SHOULD ARTIFICIAL INTELLIGENCE BE ELIGIBLE FOR IP RIGHTS ON THE SAME FOOTING AS HUMAN INTELLIGENCE

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FUTURE OF OWNERSHIP AND CREATION:

Artificial Intelligence (AI) is the fusion of science and engineering to build smart machines capable of listening to and solving problems like humans. Years of rapid and diverse growth have allowed AI to evolve dramatically in its capacity and ability to mimic human functions to the point that the primary emphasis has changed from studying human functions to improving practical effectiveness. In 1996 Deep Blue, an IBM-developed chess-playing AI machine, defeated the reigning world champion a human , in a chess game. 20 years later AlphaGo, created by Alphabet Inc., beat the Go board game's world best team.For some impressive progress occurring in the blink of an eye, AI has posed popular questions about the volatile complexity and capacities of machine learning at rapidly accelerated levels, and what consequences of intellectual property (IP) could emerge in the immediate future. Since AI may construct works that would otherwise be known as human-created IPs, people have started to question if AI merits a special position in IP.Accordingly, will an AI app developer(s) be entitled to the job that this AI creates? And if the AI user constantly inserts new knowledge sources for the AI to know, which results in a newly generated IP, will the consumer be able to own the produced IP? Currently, for writing to be covered by copyright law, it must come from the requisite expertise, energy, and judgement of an artist himself. This legislation presents a major challenge when attempting to assess whether or not AI has made adequate use of such considerations to generate these research. In fact, an innovation may contain creativity, innovative measures and applicability for a patent to be issued.The emerging design of AI, designed to improve human action, provides innovative approaches to current challenges that may result in qualifying as patentable innovations. Although the debate over accepting AI developments has not yet been resolved, the issue has constantly posed many important concerns. For eg[1], even though AI might obtain IP acknowledgment, who would be in a position to sell the exclusive rights? Also, if ownership is provided as a compensation for initiative and commitment to the AI creator, why should the creator – interested only during the input stage – still be compensated for the final production period?AI computers are, without question, capable of generating topics which can be covered by IP. AI engines will quickly construct an creative work, compose a literature article,

[1] 'Artificial Intelligence And The Future' (*Nortonrosefulbright.com*, 2020) <https://www.nortonrosefulbright.com/en/knowledge/publications/6400e1ea/artificial-intelligence-and-the-future> accessed 10 June 2020

build an item or develop a new brand name. It is even foreseeable that an up-to - date AI machine could develop new technologies or new drugs that could provide patent protection.

Since trademark ownership is not linked to the person who has developed the trademark, it is unlikely that if an AI machine creates your trademark, the ownership of AI-creativity is a hot topic for other forms of IP.The first owner of a copyrighted work is usually the "author" or the creator of the work. The designer is also the first design owner, and the inventor is the first patent owner. Ownership is in all these cases directly related to the subject 's creation. Acceptance of AI machines[2] being able to create the object therefore makes the AI machine the first IP owner?

The AI's own IP has implications for the application and infringement of IP. Where AI has enough legal personality to have an IP, it must also surely be able to initiate infringement proceedings,Will they be sued for violations, enter into legal contracts and treated as human for legal purposes in all other ways?? In fact, the question is a much wider legal question about whether AI machines are legal entities. In 2017, a humanoid robot named Sophia became a citizen of Saudi Arabia, the first robot to have the citizenship of a country in the world. It is highly unlikely that we can see legislation in the near future that acknowledges the legal personality of a cartridge machine but the deliberations on the issue will only increase over the next few years, when AI machines have equivalent rights to human beings.

POSSIBLE SOLUTIONS TO THE DILEMMA:

Given the difficulties and uncertainty, there has to be a practical and appropriate way to cope with the present scenario. The results generated [3]by AI are either a function of their own knowledge, or an algorithm. If the machine's tasks are merely functional, rather than imaginative, AI may be seen as deficient in imagination. First, though, a distinction must be made between deep-learning – the mechanism where AI can identify and comprehend knowledge and data, whether controlled or not, and general-purpose algorithms.

Any country's current law[4] wouldn't recognise AI as an IP author or developer.Consequently, AI should not be given possession until it would obtain a comparable human-like legal standing. The IP rules in most countries demand that a claimant in rights has legitimate personality something that AI avoids. AI will quickly be willing to transcend human intellect and bring society to new findings

[2] 'The Challenges Of Artificial Intelligence In The Field Of IP - AA Thornton' (*Aathornton.com*, 2020) <https://www.aathornton.com/the-challenges-of-artificial-intelligence-in-ip/> accessed 10 June 2020

[3] Challenges of Future Intellectual Property Issues for Artificial Intelligence | Lexology. Lexology.com. (2020). Retrieved 10 April 2020, from https://www.lexology.com/library/detail.aspx?g=d5acda9a-7e17-4a0e-b9a1-34bd4a8b4248.

[4] The IP behind the AI boom. Wipo.int. (2020). Retrieved 10 April 2020, from https://www.wipo.int/wipo_magazine/en/2019/01/article_0001.html.

that the law must be willing to safeguard. Eventually, if AI may show autonomous innovation, it may be called a possible author, aside from the licensed human person. Machines capable of improving and expanding their ability by learning and training as compared to those running step-by-step algorithms could be qualified for patent propriety.Looking at the objectives of IP legislation, the key principle remains to give inventors / creators exclusive rights to retain the benefits generated by their respective plays. On a related note, if the same freedoms were given to AI, it is unlikely whether they will be willing to accept the distinction or enjoy the subsequent benefits. Nevertheless, valuing creative inventions that help the society is a central aim of IP law, so removing these inventions from copyright would be incompatible with both the legislation and the public interest, which would be counter to the drive for greater understanding and imagination that contributes to the advancement of the human being.One potential solution[5] for regulating AI's ongoing development is to create a broad range of possible creations for which a software developer could anticipate their computer to be used. The creator may also specifically specify this function in the user agreement, rendering the creator a development of every specified product. The arrangement will definitely be altered depending on discussions with the consumer and how the parties decide that the consumer can assume control of the effects of the creates created by the user's own expertise, labor and judgement.

There are fears that with an aggressive supervision of a human being AI may be willing to conduct unlawful operations. Who will be responsible for any negligence in any case? There are other considerations and situations that will need to be weighed. In cases when AI consumers will be able to foresee an result, or are responsible for managing and caring for the AI, otherwise they increasing be found accountable. However, if AI ultimately is autonomous and can work without some direct programming, evolve by self-learning and move beyond predictability, then responsibility may fall onto the AI itself. It will be impossible to assign the blame entirely to AI,And impractical around making AI responsible for any losses.

This contributes back to the issue regarding AI's legal position which, if unresolved, would mean that the AI's maker will be responsible. The rule will be crafted in such a manner as to insure that humans maintain power and the right to circumvent any AI ruling. For the developer[6] as the owner and responsible entity, AI (i.e., degradation or banning of other applications) will be subject to strict penalties to safeguard innocent developers and users alike. However, even though the legislation lowers or excludes the liability of the maker, it does not allow or authorise corporations to transfer obligations against their inventions of AIs.The idea that an AI machine could be named the inventor

[5] Artificial intelligence and intellectual property: an interview with Francis Gurry. Wipo.int. (2020). Retrieved 10 April 2020, from https://www.wipo.int/wipo_magazine/en/2018/05/article_0001.html.

[6] The Story of Artificial Intelligence in Patents. Wipo.int. (2020). Retrieved 10 April 2020, from https://www.wipo.int/tech_trends/en/artificial_intelligence/story.html.

in a patent application has been remitted in recent decisions by the European Patent Office (EPO). Two software that have been named DABUS as the creator are the focus of decision taking. According to the minutes of the non-public hearing, the appellant's main argument was that the European Patent Convention does not state that the inventor should be a human. It was the first such examination before the EPO and the EPO Receiving Committee dismissed the proposals following twenty-one minutes of deliberations.The claimant tried to assert that the creator was the AI computer, not that he was the owner of the patent application. This raised some interesting issues concerning the rights of an AI system and the transfer of ownership from the inventor to the applicant, which have not been discussed for the benefit of the EPO. The dismissal in the present case of the claims indicates that the EPO is not yet prepared at least to take seriously the notion of AI 's possession. According to the decision, up to now, no decision was taken on the question whether a non-natural entity could be recognized as an inventor by the boards of appeal of the EPO.The EPO Receiving Section 's judgment is subject to challenge by the claimant and the possibility that the judgment would be challenged will be of concern. The UK IPPO's Hearing Officer, however, had not allowed such applications, which said that although DABUS[7] had created those inventions it was an engine and not natural person. Similar patent applications with DABUS as the inventor had been filed with the UK IP Office (UKIPO). The UK legislation refers to an inventor as a person and that is meant to mean an individual, so that it was not acceptable to designate an AI machine as an inventor.In this case, the hearing officer noted that, because the inventor can not own a property, no law allows a transfer to the owner of ownership of the invention from the AI inventor. We therefore have no answers to a series of questions , especially where a topic has actually been created by an AI machine, the first IP owner?

THE FUTURE OF PATENT , COPYRIGHTS, TRADE-SECRETS:

Businesses working in markets where AI has been more widespread have significant opportunities. Significant difficulties come with those rewards however. A main question for businesses to address when working with AI is what type of IP security is ideally positioned to secure the AI technologies. Although we find patent, copyright and trade confidentiality rights below, the response to this query may differ based on the form of AI and the business 'expected plan for the usage and promotion of their AI on the market.According to the World Intellectual Property Organization (WIPO), scholars have reported more than 1.6 million AI-related academic papers and submitted patent applications for nearly 340,000 AI-related innovations since the introduction of basic AI in the 1950's. Since 2013 more than half of those innovations have been written.

[7] 'How AI Will Redefine The Way We Think About Ownership' (*Medium*, 2020) <https://medium.com/swlh/how-ai-will-redefine-the-way-we-think-about-ownership-e0821c6b2f30> accessed 10 June 2020

This latest AI patent[8] explosion is reflective of the AI space's important role patents perform. In Australia, in return for public knowledge of how the innovation operates, patents provide the developer with the exclusive opportunity to "exploit" the related AI technology for a restricted time (up to 20 years);Among AI developers, patent protection is highly prized as patents grant the patent proprietor a monopoly. Consequently, all entrants found to have violated the proprietary AI technology must be required to stop the infringing actions even though they were ignorant of the patent or licensed technology at the time of the creation of their invention (although lack of awareness might be applicable to how the Court even grants damages or a income account).

This is especially important in the AI sense, provided a large amount of AI patents for modifications on related AI techniques and practical implementations are being issued.For example, WIPO reports that about 40 percent of all AI-related patents reveal machine learning (including deep learning and neural networks) as the patented method, and about half of all AI-related patents reveal computer vision (including image recognition) as the practical technology. With AI technology focused on these areas, it is possible that inventors will create separately competing inventions in such a way that the first inventor to secure patent rights can acquire a favorable advantage over their rivals utilizing technology that falls under the domain of their proprietary innovation.Patents may, though, be costly and take a long time for the patent to continue. In fact, patents may not be issued for AI technologies, or may be subject to validity disputes if authorised. Australia is experiencing an intense and unsettled discussion over the patentability of innovations applied by machines. In addition, an expanded five-judge bench of the Full Federal Court of Australia recently found this matter.

Throughout Australia computer programs as fictional works are protected under copyright. Protection of copyright occurs immediately upon development (making it much cheaper than a patent) and refers to the representation of the source code represented in the software supporting the AI technologies. Unlike trademarks, a period for copyright is significantly longer (the life of the creator plus 70 years). Importantly, no innovations[9] or technical features of software are covered under copyright. Furthermore, ownership precludes duplication only. This means, in order to infringe an infringer would have copied any or a large portion of the source code.Taking the Pluribus AI poker bot as an example, copyright does not cover the research team's algorithm or system built to determine the poker technique Pluribus employs. However, copyright security will apply to the source code of the program which represents the essence of this strategy. Accordingly,

[8] Introduction to the protection of IP rights in artificial intelligence. Ashurst.com. (2020). Retrieved 10 April 2020, from https://www.ashurst.com/en/news-and-insights/insights/ip-focus-on-ai-introduction-to-protection-of-ip-rights-in-artificial-intelligence/.

[9] Artificial Intelligence in Intellectual Property Administration. Wipo.int. (2020). Retrieved 10 April 2020, from https://www.wipo.int/about-ip/en/artificial_intelligence/ip_administration.html.

copyright security alone does not prohibit any individual from utilising the same algorithm as Pluribus to build a particular AI bot, if they used specific coding to execute the algorithm. Trade secrets[10] may be a particularly successful way to shield sensitive knowledge regarding companies. A trade secret is a technological concept that defines a type of knowledge that has an inherent security function in which its author retains the privacy in. Trade secrets are executed by acts for violation of confidence, or breach of contract where there is a non-disclosure arrangement or condition.Unlike copyright, no authorization or certification is necessary to acquire trade secrecy security; however, trade secrecy security exists immediately such that the trade secrecy owner may show that the material has not been disseminated broadly and, if revealed to a rival,The owner of the secret will be liable to trigger some actual (or significant) loss. Theoretically, trade secret security will continue indefinitely, as long as confidentiality is preserved and the material is not widely available. Provided the system can not be reverse engineered, AI systems can be suitable for the security of trade secrets. It is also the case that the algorithm is the most competitively important material in a system applied on a machine. Brand users just communicate with the AI system and normally don't have access to the algorithm. This implies that the algorithm could be classified as a trade secret if the necessary protections were in effect.In reality, a popular trade secret is Google's search algorithm. The primary benefit[11] that trade secret security provides over patents and copyright is that trade secrets will cover a broader variety of knowledge (including corporate practices, technologies, and even original concepts in such circumstances) if the knowledge is held confidential.Companies planning to rely on trade secret security will set in effect stringent procedures to avoid inadvertent or intentional leakage of the information. Nonetheless, there are dangers of depending on trade secret rights to secure AI technologies[12], including though appropriate protective controls are in effect.

Notably, trade secret rights will be immediately and irreversibly violated until the information is openly revealed. While the company may take an case against the group leaking the secret for loss of trust or violation of contract, it will be virtually difficult to keep the secret from spreading publicly until it is leaked. However, even though the trade secret stays in effect, the keeper of the secret has little protection if a rival creates separately the same AI technology that is shielded by the secret.

[10] Introduction to the protection of IP rights in artificial intelligence. Ashurst.com. (2020). Retrieved 10 April 2020, from https://www.ashurst.com/en/news-and-insights/insights/ip-focus-on-ai-introduction-to-protection-of-ip-rights-in-artificial-intelligence/.

[11] INSIGHT: Intellectual Property Challenges During an AI Boom. News.bloomberglaw.com. (2020). Retrieved 10 April 2020, from https://news.bloomberglaw.com/ip-law/insight-intellectual-property-challenges-during-an-ai-boom.

[12] The Story of Artificial Intelligence in Patents. Wipo.int. (2020). Retrieved 10 April 2020, from https://www.wipo.int/tech_trends/en/artificial_intelligence/story.html.

CONCLUSION:

As AI systems are more sophisticated, the amount of 'inventions' resulting from these systems is expected to increasing in the future. This creates broad room for drafting relevant laws to ensure sufficient legal protections are given. The path forward will be to ensure universal foreign acceptance of AIs, security of AI data by passing related acts and resolving the lacunae in fixing criminal responsibility for conduct of AIs. Most specifically, specific and generally recognized rules for the application of patent law to AI need to be developed.The developments in AI today are remarkable, but they reflect just the basic capabilities of potential AI systems. There are three types of AI schemes, generally: low AI, powerful AI, and super-intelligence. Weak AI devices, represented by IBM's Deep Blue chess champion or Thaler's Imagination Computer, have fairly limited applications such as playing a game or finding answers to specific problems, respectively. On the other hand, powerful AI is abstract intellect and something like human intellectual capacities, such as logic and problem solving.Replace human beings in the workplace and will be capable of the same degree of imagination and innovation as every person. Eventually, there is super-intelligence, a type of artificial intelligence which dramatically outperforms the best human minds in every area, including science innovation, general knowledge and social skills. While super-intelligence may be several decades or more away, today there are weak AI and powerful AI systems of some sort. Soft AI plays (and wins) several complicated human games; makes significant improvements in human productivity; produces various pieces of art (including literature, fiction, graphic designs and videos); and promotes workplace health, stability systems; And reliability. Strong AI, on the other side, is still in its infancy, but many expect that 2017 was the "tipping point" for AI because technological companies – including Microsoft, Google, Amazon, IBM, and Intel – have established AI because their company's leading path (or at least produced new offerings to democratise AI).Apparently, AI developments can start with these major expenditures as long as there are sufficient opportunities.