Intersection of Intellectual Property Rights and AI-Generated Works – Part I

Copyright related issues regarding AI-generated Works

Introduction:

In today's contemporary world, it is undeniable that technological innovations have permeated nearly every facet of modern society. The depth of technology's integration into our daily lives paints a reality where the digital realm appears to have engulfed the real world and the lines between the two are significantly blurred. The involvement of technology in the creation of innovations today is both, necessary and unavoidable. As pertinent as technology is for new-age innovations, it has reduced and, in some instances, practically replaced the quotient of human effort. This results in a unique problem where the new works, generated through the use of software programmes and algorithms cannot be distinguished from those that result out of human endeavour. In the current industrial and market scenario, clear ownership of Intellectual Property ("IP") is paramount for any individual or entity, which more often than not dictates the growth trajectory of a business. Hence, ownership of such IP is of utmost importance. While discussing ownership, the biggest point of debate is whether ownership can be extended to a non-human counterpart i.e., software, algorithms, etc. which have contributed to the development of a product. The current IP law in India does not have express provisions for extending recognition, much less ownership, to software and algorithms per se that are used to create IP eligible for statutory protection.

The exception to this, to a very limited extent can be found under the Copyright Act of 1957, which recognises a person who *causes* the computer-generated work to be created as the author of the work. However, the non-human counterpart i.e., the software/AI system per se cannot be assigned authorship of the work[i]. The Patent Act, 1970 and the Design Act, 2000 do not have any provisions to recognize a programmer/developer as an inventor/owner of any innovation that results from operation of any software, AI or algorithm. The problem is further aggravated when the work or innovation is solely the result of the endeavours of the software, AI or algorithms without any human intervention. With rampant innovation and technological progress, the rapidly evolving industry and world view is that formal IP recognition should be extended to such developers if not the software per se by way of express legal provisions to maintain a healthy and dynamic innovator ecosystem.

On comparison of the Indian legislations with foreign legislations, it is noted that even the UK expressly provides for copyright protection of computer-generated works that do not have a human creator per se. Section 9(3) of the Copyright, Designs and Patents Act ("CDPA") states that "*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 178 of the CDPA defines a computer-generated work as one that "*is generated by computer in circumstances such*

that there is no human author of the work." Legislations of countries such as New Zealand and Ireland have also been inspired by the CDPA and have adopted similar legislative provisions.

While both, the innovators and lawmakers around the world are now coming to realise the lacunae in the legislations to accommodate and acknowledge non-human contributions, the attempt to determine the capabilities of a software to mimic humans in certain situations and its capabilities of making valuable contributions are not newfound. To inquire into the intersection of digital technology, rationality and to judge the capabilities of a software to mimic human thought, Alan Turing, a luminary mathematician, adopted the Turing test.

The Turing Test is a test of a machine's ability to exhibit intelligent behaviour indistinguishable from that of a human. In the test, a human judge engages in natural language conversations with both a machine and a human, without knowing which is which. If the judge cannot reliably distinguish between the machine and the human based on their responses, the machine is said to have passed the Turing Test, demonstrating a level of artificial intelligence that simulates human-like conversation and intelligence. The test focuses on the external behaviour of the machine rather than its internal processes, emphasizing the ability to imitate human-like responses. The question of whether this mode of thinking is tantamount to human cognition has found resolution with the evolution of technology and the ascent of generative AI developed today. We now inhabit an era where software's transcend their roles as mere tools, evolving into thinkers and creators generating works that are comparable to those created by humans. Yet, the question whether IP rights should be extended to such software's or developers of such softwares remains inconclusive at large.

This article explores the broad spectrum of intellectual property considerations regarding AI-generated works, focusing on the nuanced dimensions of copyrights. In a world saturated with technological products and creations that permeate our social spheres, safeguarding these intellectual assets becomes not only a necessity but also a driving force for economic growth. To fully unlock the potential advantages offered by AI, a crucial understanding of how Intellectual Property Rights can effectively shield and foster the creations of AI is essential.

While reviewing the IPR regime in India, the Parliamentary Standing Committee, in its Report No. 161[ii] referred to AI as "*Artificial Intelligence, a discipline of computer science, mainly aims to develop systems as well as mechanisms that perform the tasks which generally requires human intelligence. It refers to the ability of machines and technologies to perform cognitive tasks like thinking, perceiving, learning, problem solving and decision making*". In support of the above assertion of cognitive abilities of AI systems, Dr. Shlomit Yanisky Ravid of Yale Law School has identified eight pivotal attributes that equip AI systems with such machine intelligence[iii], namely – creativity, unpredictability, independence/autonomy, rationality, evolution, data collection and communication capabilities, efficiency/accuracy, and the exercise of free will. These characteristics together empower AI systems to autonomously create inventions and artistic works that, if crafted by humans, would qualify to be registered as patents and copyrights provided the statutory requirements are met.

However, as briefly pointed out above, the current legal framework in India, encompassing the Patents Act of 1970 and the Copyright Act of 1957, does not adequately address the intricacies of inventorship, authorship, and ownership concerning works created/innovated independently by Artificial Intelligence.

The Copyright Landscape:

Provisions in the Copyright Act, 1957:

The Copyright Act of 1957 in India serves as the legal framework for protecting various forms of creative works, including literary, dramatic, musical, and artistic creations. However, as technology advances, questions regarding the ownership rights of AI systems and their software developers in the creation of

copyrightable works have surfaced. Under the Indian Copyright Act, 1957, original works expressed in tangible forms are eligible for copyright protection. While the Act does not explicitly address AI-generated content, section 2(d)(vi)[iv] of the Act specifies that for computer-generated works, the person causing the work to be created is considered to be the author. This provision has implications for AI-generated content, leading to both opportunities and challenges.

The RAGHAV case:

In 2020, the Indian Copyright Office faced a notable case involving an AI system named 'RAGHAV'[v] and its attempt to secure copyright registration for an artwork called 'Suryast.' Initially rejected for lacking a human author, the painting was later granted protection when a natural person was named as a co-author alongside 'RAGHAV.' Subsequently, a withdrawal notice was issued, seeking clarification on the legal status of 'RAGHAV,' highlighting the ambiguity surrounding AI's qualification as an artist under the Copyright Act.

New age copyrightable works generated by AI systems:

AI systems are increasingly playing a pivotal role in the creation of new copyrightable works across various artistic domains. These systems, equipped with advanced algorithms and machine learning capabilities, are adept at generating original content such as music, visual art, literature, and even film scripts. Through the analysis of vast datasets and patterns inherent in existing works, AI can autonomously produce innovative and unique pieces. From music composition algorithms that craft innovative compositions to image-generating models that produce visual art, AI's creative potential is expanding the boundaries of traditional artistic expression.

When we consider AI systems to be creators of works that are generated on the basis of the data it is fed with, the originality of such generated works often comes into question. Another crucial consideration is the manner in which such data is obtained. It is of utmost importance that the data sets used to train AI systems are obtained without contravention of law and in a lawful manner with express consent and approval of the authors of such works. The said issue has also been highlighted in the recent legal proceedings initiated by various authors of certain copyrighted works in the United States against a leading AI platform[vi]. In the said cases, it has been alleged that the AI platform unauthorisedly used the copyrighted works of the authors as data sets for training AI. A balance needs to therefore be struck and an emergent strategy to safeguard AI-generated creations from claims of infringement even when drawing inspiration from existing material, could involve categorizing them as 'derivative works', particularly in light of the fact that the Berne Convention has 181 signatories today[vii].

It is also pertinent to mention here that the Berne Convention for the Protection of Literary and Artistic Works, established in 1886, which is an international treaty that aims to provide a unified framework for the protection of copyright across participating countries, identifies 'derivative works' in its Article 2(3) as a new creative work that is based on or derived from one or more existing works. Securing copyright for derivative works, under the provisions of the Berne convention, necessitates a discernible and non-trivial departure from the original source. While AI tools utilize data derived from existing sources, the resultant output is far from a direct copy; it is shaped by the unique learning abilities of the specific AI model. Therefore, the works created by AI cannot be said to be a copy. This intricacy leads to a compelling argument: AI-generated outputs should be recognized as distinctive, derived works that encapsulate the insights of the AI, rather than mere rearrangement or reproductions of pre-existing material. Thus, works created by generative AI models or softwares could potentially be protected as derivative works, so long as the works used to train the said AI models or software have been obtained lawfully and with the consent of the original creators of the said works.

While, in the current scenario, the Indian Copyright Office allows applicants of translated or adapted works (derived works) to seek copyright protection by referencing the original works at the time of filing the application. In our opinion, this could serve as a foundation for the requirement of referencing existing copyrighted works that are used to train AI systems to generate new copyrightable works. However, the

question of authorship still remains ambiguous as it addresses the idea that creativity is purely a human attribute which lies at the centre of the concept of authorship/ownership. The question then arises as to whether an AI system is exercising creativity while creating new works or is merely mirroring the style of the creators who formed part of the data sets that it was trained on.

The Indian copyright law has a requirement for strict human authorship. According to Indian copyright law, a work must be authored by a human in order to be eligible to claim copyright protection. While the Copyright Act, 1957 acknowledges creators of computer-generated works, the legal status of AI-generated content per se remains unclear. In addition, the general protection period for original works under Indian copyright law lasts for 60 years from the year following the author's death. If AI systems are granted authorship over works, the perpetual existence of the AI system challenges the fundamental purpose of this protection period, as it continues to exist in perpetuity.

Another major hurdle that lies before the IP community is enforcement of copyrights. Granting authorship rights to AI systems raises concerns about enforcing copyrights or holding AI systems accountable for potential infringement since AI systems per se lack legal personhood and cannot be held accountable for infringement or any other legal ramification, therefore creating a complex scenario.

The sudden surge in AI-generated content raises intricate questions about authorship, ownership, enforcement, etc. of such works, as the current legal frameworks strive to adapt to the evolving landscape where machines contribute significantly to the creative process. The unavoidable intersection of AI and existing Copyright law in India necessitates examination and refinement of the relevant law to address the challenges and opportunities presented by the emergence of AI as a formidable creator of original, copyrightable content.

The Parliamentary Standing Committee report (*as referred above*) has recommended that a separate category for protection of AI-based inventions as IPRs be introduced. The Committee has recognized the relevance and utility of cutting-edge technologies like AI and machine learning and their role in India's revenue generation. It has also recommended that the Department for Promotion of Industry and Internal Trade should make efforts in reviewing the existing legislations i.e., the Patent Act, 1970 and the Copyright Act, 1957 to incorporate emerging technologies of AI and AI related creations in their ambit.

Conclusion:

As we navigate the uncharted territory of AI-driven creativity, it becomes paramount to find a delicate balance between regulation and incentivization. The current legal system, especially the intellectual property framework, needs to evolve to align with the capabilities of AI-related technologies. The inherent ambiguity in the legal landscape surrounding content generated by AI, especially concerning questions of authorship, presents challenges that conventional frameworks were not originally equipped to address.

This ongoing transformation demands a careful reassessment of existing laws, emphasizing the need for an environment that not only fosters innovation but also protects the rights of creators, whether human or machine. The complex interplay of AI capabilities and the traditional concept of creativity as a distinctly human attribute adds layers of intricacy to discussions about authorship and ownership in the realm of AI.

In essence, crafting a forward-thinking legal framework is essential to fully harness the potential advantages presented by AI. This evolution is not merely about adapting laws to technological advancements but also about cultivating a dynamic and inclusive innovator ecosystem within India.

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[i] Section 2(d)(vi) of Indian Copyright Act, 1957
[ii] GOI_IP-Review.pdf (iprlawindia.org)
[iii] http://cardozolawreview.com/wp-content/uploads/2018/08/RAVID.LIU_.39.6.5-1.pdf
[iv] Section 2(d)(vi) of Indian Copyright Act, 1957
[v] https://www.barandbench.com/columns/rise-of-the-machines-ai-and-copyright

[vi] The New York Times Company v. OpenAI Inc. [Case 1:23-cv-11195], Authors Guild et al v. OpenAI Inc. et al [Case No. 1:2023-cv-08292], Chabon v. OpenAI, Inc. [Case No. 3:2023-cv-04625], Tremblay v. OpenAI Inc. [Case No. 4:2023-cv-03223] among many others

[vii] https://www.wipo.int/wipolex/en/treaties/ShowResults?search_what=C&treaty_id=15