



The Digital Renaissance: Intellectual Property Rights and the Resilience of the Gaming Industry in the 21st century

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Abstract:

The gaming industry has been one of the booming sectors and has also become an integral part of pop culture in the 21st century along with movies, comic books, animation series etc... The growth of digitalization has also led to the increase of the gaming industry, and it has also seen the remarkable expansion and drastic changes over the years which have become an integral part of the global economy. Since the launch of first game console by nintendo in 1985 video game became part of global economy and one of the most lucrative sectors with estimated industry worth of 65 billion dollars (about \$200 per person in the US) approximately. In the era of 21st century especially during the quarantine period of 2020-21 where the internet and E-commerce started to boom the gaming industry has become integral and essential part and has become driver of the economic growth, creating millions of employment, tax revenues and returns of the respective governments, creating and encouraging the new talents, paved the path for the creativity and increased several online startups across the globe. As we all have witnessed during the time of quarantine which has been not only difficult time for people across the world but also time where the world must witness huge economic dip with huge financial arrears. It's during this period the era of the internet has begun, and the gaming sector has huge growth which has acted as the guardian angel for economy and made a huge impact in global financial industry. Several games have become part of household names such as PUBG, call of duty, valorent etc... Which has drawn combo of both cutting edge technology and creativity as part of artistic expression which has attracted the people all over the world. This study throws light on the field of IPR such as patents, copyrights, trademarks in these domains.

Keywords: IPR, gaming industries, internet, patents, copyrights, trademarks, creativity

Introduction:

A video game is generally defined as an electronic or computerized game played by manipulating images on video display or any sort of screen¹.

Any kind of game irrespective of content, kind, origin, platform, source, media contain some form of intellectual property rights such as patents, copyrights, trademarks, industrial design etc... the completed game contains different kinds of IPR's owned by different parties.

It's sort of related to cooking item as one meal contains vast ingredients which comprises of different tastes the intellectual properties in the gaming basically fall into four categories code, art, audio and design. Among each of the different categories few of the assets must be begin and created from scratch whereas some of them are licensed from others especially for feasibility and efficiency The assets which are created shall be protected as a part of intellectual property rights.

In contrast to other entertainment industries, video games borrow imaginative artistic expression, creativity and latest cutting-edge technology fused together as the purpose to enhance the quality of visual experience and real time entertainment.

The codes generated in the computers transform the art and imagination of ideas into rich expressions of visual art which can be experienced via different devices like consoles, tablets, laptops, smartphones and computers. The gaming industry has experienced a drastic rise in popularity and profitability in recent years which has been established as the dominant source of entertainment in this era. With the help of advancements in technology vast online communities, gaming societies and millions of players all over the globe have become integral part of this industry.

With this kind of surge in any industry it is also essential to be protected by the various laws pertaining to the field especially laws relating to the intellectual property rights as they create huge impact not only in carving the development of the industry but also encouraging the new talents and protecting their rights and their development which ultimately impacts the global economy. This kind of intellectual property includes inventions, artistry and creative work, trade secrets and several designs. Hence it is very much essential for the gaming sectors to be protected by the IPR'S as its effective enforcement in gaming sectors influences various factors such as it serves developers, publishers and creators to make crores of investment to create path breaking games which create potential economic boom in society.²

¹ European Commission, Study on the Economy of Culture in Europe, October 2006

² WIPO magazine video games and Ip: global perspective

Also, with strengthening of IPR's gaming sectors can also make diverse games and can invest in them without the distress of plagiarism, imitation which enables in development of overall landscape and development of essence and quality of gaming, this also helps in significant contribution in increase of economic growth.

History:

In 1958 British professor first created A.S Dougals created the infamous OXO as part of his doctoral dissertation in his university, then in period of 1958 William Higinbotham has created tennis as two player game in analog computer and has connected it to oscilloscope screen in Brookhaven National Laboratory at New York.³

In 1962 Steve Russel, a student of MIT invented space war which was not only the base for cutting edge technology but also the first multi-player game to be made in many of the universities.⁴ It was a combat game for programmed data processors.

In 1967 Ralph Baer along with Sander Associates has invented multiplayer prototype which can be played on TV. He was often referred to as the father of video games, he licensed his device to Magnavox that sold system to consumer as Odyssey which became first video game home console in 1972.⁵

History of video games has few notable milestones in the period of 1970's and 80's⁶:

- Space Invaders was released in 1978 which was the first arcade game
- First third-party game developer was launched in 1979
- Japan's Pac Man was introduced in United States
- Nintendo has introduced the world of Mario which was visual wonder and introduced the realm of fantasy to the world at that time
- Microsoft has released the first flight simulator

In 1991 Sega has released its Sonic Hedge game with its superior technology to NES which made significant contribution to consoles. In 1991 Nintendo has released its first 16-bit Super NES console in North America which led to digital console war during the time.⁷

³ history. Editors on history of video games

⁴ Russell Brandom 'Spacewar!' The story of the world's first digital video game

⁵ Steve Mullis Inventor Ralph Baer, The 'Father Of Video Games,' Dies At 92

⁶ Museum of Play Video Game History Timeline.

⁷ Prima Games Staff Sega and Nintendo Console War: Greatest Moments

In 1990's wealthy games such as mortal combat, street fighter 2, has deceived the blood in its gaming in response to which Sega has created the video game Council to rate the games in 1992 for which the description is mentioned on console based on their content and type.

COPY RIGHTS LAW FOR VIDEO GAMES:

Video games are facing rapid growth in the modern world. The video game includes both Software and Audio Visuals. Copyright law is applicable for the protection of creators of game as well as software creators. Copyrights law was introduced to protect and safeguard the rights and works of the creators.

The creators' work should not be ended in vain, they made efforts and hard works to create the work. Even though Copyrights laws were there still their violations take place.

So, in 1886, they adopted the Berne Convention to protect and safeguard the rights of the creators. Copyrights law protects the Authors, Musicians, Poets and Painters and copyrights give them the exclusive right to regulate the use of their works and they also have the right to specify who can use their creations under what conditions.

Article 2(1) of the Berne Convention protects all kinds of works in the Literary, Scientific and Artistic fields. Video games not only encompass entertainment but also technology incorporates computer software, artistic creations that warrant copyright protection in their respective fields. This convention also takes measures to ensure that video games are safeguarded by copyright law. Video games not only depend on entertainment, there are lots of things inside the gaming. The Computer software and Audio Visual elements plays a crucial role in the gaming industry. The main objective of the gaming is the software because only software provides good gaming environment. At the same time, Audio Visual elements provide sound, music, video clips for the better gaming. The Computer software and Audio visuals provides good overall performance in the gaming field. In this modern era video games are facing a rapid growth in the world and it keeps most of the humans away from depression.

Copyright law protects not only the game but also each minute thing in the game. This includes the script, gaming codes, music, visual designs and characters etc. Video game does not depend only on game play. Copyright also protects the components that contribute to its completeness and fulfillment.

Copyright law does not cover the theme and the concept of any game. It means there will be no legal safeguard to protect the theme and concepts of the game.

The duration of the copyright protection for video games is 95 years from the date of publication or 120 years from the date of creation whichever comes first.

However, in other jurisdictions they are acknowledged as a form of artistic work because they incorporate audio-visual elements. It is important to recognize that both perspectives hold merit as they are based on different considerations within their respective legal frameworks.

TRADEMARK LAWS FOR VIDEO GAMES:

Trademark is a special symbol, design or name that a company puts on their products and it cannot be used by any other company. Ensuring trademark protection for video games starts by securing ownership over these marks held by developers and producers themselves. The Video games display their logo, name in their introduction of the game visuals. The gaming companies have already registered their trademarks and it will be displayed in the beginning of the game.

The Trademarks in the video game includes:

- Game name and logo
- Company name and logo
- Distinctive sounds and/or colors
- Slogans
- Attributes like weapons or cars.

The Video games also has Trade Secret laws which keeps and encompasses the confidential information like formulas, process, methods or techniques that grant businesses a competitive advantage.

Example of Trade Secret In 2004, Axel Gembe was charged with hacking into Valve Corporation's network, stealing the video game Half-Life 2, leaking it onto the Internet, and causing damages Valve claimed were more than \$250 million.

Trade Secret Laws protect the confidential information. It is a kind of advantage to game developers as they enable them to distinguish their products in the market.

Trade secrets safeguard the crucial game design concepts and mechanics such as proprietary algorithms, artificial intelligence routines, level design techniques, or unique gameplay features. Developers can prevent rivals from copying their games or encroaching upon their creative concepts.

It plays a significant role in revenue generation within the gaming industry. They tend to attract a larger player base and generate higher sales. If they need to survive in the gaming field for a long period they should update the game in frequent intervals. Trade secrets game developers can position themselves for future growth and maintain a sustainable business model.

Trade secret protect valuables from unauthorized access or cyber threats. Companies employ a combination of physical and digital security measures. These measures include secure servers, encryption, access controls, and

monitoring systems. Companies can effectively prevent unauthorized individuals from obtaining confidential information.

Additionally the security measures of companies may also require third parties, such as publishers, distributors, or collaborators to sign Non-Disclosure Agreements. These NDAs serve as a legal contract that ensures the protection of shared confidential information. By requiring third parties to sign NDAs companies are taking proactive steps towards preventing any unauthorized disclosure or use of their valuable information.

DRAMATIC CHANGES AND EXITING OPPORTUNITIES:

The Technological advance plays a crucial role in the gaming industry. The developers and creators need to know what the customers are expecting. In gaming industry the updated version is necessary because only if the customers are satisfied with the work and game they play otherwise they keep on changing their gaming themes. To survive in the gaming field they had to be updated.⁸

Now in the present era the gaming industry has changed drastically they import imagination in the game and the realistic works in the game. The gaming companies work on their realistic works, graphics, voice-overs, and use of motion captures technology giving characters fluid movements, music and sounds are comparatively equal to movies.

In these days the development and budget of the game is higher than the movie budget. The gaming companies were trying to bring out the original feeling in the game.

Now the Multi-Million Dollar hardware companies were also entering into the gaming field. The companies include Samsung, Apple, Sony, Microsoft.

WIPO's recent publication "Mastering the Game: Business and Legal issues for video game developers" it provides developers and new startups about how to develop strategy to secure the IP rights in their work. It also gives the clear and proper explanation about the issues faced by the developers in the legal and business side.

A flop in the gaming industry leads a severe impact in developers and creators business. They also need to update the game and satisfy the needs of the customer. If they did not do the necessary steps they might a huge failure in the gaming industry.

In 90's the games were been sold in retails in the store in CD. They supposed to put in Computer or Laptop. But now the days has been changed Mobile Games are the main gaming platform. All types of games can be played in Mobile. It is the fastest growing sector in gaming industry. Now the competition in the gaming field has increased and we can also witness the same concept of games with similar tasks. The company which gives their best and satisfies the customers survives in the industry.

⁸ Video Games and IP - Global Perspective

The gaming companies are trying their best to survive in the field. They include new software's, new ideas, concepts, the music and background, realistic works, graphics everything has been in top notch. The gaming industry is been evolving daily.

DEFINING THE RULES OF THE GAME:

In the gaming industry the legal issues will be faced by the Developers, Financiers, Publishers and Distributors. While the questions of privacy and data security and content regulation and monetization are the key considerations. The IP rights are more important in securing the developers success.

IP rights were used to develop the games and the contents of the game. IP rights protect the rights of the developers in the way of artistic and creative expressions. No one has the right to use their products illegally. If someone wants to create similar kind of game they need to get the copyrights from the respective copyright holders. Now-a-days the movie makers take the stories from the successful games for that they should pay the consideration to the copyright holders of the game. Ex: Dhoom movie was based on the Dhoom Game.

Trade marks were used to protect the names and logos of the game. The game characters were also is protected. Only the game owners have the absolute right to use the name, logo and its characters.

Patents are used to protect the innovation and design elements of the game.

So in the gaming industry the IP plays a crucial role in protecting their rights. Only if there were protected they will have the intension to create new ideas and innovation on the gaming field.

Challenges and issues pertaining to gaming sectors:

As one of the booming sectors in pop culture and potential economic growth gaming sectors encounters typical challenges when it comes to capability of handling of intellectual property rights.

Issues like plagiarism, copyrights violation, piracy, cracked versions and unauthorized distribution provide high risks to investors, creators, developers and it's also disgrace to the talents of the young minds in the fields, this also drops the revenue and endangers the motivation for novelty and innovation.

Hence, it's also important for us to protect these valuable assets by executing, strengthening and keeping awareness of these laws related to Intellectual properties.

In India there are no legislations specifically to govern the gaming industry, hence there lies difficulty in categorizing of video games under one specific intellectual property although its description matches with the cinematography works which exists under section 2 of copy rights act 1957 which states that “any work of visual recording on any medium produced through a process from which a moving image may be produced by any means and includes a

sound recording accompanying such visual recording and 'cinematograph' shall be construed as including any work produced by any process analogous to cinematography including video films."

So, if we look at the above provision it can be interpreted that the video games and can be contained in the scope of copyright, which also complies computer coding and programming's to be included in the scope of article 10 of the TRIPS agreement as category of literary work.

Also, when it comes to copyright the theme of one game, or any underlying theme or concept of the game is not eligible for the protection which means that there will be no legal safeguards will be extending to the theme or the concept displayed in the game.

There has also been a long-lasting prevailing issue whether the software can be patented or not. The hot discussions about ability of patenting the software where one set of wing argues about no patent is required whereas the other set wing argues protection to be implemented only on basis of strict compliance, also computers codes have strictly been removed from European patent convention which also includes the video games⁹.

The European patent office justifies the exclusion by stating software can't be patented unless it exhibits additional technical effect beyond the software and hardware interaction.

CHANGING PATTERNS OF OWNERSHIP:

Not all the games are same the concept, ideology, and gameplay will be different from each other. The value of the game is also different each game has its own values. Actually the role of publishers is to secure financing for game development but the evolvment in technology leads the publishers and developers to use alternate funding system i.e crowd funding.

The IP rights vested with the publishers but now it can be owned by a developer or an investment vehicle.

In previous days the developers incorporated their licensed materials into the games to attract the wider audience using recognizable brands and technologies to create more realistic games.¹⁰ A basic understanding of IP allows developers to more effectively tackle the range of licensing issues arising across the value chain with licensors whether in relation to securing middleware talent, or external IP licenses relating to, for example, music, sports or film licensing which have become important areas of interest.

If the companies are familiar with the legal and business issues it will help to avoid costly mistakes and provide better understanding of the gaming industry.

⁹ Art. 52(2)(c) and (3),

¹⁰ Grand Theft Auto 5

INDIAN SCENARIO:

When we talk about Indian Scenario there is no specific law to protect the games and gaming industry.¹¹

COPYRIGHT

The Copyright law will be applied to the games because of the creative works and software comes under copyright law. Games are the creative innovation by some individual and it is created through specific software so the games will be protected under Copyright law.

The different elements of these online games can be protected under copyright law.

The gaming concept includes storyline, music, and characters etc., these all comes under section 14 of Copyrights law. The “works” in the copyright law includes the storyline, music, characters etc.

Even India is under Berne Convention, so the article 2 applies to India as well. Article 2 talks about the protection of Literary and artistic works and video games.

TRADE MARK

Trademark comes under IP and it protects the Names, Logo, Color, Design and Symbols etc. of the game.

Section 30 of Trademarks Act, 1999 discuss about exceptions. That is in what ways the trademarks can be used by someone.

Section 30(2)(a) of Trademarks Act talks about the use of Trademarks in descriptive way. That is it can be used in connection to products or services to indicate the sort, quality, amount, intended purpose, value, geographical origin, time of production of goods or rendering of services, or other features of goods or services.

Section 30 (2)(d) of the Trademarks Act discusses about the use of a registered trademark by a person in regard to goods altered to form part of or be accessories, provided that it is ‘reasonably necessary’ to indicate that the goods so adapted are compatible with the goods marketed under the trademark.

PATENTS

Patents are also a part of IP and it protects the Knowledge and idea of the person. If we talk about the gaming industry, patent protects the scope of operation aspect not the theoretical side. The Protection of software is important in game at the same time protecting the hardware is also equal as important to software. The software must be installed inside the hardware. So automatically the patents also play a crucial role in protecting the games.

¹¹ AMLEGALS Legal Strategies by Ms. Ayasha Khatri

Section 3(k) of the Patents Act, says it is necessary to establish that any hardware is of equal importance to that of software and software needs to be attached to gain patent protection.

INDUSTRIAL DESIGN:

The Design in the game makes the game attractive. The design includes colors, graphics, animation etc.... only if all those things are creative and attractive the customers will play and get addict.

Section 2(d) of the Designs Act, 2000 defines “Design” it includes any features of shape, configurations, patterns, ornament or composition of lines or colors applied to any article whether in two dimensional or three dimensional or in both forms, by any industrial process or means, whether manual, mechanical or chemical, separate or combined, which in the finished article appeal to and are judged solely by the eye.

Design also includes the graphic characters of the games, as well as their gaming cover and graphic interface.

LICENSING:

Whichever industry it may be the owners must have their license to prove it legal. The original owner of the game can enter into various licensing agreements for the sale and distribution of its work. The creators and distributors also get license to spread the game to the wider audience. Licenses must be written in accordance with Intellectual Property Laws to protect the designer’s legitimate interests. License were introduced to bring out the genuine and originality of the game.

ISSUES RELATED TO INTELLECTUAL PROPERTY PROTECTION IN VIDEO GAMES:

Game Creation:

Gaming industry is not dependent on one person. Individual components resulted in the complete game. It might be copyrighted independently. The common creatives and existing public domain cannot be protected under copyright.

Common Assests:

There will be idea of borrowing and helping each other. Some companies exchange their idea by helping each other. Various websites employ different models for offering access and right to use these assets.¹²

¹² Legalservice India

If there is a common assets it helps in the helping hands of another company. Most of the companies borrow to develop their industry. The public assets are very limited. These assets frequently needs to be reproduced to build a new game, which is a common issue amongst game creators because creating commercially viable assets costs a lot of money and makes it difficult for smaller studios to generate different games.

Game Engines:

A Game Engine is a concept that enables a designer to make games. The companies create the game engines to allow the game designers to produce games. But due to technical and restrictions the designs and background work might appear differently in the Game Engine.

And one more thing is most of the gaming company use the game engine to develop the game so it is not covered under copyright. Because the game engine develops the game it cannot comes under IP so no one can claim the rights. Game which is created under game engine is not applicable under copyrights law.

Producer – Developers Relation:

Producers are the one who produce the finance for the development of the game. It is the duty of the publishers to supply and make the game reach the wider people's contact. They will also suffer when they face loss in the game. Now due to technological advancement the distribution of the games have been changed.

Sites like Kickstarter and Indiegogo allow gamers to directly contribute to creation of game by purchasing it in advance. Because of these advancements the distribution of the game was done earlier by the creators now it is the duty of the publishers.

Music Creators, Voice Actors and Other Contributors:

A copyright does not protect contributors and it does not directly add to the games code. But if the audio visual copyright was removed then there might be the chance of protection. In terms of authorship rights, most contributors are employees. Then their work is considered as work for hire and it belongs to their employer rather than to them.

SUGGESTIONS:

In the gaming industry the Intellectual Property Rights plays a crucial role that further more deep research can impact the emerging technologies. Technologies includes Augmented reality, Visual reality and block chain. Stakeholders gained the valuable insights.

The investigation provide the deeper understanding of ownership, licensing and potential conflicts and to create suitable guidelines and frameworks.

The first and foremost thing is the IPR in Gaming industry. Because only if the laws were strict the creators and developers get their pay and justice. They worked hard to create a game and it should not end in vain.

Piracy plays an important role in the gaming industry. At least in future there has to be effective Anti-Privacy measures. There must be support for the developers and creators both on technological and legal aspects. Because of the injustice given to the gaming developers and creators they couldn't able to get revenue and profitability. In future there has to be strict rules and laws to protect the rights of the developers.

CONCLUSION:

In the growing gaming industry if the companies need to survive then they must be updated and need to know what the gamers are expecting. The competition in the field has been increased it is a survival of the fittest the company which satisfies the needs of the gamers survive in the gaming field. Now the Mobile gaming is playing a important role in the gaming industry. The IP laws are the biggest support for the games it protects the rights of the developers and creators of the game. The IP laws includes Copyright, Patents and Trademarks these all protects the game from the bottom to the top. Without IP there is no Gaming industry.

In summary the research paper clearly speaks about critical importance of Intellectual Property Rights in shaping the gaming industry. And it is placed on safeguarding and effectively managing IPRs to stimulate innovation while attracting investments essential for establishing a competitive yet sustainable gaming market.

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