TUNING THE LAW TO THE RHYTHM OF ARTIFICIAL INTELLIGENCE

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ABSTRACT

Artificial intelligence (AI) has completely revolutionized our day-to-day lives. Be it healthcare, travel, aerospace, science, or academia no industry has been able to evade AI. The entertainment industry (music, art, gaming, and films) is no exception. Computer programmes were viewed as tools to support the creative endeavour, computer-generated works did not create many ownership complications, and human interference was essential for the creation of the work. With the advent of AI technology, these computer programmes are no longer merely tools; they have the capacity to make intricate creations that are identical to human-created works singlehandedly by making their own judgements. The scope of this research includes an examination of the copyright connected with only musical works generated by AI and governed by Indian law. The research examines whether AI-created musical works are entitled to copyright protection and if Indian copyright law is adequately equipped to govern the musical works produces by AI. This research addresses the issue of authorship and ownership of AI-generated musical compositions, as well as whether the conventional interpretation of Indian copyright law may be applied to AI-generated musical works.

Keywords: Artificial Intelligence, Authorship, Copyright, Ownership, Musical work

INTRODUCTION

Since the 1970s, computer-created creative works like melodies, ringtones, and musical notes have attracted a significant amount of interest. The majority of this computer-generated craftsmanship is heavily reliant on the software developer who provides input for the work's creation.[2] However, with technological advancement, counterfeit insights have been generated to the extent that

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2   Sakshi Agarwal & Chintan Bharadwaj, *The Dilemma of Copyright Law and Artificial Intelligence in India*, SSRN, (2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3818280.

it can comprehend and produce results without any human interference. The primary concerns highlighted in this regard are the authenticity of the work created by Artificial Intelligence (AI). With the present implementation of IP laws in India, notably copyright law, the idea of enhancing copyright security against false insights for works may be difficult. AI works may be divided into two categories: "AI works with human obstructions" and "AI works without any human obstructions."[3]

When AI creates a musical composition with human intervention, the originality of the work may be determined from human input. In such cases, humans might be attributed with the creation. The scope of law is uncertain with creation when work is made by AI in absence of human intervention. The robotic arts community has been active for quite some time, and its members have participated in many different forms of creative endeavours. Computers have been making rudimentary pieces of art since the 1970s, and they still do so now. Creating these works of art on a computer required significant amount of the programmer's imagination and skill; the computer was, at most, a tool, much like a paintbrush or a canvas. Yet now, in the midst of a technological revolution, we may need to reconsider how computers factor into the creative process. The fast advancement of machine learning software underpins this transformation. This branch of AI creates self-sufficient systems with the ability to learn without being explicitly trained by a human. When the work is created by AI in absence of human intervention, ownership may be transferred to the AI developer.[4] The creator of an AI with sufficient programming may be vested with the right to claim inventiveness in cases where the AI completes a task without human intervention. This is because such cases raise the reasonable suspicion that the AI's programming is designed in such a way that the AI creates and recognises conditions to bring about an outcome on its own. Sec. 13 of the copyright law clearly states:

> *"Works in which copyright subsists. — (1) Subject to the provisions of this section and the other provisions of this Act, copyright shall subsist throughout India in the following classes of works —*
>
> *(a) original literary, dramatic, musical and artistic works;*
>
> *(b) cinematograph films; and*
>
> *(c) sound recording."*[5]

The above-mentioned arrangement clearly indicates that a work must be original. The word "unique work" isn't defined under the Act, however while determining creativity, the Court often considers the following characteristics[6]:

1. Whether the thought and expression are inherently associated.

2. Whether the work was made with ability and work by the creator.

3. Whether the work has the least degree of inventiveness.

4. Whether the work is made with insignificant aptitude or the work has expertise and judgment.

For an AI to claim proprietorship or right of creation over copyright, the work created, in the case of original literary work, musical work, and artistic works, must be novel and must pass the test of originality.[7] Regardless, whether AI can create original content is an open question. Copyright protection under the Copyright Act of

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3   Id.

4   Akanksha Bisoyi, *Ownership, liability, patentability, and creativity issues in artificial intelligence*, Information Security Journal: A Global Perspective, 1-10 (2022)

5   Yeon Jeong Kim, *Posthuman as Diaspora: Focusing on Philip Dick's Do Androids Dream of Electric Sheep?*, 65 Modern Studies in English Language & Literature, 231-250 (2021)

6   *Eastern Book Company & Ors vs D.B. Modak & Anr*., ((2008) 1 SCC 1.

7   Niloufer Selvadurai & Rita Matulionyte, *Reconsidering creativity: copyright protection for works generated using artificial intelligence*, 15 Journal of Intellectual Property Law & Practice, 536-543 (2020)

1957 may apply to the results of AI development, given that they are based on pre-existing data and the presentation of algorithms. In any case, other arguments assert that the work created is only a collection with no creative labour or judgment.[8]

The advancement of artificial intelligence toward technology capable of autonomous creativity raises various intriguing but has also given rise to various complicated copyright issues. The issues include if a man-made machine, or software, be considered an "author" under copyright law.

COPYRIGHTABILITY OF AI GENERATED MUSICAL WORKS

New technologies are continuously challenging the core concepts of copyright law. The traditional concepts of "originality" as prerequisites for copyright protection look challenging in certain scenarios where the work is produced by AI. The use of AI in the creation of works may have far-reaching consequences for the protection of authors' rights. In the past, when computers were simply another tool for writers to use, like a typewriter or pen and paper, the subject of who owned the copyright to the resulting works were never raised. Only unique works may be granted copyright protection, and most definitions of originality need the involvement of a human creator. Nowadays, most of the literary works can be created through technology. The dilemma in artificial creativity, along with the issue of artificial intelligence, has acquired significant importance in the IP regime. The 'idea-expression dichotomy,' a core principle of copyright law, considers a human author as the subject of copyright law. Works are always the result of ideas that are not protected by copyright until they have been presented in

some way. This is especially true for AI-generated expressions, in which the programme generates the expression although it did not conceive the idea. The dilemma here is determining who produced the expression (the AI or the person). As a result, copyright protection should not be provided if the concept and expression cannot be distinguished.

The difficulty stems from the humanistic perspective of copyright law, which holds that only people can create original works qualifying for copyright protection. The conventional view holds that the creator is a natural person making creative judgement calls and, as a result, incorporating their own persona into a certain work. The core of copyright law has, always been the definition of "author" or "artist."

a) Artificial Intelligence and Copyright

AI is not a new notion, especially for the community dealing with science and scientific equipments.[9] Its conceptual existence dates back to 1927, in the film 'Metropolis,' which featured the most precise delineation of humanoid robots and AI, causing destruction over the metropolis.[10] As AI becomes a more active part of our daily lives, it becomes increasingly important to address the issue of the status of proprietorship of AI-created work. The notion that a computer is capable of mental labour is outside the purview of current copyright legislation.[11] Considering copyright is based on original work of writing, writers are the beginning point and key focus of any debate of copyright law. With the increased development of Computer-Generated Works (CWGs), the matter of author's position in copyright has surely become more persistent. The main issue is determining who is to be considered the creator when the works are generated by a non-human creator. The 'Monkey

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8 Swapnil Tripathi & Chandni Ghatak, *Artificial Intelligence and Intellectual Property Law*, 7 Christ University Law Journal, 83-98 (2018)

9 Bob L. T. Sturm, *Artificial Intelligence and Music: Open Questions of Copyright Law and Engineering Praxis*, 8 Arts 115 (2019)

10 SSRN, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=29826 (Last visited Jan. 12, 2023)

11 Kateryna Militsyna, *Objects created using artificial intelligence and artificial intelligence directly, and US copyright*, 5 ENTREPRENEURSHIP, ECONOMY AND LAW 343-346 (2019)

Selfie case' highlights significant problems that are likely to become more critical in the near future. The issue concerning non-human authorship is not simply whether a monkey may own the copyright to the images it takes, but also if more advanced technology, such as AI, will result in a broader view of the definition of author. Because the work's author-in-fact lacks legal personality, the law as it presently stands cannot confer ownership of the copyright in the original creator or author of work.

b) Artificial Intelligence and Music

AI machines have also become capable of producing music, and recently the world's first collection composed and generated by AI was launched. It is becoming clear that this emerging sector of innovation is becoming capable of actions that are independent of human intervention and control.[12]

Should humans be awarded the copyright claim under intellectual property rights when AI creates something that does not have any contribution from humans? The Indian Copyright Act demands a specific amount of creativity to classify work as copyrightable.[13] A work is defined as literary, musical, or artistic work, a cinematograph film, or a sound recording under Section 2(y) of the Copyright Act,1957. Section 2(o) of the act incorporates computer programmes, tables, compilations including computers, and other works to the list.[14] Section 13 specifies which works are eligible for a copyright claim. The exceptional cases are listed under Section 52. A notion known as the *"modicum of creativity"* criterion was established in the well-known case of *Eastern Book Company v. D.B Modak.* The term "original" does not mean that the work must be an expression of unique or novel ideas.[15] In the case of subsidiary work, creativity may be a question of degree based on the total amount of talent, judgement, or labour involved in the compilation. Furthermore, the Court defined essential work as academic work that is not reliant on existing subject matter. It defined supplemental or subsidiary work as work based on previously existing subject matter.[16] Since copyright refers to the representation of ideas rather than the idea itself, it does not need that the work be in "original form," but it is reasonable that it not be duplicated from another work.[17] The copyright work that is generated should be original in the sense that it is distinct in substance as hatched by the author owing to the determination, coordination, or course of action of existing material contained within the work.[18] In spite of the fact that software engineer may aid in creating a system within which the computer makes a decision or course of action of information, it is the computer that makes the decision, and going through permutation and combination of options is what computers are capable of. Machines have demonstrated sufficient innovation to qualify for copyright protection.[19]

c) Human Interference

There is an observation that the definition of creator under the Indian Copyright Act does not require a natural person (human) and does not establish the creator's legal identity.[20] It is important

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12   Id.

13   Cheng Peng Sik, *Yea or nay to artificial intelligence? More questions than answers under Malaysian copyright law*, 24 THE JOURNAL OF WORLD INTELLECTUAL PROPERTY 368-382 (2021)

14   Id.

15   Thomas Margoni, Artificial Intelligence, Machine Learning and EU Copyright Law: Who owns AI? CREATE WORKING PAPER 2018/12 SSRN, (2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3299523.

16   Id.

17   Id.

18   Id.

19   Kanchana Kariyawasam, *Artificial intelligence and challenges for copyright law*, 28 INTERNATIONAL JOURNAL OF LAW AND INFORMATION TECHNOLOGY 279-296 (2020)

20   Id.

to note that the sanctioning in Section 2(d) (iv) of the Copyright Act, 1957 expressly states that for any work generated by a computer, the individual causing the work to occur must be the inventor. On a simple evaluation of the arrangement, it does not consider any computer machine that is skilful to function as humans, but rather those computers that are handled by human office or have a little amount of human contact.[21] They regarded computers as a minor tool for individuals to use in their creative endeavours. This renders the question of whether a machine capable of autonomous creative thinking processing may have isolated ownership rights invalidated under the copyright regime.[22] This issue can be resolved by understanding the purpose of the legislation. The term of the copyright awarded for literary, musical, and artistic work is discussed in Section 22 of Chapter V of the Indian Copyright Act, 1957, where it grants a term of any work published within the "lifetime" of the creator until sixty years from the beginning of the calendar year following the year in which the author "dies." [23] It is evident that the administrators' intention at the time was to include mortal beings as objects of copyright law. It is unclear if lawmakers at the time anticipated the idea of making non-living everlasting things, such as Artificial Intelligence, be the subject of copyright law. However, under existing legislation, the creator must be a live entity or, at the very least, a group of living organisms.[24]

INTERPRETATION OF THE INDIAN LAW WITH REFERENCE TO MUSICAL WORKS GENERATED BY ARTIFICIAL INTELLIGENCE

The conventional approach underpins concepts such as copyright or other intellectual-property rights bestowed on individuals, and all existing legislations comply to it.[25] Regardless, as civilization evolves, non-human beings are creating unique works, making the concepts of 'authorship' and 'copyright owner' more ambiguous.[26] *The Intellectual Property Appellate Board (IPAB), in Music Broadcast Limited and Others v Tips Industries Ltd. and Others, OP (SEC-31D)/3/2020/CR/NZ*, it was stated that in the famous *'Monkey Selfie case'* [27] wherein the monkey mistakenly captured a selfie from the camera of the photographer and People for the Ethical Treatment of Animals (PETA) took the matter to court on the monkey's behalf for assigning him the copyright for his creation - the selfie, concerns such as these were obvious. Despite the fact that this lawsuit was settled out of court, the subject of how the court would have adjudicated the case in the first place goes unresolved.[28] The AI produced music industry is also a well-known occurrence nowadays.[29] The first such application, Verbasizer, used literary original material as input and rearranged the words to generate new music.[30] Amper, on the other hand,

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21   Branislav Hazucha, Artificial Intelligence and Cultural Production: Possible Impacts on Creativity and Copyright Law, SSRN, (2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4028106

22   Id.

23   Daniel Schönberger, *Deep Copyright: Up and Downstream Questions Related to Artificial Intelligence (AI) and Machine Learning (ML)*, 10 ZEITSCHRIFT FÜR GEISTIGES EIGENTUM 35 (2018)

24   Id.; Raj Television Network Limited v. Kavithalaya Productions Private Limited and Ors., MANU/TN/5681/2020.

25   Vytautas Čyras, *On formalisation of the goal concept in law*, 20 ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE 601-608 (2007)

26   Jani Ihalainen, *Computer creativity: artificial intelligence and copyright*, 13 JOURNAL OF INTELLECTUAL PROPERTY LAW & Practice 724-728 (2018)

27   *Naruto v. Slater*, No. 16-15469 (9th Cir. 2018).

28   Id.

29   Guo Feng Zhao, *Communications for manufacturing proceeding of the open congress*, 4 ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE 159-160 (1991)

30   Susan Isiko Strba, International Copyright Law and Access to Education in Developing Countries (M. Nijhoff Pub. 2012)

is the most modern tool with an extremely user-friendly interface that creates underused songs instantly.[31] These applications are built on profound learning systems, in which the AI is stimulated with a large number of source materials (melodies in this situation), which moreover examines and studies the designs of the intakes and develops novel manifestations.[32] The legitimate title for 'authorship' of the musical work is assigned here to either the computer programme or the human creator of the programme or the first lyricist of the melodies given as input.[33] The concern that these events have lately raised is whether non-human components, such as AI, may be granted origin and subsequently copyrights for their original creations.[34] This theoretical circumstance was delineated within the renowned Hollywood motion picture like "Her." This fictitious story was depicted in the widely regarded Hollywood film "Her." During her encounters with him, Samantha, the Working Framework with a female voice, collects a multitude of letters written by her owner and mixes and publishes them as a book.[35] The film does not answer whether the copyright for the letters, which were published under the name Theodore (the human lead), should be allocated to the human, the AI Samantha, or no one at all. The legitimate problem of determining who will be granted copyright appears here.[36] As per Section 17 of the Indian Copyright Act, 1957 which includes "contract for service" situations and employer-employee relationships in which the inventor of the computer programme that generates

the artwork should be assigned to the creation; however, this is usually a very narrowed approach because it fails to recognise machines as makers of unique work.[37]

Certain alternatives are being promoted considering the lacuna in IP rules regarding AI representations. They include completely rejecting copyright on any creation made by a computer or assigning the authorship to the programme.[38] The gap, to begin with, stems from the traditional notion of individuals as creators of any inventive work. This method may prevent the court from attributing lifeless things with the ability to define and articulate thoughts, but it delineates the relaxed system of the legislation in which there is no readily available answer to any modification within the copyright laws when necessary.[39] Furthermore, one must examine the societal rationale of IP laws, which essentially encourages creativity and inventiveness. Advancing copyright laws by perceiving computers as creators of work would incentivize the public to produce and distribute cutting-edge AI goods.[40]

CONCLUSION AND SUGGESTIONS

Computer software and machine learning are especially related, as computer programmes are created to fulfil the purpose of machine learning.[41] The computations aligned with this type of programming is written in such a manner that the machine can take in the data, process it, and then make proper judgements. These choices can

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31 Id.

32 Id.

33 Ramgopal Varma and Ors. vs. Perumalla Amrutha, High Court of Telangana, MANU/TL/0352/2020

34 Manoj Kumar Sinha & Vandana Mahalwar, Copyright Law in the Digital World, (Springer Singapore 2019)

35 Id.

36 Chamila Talagala, Copyright Law and Translation, (Routledge 2018)

37 Timothy L. Butler, Can a Computer be an Author – Copyright Aspects of Artificial Intelligence, 4 Hastings Communications and Entertainment Law Journal 707, (1982)

38 Id.

39 *Id* at 34.

40 Id.

41 S. Sean Tu, *Use of Artificial Intelligence to determine Copyright Liability for Musical Works*, 123 WEST VIRGINIA LAW REVIEW 835 (2021).

be either coordinated or autonomous. Machine learning algorithms learn from software developers' inputs.[42] They use this knowledge to create a new work of art, making free choices along the process to ascertain how the current work would appear.[43] This implies that when AI makes independent decisions, it is the computer programme that generates the work, even if the software developers provide input to define parameters. However, if AI is capable of making free decisions, it is not reliant on human-fed computations and programming; the work generated is just an advanced/modified adaptation of the given input encouraged by the software creator. As a result, it is reasonable to assert that AI-generated work necessitates the presence of originality.[44]

Finally, it is demonstrated that there is an issue when seeking to ascertain ownership of copyrighted work with respect to artistic, musical, or literary works produced by AIs. There are two approaches to copyright law that might be taken with works in which human input is minimal or non-existent. Works produced by an AI may be denied copyright protection altogether or their authorship may be credited to the programmer, depending on the setting. In the Indian jurisdiction, the copyright is granted to the AI's nearest human associate, which is the software engineer or the AI's owner.[45] As a result, the software engineer or entrepreneur does not participate to the production of the final work, which raises the issue of a lack of creativity. Another source of concern is the massive quantity of data required by the AI to complete the assignment. It may result in infringement of

the copyright and ambiguity about who should be held accountable.[46] To fathom these concerns, AIs should be granted legal recognition for the terms of Copyright, and such works should be granted a partitioned type of copyright, with specialized laws to monitor them. Currently, the "Modicum of Creativity" test is used to establish whether a work may be subject to Copyright protection. However, when it comes to AI-created works, the doctrine of "Sweat of the Brow" test should be applied.[47] This allows for a lesser threshold of copyright protection. An AI-specific amendment to the copyright legislation would help to ensure that the AI obtains the copyright, alleviating the problem of a lack of inventiveness. Furthermore, a lower level of encroachment should be established so that the infinite quantity of information that the AI employs is not vulnerable to copyright infringement.[48] According to the sweat of the brow test, a work can be accorded copyright protection if the author utilizes their effort to create a work that is not a duplication of any existing work.[49] In this instance, the AI, which is the creator, would genuinely be implementing its own work, and despite the fact that it employs an infinite amount of information, it would not amount to Copyright infringement as long as it is not a proper propagation. As AI advances, it will become increasingly important to have regulations in place to oversee AIs and their activities.[50] For the copyright law to include AI, one must first address the question whether AI should be provided with the status and rights of a natural person under the law.

42 Kateryna Militsyna, *Objects created using artificial intelligence and artificial intelligence directly, and US copyright*, 5 ENTREPRENEURSHIP, ECONOMY, AND LAW 343-346 (2019)

43 Id.

44 Id.

45 Susan Isiko Strba, International Copyright Law and Access to Education in Developing Countries (M. Nijhoff Pub. 2012)

46 Shamoil Ahmad Khan vs. Falguni Shah and Ors., MANU/MH/0590/2020.

47 Id.

48 Id.

49 Raj Television Network Limited v. Kavithalaya Productions Private Limited and Ors., MANU/TN/5681/2020

50 Alix Anciaux, *Pull a Robot out of the Hat: Should works created by Artificial Intelligence be protected by Copyright Law*, SSRN, (2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3793570.