Comments of ACT | The App Association on the WIPO Draft Issues Paper on Intellectual Property Policy and Artificial Intelligence

WIPO Conversation on Intellectual Property (IP) and Artificial Intelligence (AI)

14 February 2020

I.   Introduction

ACT | The App Association (App Association) is pleased to provide the following comments to the World Intellectual Property Organization (WIPO) relating to the above captioned Draft Issues Paper.[1]

The App Association represents more than 5,000 small business software application development companies and technology firms across the mobile economy. Our members develop innovative applications and products that meet the demands of the rapid adoption of mobile technology and that improve workplace productivity, accelerate academic achievement, monitor health, and support the global digital economy. Our members play a critical role in developing new products across consumer and enterprise use cases, enabling the rise of the internet of things (IoT). Today, the App Association represents an ecosystem valued at approximately $1.7 trillion that is responsible for 5.9 million American jobs.

The small business community that the App Association represents relies on IP to grow and create jobs. The infringement and theft of IP (copyrights, trademarks, patents, and trade secrets) presents a major threat to our members and the billions of consumers who rely on their digital products and services. The App Association urges WIPO to recognize that its approach to AI should prioritize both providing reasonable and technology-neutral protections and enabling AI tools to prevent and address IP infringement.

App Association members are at the forefront of the development of AI across consumer and enterprise use cases. We have a strong interest in the policies that impact the development of AI solutions, including those in the context of IP. We recognize that the rise of AI holds great promise, yet also generates many legal and policy questions, and those around IP are no exception. Below, we discuss AI's impact on patents, copyrights, and data, and urge that any changes to laws to account for AI do not weaken important IP protections that are essential to small business digital economy companies. We commend WIPO for conducting this inquiry about AI as it pertains to IP rights and commit to assisting WIPO alongside other stakeholders to help develop balanced and practical solutions that will preserve international IP rights and further AI's role in society on a global scale.

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[1] https://www.wipo.int/about-ip/en/artificial_intelligence/call_for_comments/index.html.

II.   Patents

a. *Categories of AI patent inventions*

The App Association places AI inventions into three overarching categories: (1) a primary AI invention; (2) an alternative application of an AI invention; and (3) inventions developed solely by AI. The App Association considers the first category to be the baseline AI invention, the second group contains applications of AI to additional contexts, and the final grouping is meant to demonstrate unpredictable outcomes produced by AI itself.

A baseline AI invention is AI technology used to improve machine capability or work as an algorithmic method. These inventions can be delineated, declared, and evaluated in a way equivalent to software inventions. Therefore, no disputes arise with traditional methods of patent owners declaring and disclosing specific practices of their AI invention. Thus, the App Association sees no new and significant challenges that arise with this type of AI invention and significant patentability requirements.

However, there will always be AI patent invention use cases that will be more complicated due to the complexities that arise from AI machine learning (ML). ML occurs when a computer is taught to learn and react without direct instructions being programmed by design.[2] In contrast to an AI algorithm, machine learning uses data analysis to produce analytic or mathematic models that may not be in a format that is digestible for human beings. The inability to demonstrate how the results of machine learning came about contributes to the confusion of how machine learning should be handled in the context of patent protections. AI patent evaluators may face greater obstacles when looking at claim and disclosure requirements. Despite this concern the App Association recognizes that if an AI patent applicant can (1) make use of and (2) show proof that they possessed the invention at the time of filing then the patent may still be granted. Generally, applicants with complicated or complex AI inventions should seek alternative ways of describing their invention to meet relevant patent eligibility requirements. After producing an AI invention there may be multiple applications of the AI within the sector. Inventors may find alternative uses to solve a different problem or to build from the AI to create a different invention. As such, technological advancements using AI applications should be evaluated for their patentable characteristics and purpose as opposed to the recognizing a former AI invention claim. The App Association is confident that existing laws can address these patent applications with AI components due to past experience with computers and the internet having many additional applications, and we urge WIPO to ensure that such an assessment is made, with conclusions based on concrete foundations (as opposed to edge use cases).

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[2] *See* Machine Learning, DEEP AI, (last visited Feb. 13, 2020) https://deepai.org/machine-learning-glossary-and-terms/machine-learning (defining machine learning as teaching a computer how to learn and act without explicit programming).

The final category of AI is an invention solely developed by a machine and has no human involvement. For patentability purposes, the App Association would not consider the machine as an inventor. Instead, the inventor would be the machine programmer. Machine programmers created the AI to resolve a human-defined issue that could not have been produced without human questioning. While this topic may need more thought in the distant future after further development of AI, we believe that this issue can be set aside during this request for comment period.

WIPO should consider a variety of elements when evaluating and determining an AI invention's patent eligibility. Elements that deserve consideration during the patentability process include (1) the database structure that will train the AI; (2) the algorithm; (3) the method of training the algorithm; and (4) the outputs produced from the AI application. WIPO should use the existing requirements for software patentability as a starting point to identify necessary elements of patentable AI inventions and applications.

b. AI Patent Inventorship

WIPO's examination should consider what a "genuine inventor" is considered to be and what will be necessary to determine if an AI technology is patentable. AI inventions tend to be viewed as tools that can be utilized in a variety of applications. Individuals who contribute to the conception, training, or applications of the AI may all receive consideration as AI inventors. However, making the determination about the specific person who should hold the patent rights will be based on the facts surrounding the AI invention or application. WIPO should recognize these issues and carefully examine them in its AI-related efforts.

III. Copyright

a. Works Autonomously Generated by AI

The App Association believes WIPO should conduct additional consultations and studies while also allowing the technology to further develop before making determinations as to who is the author of a literary or artistic work generated autonomously by AI. Inevitably, a natural person must be responsible for a work for it to qualify as a work of authorship under certain countries' existing copyright law and policy.[3] Copyright laws should provide that it will register an original work of authorship only when that the work was created by a human being. Any determinations regarding when and by whom authorship exists in a work autonomously created by AI may represent a drastic shift in law and policy. Definitions of AI personhood and AI itself should likely be addressed once AI is further developed and implemented.

b. Authorship Extending to the Output of Algorithms

We recognize that some courts have held that authorship may extend to the output of AI algorithms where the AI algorithm itself is copyrightable and where the algorithm is primarily responsible for the output (i.e., the downstream user of the AI algorithm that is not its author has a very marginal role). For example, the United States Court of Appeals for the Ninth Circuit has recognized that copyright protections may be extended to a computer program's output if the program "does the lion's share of the work" in creating the output and the user's role is so "marginal" that the output reflects the program's contents.[4]

With respect to a person choosing data used by the algorithm, the App Association believes that such a scenario may be sufficient to qualify for copyright protection when meeting the thresholds for copyrighting a data selection within a compilation, which is enabled by some copyright laws[5] (notably, requiring creativity in the data selection).

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[3] *E.g.,* Naruto v. Slater, 818 F. 3d 418, 426 (9th Cir. 2018) (holding that only humans not animals have standing to sue for copyright infringement).

[4] *E.g.,* Rearden LLC v. Walt Disney Co., 293 F. Supp. 3d 963 (N.D. Cal. 2018).

[5] *E.g.,* 17 U.S.C. § 101. ("[A] work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship. The term ''compilation'' includes collective works.")

When evaluating a natural person "causing" the AI algorithm or process used to yield the work, the App Association does not believe such an activity should necessarily create copyrightable author rights. Such an allowance would allow a party "causing" the algorithm to "yield work" through simply enacting another author's algorithm to claim authorship.

The App Association believes that precedent may need to evolve to address scenarios where an AI algorithm or process learns its function(s) by ingesting large volumes of copyrighted material, including with respect to infringement and fair use. This is simply an effect of quickly evolving technology and controversies arising that can resolve in new law and policy decisions within WIPO. However, changes to international copyright law should not weaken critical copyright protections.

IV.   Data

The App Association believes that new case law and policy decisions may need to be produced in order to address these scenarios. Particularly, with respect to AI-generated works including compilations. We believe this is due to the constant advancements in technology and not a deficiency in the WIPO's policies. When particular disputes arise, it will be up to the courts and policymakers to determine the next best steps for handling emerging AI technologies. The App Association would support changes to copyright law that permit WIPO to address emerging AI use cases while maintaining strong IP protections.

Potential Additional Question(s)

- If IP protections are offered for data sets, what do these protections look like? How will they be enforced? What are some of the metrics that may be used to evaluate data sets authenticity to provide IP protections?

V.   Conclusion

The App Association notes that individual countries' agencies, such as the United States Patent and Trademark Office (USPTO), are in the initial stages of assessing AI's impact on IP. The App Association encourages coordination with these agencies and WIPO's multilateral efforts. The App Association appreciates the opportunity to submit these comments to WIPO, and we are committed to working with all stakeholders to address emerging technology issues and developments affecting IP.

Sincerely,

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