REDEFINE INTELLECTUAL PROPERTY WITH ARTIFICIAL INTELLIGENCE

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Introduction

We have come a long way since 1955 when John McCarthy, winner of the Turing Prize in 1971 defined Artificial Intelligence (AI) as "*Making a machine behaves in ways that would be called intelligent if human were so behaving*". It is only recently that AI technology has undergone a rapid progress and has become one of the hottest trends of the present world. The impact of AI on our day to day lives is intensively being deliberated upon in almost every corner of the world. It has garnered much needed attention not only from the business sector and academia but also from the policy makers and judiciary.

AI questions the most conventional Intellectual Property legal principles, such as "author", "creator", "originality", or "inventiveness". Can a machine be an author or an inventor? Should AI generated inventions be considered state of art? Who is the owner of AI generated works or inventions? Who should be held responsible for the creations and innovations generated by AI, if they encroach upon others' rights or violate other legal provisions? With the increasing prevalence, and increasing capability of AI these are some of the Intellectual Property Law issues that the legal fraternity has to resolve.

This article proposes to address such issues and endeavors to provide suggestions so as to attune the law with the present developments.

AI and Copyright

Traditional Copyright law does not recognize AI generated works. It only protects the original creations of a human being. In a famous *Monkey-Selfie* copyright dispute, U.S. Copyright Office clarified that to fall within the protective shield of copyright law a work must be created by a human being.[1] This decision gave rise to challenges for the copyrightability of AI-generated works.

However, in United Kingdom the law is rather different. In UK Copyright Act, there is a provision which stipulates that if a work is computer-generated then the author is taken to be the person

[1] *Naruto v Slater (PETA)* 15-cv-4324.

who facilitated the work to be created.[2] On similar terms we can assume that the author of AI generated work would be one who made the arrangement necessary for the creation of work.

With regard to Indian legal standards, Section 2 (d) of the Copyright Act, 1957, defines "author" "in relation to any literary, dramatic, musical or artistic work which is computer-generated, the person who causes the work to be created;"[3]

The complexity arises where AI becomes more advanced and fully autonomous and when it has the liberty to make its own decisions, it may become even more complicated to say with certainty by whom the arrangement necessary for the creation of work undertaken. As per current scenario only the human-authors of creative works may enjoy copyright protection. However, some scholars have advocated the idea of granting copyright to non-human authors. They argue that the realm of word "authorship" should be widened to incorporate both human and non-human authors.[4] The authorship of a work created by AI is still contentious. It is doubtless to say that to kickstart any AI based work human intervention is necessary but to determine the author/owner in a scenario where AI plays a leading role in completing the work is still under clouds.

AI and Patents

AI has the potential to challenge the core legal principles that are edifice of Patent law. Whether AI generated invention should be given protection under patent law, and if so, who should be considered as the inventor for such AI created inventions are the most fundamental questions that need to be addressed urgently. Some scholars are of the view that granting patent rights to AI-generated inventions would act as a catalyst for new and advanced innovations which would be difficult to achieve through human inventiveness solely. Others argue that granting patent protection to AI-generated inventions will raise the cost of research and development, increase the monopolies, thereby impeding innovation.

Another problem is with regard to setting the yardstick for ascertaining whether an AI generated invention is non-obvious. Determining the non-obviousness of an AI created invention is a practice full of uncertainty and complexity particularly for super intelligent AI that is capable of improving itself. As AI is permeating almost every sector and industries, deliberations on whether the present definition of a POSA (person ordinary skilled in art) is adequate for AI era or it should be redefined so as to include within its folds a person equipped with AI, assume much significance.[5]

Another, indeterminacy in a patent law relates to the liability of AI in cases where AI is the infringer of patent rights. With the changing landscape of the technological developments, most AIs are now capable of infringing other patent claims. The liability issue raises the question of who should be held accountable for the actions of AI, whether the AI itself or the developer of AI and how the liability of AI will be assessed.

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[2] Copyright Designs and Patents Act 1988 (CDPA 1988) s 9(3).
[3] Copyright Act 1957 s 2(d) (iv).
[4] Ryan Abbott, 'I Think, Therefore I Invent: Creative Computers and the Future of Patent Law' (2016) 57 B.C. L. REV. 1079; Colin R. Davis, 'An Evolutionary Step in Intellectual Property Rights— Artificial Intelligence and Intellectual Property' (2011) 27 COMPUTER L. & SECURITY REV. 601.
[5] Artificial Intelligence Collides with Patent Law, WORLD ECONOMIC FORUM http://www3.weforum.org/docs/WEF_48540_WP_End_of_Innovation_Protecting_Patent_Law.pdf.

The patent related issues for AI created inventions must be decided in the background of whether the patent rights to AI-generated inventions would further the objective of patent law or whether it would prove detrimental for the human conceived inventions.

Conclusion

On a concluding note, it is proposed that it is important to revisit the Intellectual Property Laws to bring them in conformity with the present technological developments which are defining the future of this world. Assigning authorship and inventorship to non-humans is a novel way to promote the growth and development of AI, which will boost the appetite of this world for more invention. However, instead of going for the complete overhaul of the rules and guidelines currently set in place, it would be feasible for the regulators to modify and restructure the present laws in order to avoid complex and lengthy process and to prevent the law from getting static.

The regulators have a big responsibility of creating a harmonious approach between the protection of rights of citizens / individuals and the need to encourage technological growth, while deciding upon the AI generated Intellectual Property issues.

Granting authorship to AI could preclude works solely generated by AI from falling into the public domain and offer the developer of AI some monopoly to the resulting works. The patent laws considering AI can have profound impacts on innovation, the society and economy which make it imperative for the people associated with Intellectual Property to find ways for the patent system to encourage innovation while minimizing any adverse consequences. This revisitation to IPR laws would allow the present IP system to continue promoting “the progress of science and useful arts” without any impediments.