant includes mods that only benefit players.⁵⁰ These mods can harm the industry by violating IP rights, causing industry backlash, or nullifying the potential for-profit expansions of game content by offering free, high-quality mods. For instance, in the case of *Marvel vs. NCsoft*, Marvel successfully sued NCsoft for copyright infringement.⁵¹ Marvel argued that by creating a game where users could create heroes resembling Marvel characters, NCsoft was liable for both direct and contributory infringement, potentially harming Marvel's market for games.⁵²

The third quadrant includes mods that only benefit the industry.⁵³ A case highlighting the industry's benefit-only quadrant involves Bethesda and the third-party modification site Nexus Mods.⁵⁴ By November 2015, Nexus Mods had become one of the most popular online modding communities, with 10 million users.⁵⁵ Bethesda hosts its own modification community on Bethesda.net, but official downloads comprise just a fraction of the mods available for *Skyrim*, one of Bethesda's flagship games.⁵⁶ ZeniMax, Bethesda's parent company, terminates the account of any user responsible for repeated acts of intellectual property infringement. Nexus also prohibits posting copyrighted material without the copyright owner's consent. However, mods from Nexus are sometimes reposted on other sites without the modders' permission, and modders rarely commercialize their mods, mistakenly believing that non-commercial use is always fair under U.S. law (where the platform

⁴⁷ Deng Z and Li Y, 'Players' rights to game mods: Towards a more balanced copyright regime' (2021) 43 CLSR, p. 2, 3.

⁴⁸ *Ibid.*, p. 2, 7.

⁴⁹ *Ibid.*, p. 2, 7, 8.

⁵⁰ *Ibid.*, p. 3, 9.

⁵¹ *Ibid.*, p. 3, 9.

⁵² *Ibid.*, p. 3, 9.

⁵³ *Ibid.*, p. 3, 10.

⁵⁴ *Ibid.*, p. 3, 10, 11.

⁵⁵ *Ibid.*, p. 3, 10, 11.

⁵⁶ *Ibid.*, p. 10, 11.

is based).⁵⁷ Modders do receive status and recognition for popular mods, which is denied when someone else takes credit for their work. In 2016, Nexus site owner DarkOne publicly condemned Bethesda for not doing enough to police stolen mods reposted on its official website, accusing Bethesda of contributing to intellectual property infringement.⁵⁸

Further, despite potential social harm, Bethesda appears to tolerate nudity mods on personal computers as long as their terms of service are not violated.⁵⁹ For example, the mod Caliente's Beautiful Bodies Edition has been downloaded at least 8.2 million times.⁶⁰ However, nudity mods violate both Sony PlayStation's and Microsoft Xbox's terms of service and are usually deleted shortly after the first reports of downloads, with responsible parties suspended or banned. This suggests that Bethesda benefits from these mods as long as they do not violate their terms of service. This quadrant of the model indicates that as long as a company benefits, it may be indifferent to who else is harmed by a mod and may decline to use its legal remedies.

Another example involves Skyrim Script Extender (SKSE), a popular free mod framework.⁶¹ In February 2019, SKSE developers discovered their code in another commercial project, Skyrim Together, leading to a lawsuit for violation of the license and for charging access to a closed beta.⁶²

The fourth quadrant includes mods without any benefit, such as cheating mods, poor-quality mods, and mods enabling nefarious acts in gameplay.⁶³ Game developers defend against reverse engineering of their game code through technological protection measures (TPMs), forbidding the circumvention of game codes in TOS, and enforcing copyrights in court.

User contributions in video games span a wide spectrum, from simple in-game actions to complex modifications and independent projects. The industry's response to modding varies depending on the perceived benefits and potential harms. While some mods are mutually beneficial, others may only benefit players or the industry, and some provide no benefit at all. These technicalities and the wide range of possibilities for how a mod can be and how not only the developers, but the fans, fellow modders, and industry as a whole responds, can have a substantial effect on the legal ramifications of a mod.

2.2.2 Approaches

Companies adopt various approaches to modding, ranging from permitting users to create and sell mods or full games, providing modding tools, and allowing donations to support mods, to tacitly permitting mods by turning a blind eye, enforcing strict legal and technological controls, and taking outright legal action to prohibit the

⁵⁷ *Ibid.*, p. 10, 11.

⁵⁸ *Ibid.*, p. 10, 11.

⁵⁹ *Ibid.*, p. 10, 11.

⁶⁰ *Ibid.*, p. 10, 11.

⁶¹ *Ibid.*, p. 10, 11.

⁶² *Ibid.*, p. 10, 11.

⁶³ *Ibid.*, p. 12, 13.

production and distribution of some or all mods.⁶⁴ These different responses to mods often arise from legally similar cases, indicating that the law serves as a tool rather than the sole determining factor.

For example, Nintendo has taken a stringent stance on protecting its intellectual property. In one instance, Nintendo sent a cease-and-desist letter to the organizers of the large Super Smash Bros. online tournament, Big House, which led to the cancellation of the event.⁶⁵ Nintendo argued that the tournament required the use of unauthorized modifications to play online, insisting that it had no choice but to protect its intellectual property rights.⁶⁶ This aggressive approach has sometimes led to backlash. Further, in 2020, Nintendo sent a cease-and-desist letter to a charity event held in memory of a streamer who had died by suicide. The charity was selling custom Joy-Con controllers to raise suicide awareness. Since Nintendo owns the intellectual property rights to Joy-Con controllers and the charity had modified their appearance, Nintendo demanded that the sales stop, leading to the cancellation of the merchandise sale.⁶⁷

⁶⁴ Kretzschmar M and Stanfill M, 'Mods as Lightning rods: A typology of Video Game Mods, Intellectual Property, and Social Benefit/Harm' (2019) 28(4) SLS, p. 522.

⁶⁵ Lee C, 'Video Game Modding in the U.S. Intellectual Property Law: Controversial Issues and Gaps' (2022) 3(4) DLJ <<https://doi.org/10.38044/2686-94136-2022-3-4-8-31>> accessed 13 March 2024.

⁶⁶ *Ibid.*

⁶⁷ *Ibid.*

3 The US approach and court cases

3.1 US legal code

In the context of examining the most prevalent court cases in this field, which take place in the US, there needs to first be an examination of the legal background of the US regarding copyright protection and contract law for video games. Video game modding, the practice of non-professionals altering or adding to games, is often considered presumptively illegal under U.S. law.⁶⁸ Modding uses intellectual property to which modders do not hold the rights, leading to arguments that it constitutes copyright infringement. Some argue that mods transform the original text, making them fair use under U.S. law.⁶⁹ In addition to potential copyright infringement, mods frequently violate the Digital Millennium Copyright Act (DMCA) and the Computer Fraud and Abuse Act (CFAA).⁷⁰ Modders must usually circumvent copy protection technology on the source game and/or violate the End User License Agreement (EULA).

Mainstream legal approaches to intellectual property reuse tend to consider only the harm to the initial copyright holder. Under the traditional U.S. copyright model, mods are seen as derivative works of commercial games, and copyright includes an exclusive right to make or authorize derivative works.⁷¹ Additionally, the DMCA renders mods illegal when they involve breaking digital rights management (DRM) encoding that protects games from copying. Furthermore, mods are considered presumptively illegal when they violate TOS or EULA, which is prohibited under the CFAA.⁷² This rights-holder-focused approach is consistent with Blizzard, a large game developer, which encourages modding through releasing application program interfaces (APIs) but retains the legal and technological power to shut down certain mods.⁷³

The effectiveness of EULA as a transfer of rights under the Copyright Act is debatable. The Copyright Act does not define what "signed" means, while the Uniform Commercial Code (UCC) defines it as a symbol executed or adopted by a party with the present intention to authenticate a writing.⁷⁴ If the UCC definition of "signed" is incorporated into the Copyright Act, then "signed" should mean any symbol adopted to express acceptance.⁷⁵ It is unclear if installing a program or clicking "agree" would count as a valid signature as defined by the UCC. Therefore, a developer can openly encourage modding but still block a modder from distributing

⁶⁸ Kretzschmar M and Stanfill M, 'Mods as Lightning rods: A typology of Video Game Mods, Intellectual Property, and Social Benefit/Harm' (2019) 28(4) SLS, p. 519.

⁶⁹ *Ibid.*, p. 519.

⁷⁰ *Ibid.*, p. 519.

⁷¹ *Ibid.*, p. 519, 520.

⁷² *Ibid.*, p. 520, 521.

⁷³ *Ibid.*, p. 520.

⁷⁴ Thomas A, 'Modding the Implied License Doctrine: An Estoppel License Framework for Video Game Mods' (2019) 47(4) AIPLA Q J, p. 560.

⁷⁵ *Ibid.*, p. 560.

the mod. A copyright owner still controls the distribution of a derivative work, even if they cannot claim ownership. This assigns the work back to the developer instead of the creator.⁷⁶

Under US law, there are several arguments that could be made in favour of the legality of mods, which are examined below.

3.1.1 Implied Licensing

There are three steps to create an implied license: first, a person (licensee) requests the creation of a work; second, the creator (licensor) makes that particular work and delivers it to the licensee who requested it; and third, the licensor intends that the licensee copy and distribute the work. Creating a copyrightable work that fulfills the licensee's needs indicates the licensor's intent to allow the licensee to exploit their work. The second element considers whether the licensor has made and delivered the work to the licensee, thereby accepting the licensee's request.⁷⁷

For an implied license to be granted under current case law, there must be a request made by the modders to the developer to create a program that will be utilized by the modders. However, many major video game developers have EULAs which automatically supersede any implied license. Nonetheless, examining whether an implied license could apply to modding is worthwhile because not every EULA sufficiently controls the grant of rights. When a video game developer provides modding tools, there seems to be an implication that the consumer has permission to create a derivative work. If consumers are thought of as a single entity instead of a collective of individuals, the transaction resembles the facts of *Effects Associates*. Developers could argue that the implied license in *Effects Associates* was limited to copying and distributing, not creating derivative works. However, other courts have found that the intended use of a copyrighted work dictates the rights granted in the implied license.

3.1.2 Promissory Estoppel

Promissory estoppel is a contract doctrine stating that a person's reliance on a promise is an enforceable contract if the reliance was foreseeable, detrimental, and reasonable. A primary policy goal underlying this doctrine is to avoid the inequity associated with allowing a person to rescind a promise when others have taken potentially detrimental actions in reliance. For instance, it would be inequitable for a landowner to promise not to foreclose on a renter, allow the renter to make improvements to the property, and then foreclose shortly after. The closest copyright law analogue to promissory estoppel is the doctrine of implied license. However, as previously discussed, an implied license is limited in its application.

⁷⁶ *Ibid.*, p. 560.

⁷⁷ *Ibid.*, p. 565.

3.1.3 Fair Use

Fair use has a higher chance of being a permissible reason if the use is noncommercial, and the new work is transformative.⁷⁸ Courts may consider whether a work is creative or factual and whether it is published or unpublished. Another factor involves the amount and substantiality of the portion used in relation to the copyrighted work as a whole. Additionally, the effect of use upon the potential market or the value of the copyrighted work is another consideration.

3.2 US court cases

This section examines key US court cases that have shaped the legal landscape of video game modding. Many large developers are based in the US, therefore leading to more high-profile cases occurring in that region.

The cases discussed illustrate the diverse legal arguments and outcomes that have emerged as courts navigate copyright infringement, fair use, and reverse engineering.

By exploring these pivotal cases, this section aims to provide a comprehensive overview of how US courts have addressed the challenges posed by video game modding. Understanding these legal precedents is crucial for developers, modders, and legal professionals as they navigate the boundaries of copyright law in the context of video game modifications.

3.2.1 Galoob v. Nintendo of America, Inc.

In this case, Nintendo sued Galoob over the Game Genie, a device that allowed players to modify video game data.⁷⁹ The Game Genie permitted players to alter gameplay elements such as running speed and jumping height, which Nintendo argued created derivative works and violated their copyrights.⁸⁰ However, the 9th Circuit Court of Appeals ruled that Galoob did not violate copyright laws. The court likened the Game Genie to a VCR used to pause or fast-forward movies, suggesting that players were merely enhancing their gaming experience rather than creating a derivative work.⁸¹ Additionally, the court noted that Nintendo failed to show market harm resulting from the Game Genie.⁸²

3.2.2 Midway Manufacturing Co. v. Artic International, Inc.

In this case, the court established that video games could be protected as audiovisual works. Similarly, in *Atari Games Corp. v. Nintendo of America Inc.*, the court

⁷⁸ Lee C, 'Video Game Modding in the U.S. Intellectual Property Law: Controversial Issues and Gaps' (2022) 3(4) DLJ <<https://doi.org/10.38044/2686-94136-2022-3-4-8-31>> accessed 13 March 2024.

⁷⁹ Judgment of 21 May 1992, *Lewis Galoob Toys Inc. v. Nintendo of America Inc.*, 964 F.2d 965 (9th Cir. 1992).

⁸⁰ *Ibid.*

⁸¹ *Ibid.*

⁸² Kretzschmar M and Stanfill M, 'Mods as Lightning rods: A typology of Video Game Mods, Intellectual Property, and Social Benefit/Harm' (2019) 28(4) SLS, p. 529.

recognized that video games could also be protected as literary computer programs, provided the program contained protectable expression.⁸³

3.2.3 Micro Star v. FormGen Inc.

The 9th Circuit revisited the issue of derivative works in video games in the *Micro Star v. FormGen Inc.* case. FormGen successfully argued that Micro Star infringed on their copyright by selling unauthorized derivative works.⁸⁴ Micro Star had collected user-created levels for Duke Nukem 3D and sold them on a CD-ROM. The court ruled that Micro Star had infringed on the character of Duke Nukem 3D by usurping FormGen's ability to make sequels.⁸⁵

3.2.4 Blizzard Entertainment Inc. v. Reeves

In this case, a third-party end-user of World of Warcraft, Reeves, reverse-engineered part of the software to create a modification that allowed users to access the game servers without paying the required monthly subscription fee.⁸⁶ The court found Reeves had infringed Blizzard's copyright and awarded Blizzard \$3,000,000 in damages.⁸⁷ This case highlights how reverse engineering can be a vehicle for copyright infringement, although there are instances where courts allow reverse engineering as a defense against copyright infringement claims.⁸⁸

3.2.5 Blizzard Entertainment Inc. v. Valve Corp.

Blizzard's Warcraft III mod, DOTA, became the starting point for several derivatives, including DOTA All Stars. Valve later hired the lead developer of DOTA All Stars and applied for the DOTA trademark, which Blizzard opposed.⁸⁹ Blizzard contended that Dota's success was built on years of their reputation, networking, and intellectual property, arguing that Valve's trademark would unfairly appropriate Blizzard's work.⁹⁰ However, Blizzard lost the case, and Valve acquired the rights to DOTA. This decision led to further litigation when Blizzard and Valve sued Lilith Games for creating a mobile game, DOTA Legends, which they argued infringed on their DOTA copyrights. The court ruled that Valve had validly acquired the Dota rights from the original modders and could enforce these rights. Although Blizzard had retained non-commercial rights to Dota, the commercial rights belonged to Valve. This outcome highlighted the complexities of trademark and copyright issues in the modding community, illustrating how Blizzard's initial support for Dota mods indirectly facilitated Valve's eventual control over the Dota trademark and its commercial exploitation.

⁸³ Thomas A, 'Modding the Implied License Doctrine: An Estoppel License Framework for Video Game Mods' (2019) 47(4) AIPLA Q J, p. 556.

⁸⁴ *Ibid.*, p. 557.

⁸⁵ *Ibid.*, p. 557, 558.

⁸⁶ Lee C, 'Video Game Modding in the U.S. Intellectual Property Law: Controversial Issues and Gaps' (2022) 3(4) DLJ <<https://doi.org/10.38044/2686-94136-2022-3-4-8-31>> accessed 13 March 2024.

⁸⁷ *Ibid.*

⁸⁸ *Ibid.*

⁸⁹ Judgment of 24 May 2012, *Valve Corporation v. Blizzard Entertainment, Inc.*, 91202572 (Case Terminated).

⁹⁰ *Ibid.*

3.2.6 Sony Computer Entertainment Inc. v. Connectix Corp.

Connectix successfully pleaded fair use for its reverse engineering of Sony's PlayStation. Sony alleged Connectix had infringed on its copyright by reverse engineering the PlayStation's input/output system BIOS to make PlayStation games playable on personal computers.⁹¹ The court found that Connectix's copying was an intermediate step necessary to access unprotected functional elements in the PlayStation, and none of the copyrightable elements appeared in the final modification.⁹² This case illustrates that reverse engineering can be considered fair use if it is necessary to achieve interoperability and does not result in a product that contains protected elements from the original work.

3.2.7 Analysis

These cases illustrate that courts frequently grapple with distinguishing between derivative works and fair use in the context of video game modifications. Devices like the Game Genie in *Galoob v. Nintendo* were deemed non-infringing because they enhanced the gaming experience without creating new content, while software modifications, such as those in the *Micro Star* and *Blizzard* cases, were more likely to be considered infringing derivative works due to the creation of new content or functionality. The legality of reverse engineering in video games is nuanced; for example, Connectix's reverse engineering of the PlayStation was allowed under fair use for achieving interoperability, while *Blizzard v. Reeves* highlighted reverse engineering that circumvents DRM and enables unauthorized access as clearly infringing. A significant factor in these decisions is the potential market harm, as seen in *Galoob v. Nintendo* where no market harm was found, contrasting with *Micro Star* where the sale of user-created levels was seen as usurping the original creator's market. The long-lasting disputes between companies like *Blizzard* and *Valve* over mods such as *DOTA* exemplify the complexities of intellectual property rights in the gaming industry, particularly in determining ownership and rights over community-created derivative works. Additionally, the role of End User License Agreements (EULAs) and implied licenses is critical in this area; while EULAs often restrict unauthorized modifications, the provision of official modding tools can arguably imply a license to create derivative works, leading to legal ambiguities and disputes.

⁹¹ Judgment of 20 April 1999, *Sony Computer Entertainment, Inc. v. Connectix Corp.*, No. C-99-0390-CAL, 48 F. Supp. 2d 1212 (N.D. Cal. 1999).

⁹² *Ibid.*

4 EU Court Cases and Directives

4.1 Court Cases

4.1.1 C-406/10 SAS Institute Inc. v. World programming Ltd.

The case revolved around whether the functionality of a computer program, programming languages, and the format of data files used in a computer program can be protected by copyright.⁹³ SAS Institute Inc., a developer of the SAS System software for data processing and analysis, claimed that World Programming Ltd. (WPL) had infringed its copyright by producing a competing product, World Programming System (WPS), which replicated the functionality of the SAS System.⁹⁴ The primary legal question was whether the functionality of a computer program, the programming language, and the format of data files used in the program could be protected under the Software Directive.

The court ruled that only the expression of a computer program is protected, meaning the source code and object code, and not the underlying ideas and principles, such as the functionality of a computer program, its programming language, and the format of data files used in a computer program.⁹⁵

The SAS Institute Inc. v. World Programming Ltd. case provides a clearer understanding of what aspects of software are protected by copyright and which are not. For the modding community, this distinction is crucial as it allows for the creation and distribution of mods that enhance and innovate upon the original game's functionality without violating copyright laws.

4.1.2 C-355/12 Nintendo Co. Ltd v. PC Box Srl and 9Net Srl

Nintendo Co. Ltd, a major video game company, implemented technological protection measures (TPMs) on its consoles and games to prevent the use of unauthorized copies of games.⁹⁶ PC Box Srl and 9Net Srl sold devices that could circumvent these TPMs, allowing users to play unauthorized copies and homebrew software (user-created content) on Nintendo consoles.⁹⁷ The primary legal question was whether the circumvention devices sold by PC Box and 9Net violated EU law, particularly the provisions regarding technological protection measures under Directive 2001/29/EC (InfoSoc Directive).⁹⁸

The court introduced a proportionality test to determine whether the TPMs used by Nintendo were appropriate and whether the circumvention devices sold by PC Box

⁹³ Judgment of 2 May 2012, SAS Institute (Legal protection of computer programs), C-406/10, EU:C:2012:259.

⁹⁴ *Ibid.*

⁹⁵ *Ibid.*

⁹⁶ Judgment of 23 January 2014, *Nintendo and Others (Copyright and related rights in the information society)*, C-355/12, EU:C:2014:25.

⁹⁷ *Ibid.*

⁹⁸ *Ibid.*

and 9Net had significant commercial purposes other than to circumvent these TPMs.⁹⁹ The court acknowledged that while TPMs protect copyrighted content, they should not prevent users from accessing legitimate non-infringing content, such as homebrew software.

The CJEU recognized the legitimacy of non-infringing uses, such as homemade applications. This acknowledgment supports the modding community's argument that creating and using mods or homebrew software is a legitimate activity, provided it does not infringe on copyright.

4.1.3 [2019] EWHC 1665 (Ch) Blizzard Entertainment Inc. v. Bossland GmbH

This case did not reach the CJEU, but instead was a British court case between a US company and a German company. Blizzard Entertainment sued Bossland GmbH, a company that developed and sold bot software used to cheat in Blizzard's games, including World of Warcraft and Overwatch.¹⁰⁰ The primary issue was whether Bossland's bot software infringed Blizzard's copyrights and violated the EULA. The court ruled in favor of Blizzard, finding that Bossland's software violated Blizzard's copyrights and breached the EULA.¹⁰¹ The court granted Blizzard a permanent injunction against Bossland, preventing the sale and distribution of the bot software.

4.2 Lex Specialis

The treatment of video games under EU copyright law varies depending on whether they are categorized under the software-specific regime or the general rules of the InfoSoc Directive. Another important aspect is whether the transaction between the platform and the user is considered a sale of a good or a service. When paying for a game via a platform, the question arises whether we are buying a copy of it or merely accessing a service.¹⁰² This distinction affects whether distributed games follow the exhaustion regime for goods or services. This issue is tied to a crucial juxtaposition in copyright law: the exhaustible distribution right versus the inexhaustible right of making available.¹⁰³

The Advocate General has warned against extending the concept of exhaustion to downloadable copies, stating that new business models like streaming make digital exhaustion redundant.¹⁰⁴ This argument suggests that the traditional concept of exhaustion, which applies to physical goods, may not be relevant in the digital realm.

⁹⁹ *Ibid.*

¹⁰⁰ Judgment of 04 July 2019, *Blizzard Entertainment SAS v. Bossland GmbH*, [2019] EWHC 1665 (Ch), HC_2016-002774.

¹⁰¹ *Ibid.*

¹⁰² Trapova A and Fava E, 'Aren't we all exhausted already? EU copyright and video game resales in the Games-as-a-Service era' (2020) 3(2) IELR, p. 77, 78.

¹⁰³ *Ibid.*, p. 77, 78.

¹⁰⁴ Jenkins G, 'An Extended Doctrine of Implied Consent- A Digital Mediator?' (2021) 52 IIC-IRIPCL <<https://link.springer.com/article/10.1007/s40319-021-01024-2>> accessed 13 March 2024.

In the Nintendo case, the Court of Justice of the European Union (CJEU) provided significant insights into the protection of video games under EU copyright law. The court stated,

Video games such as those at issue in the main proceedings constitute complex matter comprising not only a computer program but also graphic and sound elements which, although encrypted in computer language, have a unique creative value that cannot be reduced to that encryption.¹⁰⁵

The court emphasized that the graphic and sound elements, being part of a game's originality, are protected along with the entire work by copyright under the InfoSoc Directive.¹⁰⁶

The CJEU's ruling implies that video games are more than just computer programs; they consist of various types of works protected together as a whole. This raises the question of whether the distributive approach adopted by some member states, which treats different elements of video games separately, can be upheld. The decision suggests a unitary legal treatment of video games under the InfoSoc Directive, recognizing their composite nature and the need for comprehensive protection.

A practical example illustrates the application of these principles. Suppose Company X distributes devices designed to circumvent technological protection measures (TPMs) used in computer program Y, produced by Company Z. Both the InfoSoc Directive, which prohibits the distribution of devices primarily designed to circumvent TPMs in copyrighted works, and the Software Directive, which prohibits the distribution of devices solely intended to circumvent TPMs in computer programs, could apply.¹⁰⁷ According to the *lex specialis* doctrine, the specific law (Software Directive) would take precedence over the general law (InfoSoc Directive) if the situation falls entirely within the scope of both directives.¹⁰⁸

The *lex specialis* doctrine, as understood in EU law, dictates that a specific rule (*lex specialis*) overrides a general rule (*lex generalis*) when both could apply to a situation.¹⁰⁹ This doctrine ensures that the most relevant and detailed legislation is applied, fostering legal clarity and precision. In the context of TPMs, the Software Directive provides a less robust protection compared to the InfoSoc Directive to encourage interoperability between programs.¹¹⁰

Understanding the application of the *lex specialis* doctrine is crucial for interpreting how EU copyright law treats video game modding. The doctrine indicates that if a situation is fully covered by a specific law, that law should be applied over a general law. However, if the situation is only partially covered by the specific law, the general law applies.

¹⁰⁵ Judgment of 23 January 2014, *Nintendo and Others (Copyright and related rights in the information society)*, C-355/12, EU:C:2014:25, para. 23.

¹⁰⁶ Maier H, 'Games as Cultural Heritage: Copyright Challenges for Preserving (Orphan) Video Games in the EU' (2015) 6(2) *JIPITECL*, p. 122, 123.

¹⁰⁷ Rendas T, 'Lex specialis(sima): videogames and technological protection measures in EU copyright law' (2015) 37(1) *EIPR*, p. 5.

¹⁰⁸ *Ibid.*, p. 5.

¹⁰⁹ *Ibid.*, p.6.

¹¹⁰ *Ibid.*, p. 5, 6, 7.

5 Other considerations

5.1 Dangers to modders and moral rights

The political economy of video game modding suggests that modding can be viewed as labor exploitation, where unpaid enthusiasts create additional content or fix issues in games without compensation.¹¹¹ This fan-driven activity can extend the shelf life of games and drive sales, as gamers may purchase games specifically to access mods.¹¹² Furthermore, modding serves as outsourced research and development, with modders assuming the risks of innovation. The industry can then incorporate modded content as official add-ons, spin it off into new games, or include it in future releases.¹¹³

In regards to moral rights, an author might feel their moral rights are violated by a mod that introduces or removes sexualized violence from their game, or one that reveals previously suppressed content, as seen in the "Hot Coffee" mod for Grand Theft Auto (GTA).¹¹⁴ These situations raise significant concerns about the integrity and original intent of the creator's work.¹¹⁵

The "Caliente's Beautiful Bodies Edition" mod for Skyrim illustrates these issues, as it increases demand for the game while also raising social and cultural concerns about objectification. The popularity of such mods suggests that the market for objectification may grow if both the game and the mod become more popular, highlighting potential ethical and societal implications.

5.2 Inequity and Resolutions

The fate of many video game mods can hinge on whether the game company feels threatened enough to take legal action. Companies like Blizzard have pursued legal battles against modders, such as in the Blizzard vs. Bossland case. If the modders cannot afford legal representation they often face insurmountable challenges. Conversely, if a company possesses the resources to counter a lawsuit, as was the case with Galoob's Game Genie, they might successfully defend their mod.

Given the global nature of video games, which are played and broadcast internationally and involve stakeholders from various countries, disputes inevitably feature cross-border considerations.¹¹⁶ Therefore, it is crucial for all stakeholders, including video game producers and publishers, to establish effective arrangements

¹¹¹ Kretzschmar M and Stanfill M, 'Mods as Lightning rods: A typology of Video Game Mods, Intellectual Property, and Social Benefit/Harm' (2019) 28(4) SLS, p. 520.

¹¹² *Ibid.*, p. 520.

¹¹³ *Ibid.*, p. 520.

¹¹⁴ *Ibid.*, p. 521.

¹¹⁵ *Ibid.*, p. 521.

¹¹⁶ Toscano L, Suarez O and Gkoritsa A, 'Resolving Video Games and eSports Disputes: How Can WIPO's Alternative Dispute Resolution Options Help?' (2023) WIPO <https://www.wipo.int/wipo_magazine_digital/en/2023/article_0018.html> accessed 14 May 2024.

to resolve any disputes that may arise, especially when IP rights—key assets in this industry—are at risk. Mechanisms like mediation, arbitration, and expert determination have been gaining ground as alternatives to judicial court proceedings for IT and commercial disputes. The specialized nature of these disputes means that going to court may not be the optimal way to resolve them. Such disputes typically involve a combination of tangible physical elements, like game consoles, peripherals, and merchandise, and intangible legal issues, like IP rights, online interactions, and virtual economies.¹¹⁷

Moreover, video game-related disputes are typically international in nature; large gaming competitions draw players and viewers from across the globe.¹¹⁸ As such, organizers of these events need solutions that work across multiple jurisdictions. Dispute resolution mechanisms like mediation and arbitration come into play where court decisions on legal questions, especially in relation to IP, may vary from one jurisdiction to another. These methods offer a way to achieve consistency in legal outcomes.¹¹⁹

5.3 Possible Exceptions

5.3.1 Fair Use Doctrine

In the United States, the fair use doctrine is a key exception to copyright infringement, allowing for the use of copyrighted material without permission under specific circumstances. Fair use is evaluated based on several factors: the purpose and character of the use (e.g., whether it is for commercial or non-commercial purposes), the nature of the copyrighted work, the amount and substantiality of the portion used, and the effect of the use on the market for the original work. Modding could be considered fair use if it is transformative, non-commercial, or adds new expression or meaning to the original game. For instance, a mod that significantly alters the gameplay experience or adds a parody element could potentially qualify as fair use.

5.3.2 Open Source and Creative Commons Licenses

Some developers release their games or parts of their games under open-source licenses or Creative Commons licenses. These licenses explicitly allow users to modify, share, and sometimes commercialize the work under certain conditions. For example, an open-source game engine might be freely available for modders to use and adapt, provided they adhere to the terms of the license, such as attributing the original creators or sharing derivative works under the same license.

¹¹⁷ *Ibid.*

¹¹⁸ *Ibid.*

¹¹⁹ *Ibid.*

5.3.3 Legal Status of Orphaned Works

Orphaned works, particularly older video games, present another complex issue. Many of these games, considered abandonware, have unclear ownership due to the dissolution of original developers or loss of licensing information.¹²⁰ These games usually have a lifespan of about five years before new systems render them practically obsolete.¹²¹ Despite this, they are protected by copyright for decades. The first mainstream game consoles date back to the 1980s, and many companies that developed games a few decades ago are no longer in business.¹²² Information about rights holders, contracts, and licensing agreements has often been lost, partly due to the industry's youth.

From a technical perspective, emulation is currently the most sensible method of preserving video games.¹²³ However, the copyright situation surrounding emulation is complicated, and rights holders are often hard to locate. Cultural heritage institutions typically take a museum approach to technological preservation, collecting and storing original boxes, CDs, floppy disks, etc.¹²⁴ However, this is not a viable long-term solution as the physical media deteriorates over time.

The Orphan Works Directive in the EU does not explicitly include video games, leading to varied national interpretations. For example, in Germany, video games are not explicitly categorized under audiovisual works, complicating their preservation and use. The lack of a clear European-wide definition means that each member state may interpret the directive differently, affecting how orphaned video games are handled legally. Whether video games are considered cinematographic or audiovisual works depends on national laws, and the interpretation can differ across member states. This legal ambiguity complicates efforts to preserve and make available older video games as part of our cultural heritage.

5.3.4 Unforeseen technological advancements

Another possibility for an exception comes in the form of technological advancements. These are not always possible to predict, and difficult to mitigate ahead of time.

An example is MDY Industries, a third-party end user of World of Warcraft, developed a game modification software called Glider.¹²⁵ This bot simulated gameplay while the user was not actively playing the game, allowing them to gain experience, in-game currency, and items without any manual effort. MDY created Glider in 2004, but Blizzard did not release its anti-bot scanner until a year later, in 2005.¹²⁶ The delayed release of the anti-bot software suggests that such technology was not anticipated when World of Warcraft was initially launched, despite

¹²⁰ Maier H, 'Games as Cultural Heritage: Copyright Challenges for Preserving (Orphan) Video Games in the EU' (2015) 6(2) JIPITECL, p. 120, 121.

¹²¹ *Ibid.*, p. 120.

¹²² *Ibid.*, p. 120.

¹²³ *Ibid.*, p. 120.

¹²⁴ *Ibid.*, p. 120.

¹²⁵ Lee C, 'Video Game Modding in the U.S. Intellectual Property Law: Controversial Issues and Gaps' (2022) 3(4) DLJ <<https://doi.org/10.38044/2686-94136-2022-3-4-8-31>> accessed 13 March 2024.

¹²⁶ *Ibid.*

Blizzard's terms of use at the time indicating a desire to ban cheating modifications.¹²⁷ In some cases of an advance in technology, there may be modifications that are in no way referenced or conceived beforehand.

¹²⁷ *Ibid.*

6 Conclusions

This thesis aimed to investigate the legalities surrounding the creation of modifications for video games within the European Union, comparing these laws with those in the United States and other international jurisdictions. The central research question posed was: In which circumstances, if any, are the modifications of video games legal under the laws of the European Union? The analysis has revealed a series of qualifiers governed by a combination of EU directives, national laws, and legal precedents that collectively shape what is permissible in the realm of video game modding.

The primary legal framework governing video game modding in the EU includes the InfoSoc Directive (Directive 2001/29/EC) and the Software Directive (Directive 2009/24/EC), among others. These directives establish the foundational rights of copyright holders and set the stage for the legal considerations relevant to modding. The InfoSoc Directive provides broad protections for copyright holders, granting them exclusive rights over reproduction, distribution, and communication to the public. These rights are crucial when considering mods that alter or replicate game content. The directive also outlines specific exceptions and limitations, such as the private use exception and allowances for quotations and parody, which can offer some leeway for non-commercial and transformative mods. The InfoSoc Directive's provisions on Technological Protection Measures (TPMs) significantly impact modding. Articles 6 and 7 of the InfoSoc Directive prohibit the circumvention of TPMs designed to prevent unauthorized acts. This legal protection for TPMs means that many mods, especially those that require bypassing DRM (Digital Rights Management) or other security features, may be illegal unless they fall under specific exceptions or are used for purposes such as achieving interoperability.

The Software Directive adds another layer by protecting the expression of computer programs while allowing for certain activities, like reverse engineering for interoperability, under stringent conditions. This directive is particularly relevant for mods that modify a game's code to ensure compatibility with new software or hardware.

Several landmark cases have clarified the application of these directives in the context of video game modding. The *Nintendo Co. Ltd v. PC Box Srl and 9Net Srl* (C-355/12) case highlighted the protection of TPMs and introduced the proportionality test to assess whether these measures are appropriate. This case underscores that while TPMs are crucial for protecting intellectual property, they should not be excessively restrictive. In *SAS Institute Inc. v. World Programming Ltd* (C-406/10), the CJEU ruled that the functionality of a software program is not protected by copyright, only its expression. This distinction is vital for modders who seek to replicate or enhance game functionalities without copying the original code.

The thesis identified several potential legal defenses and exceptions that could apply to modding under EU law: First, the Fair Use/Quotations and Parody. While the EU

does not have a broad fair use doctrine like the U.S., certain exceptions such as those for quotations and parody could protect mods that add significant new expression or critique the original work. Second, the Private Use Exception. This allows individuals to make copies for personal, non-commercial use. Mods that are created and used solely for personal enjoyment without distribution could be permissible under this exception. Third, the Implied License. An implied license might be argued if a game developer releases modding tools or encourages a modding community. This can suggest that the developer has implicitly granted permission for users to create and share mods. Fourth, Interoperability under the Software Directive. The directive permits reverse engineering for interoperability, allowing mods that ensure a game works with new software or hardware configurations, provided this activity does not involve copying code verbatim.

In conclusion, the legality of video game modding in the EU hinges on a nuanced interpretation of several directives and legal principles. While the InfoSoc and Software Directives provide strong protections for copyright holders, they also offer specific exceptions and defenses that can apply to modding. Modders must navigate these laws carefully, ensuring that their activities either fall within the permissible exceptions or do not infringe on the protected rights of the original game developers. The comparison with U.S. and international law reveals that while some principles, such as fair use, provide broader protections in other jurisdictions, the EU's focus on the balance between protecting intellectual property and allowing for innovation and consumer rights creates a distinctive legal environment for modding. Ultimately, achieving legal clarity in the rapidly evolving field of video game modding will require ongoing dialogue between legal experts, developers, and the modding community to ensure that the creative and cultural contributions of modders are recognized and protected within the bounds of the law.

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