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ARTIFICIAL INTELLIGENCE AS A VIDEO GAME DEVELOPER IN INDIA

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Abstract:

With the advent of technology, people have come a long way from video gaming to online gaming or mobile gaming. As much as we have enjoyed video games as a great source of entertainment, the game developers have been restlessly creating more games for us. Apart from just noting the vibrancy of the gaming world, it is also necessary to identify the legal issues with respect to the video games and their developers. Most importantly, the recent advancements of technology have brought in the effectiveness of Artificial Intelligence in the world of gaming. The lack of protection for Artificial Intelligence is apparent with respect to the Indian legislation. Although the beginning of identity of Artificial Intelligence as DEEP BLUE holds a game as a foundation, it is surprising that the laws have not been improvised accordingly. This stagnant state of the laws has affected a loss in creativity and several game clones are created. A clear example of a game clone is Candy Crush. Amidst the popularity of Candy Crush, the original slide-and-match puzzle game is lost which was Bejeweled. Apart from this, there are several other games which have been cloned over a period of time. At the same time, there also exist a plethora of video games which have been creatively enhanced with the help of artificial intelligence.

This paper aims to reflect on the intellectual property laws and examine the extent up to which legal protection can be given to Artificial Intelligence in the field of game development. It is also pertinent to figure out that if Artificial Intelligence gets recognised as the secondary creator in this digital age when the same is used to assist a video game developer in the process of development. This paper intends to explore the existing intellectual property laws and analyse the appropriate legal protection that can be given to artificial intelligence to preserve originality and enhance creativity in video games.

Keywords: AI, video game, copyright, developer, technology

Identity Of Video Games As An Entity

If we observe the advanced use of technology with the changing lifestyle generation after generation, it will be very evident that the video game development companies have been constantly creating developed versions of their works to bring them at par with the rising innovations in technology. The use of the word ‘evident’ is made on purpose so as to point at the increasing access to games on every kind of electronic device made available to us. The growth and ascendance of video games as an art form is also blatantly evident by the number of hours players dedicate to games. This amount of dedication even surpasses the relevance of formerly dominant media like books, music, and television.¹ Although video games have always been a source of entertainment, from the perspective of a developer or the creator, a video game is a matter of giving a pictorial representation to the ideas in a virtual platform. Video games are essentially pictorial representation of ideas of human adventures or fantasies.

The one way in which a layman can describe a video game would be as a series of moving images with music or sound effects running in the background. The images and graphics form the significant part of attraction of a video game and it is also the basic feature of game development. Whenever we play a game on any device, the moving images take the game forward and with respect to the music, there is an option to either play it or not. Even if there is an option available to the player, the developer makes it a point that an audio work is created so that this option is made available to the player. Considering the fact that sound and image form a significant part of every game, the developer mandatorily focuses on these features while developing a game. Irrespective of the presence of sound, the movement of images is constantly there in every game and this is the integral part of the continuation of a game. With respect to the same, it is essential to lay focus on few definitions of audiovisual works in order to understand the scope of video games being covered under the umbrella of audiovisual works.

Article L112-6 of The French Copyright Act defines audiovisual works as:

“works consisting of sequences of moving images, with or without sound”.

In § 101 of the U. S. Copyright Act of 1976, audiovisual work has been defined as:

“works that consist of a series of related images which are intrinsically intended to be shown by the use of machines, or devices such as projectors, viewers, or electronic equipment, together with accompanying sounds, if any, regardless of the nature of the material objects, such as films

¹ S. GREGORY BOYD, BRIAN PYNE, ET.AL., VIDEO GAME LAW EVERYTHING YOU NEED TO KNOW ABOUT LEGAL AND BUSINESS ISSUES IN THE GAME INDUSTRY, (Taylor & Francis, 2019)

or tapes, in which the works are embodied.”²

The Beijing Treaty on Audiovisual Performances provides a definition for the term “audiovisual fixation” as:

*“the embodiment of moving images, whether or not accompanied by sounds or by the representations thereof, from which they can be perceived, reproduced or communicated through a device”.*³

In the month of April, 2020, the Beijing Treaty on Audiovisual Performances came up as an instrument of international nature which expressly talked about protection upon the works of performing artists for having the work fixed on any audiovisual medium. The eventual intention behind the Treaty was to incorporate a sense of recognition of the right of the artists to be able to decide the time and manner in which their works are utilized abroad. It also intended to help them in receiving a portion of the total profits gained from such a use, even in the environment of the digital world.⁴ In contrast to this, the term ‘audiovisual work’ has not been defined in any Indian legislation even if the synonymous elements like artistic works, cinematograph films, musical work and sound recordings have their individual definitions.

Considering the fact that India is a non-signatory to the Beijing Treaty on Audiovisual Performances, the concept of video games is still hazy to understand it as an independent audiovisual product.

Missing Identity of Video Games

Although it is inferred from the above-mentioned segment that a video game can be considered as an audio-visual work, this identity for a video game as an individual entity is missing in the legal framework. The development of video games has grown rapidly in the past few decades when there has been a swarm of mobile games and online games in the market as a major source of entertainment. Although the several elements of a video game are identified independently, the conglomerate of all these components requires a certain recognition as a sole entity. When a video game developer creates a video game, he encompasses the musical work along with the artistic and the literary work in order to create a complete work.

²§ 101, 17 U.S. Code

³ Article 2(b), The Beijing Treaty on Audiovisual Performances

⁴Sara Tortosa, *The Beijing Treaty: A step forward in the protection of related rights in audiovisual performances*, KLUWER COPYRIGHT BLOG (Jun. 18, 2021) <https://copyrightblog.kluweriplaw.com/2021/06/18/the-beijing-treaty-a-step-forward-in-the-protection-of-related-rights-in-audiovisual-performances/>

When we look at a movie as an independent work, the entire movie gets protected as a cinematographic work. Section 2 (f) of the Copyright Act, 1957 of India provides a definition for cinematographic film as:

“any work of visual recording inclusive of a sound recording which accompanies the visual recording and “cinematograph” is construed to mean any work produced by any process/method analogous to cinematography including video films.”

On a plain reading of the above definition of cinematographic film, it is evident that this definition categorically covers only those works which are recorded. The definition also covers those works which are created in a process similar that of video films. On the other hand, a video game undergoes three stages in its lifecycle. The first stage is the one where it is created or developed. This is the stage of birth of the video game and this is the point of inception. The second stage is the actual gameplay and this is where the interaction takes place between the player and the game. The second stage is the stage where the maximum use of a video game is made with respect to recreation. Subsequently, the third stage or the final stage is where the gameplay is live streamed or recorded and then streamed through a video streaming portal like Twitch or YouTube.

On incorporating the definition of cinematographic film into the idea of video games, the third or the final stage of the video game life cycle seems to be secured. When cinematographic film is defined, the word ‘recorded’ signifies that only those works are covered under this definition which is a visual recording. At the third stage of a video game, the streaming of the gameplay becomes a recording which gets uploaded onto the portal and also gets saved for viewing in the future.

Artificial Intelligence as a Video Game Developer

When we get into a general conversation about Artificial Intelligence, the origin and the birth of Artificial Intelligence becomes a mandatory part of the discussion. On these lines, the success of DEEP BLUE shatters the thoughts on concealed capacities of Artificial Intelligence. DEEP BLUE came out as a ground breaking algorithm invention which was an expert in the game of chess and won a round of chess against the then famous world chess champion, Gary Kasparov. Although the term ‘Artificial Intelligence’ was coined at a subsequent stage, these algorithms marked the beginning of Artificial Intelligence. With these algorithms giving an artificial power to the machines, several functions of these machines came to stand at par with human capabilities and these were majorly tested through games.

While discussing about the role of Artificial Intelligence in the field of game development, Aleksandar Filipovic defined Artificial Intelligence in video games as “*a set of software techniques used in a game engine to simulate intelligence in the actions of computer-controlled characters reflecting one of the essential characteristics of intelligence, which is "perceiving relevant relationships in a specific situation"*”⁵ the definition portrays the game characters as computer-controlled characters and also states that Artificial Intelligence adds simulation to these characters. Simulation is where the real-world behaviour or process is predicted and accordingly adapted by a computer programme.⁶

When this is read along with the role of Artificial Intelligence in video game development, it is depicted that the involvement of Artificial provides a certain degree of advancement to the video games by adding simulation. This simulation further grants a sense of independent activity to the game character by gradually liberating them from being completely computer-controlled. This is how the enhancement of video games is done through the incorporation of AI in video game development. Although this effectiveness of AI and advanced technology is recognised from a layman’s view, the recognition of the same through the lens of law is yet to be analysed.

Legal Framework For Video Games And AI In India

The growth and advancement of technology has been way faster than the growth in legislation. As on date, we have arrived at a technological phase where an entire complete world is possible to exist virtually and we have our laws as they were before the virtual worlds existed. In this kind of a situation, it automatically makes the developed technologies to mould their behaviour so as to forcefully squeeze themselves into the old small bottle of existing laws. With respect to video games, there are no laws in India focusing solely on video games as an entity. The entire creation of a video game gets covered under the intellectual property laws and most specifically copyright laws.

When the concept of video game begun, it started off as a form of entertainment and even today, that is how most people identify video games. Video Games can be classified as either Casual Gaming or Gambling.⁷ However, if we look at the existing laws making reference to video games, it becomes very evident that the focus has always been laid upon gambling only and the section

⁵ Aleksandar Filipovic, *The Role of Artificial Intelligence in Video Game Development*, 20 *Kultura Polisa* 50 (2023)

⁶ Margaret Rouse, *Computer Simulation*, *TECHOPEDIA* (Feb. 5, 2019)
<https://www.techopedia.com/definition/17060/computer-simulation>

⁷ Aaroha Kulkarni, *Victims of Virtual Vortex: Regulating the Video Game Industry in India*, 7 *CMET* 18 (2020)

of casual games gets neglected considering it to be solely a form of entertainment. In the case of State of Bombay v. R.M.D. Chamarbaugwala⁸ which laid recognition on a game as the subject matter of the case. However, it all trickled down to just one aspect of video games as the reference in this case was made from the standpoint of understanding ‘gambling’ activities. The entire meaning of a game was limited to gambling and the casual gaming was not referred to in this case.

When we lay eyes upon Section 3 of the Patents Act, 1970 and look closely at the exclusions, it is clear that this provision considers a mathematical formula or any business method or a computer programme per se or any algorithm as an exclusion from patentability⁹. Even if the elimination of computer programme from patentability is made apparent in this provision, at the same time, there is still a gap left for further interpretation. With this gap some room for a possibility of including of video games can be seen because of the use of the phrase “per se”. There is no statutory definition of the term “per se” in any Indian legislation. Nevertheless, the general dictionary meaning of “per se” reads as “by itself” or “in itself”.¹⁰ Keeping this thought intact in mind, it is also necessary to note that The Copyright Act, 1957 defines a “computer programme”¹¹ as:

“Set of instructions expressed in words, codes, schemes 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;”

If the aforementioned dictionary meaning of “per se” is utilised to understand the provision of exclusion of computer programmes inscribed in Section 3(k) of the Patents Act, 1970, then a possibility to leave some space for inclusion of video games appears. A computer programme may not be a patentable subject matter “per se” (in itself), but when a computer programme is combined with a complementary audio-visual work along with a storyline, it brings out the transformation into an entirely different form of product. This product is the video game which can be identified as an individual entity and not just an extension of computer programme. This possibility, if transformed into an actuality, will result in the identification of video games in the eyes of law and regulate them accordingly.

In addition to patents, the possibility of protection also appears in the copyright. Section 14 of the Indian Copyright Act indicates that copyright protection is made available to computer programme for the purposes of translation, reproduction, adaptation, performance and circulation.

⁸ State of Bombay v. R.M.D. Chamarbaugwala, AIR 1957 SC 699

⁹ Indian Patents Act, No. 39 of 1970 §3(k) (Ind.)

¹⁰ Guidelines for Examination of Computer Related Inventions(CRIs), Office of the Controller General of Patents, Designs and Trademarks, Rule 3.12 (2017)

¹¹ The Copyright Act, No. 14 of 1957 § 2(ff) (Ind.)

This depicts the importance granted to computer programmes as a creation. Even if it is adapted into a video game, the protection extends just to the programme and the act of adaptation, but it completely ignores the video game as a distinct entity altogether.

Recognising AI As A Creator

Even if we keep that aside, it is pertinent to think about Artificial Intelligence as a creator and what identity do they have as creators. Section 2(d) of the Indian Copyright Act defines an “author” with respect to specific genre of work. While, with reference to every other genre, the term used to describe an author is composer or author or artist, etc., with respect to photography and computer-generated works, the word “person” is used. When it is made specific that it has to be a person to receive protection for a computer-generated work, the identity of Artificial Intelligence gets blurred.

On putting this interpretation into applicability, only the creator of the AI algorithm will get protection as the author because it is this programmer who created the AI and then the AI subsequently developed the video game. Today, we are at the stage where we have access to Generative Pre-Trained Transformer (GPT) through our mobile phones. GPT is a form of Generative AI which uses the first job to generate its own way of functioning in similar situations in the future. This implies the capability of the Generative AI to use its own way of thinking and acting accordingly and is known as Deep Understanding¹². Keeping this in mind, it becomes a little unfair to merely protect the creator of the AI and not the AI itself for any further act of creativity.

The base idea behind securing the rights of the original creator only and not the AI is agency. From a common point of view, the original creator designs the AI and incorporates a command. Whatever the AI further creates, is considered to be done as a result of the command only. Hence, it is presumed that the AI has acted as an agent of the programmer. This has also been noted in several discussions that the works that have been created by AI are not copyrightable as a human authorship has been made a mandate in the copyright laws in several countries.¹³ This substantiates the fact that the development of laws and the development of technology has not been at par.

¹² Jiran Kurian, Rohini V, *A Deliberation on the Stages of Artificial Intelligence*, SCRS Conference Proceedings on Intelligent Systems (2021)

¹³ Rita Matulionyte & Jyh-An Lee, *Copyright in AI-generated Works: Lessons from Recent Developments in Patent Law*, 19 SCRIPTed 5 (2022)

Another significant issue with respect to works created by AI is its legitimacy. Valve Corporation is an American video game development company. Valve owns a website named as steampowered.com which is commonly referred to as Steam. This website is well known among video game players for distribution of video games and it is huge platform for video game developers to publish their games. On the 10th of January, 2024, Valve published new rules for those who intended to have their video games published on Steam. As per these rules, the video game publishers will *“need to say if their game has AI content that is generated “live” while it is running. It’s in the latter case when developers will need to detail the safety measures, they put in place to stop their AI from generating illegal content.”* This hints towards the possibility that AI generated game content may also turn out to be illegal in nature. This becomes another reason for not identifying.

Conclusion: Decoding The Relevance Of AI Today

Although we do have a set of laws for securing the creativity of computer programmes and the pictorial representations, these laws are rigid and do not flex enough to give way to new advancements in technology. From a time when video games were merely a source of entertainment for kids, we have reached at a time where video games have become an integral part of our lives as a major stressbuster and even a profession for some. Hence, it is necessary to make the laws flexible enough to protect video games as an entity just as movies. when we talk about video games being an entity, it is also necessary to have a designated identity assigned to AI for being a game developer. Although the AI is itself a product of human creation, there needs to be some authentication attached to AI created content. We have reached the stage of Generative AI where the AI is capable of critical thinking based on past experiences and it is not something that can be termed as entirely a human creation. When a certain improvisation is done by AI itself, it needs to be recognised and protected as well. With respect to the same, a lot is required to be done on the part of the legislature to secure AI generated works specifically with regards to video game development.