



Critical analyze of Artificial Intelligence with Copyright- A Glance

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Abstract

“AI is the new digital frontier that will have a profound impact on the world.”

The increasing role of Artificial Intelligence in the area of medical science, transportation, aviation, space, education, entertainment (music, art, games, and films), industry, and many other sectors has transformed our day to day lives. The area of Intellectual Property Rights is not an exception. The role of AI in creativity and innovation has been recognized worldwide. AI has a significant role to play more specifically in copyright, patents, designs, and trade secrets among various types of IPRs. AI can inter alia, compose music, write blogs, novels, poetry, generate paintings and drawings. The distinction however, has to be made between the works created by a person with the assistance of AI and the one created by AI itself without any human intervention.

Introduction

ARTIFICIAL INTELLIGENCE (AI) has assumed significant importance in the contemporary times as its use has become indispensable in most of the technological applications. AI has transformed our lives by entering into various sectors such as health, transportation, aviation, space, education, entertainment industry (music, art, games, films) and others. A tendency has been developed in all countries to automate most of the activities and minimize human intervention to ensure efficiency and rule out errors. Prof Stephen Hawking once said that “the development of full artificial intelligence could spell the end of the human race”. He further said that “it would take off on its own, and re-design itself at an ever increasing rate” and “humans, who are limited by slow biological evolution, couldn’t compete, and would be superseded”.

AI meaning:

Artificial Intelligence is composed of two words ‘Artificial’ and ‘Intelligence’, where Artificial defines “man-made”, and intelligence defines “thinking power”, hence AI means “a man-made thinking power”. This paper discusses about the development of AI technology in the recent scenario with the support of copyright issues. Artificial Intelligence exists when a machine can have human based skills such as learning, reasoning, and solving problems. It is an innovation that

has drastically impacted the functional ecosystem of society¹. AI is basically a device that perceives its environment and it is a field of computer science that emphasizes the creation of machines that could work and react like humans.

Evolution of AI technology:

The evolution of artificial intelligence and new technologies has made Intellectual Property Rights (IPR) protection increasingly important, particularly copyright protection. The traditional copyright law does not protect work created by Artificial Intelligence (AI) as it only protects the original works of human beings. Also, as per Section 2(d) of the Indian Copyright Act, 1957 in case of the computer-generated works, the author is said to be the person who created that work. The person who contributes creative ideas to works produced by artificial intelligence with human assistance can be considered the author of the works.

Historical Background of AI Technology

This technology of AI has been defined diversely by various experts and scientists, such as, in 1955, John Mc Carthy a noted mathematician and cognitive scientist coined the term “Artificial Intelligence”. He further added that AI is basically “the science and engineering of making intelligent machines, especially intelligent computer programs”. AI can be considered to be a branch of computer science. It involves the process where an AI machine replicates human intelligence in the computer system.

Goals of AI

The central goals of AI is, Reasoning, knowledge, planning, learning, natural language processing, perception, and the ability to move and manipulate objects. Artificial Intelligence is a device that perceives its environment and takes such actions which maximizes its chance of successfully achieving its goals. It commonly known as machine intelligence, refers to the simulation of traditional human responses into machines that reproduce human actions like intention, judgment and contemplation². Artificial intelligence allows machines to take independent decisions without human intervention. Three primary features of artificial intelligence include intelligence, intentionality, and adaptability.

AI under WIPO:

According to WIPO, AI is an expression commonly used to designate those types of computer systems that display certain capabilities associated with human intelligence, such as perception, understanding, learning, reasoning and problem-solving³.

¹Cade Metz, “Meet GPT-3. It Has Learned to Code (and Blog and Argue)”, The New York Times, November 24, 2020, available at: <https://www.nytimes.com/2020/11/24/science/artificial-intelligence-ai-gpt3.html> (last visited on January 23, 2024).

²Aatif Sulleyman, “Google AI creates its own ‘Child’ AI that’s more Advanced than Systems Built by Humans”, Independent UK, December 5, 2017, available at: <https://www.independent.co.uk/life-style/gadgets-and-tech/news/google-child-ai-bot-nasnet-automl-machine-learning-artificial-intelligence-a8093201.html> (last visited on January 23, 2024).

³Fredy Sánchez Merino, “Artificial Intelligence and a New Cornerstone for Authorship”, WIPO-WTO Colloquium Papers, 2018, p. 28.

Copyright meaning

Copyright is a set of legal rights given to authors for the creation of musical, artistic, and literary works. In India, copyright is governed by the Indian Copyright Act, 1957. As per Section 13 of the Act, copyright protection is limited to certain classes of works. These include literary, dramatic, musical, and artistic works, cinematograph films, and sound recordings.

Artificial Intelligence and Copyright Protection

Copyright protects artistic expression, traditionally made by humans, regarding music, films, literature, and so on. However, rapid advancements in technology have made Artificial Intelligence (AI) capable to the point where it can create original works without direct human intervention, and this raises questions about who should be considered the creator and copyright owner of such works. In such cases, there are two scenarios have arisen: Works created by AI with human guidance: In these cases, the creative inputs provided by humans play a significant role, and copyright ownership can be attributed to the human contributors. Works created by AI without human guidance: When AI generates works independently, without direct human input, the issue of authorship becomes more complex⁴. Attribution of authorship to AI itself requires careful consideration of legal and conceptual frameworks.

Copyright in India:

In India authorship covered under Section 2(d) of the Copyright Act, 1957. It deals with natural persons and is vague about the authorship rights of artificial persons. According to the Indian statutory framework for copyrights, in case of computer generated literary, dramatic, musical, or artistic work, only a 'person who causes the work to be created would be considered an author'⁵. This would mean that only a legal person or human being can be considered as an author under the Copyright in India.

Advent of AI systems:

With the advent of AI systems, there is now the possibility that no human is behind the creative process. Instead, AI systems, as automated, autonomous, and advanced machines, create and produce works independently. Another challenge entails finding out who is entitled to the moral right under Section 57 of Copyright Act, if anyone should be at all. Should this one role-player take it all or are many different stakeholders targeted?

Computer program and AI

The computer program has an algorithm that allows it to analyse data that it receives and independently make decisions or be controlled by the programmer. When this is applied to art,

⁴ Rory Cellan-Jones, "Stephen Hawking warns artificial intelligence could end mankind", BBC News, December 2, 2014, available at: <https://www.bbc.com/news/technology-30290540> (last visited on January 23, 2021)

⁵ Lucy Rana and Meril Mathew Joy, "India: Artificial Intelligence and Copyright – The Authorship", Mondaq, December 18, 2019, available at: <https://www.mondaq.com/india/copyright/876800/artificial-intelligence-and-copyright-the-authorship> (last visited on December 12, 2023).

music and literature, the programmers set the parameters in which the AI will work, but the actual work is done by the AI itself⁶. The AI takes the inputs and generates new works⁷. With the rising trend of AI generated works, it is important to analyze whether these works can be protected under the copyright law and an issue has arisen, ‘whether the results being rendered by the machine are an outcome of its own intelligence, or algorithms and commands’.

Concept of Originality

In India, the “*Sweat of the Brow*” doctrine was used to determine the originality of a work and to analyze whether copyright protection can be given or not. Initially, even if the expression of an idea is not original, if the overall work is not copied and is created through the author’s labour, then copyright protection can be granted⁸. But, later point in time, the courts adapted the test of “*Modicum of creativity*”. According to this test, the author had to show a minimum level of creativity in the work to get copyright protection in India.

Judicial Activism on AI

In the *Eastern Book Company v. D.B.Modak*⁹, the Supreme Court held that the work should not only be a result of the author’s labour but should also use their skills and judgment in the creation of the work. In analyzing AI-generated works, the question of ‘whether AI can possess originality’ is debatable as it relies on existing data and algorithms programmed by humans.

ChatGPT:

For example, if ChatGPT relies on vast amounts of data, including copyrighted material, to effectively train its algorithms then, Google has created software that can produce original music from descriptions and recordings. AI technologies have the ability to replicate and mimic existing copyrighted works, blurring the lines between original and AI-generated content and creating legal complexities. While AI may compile and arrange data in unique ways, determining ‘whether it possesses the necessary creativity to meet the threshold of originality’ remains a challenge. This raises concerns about the potential infringement of copyright laws

Liability and Infringement

Large developments in the field of AI and with these developments arise various questions like who owns the creation? Do AI-created works deserve copyright protection? If yes, then who should be the author/owner of such work? Or if any violation arises who is liable? The introduction of robots, self-driven cars, and completely automated machines has raised questions in the legal sphere with regard to who will be held liable in case these machines cause damage¹⁰. Here, a

⁶ Russ Pearlman, “Recognizing Artificial Intelligence (AI) as Authors and Inventors under U.S. Intellectual Property Law”, 24 (2) Richmond Journal of Law & Technology 4 (2018).

⁷ Sejal Chandak, “Artificial Intelligence and Policing: A Human Rights Perspective”, 7(1) NLUJ Law Review 46 (2020).

⁸ Pamela Samuelson, “Allocating Ownership Rights in Computer-Generated Works” 47 University of Pittsburgh Law Review 1185 (1986).

⁹ AIR 2008 SC 809: 2008 (1) SCC 1.

¹⁰ Ayush Pokhriyal and Vasu Gupta, “Artificial Intelligence Generated Works under Copyright Law”, 6(2) NLUJ Law Review 116 (2020).

prominent question with regard to, ‘whether the AI systems themselves or the developers should be held liable’

Liability for AI

Determining liability for AI-generated works is complex. It involves understanding the roles of AI developers, users, and the AI system itself. Both creators and users of AI-generated content bear responsibility for ensuring compliance with copyright laws.

International Aspects on copyright protection to AI

We discuss about the status of various countries like USA, UK, Australia with the support of Indian Copyright law in the upcoming paragraphs.

United States:

The US Copyright Act, of 1976 extends copyright protection only to works that have been created by an “author” although the term “author” has not been defined. In *Naruto v. Slater*¹¹, the court held that the author needs to be a human being and original creation must be the fruits of his intellectual labor.

European Union:

Article 2 (1) of the Computer Program Directive states that “the author of a computer program shall be the natural person or group of natural persons who have created the program or the legal person designated as the right holder by that legislation” The Court of Justice of the EU in *Infopaq International A/S v. Danske Dagblades Forening*¹² held that copyright protection would be afforded to only those works that reflect the author’s own intellectual creation.

United Kingdom:

UK Copyright, Designs, and Patent Act, 1988 in the case of a literary, dramatic, musical or artistic work, which is computer-generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken. [Section 9(3)]

Australia:

The Australian Copyright Act of 1968 provides that the author of a work needs to be a “qualified person” thus excluding AI and other non-human authorship. The Full Federal Court of Australia refused to give copyright protection to the HTML code generated by a computer programmed which was required for developing information sheets. No protection was given either to the computer programmer or the end user providing necessary input as there was no human author.

¹¹ No.16-15469 (9th Cir.2018).

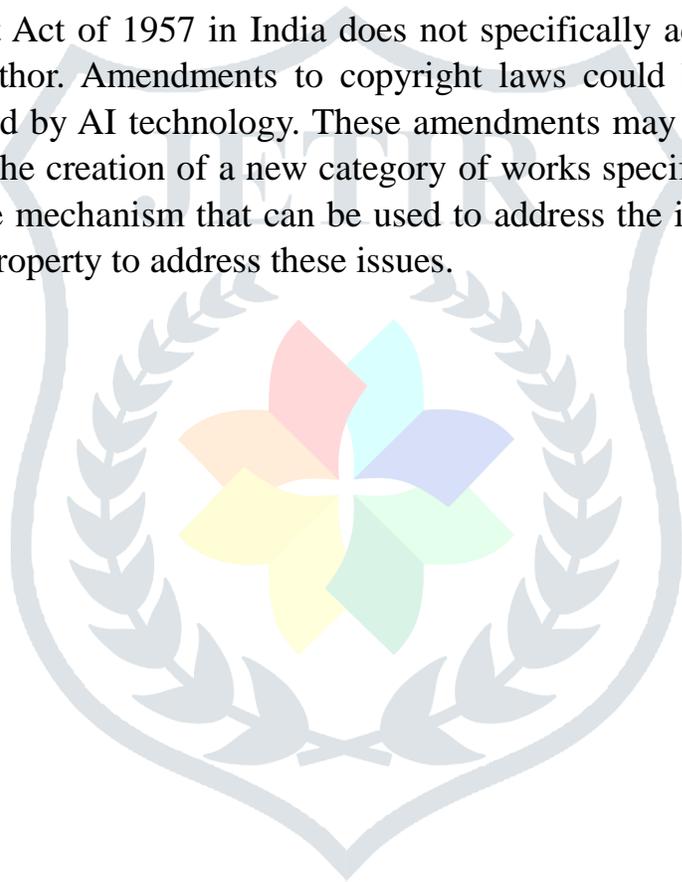
¹² (Case C-5/08), 2012 BUS LR 102.

Indian Copyright Law and AI: -

Section 2 (d) (vi) of the Copyright Act, 1957, defines “author” “in relation to any literary, dramatic, musical or artistic work which is computer-generated, the person who causes the work to be created is author. The Indian Copyright law requires that for a ‘work’ to qualify for copyright protection, it would first, have to meet the ‘*modicum of creativity*’ standard laid down in *Eastern Book Co v. D.B. Modak*¹³, wherein, the Court held that a ‘*minimal degree of creativity*’ was required, that is ‘*there must be some substantive variation and not merely a trivial variation*’. Thus, there is no definitive conclusion that an AI cannot meet the ‘modicum of creativity’ as required. The second requirement to be satisfied by an AI, when it comes to the ownership of copyrighted works, is the requirement to fall under the aegis of an ‘author’ as defined under the Copyright Act, 1957.

Conclusion

The existing Copyright Act of 1957 in India does not specifically address AI-generated works or recognize AI as an author. Amendments to copyright laws could be considered to address the unique challenges posed by AI technology. These amendments may include the recognition of AI as a separate entity or the creation of a new category of works specifically related to AI-generated content. An alternative mechanism that can be used to address the issue is to create a *sui generis* system of intellectual property to address these issues.



¹³ 2008 (1) SCC 1.