

Intellectual Property Rights & Artificial Intelligence: A Review

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ABSTRACT

Artificial Intelligence has recently made things conceivable that were thought to be impossible before. From industries to education it has entered in almost all sectors. There will be more AI-based breakthroughs in the future, so correct laws and policies regarding ownership of ideas and patents will be required to facilitate this growth. When it comes to the regulation of IPR in artificial intelligence, there are a few irregularities. There are problems about patent and copyright ownership, as well as significant worries about infringement difficulties and fines. With the advancement of technology, even with international agreements and conventions in place, there is no clarity on the law. This review paper discusses the Artificial Intelligence and Intellectual Property Rights. It also mentions various IPR laws pertaining to AI and discusses the issues with current IPR laws.

Keywords: AI (Artificial Intelligence), IPR (Intellectual Property Rights)

Introduction

For decades, Artificial Intelligence (AI) has been a promising technology. Thousands of day-to-day scenarios can benefit from the capacity to swiftly and efficiently process large volumes of data, detect trends, and analyse the best solution. However, it is poised to mature in the era of big data and real-time judgments, where AI can solve long-standing problems. For example the problem of Traffic in big cities like Delhi and Mumbai, traffic management system based on AI can be designed which can give real time optimal solution to these problems based on historical trends of traffic flow especially during peak hours. This is why AI is becoming the go-to solution for businesses looking to solve very

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complicated, data-intensive problems. Warehouses are being controlled by AI-powered robots for digital retailers. AI is being used by utilities to forecast electricity consumption. AI is being used by mobile networks to manage the ever-increasing demand for data. We are on the verge of a new era of AI-driven technologies. [1] Thus to support sustainable growth of AI proper laws and policies are needed.

Intellectual Property Rights (IPR)

Intellectual property is anything that a person creates with his or her mind. It could be anything from an invention to an artistic or creative work, as well as graphics, logos or symbols utilised in numerous industries. WIPO (World Intellectual Property Organisation) has enacted a number of laws to safeguard this property. People and businesses are given property rights to the information and intellectual goods they create under these laws, usually for a limited time. This provides a financial incentive for their development because it allows people to profit from the information and intellectual property they create, as well as safeguard their ideas and prevent imitation. These financial incentives are anticipated to stimulate the economy. [2]

Patents, copyright, and trademarks, for example, are legal protections that allow people to profit financially or gain recognition from what they invent or create. The IP system strives to establish an environment where creativity and innovation can flourish by finding the correct balance between innovators' interests and the larger public interest. [3]

IP laws are intended to safeguard society from unethical inventions. Unethical invention concerns are those that will perpetuate turmoil, confusion, and disharmony in society, human, animal, and plant life [4].

IPR and Artificial Intelligence

In the field of AI where many inventions are done with the help of AI driven machines, the question arises to whom Intellectual Property Rights will belong whether to the programmer who writes codes for AI or to the company who invented with the help of this AI or to the AI itself. According to UKIPO (UK patent Office), USPTO (US patent Office), EPO (European Patent Office) have stated that AI cannot be an inventor in patent applications. An inventor has to explicitly indicate in the patent application that he is the inventor. It is mandatory to mention the name of the invention, name and address of the applicant and other information. Therefore, legally only natural persons can be an inventor. [4]

According to the Indian Patent Act, mathematical and business methods, computer programmes or algorithms are categorized as non-patentable subject matter [5]. The patentability the software inventions are decided on the basis of Section 3(k) of the Patents Act, 1970. The Office of the Controller General of Patents, Designs and Trademarks publish the guidelines for Computer Related Inventions (CRI). Software inventions

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are patentable if the invention provides a technical solution to a technical problem by providing a practical application or if it provides some improvements in the underlying software and it should be revised or updated constantly [6].

Considerations of IPR Laws for AI

The current IP regulations are ambiguous as to whether or not AI-written algorithms are patentable. IP laws must embrace AI-driven advancements such as AI ethics, data security, and privacy.

In general, patent ownership is apparent, but in AI-related inventions, ownership is unclear, such as to whom ownership should be transferred, whether to the person who owns the product, the person who invented it, or the person who authored the algorithm. Although it has been accepted in many countries that AI can be the inventor, the laws that underpin this are still unclear.

Patent protection necessitates the applicant's complete disclosure. The full disclosure reasoning is difficult to apply to AI inventions. Because the output data is dependent on the input data, simply revealing the beginning algorithm will not suffice. The raw data used to train an AI algorithm will also need to be made public. Copyright generally protects computer programmes. Copyright laws should make it clear whether computer programmes used in AI are protected by copyright.

In the event of infringement, intellectual property laws should provide guidelines. Infringement is easier to identify under the old patent system, but it is difficult to detect infringement using AI because so much information is not provided. It's unclear who will be held responsible if AI infringes on intellectual property. It is critical that IP laws have the power to control AI-based creations for the good of society [4].

Conclusion

The IPR laws and policies with respect to AI are going to have a great impact on future innovations, economy and the society so they should be laid out carefully. Proper laws regarding the liabilities are also needed. The current liability laws does not include situations where patent infringement is caused by an AI. It is important to determine who is responsible in such situations. All of these difficulties must be treated with caution. One of the most important goals of patents is to encourage innovation and research and development. The field of artificial intelligence is quickly evolving. In the case of AI patents, the legislation must be adaptable and attempt to accomplish economic and social goals in ethical manner. In short, AI is tremendously advantageous when it is under the programmer's control, but once it begins to act independently of the programmer, it may constitute a threat to not only the field of Intellectual Property Rights, but to everyone in general.

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