
LEGAL CHALLENGES IN THE PROTECTION OF GAME SOFTWARE IN INDIA

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ABSTRACT

The gaming industry has grown very rapidly, and game software has become a complex digital product that includes code, audiovisual elements, interactivity, and branding. This research paper aims to discuss the legal issues arising from the protection of the software of the games under the Indian legal system and enlighten the reader about the intellectual property rights of the game bot, mod, and online exploitation. Software related to the game is not just confined to any one category of legal protection but is protected by various intellectual property laws based upon different parameters such as source code, graphics, music, storylines, and trademark rights. This paper will study the impact of pirated bots and mods in meddling with the copyright code of the game. It will analyse the major reasons for copyright infringement in the gaming industry, which may include the nature of the digital products of the game. Additionally, the paper will shed some light upon the applicability of international treaties like the Berne Convention, the TRIPS Agreement, and the WIPO Internet treaties. Furthermore, the study will cover the applicability of the Indian legal framework governing the copyright laws of India through the Copyright Act of 1957. Moreover, the paper will explore the applicability of the Trade Marks Act of 1999. Finally, it will identify the applicability of the Information Technology Act of 2000. Additionally, the Promotion and Regulation of Online Gaming Act of 2025.

Keywords: Game Software, Intellectual Property Rights, Game Bots and Mods, Copyright Infringement, Online Gaming Regulation

INTRODUCTION

Game software, sometimes referred to as video game software, is an advanced digital product that blends several technical elements to give users an interactive experience. A video game is made possible by a set of rules. It encompasses the wide range of applications and resources that developers use to plan, create, and execute video games. This covers everything from artificial intelligence algorithms and graphics software to game engines and development platforms. Gaming software enables developers to build rich worlds, craft lifelike characters, design engaging gameplay, and create smooth, immersive experiences for players. And the gaming industry, once viewed as a niche entertainment sector, has emerged as one of the most influential and rapidly expanding industries worldwide.¹ Game software, in contrast to traditional software, is a synthesis of technical innovation, artistic expression, and interactive design rather than merely a collection of code. Video games are therefore made up of a number of essential parts, each of which may be protected by various intellectual property laws, including trademark, copyright and in some situations, patent law.

COMPONENTS OF GAME SOFTWARE THAT ARE TYPICALLY COVERED UNDER INTELLECTUAL PROPERTY LAW

Game software is an advanced digital product that combines computer programming and audiovisual content to provide users with an interactive experience.² Its fundamental component is the source code or object code, which gives the game its technical underpinnings and make it available in different platforms including game consoles, mobile devices and computers.³ To create the immersive atmosphere that sets one game from another, game software incorporated creative elements such as visual arts, music, narrative scripts, characters, and logos in addition to technical code. Because of these interconnected elements, game software is a composite work, meaning it is not protected by a single statute but rather by multiple sections of Indian intellectual property laws due to these interconnected elements.⁴

The main components that are found in game software that are typically covered under various

¹ Vanshika Bhatia, Copyright Law in India & the Gaming Industry: Identifying Legal Deficiencies and the Need for Reform, 7 Indian J.L & Legal Rsch. Iss. 2 (2023)

² Andy Ramos, Laura López, Anxo Rodríguez, Tim Meng & Stan Abrams, The Legal Status of Video Games: Comparative Analysis in National Approaches, WIPO MAG., July 2013, at 2–4

³ Gaetano Dimita, Understanding Intellectual Property in Video Games, World Intell. Prop. Org. (Nov. 2023)

⁴ Copyright Act, No. 14 of 1957, §§ 2(o), 13(1); Trade Marks Act, No. 47 of 1999, §§ 2(1) (zb), 29 (India)

IP laws are:

1. Source Code

This is the human-readable set of instructions written by programmers (Example, in C++, Java, Python). It defines all game logic, AI behaviour, user input handling, and more. In Indian source code, comes under the literary work and is protected under the copyright law. Unauthorised copying, adaptation, or distribution is an infringement.

2. Art and Graphics

This includes character models, concept art to 2D/3D animations. These comes under the artistic works under copyright law.

3. Music and Sound

Audio content like music tracks, background scores, sound effects, and voiceovers, comes under this; it qualifies as musical and sound recordings, each with distinct protections under copyright law.

4. Narrative Elements

This includes dialogue, scripts, characters' backstories and game storyline. These all are treated as literary works and protected accordingly.

5. Cinematics and Animations

These are motion sequences or in-game videos that play between gameplay segments. They are also protected under the cinematograph film copyright categories.

6. Brand Elements, Logos and Game Title

These are identifiers, such as the name icon, or distinctive logo of a game. Usually those are filed as trademarks. They preserve the games reputation, avoid consumer confusion and protect the brand identity.

Thus, game software is a digital hybrid that combines creative content with a software system. Each component, whether it's code, art, music, or scripts, falls under a specific category of

intellectual property protection.

GAME BOTS AND GAME MODS

Two ideas that are nearly impossible to overlook in today's gaming environment are game bots and game mods. These are not just technical terms. This will explain how gamers interact with, modify, and sometimes even disrupt the virtual world that the gamers have developed. Both game bots and mods give games a creative content, but also brings up several legal issues particularly with regard to defending developers right and preserving the integrity of the gaming industry.⁵

GAME BOTS

Bots can be described as the software equivalent of robots. They are a type of “automation software” that can essentially carry out gameplay without the physical player's actions. This is appealing to coders and gamers because bots can complete “tedious tasks,” such as increasing experience and collecting in-game currency and valuable items. This allows the coder to focus on the more intricate and interesting parts of the task or game. Bots have existed for more than five decades, but like all technology, they have changes dramatically over time. Today, bots software has become so advanced that its artificial intelligence can mimic the actions and behaviour of real human players.⁶

Despite innovative technology, game bots has serious moral and legal issues. The majority of bots interact with or modify game source code or object code, which are legally protected as literary works under the copyright law. Developing, distributing, or using these bots with authorisation frequently violates copyright, especially when reverse engineering is used to get around built-in security measures. Other than intellectual property, bots also violate the End-User License Agreements (EULAs) or Terms of Service (ToS) established by the developers. These agreements prohibit automated software that will change the intended gameplay experience. Breach of these contracts leads to disputes, where developers take legal action to protect their platforms and maintain the integrity of their virtual economies.

⁵ Dimita, *supra* note 3

⁶ Sydney Johnson, Threats to Copyright Code: Bots, Mods, and Reverse Engineering, 3 Business, Entrepreneurship & Tax Law Reviews Iss. 1 (2019)

So, the use of game bots compromises the fairness of online gaming environments. Bots are capable of completing the tasks in competitive or multiplayer games much more quickly than human players, which causes unfair advantages, inflated economies and annoyance among players. In addition to creating a critical need for more robust enforcement and technological countermeasures to identify and stop illegal bots, this also brings up difficult legal issues regarding how to strike a balance between developer control and user innovation.

GAME MODS

Mods, or game modifications, change a game's code to improve how it looks or works. Players often create mods when a game has a weak storyline, outdated graphics, or small coding issues, commonly known as bugs. Mod developers usually argue that every player has their own idea of what makes a game enjoyable, and therefore they modify the game to suit those preferences. The popularity of mods has grown significantly because new technology has made it much easier for players to share their creations. Platforms like Steam Workshop allow developers to permit limited modifications, enabling players to upload their own mods or download those created by others. The mods shared on such platforms are often simple changes, such as new clothing items for characters or visual edits to the game's environment.⁷

Mods, also called as game modifications, have become an essential part of the gaming industry. Mods involve altering or adding new elements to a game's original software, either to improve gameplay or personalise the user experience.⁸ It may be a basic change, such as making graphics better or altering characters, or it may be a complex one, like creating new game mechanics or creating new storylines. Players who want to personalise the game or fix the flaws in its original designs are the driving force behind these innovations. But it enhances creativity and community engagement, also raises legal concerns. According to the Intellectual Property perspective, many mods interact with source code, graphics, or audio, which are protected under copyright law. Unauthorised modification amounts to copyright infringement when mods redistribute or copy the original game assets. Trademark problems can also arise when mods use developers' distinctive brand elements, logos and titles without consent, which can cause confusion among players.

⁷ Id

⁸ Gaetano Dimita, Understanding Intellectual Property in Video Games, World Intell. Prop. Org. (Nov. 2023).

Modding refers to changing a game usually through computer programming, by using external software tools that are not originally included in the game. The changes made are called modifications or mods. Simply put, mods are user-created additions or alternations that modify the games existing data.⁹ The widespread use of the mods created a dual impact on the gaming ecosystem. One is that it fosters innovation and extends the life cycle of games; sometimes, it will benefit the developers through increased player engagement. On the other hand, unauthorised mods will destabilise game performance, it will affect the security, and lead to cheating, thereby affecting the fair play of the game and user trust.¹⁰ This creates the need for a legal framework and balanced approaches that protect both developers' interests and player creativity.

INFRINGEMENTS ARISING FROM GAME BOTS AND MODS

Digital gaming led to a major change with the introduction of game bots and mods, but these changes also led to legal issues and conflicts. Both bots and mods are innovative, but they often clash with Intellectual Property laws, contractual obligations, and fair competition principles.

(a) Copyright Infringement

Copyright infringement is the primary legal concern surrounding bots and mods. Game software, including its source code, graphics, music and sound effects, comes under literary and artistic work under copyright law.¹¹ Mods may alter or redistribute original assets, while bots are often reverse-engineered with games' protected code to automate tasks. Altering characters, using anti-cheat mechanisms without permission, and violating the exclusive rights of reproduction and adaptation granted to the copyright holder.

(b) Trademark Misuse

Games' distinctive brand elements, titles, and logos are usually protected as trademarks.¹² These unauthorised bots and mods sometimes use these identifiers without permission and

⁹ Prashanth Shivadass & Rachana Pise, *The Viewpoint: Are Your Favourite Video Game Mods Copyrightable?*, Bar & Bench (July 4, 2021)

¹⁰ Dennis Chau, *The Legal Risks Surrounding User-Created Content in Video Games*, 64 IDEA—Intell. Prop. L. Rev. 178, 190–95 (2023)

¹¹ Copyright Act, No. 14 of 1957, §§ 2(o), 13(1)(a), 14(a) (India)

¹² Trade Marks Act, No. 47 of 1999, §§ 2(1) (zb), 28, 29 (India)

create confusion among players, which will lead to affecting the brand identity.¹³ This issue is particularly serious when bot or mod developers commercialise their tools, and it will create confusion among people, as they think this will be an affiliation or endorsement by the original game developer.

(c) Breach of Terms of Service and Licensing Agreements

A majority of internet games are controlled by End-User License Agreements (EULAs) and Terms of Service (ToS) that prohibit the making, distribution, and unauthorised use of bots and mods. If any of the players disregard these terms, they are not only in violation of their contracts, but it will also result in bans from their accounts, and they can face criminal prosecution.

(d) Cheating and Unfair Competition

Bots and mods ruin the integrity and fairness of video games played online.¹⁴ In a competitive setting, bots provide unfair advantage to players by managing tasks automatically or exceeding human abilities. Mods also unlock paid features without cost or change game mechanics to favour a specific player group, which harms the game economy's balance and causes losses to the developers and loses experiences to genuine users.¹⁵

INTELLECTUAL PROPERTY INFRINGEMENT IN GAMES

Human beings are superior to other living creatures because they possess intellect. Creative genius of human beings creates intellectual property; which in turn, when properly exploited, can earn wealth. Since it is essentially a creation of mind, therefore, it is called intellectual property. Inventions, industrial designs, literary and artistic works, symbols used to promote commerce are some commonly known forms of intellectual property.¹⁶ Salmond says, the unnatural product of a man's brains may be as valuable as his hands or his goods. The law,

¹³ Vanshika Bhatia, Copyright Law in India & the Gaming Industry: Identifying Legal Deficiencies and the Need for Reform, 7 Indian J. L. & Legal Rsch. Iss. 2, 45–47 (2023)

¹⁴ Sayed Qudrat Hashimy, Protection of Video Games under India and the United States of America's Copyright Law, 4 Indian J. L. & Legal Rsch. 1, 7–9 (2022)

¹⁵ Alek Giecewicz, Navigating the Game: Balancing Innovation and Intellectual Property Rights in Video Game Development, 29 Marq. Intell. Prop. & Innovation L. Rev. 93, 112–15 (2024)

¹⁶ M.K Bhandari, *Law Relating to Intellectual Property Rights* (Ishita Chetterjee rev., 3d ed. 2012, Central Law Publications)

therefore, gives him a proprietary right in it.¹⁷ Every human endeavour which promote economic, social, scientific and cultural development of society must be encouraged and the creator must be suitably rewarded by affording legal protection to his intellectual creation. Thus, the Intellectual Property Rights (IPRs) are the legal rights governing the use of creations of human minds. The intellectual property law regulate the creation, use and exploitation of mental or creative labour. It prevents third parties from becoming unjustly enriched by reaping what they have not sown. This is a branch of law which protects some of the finer manifestations of human achievement.¹⁸

INFRINGEMENT IN GAMES

Intellectual property law plays a crucial role in protecting and monetizing creative elements involved in development and publishing of video games. Each video game encompasses multiple forms of IP, including, without limitation, the game engine, storyline, visual artwork, music, characters, graphics, and game world, among others. Each time players pay for their video game, they are not purchasing any form of ownership of the IP; instead, they are receiving a limited, licenced opportunity to experience art and play the game. As the gaming industry rapidly grows, gaming companies are investing considerable time and money to develop video games in many circumstances, more than it takes to make a feature film which is quickly becoming a necessity to protect those investments from competing video games and piracy. Developers also intend on exploiting the value of video game IP to create multi-game franchises or to develop video game content into other media like movies, series, or merchandising. While IP law continuously evolves to adapt to technological advancements, for anyone involved in the gaming industry it is absolutely essential to have a mindful understanding of the legal architecture.¹⁹

FACTORS CONTRIBUTING TO IP INFRINGEMENT IN GAMES

The gaming industry is one of the fastest-growing entertainment industries of the global digital economy. Nevertheless, the same commercial and technological elements that have contributed to its success have also increased its susceptibility to intellectual property violations. Games

¹⁷ . Id.

¹⁸ . Id. at 2-3

¹⁹ Gaetano Dimita, Understanding Intellectual Property in Video Games, World Intellectual Property Organization (WIPO) (2023),

are especially vulnerable to these violations, as demonstrated by the following factors.

(a) Digital Nature of Games

Unlike physical products, game software is an intangible digital asset, it highly susceptible to duplication, modifications, and illegal distribution. With the availability of sharing platforms, and online repositories, pirated copies of games can circulate globally within hours of their official release.²⁰ The minimal cost and effort required for such reproduction are the main problem, making it difficult for rights holders to control or track infringement effectively.

(b) Global Accessibility and Jurisdictional Challenges

Games are distributed in many jurisdictions at the same time, but intellectual property laws and enforcement practices differ from country to country, which makes enforcement difficult.²¹ Some jurisdictions have strict penalties for copyright infringement, while others have a weak legal framework that allows infringers to live with relative impunity. The global and decentralised nature of the internet further complicates the jurisdictional reach of enforcement authorities. IP law operates on a territorial basis, and although many rules have been harmonized internationally, significant differences still remain from one jurisdiction to another.²²

(c) High Commercial Value

Infringers find game software as a profitable market due to its enormous commercial value.²³ Video games bring large sums of money from sales, in-game purchases, and licensing deals, which strongly encourage illegal distribution and duplication. The cycle of infringement is further fuelled by the high profitability of counterfeit versions, especially in the market where original games are pricey.

(d) Technological Advancements

The tools needed for reverse engineering, code extraction, and unauthorized modifications have

²⁰ Ajay Kumar, Copyright Protection of Video Games in the Era of Artificial Intelligence, in *Sports Laws in India* 214–16 (Manjit Singh ed., 2024)

²¹ Andy Ramos et al., The Legal Status of Video Games: Comparative Analysis in National Approaches, *WIPO Mag.*, July 2013, at 12–14

²² *Id.*

²³ Gaetano Dimita, Understanding Intellectual Property in Video Games, *World Intell. Prop. Org. (WIPO)* (Nov. 2023)

become simple due to rapid technological advancement. Artificial intelligence-driven systems, and Software Development Kits (SDKs) have enabled both professional and non-professional hackers to carry out actions that constitute infringement.²⁴ These technological advancements made it easy to create and utilise game bots, which can disrupt the games' intended functionality and frequently violate both intellectual property rights and contractual obligations at the same time.

(e) Lack of Awareness and Understanding of IP Rights

Most of the gaming world, particularly independent developers and casual gamers, were unaware of intellectual property laws and licensing terms.²⁵ Lack of awareness of law naturally gives rise to inadvertent infringement, like unauthorised streaming, derivative content creation, or sharing game files without right holders' consent.

(f) Inadequate Enforcement and Legal Frameworks

The enforcement is slow and technologically cumbersome.²⁶ Majority of the enforcement bodies lack the technical skills to investigate sophisticated cyber offences. In addition, the lack of cooperation among countries and the inefficiency of current statutory remedies undermine the deterrent value of IP enforcement in the gaming industry.

These are the main factors that create a complex environment for intellectual property infringement in the gaming industry to thrive. Lack of legal awareness, rapid technological growth, jurisdictional hurdles, etc, are some of the factors contributing to IP infringement in games. From this, we can see that there is a need for stronger and more integrated legal frameworks to safeguard the rights of developers and publishers.

INTERNATIONAL TREATIES AND CONVENTIONS RELATED TO GAME SOFTWARE

The video game industry connects the worlds of technology and creativity and depends on innovation, creativity, artistic design, storytelling, and interactivity. As the industry has scaled

²⁴ Id

²⁵ Vanshika Bhatia, Copyright Law in India & the Gaming Industry: Identifying Legal Deficiencies and the Need for Reform, 7 Indian J. L. & Legal Rsch., Iss. 2, at 4–6 (2023)

²⁶ A. Mukundh Viswesh, Legal Challenges of the Intellectual Property Rights in the Gaming Industry in India, 3 Indian J. Integrated Rsch. L. 206, 214–16 (2023)

to a large global market worth billion, the need to have strong legal protections to safe-guard their creative assets has never been more paramount.²⁷ Game software is not only protected by national laws. Video games are produced, shared, and played globally. There are a number of international treaties and conventions that govern their protection. These establish fundamental international guidelines for protecting the rights of publishers, developers, and other gaming industry participants. Game software consists of various technical and artistic elements that collectively make up a game software. Each element are protected under Intellectual Property (IP) laws, and under international treaties like the TRIPS agreement, the Berne Convention, and the WIPO Internet Treaties, which consist of the WIPO Copyright Treaty (WCT), and the WIPO Performance and Phonograms Treaty (WPPT). These will make rights recognised and protected worldwide. India is a signatory to most of the treaties and had implemented it in domestic laws, such as the Copyright Act, 1957, the Trademark Act, 1999, and the Information Technology Act, 2000, to keep up with global standards.²⁸ These treaties are significant as they detail how the game software is protected worldwide and how protection is afforded by the Indian legal framework.

THE BERNE CONVENTION FOR THE PROTECTION OF LITERARY AND ARTISTIC WORK

The Berne Convention, consisting of 38 articles and with approximately 120 members, is considered the most significant international agreement on copyright protection. It established the Berne Union later amended by the 1971 Paris Revision. The Convention gives the widest copyright protection to literary and artistic works, in whatever form or medium they have been given, published or unpublished. It establishes a minimum copyright term of the author's life plus 50 years or in case of anonymous or pseudonymous works 50 years after publication. The Convention also offers a number of exceptions to exclusive rights including provisions similar to fair use and limits on recording musical works. The Convention even provides some recognition of the author's moral rights in addition to the economic rights.²⁹

Berne Convention for the Protection of Literary and Artistic Works (1886) is one of the

²⁷ Vanshika Bhatia, Copyright Law in India & the Gaming Industry: Identifying Legal Deficiencies and the Need for Reform, 7 Indian J.L & Legal Rsch. Iss. 2 (2023)

²⁸ Copyright Act, No. 14 of 1957, §§ 2(o), 13 (India); Trade Marks Act, No. 47 of 1999 (India); Information Technology Act, No. 21 of 2000 (India)

²⁹ M.K Bhandari, Law Relating to Intellectual Property Rights (Ishita Chetterjee rev., 3d ed. 2012, Central Law Publications)

important international agreement in intellectual property.³⁰ It guarantees that artists would have uniform protection for their creations in all participating nations and eliminates the need for individual registration in every jurisdiction. More than 180 signatories are there; the Berne Convention serves as the foundation for global copyright protection. The idea of automatic protection is one of the key provisions of the Berne Convention. If a creative work, be it a computer program, painting, book, or song, is protected by copyright law from the moment it is created and doesn't need to be formally registered. National treatment, which guarantees that foreign writers have the same legal rights and remedies as those of citizens of the nation where protection is sought, is another crucial principle.

Game software is basically a synthesis of various creative elements; the Berne Convention is essential to the gaming industry. Because game's source code and object code are considered literary works, they cannot be copied or distributed without permission.³¹ Also, the game's sound effects, music tracks, visual graphics, animations, and dialogues are all protected by Berne 's copyright as artistic and musical works. For example, a person developed a game in Japan and that game is illegally copied and distributed in India, here the Berne Convention will ensure that Japanese developer can claim the same legal remedies in Indian that an Indian developer would have. This framework simplifies the global enforcement and strengthens the right of creators in the industry where piracy and unauthorized reproduction are common.

Article 10 of the TRIPs and Berne Convention of 1971 required copyright protection for computer programmes including software and issues relating to internet. As such, the Copyright Act was further amended in 1999 to include computer programmes as part of literary work entitled for protection under Section 13(1)(a). Section 2(a) says, literary work includes computer programmes, tables and compilations including computer database. Computer programme means a set of instruction expressed in words, codes, scheme or in any other form, including a machine-readable medium, capable of causing a computer to perform a particular task or achieve a particular result.³² Computer software includes many items like the programmed manuals and papers, punch cards and magnetic tapes or discs required for operation of computer. Programme manuals and papers and computer printouts may be considered as literary work. But the concept or idea of algorithms, frequently used in computer

³⁰ Berne Convention for the Protection of Literary and Artistic Works, Sept. 9, 1886, as revised at Paris July 24, 1971, 1161 U.N.T.S. 3

³¹ Copyright Act, No. 14 of 1957, § 2(o) (India); Berne Convention, *supra* note 30, art. 2(1)

³² Copyright Act, No. 14 of 1957, § 2(o) (India)

programming is not capable of copyright protection. Punched cards which contain certain information in particular notation may be considered as literary work. Programmes devised for the working of computer is generally regarded as literary work. Magnetic tapes and discs including floppy disc which contain information recorded by means of electronic impulses may be considered as data bases and accordingly literary work by definition.³³

With gaming platforms and online distribution, the applicability of the Berne Conventions to game software becomes clearer. Since games are now frequently downloaded, streamed, or played online across national borders, Berne Convention rules provide a common venue for protection and enforcement, lowering legal uncertainty for publishers and developers everywhere.

THE TRIPS AGREEMENT (Trade-Related Aspects of Intellectual Property Rights)

TRIPS agreement is one of the most important agreements related to Intellectual Property. It was adopted in the year 1994 under the framework of World Trade Organisation (WTO). TRIPS provide a minimum standard of IP protection and enforcement, that all member states must follow. It is important for industries like gaming, where software and creative content cross national borders daily. The WTO administers the Trade-Related Intellectual Property Rights Agreement, and unlike its predecessor, WIPO, attempts to make the standards of protection and enforcement of IPR uniform to the greatest extent possible. The TRIPS agreement represents a product of hard-fought negotiations between two blocks of developed and developing countries from 1986 to 1993 during the Uruguay Rounds. As on today, the international IPR regulatory framework is governed by the TRIPS Agreement and numerous WIPO conventions which continue to remain relevant even in the wake of TRIPS.³⁴

The major impact of TRIPS is that it integrated IP law into international trade, so intellectual property enforcement became a trade commitment instead of merely a legal requirement. That is, nations are not only supposed to safeguard IP rights locally, but they are also supposed to enforce against violations that could influence global trade and digital markets. Furthermore, since Article 10 of the TRIPS Agreement specifies that computer programs, whether expressed in source code or object code, must be protected as literary works under the Berne Convention

³³. M.K Bhandari, Law Relating to Intellectual Property Rights (Ishita Chetterjee rev.,3d ed. 2012, Central Law Publications)

³⁴. Rakesh Kumar Singh & Arunabha Banaerjee, Intellectual Property Rights (1st ed.2022)

(1971), the Indian Copyright Act similarly recognises computer programs as literary works for copyright protection.³⁵For the gaming industry, TRIPS provide protection for several components of game software:

Copyright: Protection for the source code of the software, as well as in-game music, visual art, and scripts,

Trademarks: Game title, logos, branding elements are protected, these are crucial for brand recognition and market value.

Patent: Here some jurisdictions allow patenting of novel technologies used in game engines.

Trade secrets: Prevent unauthorised use or disclosure of techniques, source code, and secret algorithms.

The Indian Copyright Act, 1957 was enacted to align India's laws with major international copyright conventions and the TRIPS Agreement. Copyright grants bundle of exclusive rights to the original author or creator of works such as literary, artistic, dramatic, musical pieces, computer software and programs, cinematographic films, and sound recordings.³⁶India, being a WTO member, revised its Copyright Act, 1957 and Trade Mark Act, 1999, to conform to TRIPS standards. For instance, the acknowledgement of software as "literary work" in Indian law and the release of more effective enforcement instruments, including injunctions and statutory damages, is directly a result of TRIPS compliance.³⁷ In the video games context, TRIPS sets an even baseline protection, but enforcement can differ from country to country. For example, the United States and Japan possess strong enforcement mechanisms to deal with piracy or bot-based infringement; other jurisdictions lack the technical know-how or infrastructure to properly enforce such rights. The disparity tends to create continued challenges for game developers to have global protection for their games. TRIPS protects the international legal environment by ensuring that the developers and publishers have a common standard of protection and legal remedies when their rights are infringed in the global gaming market.

³⁵ A. Mukundh Viswesh, Legal Challenges of the Intellectual Property Rights in the Gaming Industry,3, INDIAN J. INTEGRATED RSCH. L. 206 (November-December 2023)

³⁶ Id

³⁷ Copyright Act, No. 14 of 1957, § 2(o) (India); Trade Marks Act, No. 47 of 1999 (India)

WIPO INTERNET TREATIES: WIPO COPYRIGHT TREATY (WCT) AND THE WIPO PERFORMANCES AND PHONOGRAMS TREATY(WPPT)

Intellectual property law faced new difficulties with the advent of the digital age, especially in sectors like gaming where software and digital content are shared and accessed worldwide. To address these challenges, the World Intellectual Property Organization introduced two new treaties. In late 1996, delegates at a meeting of the World Intellectual Property Organization in Geneva worked intensely to finalize two major copyright agreements before the end of the year the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty. Together, these are commonly referred to as the “Internet Treaties” because they introduced updated global standards for protecting copyright and the related rights in the digital environment.

a) WIPO Copyright Treaty (WCT), 1996

The WCT was instituted to fill the loopholes in the conventional copyright legislation, particularly in the digital environment. It broadens the scope of copyright protection for works in digital and online forms, thus ensuring that authors and developers have control over the utilisation, distribution, and reproduction of their works in the digital platforms. For game software the WCT is highly relevant because it protects source code and object code as literary works as well as digital graphics, animations, and storylines. Online distribution of games through platforms like Steam, PlayStation Store, and Xbox Live.³⁸

The treaty also mentions Technological Protection Measures (TPMs), including encryption or Digital Rights Management (DRM) systems, used commonly by game developers to avoid copying, reverse engineering, or piracy. Unauthorised circumvention of such protective measures is now a violation under the WCT, providing developers with legal jurisdiction to pursue action against pirates and hackers across the world.³⁹

b) WIPO Performances and Phonograms Treaty (WPPT), 1996

The WIPO Performances and Phonograms Treaty (WPPT) protect two main groups in the digital environment: performers such as singers, actors, and musician and producers of phonograms, meaning the individuals or organisations responsible for recording and fixing

³⁸ Gaetano Dimita, Understanding Intellectual Property in Video Games (WIPO, Nov. 2023)

³⁹ WIPO Copyright Treaty art.11 (1996), <https://www.wipo.int/wipolex/en/text/295166>

sounds. Both groups are included in the same treaty because most performer rights relate to their recorded, audio-only performances, which form the basis of phonograms. Under the WPPT, performers receive several economic rights over their performances once they are fixed in phonograms. These include the rights to reproduce, distribute, rent, and make their performances available to the public. These protections do not extend to audiovisual recordings like films, but apply specifically to sound-based recordings.⁴⁰

Whereas the WCT targets authors and copyright holders, the WPPT addresses the rights of performers and sound recording producers. Within game software, these cover:

Voice artists who deliver dialogue lines for characters in a game.

Composers of music and sound artists who design in-game music, background scores, and sound effects.

Producers and developers who possess rights over these sound components.

For example, a game called Call of Duty released, its music and voice performance are secured under the WPPT so that unauthorized duplication or online streaming without license can be legally challenged.

c) Significance for the Gaming Industry

The WIPO Internet Treaties are important in the protection of the online and digital elements of games, now the prevailing method of distribution and play. Games can now stream, downloaded, and even run on cloud-based platforms, eliminating the need of physical platforms or CDs. These treaties also provide developers and creators legal protection to protect their creations against unauthorised copying, digital piracy, and unlawful modifications.

India is signatory to both the WCT and WPPT and their principles are incorporated in Indian Copyright Act, 1957.⁴¹ The act provide protection against unauthorized reproduction and online piracy and protect the right of the performers. So, the WIPO internet treaty is the modernized copyright law for the digital age. They provide protection to the game developers, performers

⁴⁰ WIPO Performances and Phonograms Treaty (WPPT) Summary, World Intellectual Property Organization, https://www.wipo.int/treaties/en/ip/wppt/summary_wppt.html

⁴¹ Copyright Act, No. 14 of 1957, §§ 14, 38, 38A (India)

and publishers.

LEGAL FRAMEWORK FOR THE PROTECTION OF GAME SOFTWARE IN INDIA

The development of the digital economy has revolutionized the entertainment sector, and game software has become one of its most vibrant elements. The video game market has become one of the most rapidly growing segments of the global digital economy, merging creativity, technology, and commerce. Video games are not just regarded as a means of entertainment anymore; they are now complex creative media involving coding, graphics, music, storyline and interactive design.⁴² The Indian gaming industry has grown very quickly in recent years. Earlier, the domain of games was only on computers and consoles; however, cheap smartphones, lower internet data costs, and widespread digital payment systems have transformed people's access to video games by leaps and bounds. This has placed India among the world's fastest-growing gaming markets. India has become one of the world's largest mobile gaming markets, recent reports indicate. Teenagers, especially those between 18 and 35 years of age, utilise a lot of time playing games like PUBG, Free Fire, and BGMI. In addition to entertainment, several games also have real money exchange, e-sports tournaments, and streaming possibilities. This has contributed to the sector becoming a principal source of work and commerce. According to Forbes, the Indian gaming market is valued at more than \$890 million, placing India among the top five countries globally for mobile gaming. With the industry growing at such a significant scale, the need for strong legal and regulatory protection has become widely recognised.⁴³

Concurrently, this instant growth also identified a lot of legal issues.⁴⁴ Game software is not an easy product; it is a mixture of computer code, visual elements, music, narratives, and interactive elements. Every one of these elements can find protection under different areas of intellectual property law. Still in India, the law is unclear about how to safeguard the game software in totality.⁴⁵ For instance, copyright laws shelter the coding and artworks in a game, but the question is whether the mechanism of gameplay can also be sheltered. In the same way, trademarks protect logos, brand names, and characters, but there are still cases about the

⁴² Andy Ramos et al., *The Legal Status of Video Games: Comparative Analysis in National Approaches*, WIPO Mag., July 2013, at 10–12

⁴³ A. Mukundh Viswesh, *Legal Challenges of the Intellectual Property Rights in the Gaming Industry in India*, 3 INDIAN J. INTEGRATED RSCH. L. 206 (November- December 2023)

⁴⁴ Vanshika Bhatia, *Copyright Law in India & the Gaming Industry: Identifying Legal Deficiencies and the Need for Reform*, 7 Indian J.L. & Legal Rsch., Iss. 2, at 3–5 (2023)

⁴⁵ Gaetano Dimita, *Understanding Intellectual Property in Video Games*, World Intell. Prop. Org. (Nov. 2023)

duplication and abuse, which generate controversy in the field. Piracy and unauthorised publishing are other significant issues. Pirated copies being easily available on the net, developers incur heavy losses.⁴⁶ For a small developer, such losses can deter innovation and development. Also, online multiplayer, unauthorised changes, and unfair competition in competitive games. Thus, the protection of the game software in India is not merely a matter of law but also an economic concern. In the absence of good legal protection, the Indian game industry can be unable to fulfil its potential. Giving genuine legal protection will not only safeguard creators right but also ensure more investment, promote fair competition, and establish India as a world leader in the gaming industry. To put this into perspective, it becomes necessary to examine the prevailing legal systems for the protection of game software in India.

COPYRIGHT ACT 1957

Literary and artistic creation is a unique feature of human beings. This intellectual creativity has been recognized and protected by law in the form of copyright. It is an exclusive right given by law for a certain term to an author, composer, etc. (or his assignee) to print, publish and sell copies of his original work. From Berne Convention, 1886 to TRIPs agreement of 1995 the international law on copyright has been crystalized on sound footing. Since India has been member of various international agreements including TRIPs the law on copyright has been revised and brought in conformity with TRIPs Agreement.⁴⁷

The Copyright Act, 1957, is the main legislation in India for the protection of original literary, artistic, and musical works, and computer programs and software. Game software as a complicated mix of creative and technical elements comes under the purview of this Act. According to the Copyright Act 1957, Section 2 (o) “literary works” includes computer programmes, tables and compilations including computer.⁴⁸ According to Section 14, a game’s source code and object code are considered literary works, giving game developers exclusive rights. Reproduction, adaptation, distribution, and public communication are all covered by these rights. Similar to this, provisions artistic and musical work cover creative components like the game’s plot, music, dialogue, and visual graphics. This ensures that creators maintain control over the market's use and distribution of their work.

⁴⁶ Sayed Qudrat Hashimy, Protection of Video Games under India and the United States of America’s Copyright Law, 4 Indian J.L. & Legal Rsch. 1, 6–9 (2022)

⁴⁷ M.K. Bhandari, Law Relating to Intellectual Property Rights (7th ed.2024).

⁴⁸ . Copyright Act, 1957, § 2(o) (India)

The Act protects under automatic cover from the moment the work is created, and registration, although voluntary, facilitates enforcement in the event of infringement disputes.⁴⁹ Infringement under Section 51 occurs when any person, without authorisation, makes a reproduction, issues copies, or makes the copyrighted elements of the game available to the public. With increased use of digital platforms and online gaming, piracy and illicit alterations have emerged as pressing matters, rendering the enforcement of copyright in game software more complicated. Then Section 65A and 65B of the Act further safeguard technological protection measures and rights management information. Such provisions are most applicable for the purpose of preventing unauthorised access or bypassing security measures embedded in game software.⁵⁰

Although the Copyright Act provides full protection, the speed with which the gaming world is changing poses challenges. Piracy across borders, modding of games, and cracking and sharing of software are some of the special challenges that require regular upgrading of the legal interpretation and enforcement strategy to provide strong protection to game developers in India.

TRADEMARKS ACT, 1999

The Trade Marks Act, 1999, is a prominent legislation in the protection of game software's commercial identity in India. Trademarks are crucial in the gaming sector to protect brand features like the title of the game, logo, characters, slogans, and even unique interface patterns. These serve to distinguish a game from another in a very competitive market and create a distinct identity that games relate to quality and experience.

Section 2 (1) (zb) defines trade mark as a mark

- (i) capable of being represented graphically, and
- (ii) distinguishing the goods or services of one person from the goods and services of others.

The mark may be registered under the Act, or if unregistered, simply indicate a connection in the course of trade between the goods or services and the owner or user of the mark regardless

⁴⁹ Copyright Act, No. 14 of 1957, §§ 13, 17 (India)

⁵⁰ Copyright Act, No. 14 of 1957, §§ 65A–65B (India)

of whether the identity of the owner or user is indicated by the mark. The definition also includes a certification trademark or collective mark.⁵¹

A game software, the name of the game, unique character marks, or icons featured in the game can all be registered as trademarks.⁵² Registration grants legal exclusivity to the proprietor and bars its use by competitors or copyists without authorisation. Section 28, enable the owner to exclusively use the mark and to sue for infringement.⁵³ Section 29 also defines what constitutes infringement, including unauthorised use of a mark that is identical or deceptively similar to the registered mark, specifically where it causes confusion among the public.⁵⁴

In the online gaming community, abuse of titles and logos is increasing. Impersonation by fake gaming sites can be done through similar logos, typography, or names to make consumers think that the service is genuine. This not only harms the credibility of the original developer but also causes loss of money through piracy and illegal downloads.⁵⁵ The Act also makes available remedies in the form of injunctions, damages, and destruction of infringing goods or materials to safeguard the goodwill of game publishers and developers. But since the gaming industry is global, enforcement is usually complicated, especially when the infringers are outside India or utilise digital platforms which are hard to control. The increasing importance of trademarks within the gaming sector underscores the requirement for aggressive brand management, under which developers make sure that their most important brand values – names, logos, and characters- are registered and tracked immediately to avoid misuse. With gaming increasingly growing in India, robust enforcement of trademark rights becomes important for upholding the integrity and commercial viability of game software in the internet market.

INFORMATION TECHNOLOGY ACT, 2000- REGULATION OF ONLINE PLATFORMS IN GAME SOFTWARE PROTECTION

The Information Technology Act, 2000 was introduced to provide a lawful framework for provide a lawful framework for electronic (digital) transactions conducted through electronic data interchange and other digital means, or electronic commerce (e-commerce). It aims to

⁵¹ Rakesh Kumar Singh & Arunabha Banerjee, *Intellectual Property Rights* (1st ed. 2022)

⁵² Trade Marks Act, No. 47 of 1999, § 2(1) (zb) (India)

⁵³ Trade Marks Act, No. 47 of 1999, § 28 (India)

⁵⁴ Trade Marks Act, No. 47 of 1999, § 29 (India)

⁵⁵ Vanshika Bhatia, *Copyright Law in India & the Gaming Industry: Identifying Legal Deficiencies and the Need for Reform*, 7 Indian J. L. & Legal Rsch., Iss. 2, at 6–8 (2023)

supersede paper-based communication and record keeping, allow filing documents electronically with government authorities, and amend certain other laws, such as the Indian Penal Code, the Indian Evidence Act, of 1872, the Bankers' Books Evidence Act, 1891, and the Reserve Bank of India Act, 1934.⁵⁶

The Information Technology Act, 2000(IT Act), deals with the legalities of online platforms, cybercrimes, and electronic transactions. Though it is not industry-specific to the gaming sector, its provisions are important in the regulation and safety of online gaming platforms, especially concerning unauthorised access, hacking, piracy, and data security. Internet games are very much dependent upon virtual infrastructure, and whenever there is a violation in this realm, it causes serious losses to the developers, such as theft of source code, player information, or intellectual algorithms. According to Section 43 of the IT Act⁵⁷, any individual who accesses a computer system without authorisation, harms data, or causes interference to services can be made liable for paying damages by way of compensation. This is especially applicable when hackers or third parties infiltrate game servers to share pirated versions or install unauthorised bots or cheats. Section 66 of the Act⁵⁸ deals with punishment for hacking, identity theft, and other cybercrimes and will get imprisonment for up to three years, a fine of up to five lakh rupees or both. Section 72 of the Act⁵⁹ talks about the confidentiality and privacy of data, penalising any person who disclose personal information that he has lawfully obtained through electronic record, document or information under the Act but disclose it to other person without the consent of the concerned person. The IT Act also provide support for the regulation of online platforms by requiring intermediaries, including gaming platforms and app stores to comply with the Intermediary Guidelines and Digital Media Ethics Code, 2021. These guidelines mandates the platforms to implement robust mechanisms for content monitoring, grievance redressal, and data protection, these protections are indirectly enhancing the safety and security of game software hosted online.

But despite these provisions, there are challenges in the enforcement. Many infringers operate across borders, making it difficult to investigate under the Indian law. The rapid growth of technological innovation in gaming leads to legal gaps in regulations, particularly in areas such as in-game purchases and real-time streaming platforms. Overall, the IT Act provide protection

⁵⁶ Information Technology Act, 2000 (India)

⁵⁷ Information Technology Act, 2000, § 43 (India)

⁵⁸ Information Technology Act, 2000, § 66 (India)

⁵⁹ Information Technology Act, 2000, § 72 (India)

for online gaming systems. But there is an urgent need for industry-specific regulations.

PROMOTION AND REGULATION OF ONLINE GAMING ACT, 2025

The Promotion and Regulation of Online Gaming Bill, 2025 aims to promote and regulate the online gaming industry in India. Including the e-sports, educational games and social gaming. The Bill provides for the establishment of a central authority to provide coordinated policy support, direct strategic growth and development, and ensure regulatory compliance across the sector. It aims to ban the offering, operating, facilitating, advertising, promoting, or participating in online money games through any computer resource, or mobile device, in particular, where the actions occur across state lines or originate from outside of India. Another significant aim of the Bill is to protect individuals - in particular, children, youth, and vulnerable users - from certain online games related social, financial, psychological, and privacy harms. The Bill promotes responsible use of digital technologies, protection of public order and public health, protection of financial systems from misuse, and protection of the security and sovereignty of the country. Ultimately, the Bill aims to establish a uniform national legal framework for online gaming in India and to address all relevant issues through a single regulatory framework.⁶⁰

The Promotion and Regulation of Online Gaming Bill, 2025, enacted by the Indian parliament in August 2025, is a landmark bill for the nation's rapidly increasing online gaming industry. As India's Online gaming industry is estimated to reach USD 9 billion by 2029, the Act aims to establish a balanced legal structure stimulating innovation and expansion, as well as dissolving issues relating to gambling, addiction and consumer protection. It presents a national regulatory framework to differentiate between money games, social games and e-sports. The central element of the Act is its explicit positioning on online money games, in which players bet real money, credits. These types of games are now banned across the country regardless of whether they are based on skill, chance, or both. The Act also promotes the growth of e-sports and social games. For a better regulation, the Act creates a central regulating body responsible for classifying games, registering platforms, and ensuring compliance.⁶¹ The authority also has the mandate to provide operational guidelines, carry out audits, and, where required, institute enforcement measures against non-compliant providers. In this act, sweeping search and arrest

⁶⁰ The Promotion and Regulation of Online Gaming Bill, Bill No. 110 of 2025 (India)

⁶¹ Id

powers are vested in enforcement officers, who are authorised to search digital platforms, emails, and social media pages without first securing a warrant. But this aimed to check the illegal platforms, but this provision gives rise to constitutional issues of protecting the right to privacy and ensuring procedural safeguards under Articles 19 and 21 of the Indian Constitution. This act also says that providing or arranging prohibited online money games can result in penalties of up to two years imprisonment or a 50 lakh fine.

The Promotion and Regulation of Online Gaming Bill, 2025 is anticipated to bring significant benefits to both society and the economy. Some of its major positive impacts include:

Boost the Creative Economy: The Bill boosts India's position as a hub for digital creativity. It promotes e-sports and creates a safe online gaming environment, opening up more export opportunities, creating more jobs, and fostering more innovation in the gaming industry. In addition, it aids in strengthening India's overall footprint in the global digital economy.⁶²

Empowering Youth: Young people will have more chances to engage in safe and meaningful digital activities. E-sports and skill-based games can help them develop confidence, discipline, and teamwork, while also creating potential career paths for those with talent and dedication.⁶³

A Safer Digital Environment: Families will be better safeguarded from harmful money-gaming practices. Many of these platforms attract users with misleading promises of quick profits, often causing addiction and emotional strain. By restricting such risks, the Bill helps create a safer and healthier digital environment.⁶⁴

Strengthening Global Leadership: India is set to become a global example of responsible gaming and effective digital regulation. The Bill shows how a country can encourage innovation while still protecting society. This positions India as a model for other nations dealing with similar concerns around online money gaming.⁶⁵

The Bill presents stringent punishments to deter illegal online gambling for money. A person who provides or effectively engages in the provision of such games may be in jail for a term of

⁶² Press Information Bureau, Promotion and Regulation of Online Gaming Bill, 2025: Protecting Middle Class and Youth; Promoting E-Sports, Online Social Games, (Aug.21, 2025), <https://www.pib.gov.in/PressNoteDetails.aspx?NoteId=155075&ModuleId=3>

⁶³ Id

⁶⁴ Id

⁶⁵ Id

up to three years, or liable for a fine of up to one crore rupees. Any financial associated with the games of chance may carry the same penalties. Marketing and advertising these games is likely to attract a penalty of up to two years imprisonment or up to fifty lakh rupees as a fine. Additionally, a repeat of any of these offences will lead to stricter sanctions under the Bill, along with possible imprisonment of up to five years or fines of good to two crore rupees. Most of the offences, as describes in this section of the Bill, carry either cognisable or non-bailable statuses, which allows the police to arrest without obtaining a warrant, and, notwithstanding delays, the accused cannot take an automatic bail if the accused will be granted a bail option.⁶⁶

In spite of these progressive measures, the Act is not flawless. The warrantless search and seizure provision for enforcement officers has been described as overbroad and possibly inconsistent with constitutional safeguards. Then, considering the borderless landscape of online gaming, the Act falls short in terms of clarity regarding cross-border enforcement and the conditions necessary for fruitful international cooperation. The main drawback is the lack of specific provisions dealing with intellectual property violations, like cloning games without authorisation, piracy, or trademark abuse, which are one of the most critical legal concerns in the gaming industry nowadays. Moreover, the prohibitive limits on monetisation strategies and business operations may unintentionally kill growth and innovation, mainly for small developers and start-ups that have limited budgets to break through intricate regulatory hurdles.

So, the Online Gaming Act, 2025, is an urgent reform that institutes a uniform policy for the regulation of India's online gaming market. For it to be fully efficacious, though, the government needs to issue explicit guidelines for operations, subject proper checks to prevent malafide exercise of enforcement powers, and implement complementary controls to safeguard intellectual property rights of game developers. With such improvements, the Act can provide a right balance between fostering innovation and ensuring a safe and fair digital gaming environment in India.

CONCLUSION

The analysis from this chapter has demonstrated that the protection of game software in India is both multifaceted and dynamic. Game software, by definition, involves a disparate variety of creative and technical aspects like source code, graphics, music, animations, and branding,

⁶⁶ Id

all brought into the orbit of intellectual property law. The conversation regarding game bots and mods underscored the ways in which illegal automation and modifications pose severe concerns for developers, including impact on intellectual property rights as well as online gaming ecosystems' integrity and fairness.

The problem of intellectual property rights violation in games was found to be especially urgent, with explanatory factors including the commercial value of video games, ease of reproduction in virtual markets, and international access offered by the internet. These problems highlighted the need for international cooperation, and conventions like the Berne Conventions, TRIPS, and WIPO Internet Treaties offer a harmonised system facilitating developers across borders. India's accession to these global instruments demonstrates its adherence to the harmonisation of local law with international standards. At the national level, the Copyright Act, 1957, the Trade Marks Act, 1999, and the Information Technology Act, 2000, together form the basis for safeguarding game software. The enactment of the Online Gaming Act, 2025, also further entrenches this framework by dealing with regulatory as well as consumer protection concerns in the field of digital gaming. However, the Act is also guilty of lacunas and ambiguity, especially on issues of protection of privacy, trans- frontier cooperation, and enforcement, and the failure to include provisions for direct intellectual property protection.

Briefly, India has progressed significantly in developing a legal framework to safeguard game software but remains to tackle the problems of enforcement, technology compatibility, and clarity of regulation. The analysis of the chapter demonstrates that India required a strong, more coherent system that combines international obligations with effective domestic legislation.