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THE CHANGING ARCHITECTURE OF INTELLECTUAL PROPERTY RIGHTS IN THE ERA OF ARTIFICIAL INTELLIGENCE- RETHINKING IP LAW IN INDIA

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ABSTRACT

Artificial Intelligence is rapidly encompassing industries and systems of governance, increasing efficiency, automation and innovation. It has become an indispensable tool in creating text, images, music, software and potentially patentable inventions. This rapid advancement in IP is not without risks at every stage of the innovation cycle. Traditional IP regimes are born of human creativity and invention, whereas AI can perform activities traditionally attributed to both. India doesn't have any regulatory framework on AI-generated intellectual property, yet the Copyright Act, 1957 and Patents Act, 1970 contain certain principles- an answer to several emerging questions. This article argues that India should neither grant independent IP rights upon AI nor prohibit AI-generated creations. Instead it should adopt a model, which will protect creative human contribution, as well as hold AI developers accountable for unlawful acquisition and exploitation of protected works.

KEYWORDS

Artificial Intelligence, Intellectual Property, Copyright, Patents, Authorship, IPR framework, AI- generated works

INTRODUCTION

The law protects what the human creates- this assumption on IP law has been disrupted by AI. The technological question lies on the fact whether machines can invent or create like human beings. A prompt can produce a painting, an algorithm can compose musical notes, a model can code and decode and an AI system is capable of identifying novel chemical structures.

Here lies the legal query- who will be accountable if a machine is the inventor?

In India, the Copyright Act (1957), the Patents Act (1970) and the Trade Marks Act (1999) were based on old creation procedure involving human minds only and do not provide a comprehensive framework on AI-generated works. Addressing the crucial concerns on

authorship, ownership or accountability, Indian law should be adapted to encourage technological growth, while safeguarding the interests of the human intellect. This article explores the legal structure in India to determine how IP laws must be framed to tackle the major challenges created by AI and how to revise the law to enable the country to reconcile innovation with intellectual property protection.

AI & THE TRANSFORMATION OF INTELLECTUAL PROPERTY

Artificial Intelligence (AI) is growing at a rapid pace, creating significant challenges for Intellectual Property Rights (IPR), particularly relating to artistic works and inventions. AI systems utilise algorithms to perform complex tasks, reducing human interference significantly. It depends on Machine Learning, which aids the system learn from existing data, and Deep Learning which involves complex computational models to recognise patterns and then perform activities associated with human cognition. AI is proved to be phenomenal in areas encompassing Natural Language Processing, Computer Vision, Robotics and Creative AI, transforming healthcare, finance, education, entertainment and other sectors.

Intellectual Property Rights have come up with legal recognition and economic incentives to protect and commercialise human creations as well as preventing their unauthorised use.

The principal categories are:

- Copyright- protects original literary or artistic works from unauthorised reproduction and use
- Patents- protect inventions satisfying legal requirements like novelty and industrial applicability
- Trademarks- protect distinctive signs, symbols, words, logos and others which distinguish goods or services along with building consumer recognition.

However, these rapid technological developments in AI, are challenging the traditional outputs born of human creation and innovation.

COPYRIGHT AUTHORSHIP AND LEGALITY

1. COPYRIGHT IN THE ERA OF AI

The Indian Copyright Act 1957, is not directly concerned with AI-generated works, leaving an uncertainty over what counts as a 'creative' work and whether or not these should be protected by law. There are no particular provisions to protect the computer generated creations by the Indian Copyright Act, since they are not considered as 'original' works crafted by a human

mind. In 2008, the Eastern Book Company v. D.B. Modak case had a significant impact on the understanding of copyright protection of publications in India. The Supreme Court established that even though the material such as court judgments are in the public sphere, the task related to editing, arranging and formatting these judgements can be protected if they meet the creativity criterion.¹

Section 2(d) (vi) of the Copyright Act, 1957, added to the 1994 amendment, already addresses computer-generated works: it defines the "author" of a literary, dramatic, musical or artistic work that is computer-generated as "the person who causes the work to be created." This clause was drafted at a time when computers acted largely as tools directed by human instruction, so it implicitly assumes meaningful human involvement in the creative process, and it remains the closest statutory hook Indian law has for attributing authorship in AI-assisted works.²

2. COPYRIGHT PROTECTION AND OWNERSHIP OF AI-GENERATED CONTENT

However, AI technology is capable of creating new forms, which may not be protected under existing regulations. The critical distinction should be made regarding the AI-assisted and AI-autonomous creations and who will then hold the copyright in AI generated contents without any direct human input.

Today the advanced autonomous AI models, capable of generating any creative content raises the question of whether ownership should belong to the AI developer, the system-operator, or the instructions and data provider. Since AI is not a legal person, the rights may therefore be attributed to the individual, who controls or operates the system, depending on the circumstances, in line with the "person who causes the work to be created"[Section 2(d)(vi)]. This approach creates difficulties where AI is becoming the instrument of innovation without legal authorship in practice. In the days to come, the Indian copyright law may therefore require clearer interpretive guidance to fill out the grey areas concerning authorship, ownership, attribution, and the protection of AI-assisted and AI-generated works, particularly as generative systems require less and less real-time human direction.

3. COPYRIGHT INFRINGEMENT AND AI OUTPUTS

Generative AI models involve large databases with books, images, music, codes and online information, which are all covered by copyright laws. Hence several issues on illegal reproduction and infringement come into play when the machine learning objects are being

1E. Book Co. v. D.B. Modak, (2008) 1 S.C.C. 1 (India).

2The Copyright Act, 1957, Sec 2(d)(vi), No. 14 of 1957, INDIA CODE (1957).

trained with the help of copyright datasets. There are no specific laws to regulate text and data mining in AI development.

The U.S. Copyright Office in February 2023, denied copyright protection to AI generated images using Midjourney in Kristina Kashtanova's graphic novel 'Zarya of the Dawn', but there was no restriction to the author's written text. This lack of copyright protection for AI-generated content creates challenges, especially for coding. ³

The recent copyright exceptions in Section 52 covers certain principles of fair dealing, but it is not understood whether they apply to commercial AI training. The restrictive nature of interpretation as well as lack of clarity in the legal framework act as a deterrent to technological innovation and the liberalisation of copyrighted data further disrupts economic and moral rights of the creator.⁴

PATENTS IN THE ERA OF AI

Though the Patents Act, 1970 governs all activities related to patent legislation and protection that satisfy statutory principles, the rapid innovations of AI are a challenge to patentability and inventorship.⁵

The AI system helps scientists discover pharmaceutical compounds and engineers to optimise the industrial processes, but the current legal framework will not recognise it as an inventor or a person who can hold patent rights. Indian Patent Law provides patent protection to inventions that are novel and subjected to industrial applicability. But this is on the assumption human intellect is playing a significant role in the inventive process.

This issue was recognised throughout the world and patents were applied to inventions by AI technology - Device for the Autonomous Bootstrapping of Unified Sentience (DABUS). But the patent agencies of most of the jurisdictions denied permission and claimed that only human beings qualify as inventors.

As per Section 3(k) of Indian Patents Act, 1970, all are excluded mathematical or business methods, computer programmes per se, or algorithms from patentability. A standalone algorithm or software cannot be patented, but AI solutions demonstrating a technical effect,

³Zarya of the Dawn, Registration No. VAu001480196 (U.S. Copyright Office Feb. 21, 2023).

⁴The Copyright Act, 1957, Sec 52, No. 14 of 1957, INDIA CODE (1957).

⁵The Patents Act, 1970, No. 39 of 1970, INDIA CODE (1970).

hardware integration or solving a technical problem without computational analysis, can qualify being patented. This ambiguity needs more clear patent examination guidelines concerning AI technology in innovation and research.⁶

DEEPPAKE AND MORAL RIGHTS

Section 57 of the Copyright Act, 1957 grants the moral rights of authors regarding attribution and integrity. They retain their authorship, even if the work is sold to a company or producer. The deepfake technology can infringe on these rights by fabricating original pieces of art in a realistic way. This AI technology can be a potential danger to the artists, performers, and creators by causing inappropriate and derogatory images. In 2011, Lady Gaga objected to the online game Moshi Monsters over a character created in her likeness, called Lady Goo Goo, and an accompanying song, citing infringement of her music and image; the character and song were subsequently withdrawn. Thus a conflict continues between the copyright law and the right to both privacy and personality.⁷

IMPLICATIONS OF AI IN INTELLECTUAL PROPERTY: TRADEMARKS AND COMMERCIAL IDENTITIES

Trademark law in India is influenced by the Trade Marks Act, 1999, which protects distinctive words, symbols, logos, and other identifiers used in relation to goods and services.⁸

AI can create logos, slogans, names, and brand identities. It also helps to analyse human behaviour along with detecting violation of trademarks. These AI enhanced processes improve the protection mechanisms against trademarks and consumer protection. AI itself cannot ordinarily own a trademark. Trademarks are associated with individuals, businesses, or organisations using the mark commercially. Thus, where AI generates a logo or brand name, ownership would generally need to be attributed to the relevant human or business entity. The whole digital environment needs legal clarity regarding the creation, registration, ownership and validity of AI-generated marks. Trade secret protection is a part of AI companies as it can disclose commercially valuable information. However, over-protection can disrupt

⁶The Patents Act, 1970, Sec 3(k), No. 39 of 1970, INDIA CODE (1970).

⁷The Copyright Act, 1957, Sec 57, No. 14 of 1957, INDIA CODE (1957).

⁸The Trade Marks Act, 1999, No. 47 of 1999, INDIA CODE (1999).

transparency and accountability, when AI systems can significantly impact the rights and interests of the citizens.

ETHICS AND REGULATIONS IN IPR LAW

At present India lacks a comprehensive IPR framework which can fill up the gaps concerning authorship, inventorship, ownership, and infringement of AI-generated inventions. However, the policy initiatives, like the 'Responsible AI for All' by NITI Aayog framework highlight the values of fairness, transparency, accountability, inclusiveness and privacy.⁹

The ethical issues and enforcement challenges with AI and IPR includes:

1. Since AI has no independent identity under current law, it cannot hold rights and responsibilities. If AI produces original or infringing works, it is difficult to establish ownership and liability
 2. AI systems are developed, trained or implemented across different countries raising the issue of cross-border complications. AI-generated work produced in one country can reportedly infringe IP rights in another, complicating the legal issues and applicability further.
 3. IP rights face conflict with transparency and accountability when ownership claims lead to restricted access to algorithms and databases required to audit or assessing automated decision-making.
 4. Intellectual property law provides incentives to creators and inventors. AI-generated works challenge this paradigm as corporate sectors using AI can claim rights over outputs with minimal human contribution. This is a potential threat to monopolistic dominance over knowledge and innovation. Ryan Abbott and Mark Lemley suggest that a failure to regulate AI ownership could distort market incentives, either by over-rewarding corporate AI deployers or under-rewarding human creators.
- India is facing a tough challenge of implementing new legislations and policies to redefine ownership and authorship in the AI ecosystem, while ensuring ethical control and protecting the interest of the population. A robust legal framework for the upcoming AI driven sectors is necessary to make India shine in the global technology landscape.

COMPARATIVE INTERNATIONAL APPROACH

⁹NITI Aayog, Approach Document for India, Part 1 – Principles for Responsible AI (Feb. 2021).

The evolution of AI transforming the business sector around the world manages the system in the scope of IP rights in varied ways.

The United States Copyright Office asserts that meaningful human contribution is a must to enjoy copyright protection.

The European Union AI stresses upon the transparency requirements for AI training datasets and copyright considerations.

Australian Government reviews have also considering whether patent law can be eligible for AI-driven tasks.

Several measures are taken in China to encourage AI-related innovations and attempting to alter its IPR framework in response to robust technological advancement.

The World IP Organisation (WIPO) has analysed AI related issues explicitly through international discussions on responsibility, authorship, patents and various other IP regimes. It has been continuously measuring the role of AI with respect to the adaptability of international treaties and conventions like the Patent Co-operation Treaty (PCT) and the Berne Convention on AI evolution. It acts as a driving force to establish norms on AI related Intellectual property issues.

Comparative analysis shows that India stands in a landscape of mixed reality which accepts AI assisted creations, but preserves human liability and the protection of the interest of the citizens.

CASE STUDIES

India has limited direct case laws on AI generated innovations, but some are worth mentioning which offers insights to how India can tackle the issue related to AI in the realm of IP rights.

Novartis AG v. Union of India (2013)¹⁰

The Supreme Court reviewed the criteria of patentability under Section 3(d) of the Patents Act, 1970, particularly the requirement of enhanced efficacy for certain pharmaceutical inventions (a cancer drug, imatinib mesylate). The case demonstrates the importance of statutory standards in evaluating patent claims and may provide context for assessing AI-assisted inventions based on algorithms and data sets for novelty and inventorship. It is the leading Indian precedent balancing patent incentives against public access and the difference between a genuine invention and incremental alteration.

Indian Performing Right Society Ltd. v. Sanjay Dalia (2015)¹¹

¹⁰Novartis AG v. Union of India, (2013) 6 S.C.C. 1 (India).

¹¹Indian Performing Right Society Ltd. v. Sanjay Dalia, (2015) 10 S.C.C. 161 (India).

The case involved infringement of exclusive rights relating to music art form and performance rights. With AI capable of generating music and any other artistic content, principles concerning ownership and enforcement of exclusive rights may become relevant to AI-generated works.

The 'Blackberry Paradigm'¹²

Blackberry Ltd v. Controller of Patent, where the Delhi High Court clarified that an algorithm per se is not patentable, but software inventions producing a concrete technical effect are eligible for the same.

Arijit Singh v. Codible Ventures LLP¹³

The Bombay High Court's decision in this case was India's first comprehensive legal precedent addressing AI-generated content misuse and personality rights protection. The interim order banned multiple entities from using his voice, name, image, and personal traits without consent, particularly using voice cloning technologies.

While India is yet to have specific case laws related to AI generated intellectual property, international precedents can provide important insights into how the issue may be handled in the future.

RECOMMENDATIONS

The Patents Act, 1970 and the Copyright Act, 1957 needs to be reviewed explicitly and amended accordingly to address AI-generated inventions. Specific doctrines are needed to establish inventorship and ownership where AI ecosystem plays a key role, and at the same time to distinguish between the contributions of AI developers, users, and human inventors.

Transparency in Trademark Law is essential to define ownership, registration, distinctiveness, and potential conflicts with existing marks would strengthen legal clarity.

India needs a tailored IP rights framework with new policies and amendments to address these unique issues arising from AI driven innovation. Such reforms will protect the interests and rights of creators, innovators and economic sectors and ensure technological advancements so that India competes in the global AI driven economy.

CONCLUSION

¹²BlackBerry Ltd. v. Controller of Patents & Designs, C.A. (COMM.IPD-PAT) 318/2022 (Del. H.C. Aug. 30, 2024) (India).

¹³Arijit Singh v. Codible Ventures LLP, 2024 SCC OnLine Bom 2445 (India).

The foundation of IP law built on the assumptions of human creativity and intellect are collapsing under the weight of the rapid AI autonomous abilities. Comparative analysis around the globe demonstrate inconsistent and fragmented approaches, while ethical and economic policies are much complicated. A rethinking of IP law is needed which will acknowledge AI automated works with full respect to human innovation and should be free from monopoly threats. A 'sui generis' model based on EU's database rights acknowledge the AI outputs, while avoiding the conceptual conflict of permitting authorship to non-human entities. The future of scientific advancements is something beyond new technologies, a sustainable judicial ecosystem where humans and machines think and work hand in hand.

The transformation of IP law in the age of AI is far from complete, but the landmark judgments laid the foundations for facing the future challenges. Through careful legal analysis, balanced multi-layered IP framework, and continued international cooperation, India can re-imagine how intellectual property law can ensure promoting innovation while protecting creators and individuals in an AI-driven world. In this technology driven world, all advancements must ultimately be guided by human wisdom, ethical judgment and constitutional values. Legislators, courts and scholars in this age of AI must work together to make IP law as a guardian of innovation- where technology enhances human abilities without erasing its worth.