

OWNERSHIP OF INTELLECTUAL PROPERTY BY ARTIFICIAL INTELLIGENCE

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Abstract: This article highlights the importance and benefits received with the use of artificial intelligence. The article also mentions the growing risks of using such technology. The authors of this article have thereby commented on the issue of granting ownership of intellectual property by artificial intelligence and its current status.

According to Oxford English Dictionary, 'artificial intelligence' is "The theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages."¹ Artificial intelligence is the process dedicated in making machines or computers intelligent and enabling them to think more like humans and incorporate human capabilities like learning and logic application. For example, 'Siri' which is used by Apple Incorporation in its mobile phones, Ipad, Iwatch, computers, television and its audio system. Even U.S. military recognises such technology as it uses "Creativity Machine" for designing its new weapons. Furthermore, in the year 2017, Mayfield Robotics, which was initially a part of the Bosch Startup Platform, announced the launch of CES 2017, also known as Kuri, a home robot which was demoed and celebrated at TED, SXSW, The Aspen Ideas Festival, The Economist Innovation Summit, and many other high-profile events. Kuri was launched as an intelligent robot, which would be a useful assistant at home. You could use them out in the wild, or helping disabled people with routine tasks. It was designed to be an all-purpose companion, almost like a member of a family.² Technology like Google Magenta creates different music and art pieces which is enjoyed by all. Deep Mind also owned by Google generates music by listening to recordings. There has been a constant increase in the invention and usage of AI which will help the development of the economy in the present and the future. But the question arises that whether AI will always be beneficial for the development of the society? Would it not have an evil effect in the economy?

Therefore, slowly and gradually as technology advances, AI has adopted and is further adopting more human traits and its abilities and is capable of surpassing human intelligence in the near future. But since this technology is created by humans itself the question regarding the rights for its Intellectual Property and ownership becomes more pertinent.

Under U.S Patent Law, an 'inventor' is defined as an individual or a set of individuals who invent or discover the subject matter of the invention³. 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 being⁴. The US also fails to recognize Non-Human Creators, Authors Inventor and has not yet given legal personhood to AI Systems. The United Kingdom (UK) is probably the only nation whose copyright legislation deals with computer-generated work. 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". Country's like Spain and Germany recognize that human created work can be protected by copyright. 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

¹ <https://spicyip.com/2019/04/need-for-boosting-trademarks-law-for-keeping-pace-with-artificial-intelligence.html>

² *It Possible To Patent Artificial Intelligence?*, December 17, 2018, 12:23 pm

³ Consolidated Patent Laws, § 100 (f), U.S.C 35, https://www.uspto.gov/web/offices/pac/mpep/consolidated_laws.pdf

⁴ *Naruto v Slater (PETA)* 15-cv-4324.

created” A real-life “Uncanny Valley” phenomena can be experienced when viewing the artificially intelligent robot, Sophie, developed by a Hong Kong company, Hanson Robotics. In October 2017, the Kingdom of Saudi Arabia was the first country in the world to grant citizenship to this artificially intelligent humanoid.⁵

Even though recognition to such intelligence regarding ownership has not been incorporated into the Intellectual Property Laws, still countries worldwide invest heavily for such technologies. Massive funding plans were announced by UK in 2019 with the aim to be a global leader, The conjunction of UKRI (UK Research and Innovation), a British funding agency and 300 private and public partners has created a sum of more than €200 million (approximately, US\$266 million) in funds to push the creation of a new age of AI leaders⁶. Even China has an aim of becoming a superpower in terms of Artificial Intelligence and is already one in terms of its research. In light of this goal the State Council of People’s Republic of China has declared to become a \$150 billion AI global leader by 2030⁷. The president of Russia also considers that becoming an AI leader would mean to rule the world and therefore Russia invests around \$12.5 million on Artificial Intelligence per annum. The reason for such heavy investment are the tons of benefits that are attached with the development of Artificial Intelligence. It has an enormous impact on our day to day business activities for its growth. Facebook and Amazon are also incorporating such intelligence in their operations. Amazon Inc. admits that without machine learning based AI systems, it won’t be able to grow its business, improve its customer experience and selection, and optimize its logistic speed and quality. Amazon recently announced a new initiative called ‘Project Zero’ that will use AI to detect and remove counterfeit products⁸. Also the process of discovering new drugs and its ability to analyze huge amount of data by AI have captured the attention of Pharmaceutical companies. Intelligent Automation and Labour Augmentation can be considered as one of its benefits. As a result of innovation allowing more efficient use of workman hours, AI can increase labour productivity by upto 40% in 2035.⁹ The fundamental aim of Intellectual property is to encourage more inventions and creative works for enhancing technology and creating a sound economic basis.

Therefore inspite of having a lot of positive results through the use of Artificial Intelligence, why has it not yet been given ownership of IP? Every coin has two sides and perhaps the risks involved in doing so outweigh its benefits.

AI will effectively raise the skill level of ordinary inventors, this notion must be rethought in light of the contemporary inventor and the technology she typically might use.¹⁰ A popular understanding of AI is that it will enable a computer to think like a person. The famous Turing test holds that AI is achieved when a person is unable to determine whether a response to a question he or she asked was made by a person or a computer. Others use the term to refer to the computers that use algorithms to process large amounts of information and draw conclusions and learn from their experiences¹¹. If AI gets the ownership of IP rights for its innovation then who would be liable for the infringement made by the AI. The AI system can at times operate in a way that infringes the third party IP rights. AI Assistant like ‘Alexa’ which is based on voice recognition software portrays some new problems like phonetic comparison of trademarks.

But The Main question arises as to who will be granted the patent, the person who has made the AI or the AI itself who has generated or made the invention or the person who has directed the AI to make such innovation . The main problem regarding the ownership of patent can be solved by finding out the person who came up with innovative thought. The Patent law states that the person who has invented the innovation is mainly granted the ownership of patent .The main creator is the rightful holder of owner of the patent. In a statement to the Senate Armed Services Committee in 2016, former Director of National Intelligence, James Clapper, eloquently and comprehensively summed up the situation by stating, “Implications of broader AI deployment include increased vulnerability to cyber-attack, difficulty in ascertaining attribution, facilitation of advances in

⁵ Hussein Abbass, An AI professor explains: three concerns about granting citizenship to robot Sophia, THE CONVERSATION (Oct. 29, 2017, 10:18 PM), <https://theconversation.com/an-ai-professor-explains-three-concerns-about-granting-citizenship-to-robot-sophia-86479>

⁶ UK to Mark Heavy Investment of €200 Million in Artificial Intelligence Research. (2019, July 06). Retrieved from <https://www.analyticsinsight.net/uk-mark-heavy-investment-e200-million-artificial-intelligence-research/>

⁷ Top 10 Countries Leading the Artificial Intelligence Race. (2019, July 06). Retrieved from <https://www.analyticsinsight.net/top-10-countries-leading-the-artificial-intelligence-race/> ev

⁸ Need for Boosting Trademark Law for Keeping Pace with Artificial Intelligence. (n.d.). Retrieved from <https://spicyip.com/2019/04/need-for-boosting-trademarks-law-for-keeping-pace-with-artificial-intelligence.html>

⁹ Ibid

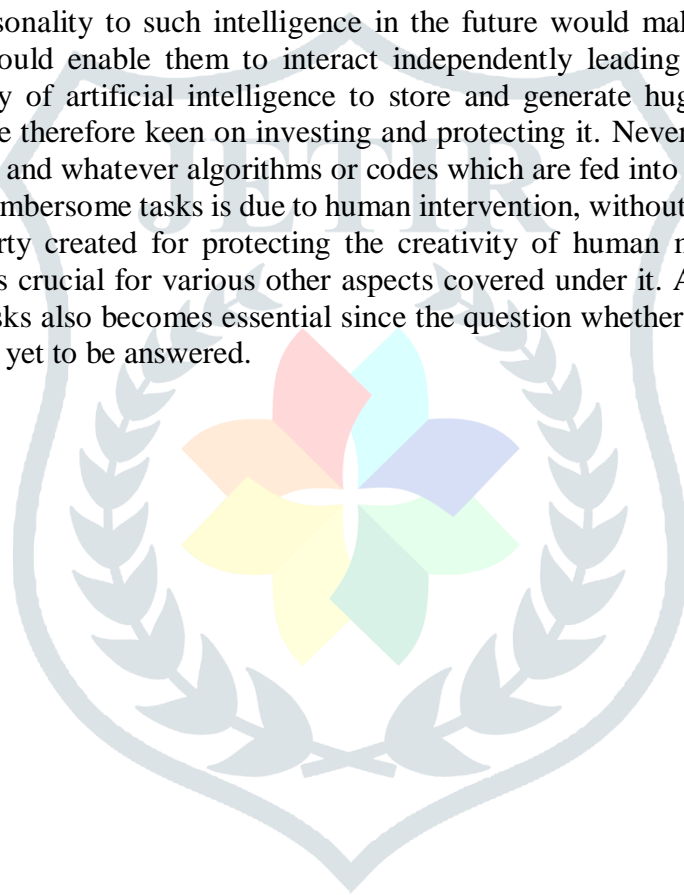
¹⁰ Ibid

¹¹ Available at: <https://issues.org/perspective-should-artificial-intelligence-be-regulated/>, Last seen on 3rd July 2019

foreign weapon and intelligence systems, the risk of accidents and related liability issues, and unemployment¹². So if pharmaceutical companies use AI to generate new drugs and if that AI gets disseminated by virus, the entire composition of the drugs will be changed, not only this, it will also affect the society at large. The essential elements which are seen before granting patents, i.e. novelty, inventive step, the invention shall not have a prior use. If these conditions are satisfied, then only the patent right is given to the innovator. If the person directs AI to make a novel innovation, then the above-mentioned conditions for granting a patent are not satisfied.

Development of AI requires a huge amount of investment, which the developing and underdeveloped country will not be able to afford. If multinational companies and private companies provide funding to the government to develop AI, that funding may be misused by the government, and the desired goal will not be fulfilled. AI is also subject to various other issues like trade secrets are likely to be leaked because of technical malfunctions in the AI. It may also lead to trademark infringement as mentioned in the case of *In Cadila Healthcare Limited vs. Cadila Pharmaceuticals Limited*¹³, Supreme Court of India clarified that an average consumer is the one with average intelligence and imperfect recollection. AI will not possess these two policies, and hence it may get confused between the two similar-looking trademarks, which will amount to trademark infringement.

Therefore, giving legal personality to such intelligence in the future would make them responsible for any damage they cause and would enable them to interact independently, leading them to make autonomous decisions. Given the ability of artificial intelligence to store and generate a huge amount of data, research institutes and companies are therefore keen on investing and protecting it. Nevertheless, artificial intelligence is a product of human mind, and whatever algorithms or codes which are fed into the system, because of which it is able to perform such cumbersome tasks, is due to human intervention, without which it will only be a piece of junk. Intellectual property created for protecting the creativity of human mind, therefore, protection of artificial intelligence, as it is crucial for various other aspects, is covered under it. Also, undertaking agreements for managing third-party risks also becomes essential since the question of whether ownership of IP to artificial intelligence is complex and yet to be answered.



¹² <https://www.researchgate.net/publication/327450143> The future of Destruction Artificial Intelligence

¹³ 2001 (21) PTC 541 SC