



ARTIFICIAL INTELLIGENCE CREATION & COPYRIGHT PROTECTION

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ABSTRACT

Man-made brainpower (artificial intelligence) frameworks are innovative, capricious, autonomous, self-governing, reasonable, advancing, equipped for information assortment, open, proficient, precise, and have free decision among alternatives. Similar to people, computer based intelligence frameworks can self-governingly make and produce imaginative works. The utilization of computer based intelligence frameworks in the creation of works, either for individual or assembling purposes, has gotten regular in the 3A period of computerized, self-governing, and cutting edge innovation. In spite of this advancement, there is a profound and normal worry in present day society that man-made intelligence innovation will get wild. Man-made consciousness has risen as a key supporter of social, monetary, and social turn of events. Astute programming progressively assumes a more prominent job in each inventive industry. These businesses depend on licensed innovation insurances to keep up harmony between efficiency, compensation, and seriousness. Policymakers, notwithstanding, have given little consideration to the crossing point of man-made reasoning and copyright assurance.

There is in this manner a call for social and legitimate apparatuses for controlling artificial intelligence frameworks capacities and results. This Article tends to the inquiries of the copyrightability of fine arts created by computer based intelligence frameworks: possession and responsibility. The Article discusses who ought to appreciate the advantages of copyright assurance and who ought to be answerable for the encroachment of rights and harms brought about by computer based intelligence frameworks that freely produce inventive works. In this way, this article look at the current lawful structure for copyright assurance in India and regions of expected change, the Court's treatment of innovation helped works and how copyright collaborates with falsely wise machines and artificial intelligence made works. The paper finishes up by proposing the requirement for a transformation in the field of IP laws just as different enactments to oblige new types of innovative turns of events.

Key Words- Man Made Brainpower, Computer Based Intelligence, IP Laws

INTRODUCTION

Advancements are enhanced to make routine life simple and smooth. The universe of innovation is changing quickly with PCs, machines and robots, supplanting straightforward human exercises. Counterfeit insight (AI) is one of such development. On a very basic level, AI is a machine that can really think on its own. Man-made intelligence can be comprehended as the capacity of a machine to duplicate clever conduct. In more extensive sense, AI allude an organically motivated data frameworks and incorporate complex innovations like AI, profound learning, PC vision, characteristic language preparing, machine thinking and solid AI. Anyway AI identifies with the comparable assignment of utilizing PCs to comprehend human knowledge, yet it doesn't restrict itself to strategies that are organically perceptible. In general comprehension "Computerized reasoning, a part of software engineering, is the diversion of human knowledge forms by machines uncommonly PC framework, means to make

canny machines which can regularly act and respond like people and makes workable for PCs to perform undertakings including human-like dynamic, insight, learned aptitudes or skill.

WHAT IS ARTIFICIAL INTELLIGENCE?

Before examining the responsibility of AI frameworks from a copyright point of view, one must address progressively fundamental inquiries: How does an AI framework work? What does it imply that the framework can independently make works? I contend that so as to address inquiries of responsibility for AI frameworks, one must comprehend what lies underneath the secretive idea of AI frameworks.

For science fiction enthusiasts Artificial Intelligence is not a new concept. Nowadays, AI has become more science and less fiction. In this era of rapidly developing technologies AI cannot be considered to be a novel concept, but the developments in this field after the incorporation of sophisticated technologies is remarkable and should be protected efficiently. AI in simple terms can be defined as the ability of a machine to mimic intelligent behaviour. Artificial Intelligence is a branch of computer science that aims to create "intelligent machines".¹ These machines are programmed to "THINK" like humans and mimic how a person act. Learning, reasoning and perception are considered as goals of Artificial Intelligence². According to **John McCarthy, the father of AI**, "artificial intelligence is the science and engineering of making intelligent machines, especially intelligent computer programs."³By now some of you must have realized that it is astounding how AI is slowly trickling its way into our lives. However, the technology is still in its early development years. But one thing is for sure AI is set to become a very integral part of our lives in a decade or two.

A true artificially intelligent system is one that can learn on its own. In the present day we have applications like **Siri** which present themselves as an example of Artificial Narrow Intelligence (Weak AI) in which the programmer is in direct control of every output. Whereas on the other hand we even have developed or in process of developing machines with strong AI or Artificial General Intelligence. The machines with strong AI are expected to possess innovative thinking and logical reasoning abilities. A very good example of such machine is "**Creativity Machine**" used by the U.S. military to design new weapons.⁴

ORIGIN OF ARTIFICIAL INTELLIGENCE

It is stated, Artificial Intelligence is certifiably not another plan to the individual who analyses science experimental writing. To get AI and its nexus with our comprehension of insight, one needs to investigate the improvement of the idea of AI. The term was first authored, when individuals started attempting to comprehend regardless of whether machines can really think. During the 1940s McCulloch and Walter Pitts had first made an endeavor to comprehend knowledge in numerical terms. John McCarthy had utilized term "Counterfeit Knowledge" in Dartmouth Conference at the Massachusetts Institute of Technology. He characterized AI as science and building of making smart machines, particularly clever PC programs. As indicated by him "each strong meaning of insight relates it to human intelligence...." Alan Turing proposed a test in 1950 to demonstrate a machine "as clever". He suggested that a machine needs to breeze through the Turing assessment to demonstrate the PC is keen. The Turing test drew in a person, as the 'judge', to pose inquiries through a work station to two different substances, one of which will be human being and the other will be PC. On the off chance that the appointed authority (person) consistently neglected to suitably separate the PC from the human, at that point the PC was said to have finished the assessment. Marvin Minsky characterized AI, (in 1968), as a study of making machines to do things that would require insight whenever done by men. In 1993, Luger and Stubblefield have given present day meaning of Simulated intelligence as the part of software engineering that is worried about the computerization of insightful conduct. Man-made intelligence was characterized by Stuart Russell and Peter Norvig as structuring and working of smart specialists that get percepts from nature and take activities that influence that condition. This meaning of Simulated intelligence unites diverse subfields of PC vision, discourse

¹ Artificial Intelligence and Intellectual Property

Rights. <http://www.mondaq.com/india/x/617260/new+technology/Artificial+Intelligence+and+Intellectual+Property+Rights>

² Ibid.

³ What is Artificial Intelligence? <http://www.aisb.org.uk/public-engagement/what-is-ai>

⁴ https://www.intepat.com/blog/intellectual-property/artificial-intelligence-ipr/?utm_source=Mondaq&utm_medium=syndication&utm_campaign=LinkedIn-integration

handling, common language getting, thinking, information portrayal, learning, and mechanical technology, with the expect of accomplishing a result by the machine. David Poole and Alan Mackworth characterized AI as the field that examines the combination and investigation of computational specialists that demonstration astutely. Marcus Hutter (ANU) what's more, Shane Legg (Google Deep Mind) proposed the "human-autonomous" meanings of AI as Insight gauges an operator's capacity to accomplish objectives in a wide scope of situations. Oxford word reference has characterized man-made consciousness as a PC framework, ready to perform assignments which ordinarily require human insight. In layman terms, man-made reasoning is innovation that carries on and acts like human or different creatures. In famous terms AI is a science and a lot of computational innovations that are enlivened by the manners in which individuals utilize their sensory systems to detect.

ARTIFICIAL INTELLIGENCE AND INTELLECTUAL PROPERTY LAWS

Our legal system is not defined to confront problems arising with the rapid development of AI. The challenge is that our legal system doesn't have answers to the otherwise straightforward questions like, "Who is the author of a painting made by machine using AI?"⁵

The innovativeness and information showed by AI frameworks is unmistakably obvious to the world and concerns with respect to IP security has unquestionably grown in the psyches of individuals upholding rights comparable to scholarly property. In this way, we should investigate increasingly deliberative closures of copyright and patent laws regarding simulated intelligence frameworks. These days there are machines that make exceptionally inventive works that would be qualified for copyright assurance on the off chance that they were made by people. This requires a reconsideration of copyright principles for AI frameworks everywhere throughout the world.

Recently a San Francisco Court in *Naruto v Slater*⁶ held that, animals by virtue of the fact that they are not humans lack locus standi under Copyright Act to sue for infringement.⁷ The Bench of Carlos T. Bea and N. Randy Smith, Circuit Judges, and Eduardo C. Robreno, District Judge, while deciding upon the issue whether a monkey can sue for damages and injunctive relief for copyright infringement, held that, the monkey in particular and all animals in general, by virtue of the fact that they are not humans, lack the statutory locus standi under the Copyright Act, even though they have a constitutional standing under Art. III of the United States Constitution.⁸ The Court opined that, since the Copyright Act does not expressly authorise animals to file copyright infringement suits, *Naruto*, the monkey cannot sue for copyright infringement.⁹

With copyright for creatures good and gone, a comparable circumstance has emerged for artificial intelligence frameworks. Directly, machine created works are not enlisted by numerous individuals of the copyright workplaces over the world. A comparative issue has emerged on account of patent laws. If under patent law the criteria of novelty must be fulfilled by machines issues identifying with responsibility for creations will emerge. Additionally, can responsibility for creations be given to the robots/machines? If AI plagiarises a creation or reproduces an invention, how can infringement and damages be determined? These are some of the debatable issues that arise with respect to AI and IP laws.

IMPORTANCE OF INTELLECTUAL PROPERTY LAWS FOR ARTIFICIAL INTELLIGENCE

Growing top of the line AI frameworks requires significant measure of venture. In this manner, there is a desperate need of improvement of such IP related laws which can ensure the advancements of AI innovation and remunerate the trailblazers through the copyright or patent award.

In any case, as you know that for the most part licenses and copyrights are allowed to the creators or specialists dependent on satisfaction of rules like oddity, imagination, un-conspicuousness, innovative advance and so on. The test required here is that the present legitimate meaning of imagination and advancement don't make reference

⁵https://www.intepat.com/blog/intellectual-property/artificial-intelligence-ipt/?utm_source=Mondaq&utm_medium=syndication&utm_campaign=LinkedIn-integration

⁶<https://blog.sconline.com/post/2018/04/26/animals-by-virtue-of-the-fact-that-they-are-not-humans-lack-locus-standi-under-copyright-act-to-sue-for-copyright-infringement/>

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

to anything about non-human development. Along these lines the responsibility for developments despite everything stays unanswered.

In the UK, the creator of a work is characterized by the Copyright Designs and Patents Act 1988 (the "CDPA") as the individual who "makes" it.

Despite the fact that for developments/inventive works by machines with powerless AI for example where a developer is in direct control of each yield; the IPRs can be conceded to the human/creator working these machines.

The UK CDPA likewise gives that where a work "is produced by a PC in conditions with the end goal that there is no human creator of the work" the creator will be "the individual by whom the courses of action important for the formation of the work are embraced". This arrangement doesn't leave any space for the AI itself to be viewed as the creator so a human creator should be found from some place. In any case, for the machines with solid AI, working out on who claims the IP privileges of the substance made by these machines is undeniably quite perplexing; particularly with regards to authorizing or upholding those rights.

Concerning now, the AI frameworks are not considered as people and there is no single law which sets out who will possess the IP rights in any substance they make. In this way, there is parcel of degree for development in this field of law. There should be a change in perspective in current IP law structure, with the goal that an AI framework can be engaged with making the significant substance. As AI gets more earnestly to separate from human acts, the inquiries of law relating to the proprietorship will undoubtedly turn out to be increasingly precarious and unavoidable in the years to come.

IP LAWS IN INDIAN PROSPECTIVE

Enactments like the Copyright Act, 1957 and Patents Act, 1970 will have suggestions to AI frameworks in India. In this paper certain parts of the previously mentioned acts are sifted through and its effect on AI is examined. Certain arrangements in these demonstrations regularly go about as barricades in the advancement of these AI frameworks and denies IP assurance to the works delivered by these machines. The opportunity has already come and gone that these authorizations are altered to oblige further developed and refined innovations.

COPYRIGHT AND ARTIFICIAL INTELLIGENCE

The sine qua non of copyright is creativity. Inventiveness is a pre-condition to copyright assurance. A work is conceded security just when it is unique for example it isn't duplicated from some other work. It isn't even important that the work ought to include novel articulation of an idea. All that is required for innovation of articulation is that the articulation ought not be duplicated from another work. Along these lines the work ought to be made by the creator freely.

There are two doctrines related to the test of originality of a work.

They are:

- i) Sweat of the Brow Doctrine.
- ii) Modicum of Creativity.

According to the Sweat of the Brow Doctrine, an author can get a copyright on his work by employing simple diligence. There is no requirement of substantial creativity or originality. He is entitled to a copyright only on account of efforts and expense put in by him in the creation of such a work.

According to Modicum of Creativity, originality subsists in a work where a sufficient amount of intellectual creativity and judgment has gone into the creation of that work. The degree of creativity need not necessarily be high but a minimum level of creativity should be ensured for copyright protection.

The Indian Courts have adopted the modicum of creativity test in the case of *Eastern Book Company v D.B. Modak*.¹⁰ After a thorough reading of this doctrine emphasized in the aforementioned judgement, it cannot be said

¹⁰ *Eastern Book Company v D.B. Modak*, 2008 1 SCC 1

that AI systems cannot achieve modicum of creativity. Thus, the works of these machines can pass the test of originality.

A provision under the Copyright Act, 1957 which poses a challenge to copyright protection to works of AI systems is Section 2 (d) of the act. This section defines the term ‘author’. For ownership of any copyrighted work, the person should fall under the ambit of an “author”. This is a complex situation for AI because they are generally not regarded as a legal person.

According to Section 2 (d) “author” means,-

(vi) in relation to any literary, dramatic, musical or artistic work which is computer generated, the person who causes the work to be created;”¹¹

The problem under this definition is the phrase ‘the person who causes the work to be created’. For a person to cause a work to be created proximity of the person with the work is important and for the purpose of this act person here means a human or a legal person. Thus, the current Copyright Act is not inclusive of AI systems. Thus, when it comes to works that are created by AI, their authorship would be ambivalent under Indian Copyright Laws.¹²

PATENTS ACT, 1970 AND AI

Section 2 (p) of the Patents Act, 1970 defines the term “patentee”.

“Patentee” means a person for the time being entered on the register as the grantee of proprietor of the patent.¹³

Section 2 (t) defines “person interested”.

“Person interested” includes a person engaged in, or in promoting, research in the same field as that to which the invention relates.¹⁴

Section 6 prescribes the list of persons who can apply for a patent.

(a) Any person claiming to be the true and first inventor of the invention.¹⁵

Section 2 (y) of the act defines the term “true and first inventor”.

It does not include either the first importer of an invention into India, or a person to whom an invention is first communicated from outside India.¹⁶

Section 2 (y) does not specifically state that the “true and first inventor” should be a human and therefore it can be considered to be providing a scope for the inclusion of works by AI systems.

But since the definitions for terms like “patentee”, “person interested” etc. states that it should be a person (a legal person), intention of the legislature for the general purpose of the act can be understood to be favouring humans and other legal persons.

Thus, it is important that these enactments should be amended in order to suit the requirements of the evolving society and scientific systems.

¹¹ Copyright Act, 1957, sec. 2, cl. (d), (vi).

¹² Mounting Artificial Intelligence: Where are we on the time line?’ by Vaishali Singh, para.7. Available at <https://blog.sconline.com/post/2018/06/07/mounting-artificial-intelligence-where-are-we-on-the-timeline/>.

¹³ Patents Act, 1970, sec. 2, cl. 1 (p).

¹⁴ Patents Act, 1970, sec. 2, cl. 1 (t).

¹⁵ Patents Act, 1970, sec. 6, cl. 1(a).

¹⁶ Patents Act, 1970, sec. 2, cl. 1 (y).

India is a creating nation and it will in any case stay a creating nation if such significant revisions are not made to establishments in an exceptionally powerful field like licensed innovation. These are not unrealistic objectives for a nation like India.

CONCLUSION

The speedy rise in advancement and dependency on machines has resulted in an increased number of computer science generated works. The outdated nature of the present Indian Copyright Act, however, fails to reflect such a social change, leading to the discharge of an outsized number of Artificial Intelligence generated works into the general public domain. This is often not beneficial both to the programmers and owners of computing devices and limits their readiness to take a position in the further development of computing. This lacuna in copyright law has far reaching consequences and will lead to a reduced number of valuable new works available to the globe, and a major delay in technological and artistic advancement of contemporary society. The necessity for a comprehensive solution to the present significant issue is required. The answer must make sure the smooth development of AI and secure its role as a driver of creativity and innovation.

While the administrators are caught up with pondering, you appreciate this initial ninety second bit of music by Google's fuchsia AI venture.

SUGGESTIONS

This paper suggests the following to help ameliorate the same.

1. A Systematic Recognition of Artificial Intelligence in India.

Despite Artificial Intelligence being a reality around the world, they are mostly only recognized in a select few countries like United States, England and New Zealand.¹⁷ A step towards the recognition of Artificial Intelligence and its work could be that, all member countries of multilateral trading forums begin to recognize the importance, in the form of an amendment to TRIPS, for example.

2. Addressing the lacunae in criminal liability of the action of Artificial Intelligence.

Currently, works of Artificial Intelligence are copyrighted by its creator. Thus if any criminal liability is to accrue, it would be attributed to the creator, who might not even know of the action of the Artificial Intelligence let alone be responsible. Such lacuna ought to be fixed, so as to provide a more suitable sanction for the Artificial Intelligence, maybe in form of destruction of the machine, or prohibition of the technology from being used further. This would be a huge step to prevent innocent creators from being punished, which would disincentive them from creating further technologies for fear of the punishment.

3. Clearing the Ambiguity with regard to Application of Patent and Copyright laws.

With the advent of Artificial Intelligence machines it is important for legislators to address the question of inclusion of Artificial Intelligence enabled systems under the category of inventor and invention. With the increasing use of these technologies, protection as an issue becomes an important question. Thus by reinterpreting the work made for hire doctrine, and broadening the scope of employer-employee to include non-human entities, the law would be able to better protect the work of authors and inventors in the future where Artificial Intelligence is going to have a larger significance.¹⁸

¹⁷ Copyright, Designs and Patents Act, § 178, 1988 (UK); Copyright Act, § 2, 1994 (New Zealand).

¹⁸ <http://jciil.lsyndicate.com/wp-content/uploads/2018/09/3.-THE-RISING-MOMENTUM-OF-ARTIFICIAL-INTELLIGENCE-AND-THE-EXISTING-DILEMMA-WITH-INTELLECTUAL-PROPERTY-LAW.pdf#:~>