ARTIFICIAL INTELLIGENCE AND INTELLECTUAL PROPERTY RIGHTS: A LEGAL PERSPECTIVE ON CREATIVITY AND INNOVATION

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Abstract: *Artificial Intelligence (AI) has become one of the most significant technologies influencing innovation, creativity and commerce. Modern AI systems can generate text, music, images, software code, designs and technical solutions, thereby creating difficult questions for the traditional law of intellectual property rights (IPR). The existing intellectual property framework was largely developed on the assumption that a human being creates, invents or owns the subject matter of protection. AI challenges this assumption by participating in both the creative and inventive process. This article examines the relationship between AI and IPR with particular reference to the Indian legal framework, including the Copyright Act, 1957, the Patents Act, 1970, the Trade Marks Act, 1999 and the Designs Act, 2000. It discusses the questions of authorship, inventorship, ownership, originality, patentability, infringement and the use of copyrighted material for training AI systems. The article also considers international developments and the work of the World Intellectual Property Organization (WIPO). It argues that India requires a balanced and technology-neutral approach that protects human creators and right holders while permitting responsible innovation and the beneficial use of AI.*

Keywords: *Artificial Intelligence, Intellectual Property Rights, Copyright, Patent, Authorship, Inventorship, Generative AI, India, WIPO.*

Introduction

Artificial Intelligence is no longer confined to scientific laboratories. AI systems are now used to compose music, generate literary material, create artistic images, write computer programs, assist scientific research and identify new technical possibilities. Generative AI has therefore brought the intellectual property system into direct contact with a new form of technological creativity. The central difficulty is that intellectual property law traditionally connects legal protection with human intellectual effort. When an AI system contributes substantially to the creation of a work or invention, the law must determine whether the result is protectable and, if so, who should receive the legal rights.

Intellectual property rights protect creations of the mind and generally include copyright, patents, trade marks, industrial designs and related rights. The purpose of IPR is to encourage creativity and innovation by granting legally recognised rights over qualifying subject matter. AI affects this system in two different ways. First, AI itself may be protected as intellectual property through software, patents, copyright, trade secrets and branding. Secondly, AI may create or assist in creating new works and inventions, raising questions regarding authorship and ownership.

The Indian legal framework does not yet contain a single comprehensive statute dealing specifically with AI-generated intellectual property. Consequently, legal questions are presently examined through existing statutes and their interpretation. This makes provisions of the Copyright Act, 1957 and the Patents Act, 1970 particularly important. The growing international debate also demonstrates that the issue is not merely national. WIPO identifies authorship, ownership, remuneration, training data and AI-assisted innovation as major questions at the intersection of AI and IP.[1]

[1] World Intellectual Property Organization, "Artificial Intelligence and Intellectual Property," WIPO official materials; WIPO, Generative AI: Navigating Intellectual Property (2024).

AI and Copyright Law

Copyright law is the area most directly affected by generative AI. AI systems can produce novels, essays, paintings, photographs, music and audiovisual content within seconds. The first legal question is whether an AI-generated output is a 'work' capable of copyright protection. Under the Copyright Act, 1957, copyright subsists in specified categories of works subject to statutory requirements. Section 2 contains important definitions, including the meaning of 'author'.[2]

Section 2(d) is particularly relevant to computer-generated works. In relation to a literary, dramatic, musical or artistic work which is computer-generated, the Act recognises as author 'the person who causes the work to be created'. This provision was enacted before modern generative AI became widespread, but it has become central to contemporary debates. It may support protection where a human exercises meaningful creative control over the use of the computer system. However, it does not expressly state that an autonomous AI system can itself be an author.

The principle of originality also creates difficulty. Copyright generally protects original expression rather than mere ideas. Where a human merely enters a short prompt and the AI independently determines the detailed expression, it becomes difficult to identify the extent of human creative contribution. A stronger claim may arise where the human selects, arranges, modifies or creatively directs the output. Thus, the degree of human involvement may become an important practical test.

A further problem concerns training data. Generative AI models may be trained using very large quantities of text, images, music and other material. Where copyrighted works are copied or used during training without authorisation, questions arise regarding reproduction, licensing, exceptions and fair dealing. The Copyright Act contains specific statutory rights and exceptions, but its provisions were not drafted specifically for large-scale machine learning. This creates uncertainty and increases the importance of licensing arrangements and transparent data practices.[3]

AI and Patent Law

Patent law presents a different but equally important problem. The Patents Act, 1970 protects inventions that satisfy the statutory requirements of patentability. Section 2(1)(j) defines an invention, while Section 3 excludes certain subject matter from patentability. In the field of AI, two separate questions must be distinguished: whether AI-related technology can itself be patented, and whether an invention created with the assistance of AI can receive patent protection.

AI-related inventions may involve software, algorithms, data-processing methods, hardware systems or technical applications. Indian patent law requires careful consideration of Section 3(k), which excludes a mathematical method, business method, computer programme per se and algorithm from patentability. Therefore, a claim directed merely to an abstract algorithm may face exclusion. However, the legal analysis may differ where the invention demonstrates a technical application or technical effect and satisfies other requirements of novelty, inventive step and industrial applicability.[4]

The more difficult question concerns AI as an inventor. Patent systems have traditionally required an inventor to be identified as a person. International disputes involving the DABUS AI system have highlighted the issue of whether a machine can be named as an inventor. The dominant position in major jurisdictions has generally been that the existing patent framework contemplates human inventorship. The debate nevertheless continues because AI is increasingly capable of assisting researchers in discovering molecules, designing products and solving technical problems.

For India, the safer present approach is to recognise AI as a sophisticated tool rather than as a legal inventor. Where a human researcher makes the relevant inventive contribution and uses AI as an instrument, the human may be identified as the inventor. But where an invention is claimed to have

[2] The Copyright Act, 1957, ss 2(d), 13 and related provisions, India Code.

[3] WIPO, Generative AI: Navigating Intellectual Property (2024).

[4] The Patents Act, 1970, ss 2(1)(j) and 3(k), India Code.

been generated autonomously without identifiable human inventive contribution, the existing statutory framework raises serious difficulties.[5]

AI, Trade Marks and Industrial Designs

AI also affects trade marks and industrial designs. Under the Trade Marks Act, 1999, a trade mark functions as an indicator of commercial origin and distinguishes the goods or services of one undertaking from those of another. AI can assist businesses in creating brand names, logos and marketing content. However, the use of AI does not remove the ordinary legal requirements relating to distinctiveness, registration and infringement. A business must still ensure that an AI-generated mark does not deceptively resemble an existing mark.[6]

The Designs Act, 2000 protects qualifying features of shape, configuration, pattern, ornament or composition applied to an article, subject to statutory requirements. AI-assisted design tools can generate numerous product designs rapidly. This creates questions concerning originality, ownership and the identification of the person responsible for the design. Existing law is better equipped to deal with human-AI collaboration than with completely autonomous creation because ownership rules generally assume a legally identifiable person.

AI also creates enforcement challenges. A generative system can produce thousands of logos, designs or brand variations at low cost. This increases the risk of accidental similarity and deliberate imitation. Consequently, businesses should conduct trade mark and design clearance searches before commercialising AI-generated material.

Major Legal Challenges

The first major challenge is authorship and inventorship. Existing IP statutes generally use concepts such as author, inventor, owner and person. AI does not easily fit within these concepts. Granting AI independent legal personality may create further questions concerning ownership, liability and duration of rights.

The second challenge is ownership. Even where an AI-generated output is protected, several persons may claim an interest: the developer of the AI system, the owner of the system, the person who supplied the prompt, the user who edited the output and the owner of the training data. A clear legal framework is necessary to reduce disputes.[7]

The third challenge is infringement through training data and output generation. Copyright owners are concerned that their works may be used without permission for training models. At the same time, AI developers argue that access to data is necessary for technological progress. The law must therefore seek a fair balance between innovation, licensing, transparency and protection of right holders.

The fourth challenge is originality and substantial similarity. AI systems can generate outputs that appear new but may closely resemble protected works. Determining whether an output is independently generated or unlawfully reproduces protected expression may require technical evidence and new methods of digital comparison.

The fifth challenge is accountability. AI-generated content can spread quickly through online platforms. When infringing material is produced, responsibility may be disputed between the user, developer, platform and other intermediaries. Existing legal doctrines may need adaptation to provide predictable responsibility without discouraging legitimate innovation.

Suggestions and the Way Forward

First, India should develop clear statutory or regulatory guidance on AI-assisted and AI-generated works. The law should distinguish between works created by humans using AI as a tool and outputs generated with little or no human creative contribution. Meaningful human contribution should remain a central consideration.

Secondly, a transparent framework for AI training data should be developed. Policymakers may

[5] WIPO, Artificial Intelligence and Intellectual Property, materials concerning AI inventions and inventorship

[6] The Trade Marks Act, 1999; the Designs Act, 2000, India Code.

[7] WIPO, Artificial Intelligence and Intellectual Property; WIPO, Generative AI: Navigating Intellectual Property (2024).

consider licensing mechanisms, voluntary collective arrangements, record-keeping and appropriate transparency obligations. Such a system should protect creators while allowing socially beneficial research and innovation.

Thirdly, IP offices should develop examination guidance for AI-related inventions. Patent applicants and examiners would benefit from clear principles regarding AI-assisted inventions, inventorship disclosure and the treatment of computer-implemented inventions under Section 3(k) of the Patents Act.

Fourthly, businesses and creators should adopt contractual clarity. Agreements involving AI tools should address ownership of inputs and outputs, confidentiality, permitted commercial use, liability and responsibility for infringement claims.

Fifthly, India should actively participate in international discussions. AI systems and digital content operate across national borders, and completely isolated national solutions may create inconsistency. WIPO's continuing work provides an important forum for developing common understanding and internationally compatible approaches.[8]

Finally, the law should remain technology-neutral. It should not unnecessarily prohibit innovation merely because a new tool is involved. At the same time, technological efficiency must not undermine the rights and dignity of human creators. The objective should be responsible innovation supported by fair compensation, transparency and effective remedies.

Conclusion

Artificial Intelligence has fundamentally changed the environment in which intellectual property law operates. AI can assist human creativity and scientific innovation, but it also exposes the limitations of legal concepts developed in an earlier technological era. Questions concerning authorship, inventorship, ownership, originality, training data and infringement cannot always be answered easily under traditional rules.

The Indian Copyright Act, 1957 contains provisions that may accommodate certain forms of computer-generated work, particularly through Section 2(d), while the Patents Act, 1970 provides the statutory framework for determining whether AI-related inventions satisfy patentability requirements. Nevertheless, neither statute was designed specifically for the challenges created by modern generative AI.

The appropriate response is not necessarily to abandon the existing IP system. Rather, India should carefully interpret and, where necessary, reform the law so that it recognises genuine human creativity, encourages technological progress and provides reasonable protection to existing right holders. AI should be treated neither as an automatic enemy of creators nor as a technology placed entirely beyond legal responsibility. A balanced framework based on human contribution, transparency, accountability and innovation will provide the most sustainable path for the future of AI in intellectual property rights.

References

1. The Copyright Act, 1957, Act No. 14 of 1957, India Code.
2. The Patents Act, 1970, Act No. 39 of 1970, India Code.
3. The Trade Marks Act, 1999, India Code.
4. The Designs Act, 2000, India Code.
5. World Intellectual Property Organization, Generative AI: Navigating Intellectual Property (2024).
6. World Intellectual Property Organization, Artificial Intelligence and Intellectual Property, official WIPO materials.
7. Indian Copyright Office, Copyright Act, 1957 and official publications.
8. Intellectual Property India, Patent Act, 1970 official repository.

[8] World Intellectual Property Organization, WIPO and Artificial Intelligence, official materials.