

Intellectual Property and AI

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Abstract: Artificial Intelligence is interchanging the industrial property and bringing competition between the business and inventors, Artificial Intelligence has some positive impacts on the generation like IP assets and creating new models business and some negative impacts on generation IP can create the image and can exploit the IP assets. IP laws needs to be updated with the technology advancement. This paper discuss about the how artificial intelligence and intellectual property is related to each other.

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I. INTRODUCTION

It is indisputable that technology advancement influenced almost every aspect of modern society in the modern era. The degree to which technology has permeated every aspect of our life creates a reality in which the boundaries between the actual and digital worlds are becoming increasingly hazy.

Today, technology is both necessary and inevitable in the creation of innovations. While technology is important for new-age innovations, it has also diminished and, in some cases, completely replaced the amount of human effort. This creates a special problem where new works created using software programs and algorithms are indistinguishable from those that come from human effort.

Since intellectual property ("IP") often determines a company's growth trajectory, it is and industrial environment. Therefore, ownership of such intellectual property is crucial. When it comes to ownership, the most contentious issue is whether or not ownership can be transferred to a non-human counterpart, such as software, algorithms, etc. that have helped create a product. The current Indian IP law contains no specific provisions for granting software and algorithms used to generate IP eligible for statutory protection recognition, let alone ownership.

Machine learning is that type of information technology that is enhancing the intelligent machines. These technologies helps us to reform the problems likewise to human intervention.

II. INTELLECTUAL PROPERTY AND AI – DRIVEN INNOVATIONS

The way individuals operate has changed significantly as a result of artificial intelligence. Likewise, its application to intellectual property has grown more widespread.

AI is concerned with carrying out tasks using intelligence techniques including linguistic intelligence, reasoning, machine learning, problem solving, and perception. Comprehensive searches of current IP databases can be carried out more quickly and precisely with the aid of AI-powered algorithms.

In addition, it aids in examining technical data and documents to identify previously relevant work to avoid copyright violations. As AI technology continues to advance, its application in the field of intellectual property is expected to increase. This may result in emerging legal challenges and complications.

III. INNOVATIONS : CREATIVE INVENTIONS AND PATENTABILITY INSIGHTS

The patentability of inventions incorporating artificial intelligence (AI) has long been acknowledged in the United States. Among the first patents on artificial intelligence are U.S. Patent No. 3,308,441 (filed in 1963) on an artificial neural network and U.S. Patent No. 3,287,649 (filed in 1963) on the use of neural networks . The U.S. patent system gives creators a way to protect the exclusive rights to their AI-driven creations, whether they be cutting-edge neural network applications, distinctive AI hardware AI-based inventions that satisfy the necessary requirements of novelty, non-obviousness, utility, and patent eligibility are eligible for patents from the U.S. Patent and Trademark Office (USPTO). The U.S. patent system gives creators a way to protect the exclusive rights to their AI-driven

creations, whether they be cutting-edge neural network applications, distinctive AI hardware components, or innovative machine learning algorithms.

IV. REQUIREMENTS FOR INVENTION OF PATENT

➤ *Novelty;*

An invention must be deemed innovative or novel in order to qualify for patent protection. According to this novelty requirement, an invention cannot be patented if specific disclosures about it have already been given to the public.

- The invention was publicly known before the applicant applied for patent protection.
- The invention was described in a printed publication before the applicant filed an application in the patent protection.
- The application was described in a published patent application or an issued patent filed before the applicant filed for the patent protection.

➤ *Industrial Application ;*

- Patent law indicates that the subject should be useful.
- The present invention should have useful target.
- Mostly, they are useful in computer technology.

➤ *Non- Obviousness;*

- If the present invention is not exactly the same as the previous product and process than it considered to be new.
- It should not be published prior.
- As one can imagine the determination whether a particular change or improvement is obvious is one of the most difficult determination of the patent law.

➤ *AI and Trademark ; Overview*

Artificial Intelligence (AI) has become a transformative force across many industries, with increasing implications for intellectual property, especially brands. In India, where technological advancements are occurring at a rapid pace, understanding the interplay between AI and brands is essential for businesses and lawyers alike.

➤ *AI and Trademark In India*

- AI and Legal Concepts: A brand is a way of identifying a business. Brands are primarily used to connect brand image to consumer behaviour. However, with the emergence of artificial intelligence (AI) in an online world, specific conventional concepts may decrease the relevance, such as comparison of incomplete memory, confusion, and based on voice, concept, or visual effects. E-commerce platforms now use AI algorithms to suggest products based on customers' search history, demographics, preferences, past purchases, and more.
- The creation of brands and AI algorithms: AI have the capacity to generate creative content, including brand logos and names. This raises questions about the eligibility of brands generated by AI for protection under Indian law. The Indian brand law requires marks to be

distinguished and capable of distinguishing their goods or services from one organization from another. The determination of the distinction between AI creates a unique problem.

- Ownership and invention: Traditionally, branding relies on human creativity, but AI is challenging this paradigm. In India, issues of property and invention rights become complicated when AI systems autonomously generate trademarks. The current legal framework may need to be adapted to address issues of attribution and ownership and ensure a fair and clear definition of rights in AI-generated trademarks.
- Trademark Review and AI: The trademark registration review process involves assessing the distinctiveness of a mark, and integrating AI tools into this process can improve efficiency and accuracy, streamlining the registration process. India intellectual property cafes are gradually using technologies, and the inclusion of AI in the study of brands can speed up the overall registration procedure.

➤ *AI and Copyright*

- Training that has been adopted in several jurisdictions, like the European Union.
- Maintaining global competitiveness, promoting innovation, and promoting freedom of speech all depend on striking a balance between the interests and compensation of rights holders.
- Only original human-authored works—including those created with AI assistance—are protected by copyright; those created exclusively by AI are not.
- AI model training may be considered fair use, which would affect the copyright holders' and the creative industry's interests.
- There is still legal ambiguity, particularly with relation to the permissibility of training new generative AI models.
- Rights holders can now object to the use of their works for commercial AI training thanks to specialised law pertaining to AI model

V. WHETHER AI COPYRIGHTED OR NOT ?

The influence of generative artificial intelligence (AI) technology on copyright is a topic of discussion among academics, legal experts, and policymakers, encompassing a diverse range of stakeholders, including artists, large newspapers, and technology firms.

Content that would be protected by copyright if written by a human author can be produced by generative AI systems. The Patent and Copyright Clause of the Constitution and the Copyright Act of 1976 served as the foundation for copyright law in the United States, which mandates that any works that are protected must be original and written by a person.

A work is considered unique if it is created by the author, is not plagiarised, and is at least somewhat innovative. These don't set a high standard for protection; in fact, many people write several original pieces every day.

The conditions, however, have been construed by the courts to suggest that AI-generated works lacking human original authorial contribution are not protected.

VI. CONCLUSION

The convergence of Intellectual Property Rights and Artificial Intelligence offers a range of challenges and opportunities. As AI technology continues to transform various sectors, it is essential to remain vigilant and proactive in understanding its implications for intellectual property. By fostering innovation, allocating resources for research, and engaging with legal professionals, we can take the initiative in safeguarding and advancing the future of AI-enhanced technologies. These actions will not only protect our own innovations but also enrich the ongoing discussion regarding the dynamic relationship between IPR and AI.

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