To: The U.S. Patent and Trademark Office, in response to your docket No. PTO–C–2019–0038
"Request for Comments on Intellectual Property Protection for Artificial Intelligence Innovation"
From: Lori Pressman
Date: January 10, 2020.

 Via e-mail: AIPartnership@uspto.gov

Thank you for the opportunity to comment on issues regarding artificial intelligence innovation, and the collections of information which can enable such innovations. I am a technology transfer practitioner, business development, licensing, and IP strategy consultant. I am also an inventor, and an author of peer reviewed publications. These publications relied on using and manipulating data from both public and private databases. I received the AUTM (formerly the Association of University Technology Managers) Bayh-Dole award in 2017. I agree with the letter submitted by AUTM.

I am writing this letter for several reasons. First, recent clients are experiencing friction on how, exactly, to secure and distribute their data. Other clients are experiencing friction on how, exactly, to obtain access to data and copyrighted images. Lack of clarity and consensus on best practices with respect to i) data protection and distribution and ii) fair use or possibly "fared use" of copyrighted material disadvantages smaller and newer innovators.

There are also evolving issues with respect to data privacy and research efficiency. Some of these issues are discussed in more detail under questions 9-13 of this letter, and in the AUTM response to this request for comments.

1. Should a work produced by an AI algorithm or process, without the involvement of a natural person contributing expression to the resulting work, qualify as a work of authorship protectable under U.S. copyright law? Why or why not?

No. The Framers contemplated using copyright protection to incentivize natural people, not machines.

 Contracts can be used to incentivize the owners/creators of a) the machines, b) the algorithms they run, or c) the data used to create and/or refine the algorithms which then go on to create the works.

2. Assuming involvement by a natural person is or should be required, what kind of involvement would or should be sufficient so that the work qualifies for copyright protection? For example, should it be sufficient if a person (i) designed the AI algorithm or process that created the work; (ii) contributed to the design of the algorithm or process;(iii) chose data used by the algorithm for training or otherwise; (iv) caused the AI algorithm or process to be used to yield the work; or (v) engaged in some specific combination of the foregoing activities? Are there other contributions a person could make in a potentially copyrightable AI-generated work in order to be considered an ''author''?

        Romanette (i) alone suffices.

        Romanette (ii) alone suffices, providing the contribution meets the threshold for authorship.

Romanette (iii) suffices if (a) the data chosen is found to merit copyright protection under current law or b) classifying the data into useful categories not evident at the time it was collected, i.e. choosing the data to use, is key to producing a copyrightable work.

Romanette (iv) by itself does not suffice, and thus would have to be combined with one of the other sufficient conditions above.

Comment on romanette (iii). In addition, I support treating curated data, by which is meant data classified into useful categories not evident at the time it was collected, such that it can be used as a training set, as a type of compilation that is readily accorded copyright protection. I would also like to see a curated dataset accorded a sui generis property right. These observations are responsive to questions 9-13 though not directly responsive to question number 2.

3. To the extent an AI algorithm or process learns its function(s) by ingesting large volumes of copyrighted material, does the existing statutory language (*e.g.,* the fair use doctrine) and related case law adequately address the legality of making such use? Should authors be recognized for this type of use of their works? If so, how?

   As a citizen, indiscriminate, automated, high speed, high volume mining of any publicly visible copyrighted works for commercial purposes is troubling and seems unfair. Rather than have to have an argument that the mass use of copyrighted works is "fair" because of the character of the output, it would be better to allow creators to opt in, or out of such use.

   Thus, I advocate using technology, such as an electronic watermark, to accord copyright holders control over the use of their copyrighted works. The watermark would allow copyright holders to place restrictions on how their work is used.

4. Are current laws for assigning liability for copyright infringement adequate to address a situation in which an AI process creates a work that infringes a copyrighted work?

   Entities which own or control AI processes should be responsible for using the AI process lawfully, and should be accountable if such AI processes are not used lawfully.

   It may be necessary to engineer new tools to assure that such AI processes are used lawfully. At least notice of the desires of copyright holders, and possibly a way to contact them, could be present in an electronic watermark, as suggested in the answer to question 3.

5. Should an entity or entities other than a natural person, or company to which a natural person assigns a copyrighted work, be able to own the copyright on the AI work? For example: Should a company who trains the artificial intelligence process that creates the work be able to be an owner?

   Yes. A company can be an owner of a work created lawfully by an AI process, but not the author. Authors are natural people.

6. Are there other copyright issues that need to be addressed to promote the goals of copyright law in connection with the use of AI?

   None that I can think of now. It will be helpful to revisit this question from time to time as technology evolves.

7. Would the use of AI in trademark searching impact the registrablity of trademarks? If so, how?

   Since trademarks by law must evoke certain assessments in the minds of humans (i.e., the quality of being "distinctive" or being associated with a unique source), determining what constitutes a trademark should be should be left to humans, especially given that we know that AI systems can be unintentionally biased, and that trademarks can over time become generic. AI systems can be used to assist the humans in their search and evaluation.

8. How, if at all, does AI impact trademark law? Is the existing statutory language in the Lanham Act adequate to address the use of AI in the marketplace?

   AI could conceivably affect the collection of evidence used in enforcement of trademarks.

   Since the assessment of being "distinctive" is in the minds of humans, perhaps the statute could be amended to read "distinctive to natural people".

9. How, if at all, does AI impact the need to protect databases and data sets? Are existing laws adequate to protect such data?

   AI has increased the need to standardize consensus methods for protecting, managing, and then sharing and distributing datasets, lest they default to trade secrets. For reasons described in the AUTM letter, trade secrets are detrimental to research efficiency overall and excessive reliance on them is not in the public interest.

   No. I do not believe that current laws are sufficient to protect datasets, especially those that have been curated so they become suitable for use as training sets. See the comments in the AUTM letter, which I support. In addition, I support creation of a U.S. sui generis property right for curated datasets.

10. How, if at all, does AI impact trade secret law? Is the Defend Trade Secrets Act (DTSA), 18 U.S.C. 1836 *et seq.,* adequate to address the use of AI in the marketplace?

    Additional clarity on what constitutes "reasonable efforts" to keep confidential information confidential, as explained further in the answer to question 12 may be needed.

    Additional clarity on what constitutes malicious or illegal re-identification is also needed. An example would be mining credit card transaction records to target consumers in a way they may find invasive of their privacy, such as using purchasing patterns to infer medical conditions. There are a growing number of other datasets, travel records, being one example, which provide troubling opportunities for invasion of individual privacy. See the answers to question 12.

11. Do any laws, policies, or practices need to change in order to ensure an appropriate balance between maintaining trade secrets on the one hand and obtaining patents, copyrights, or other forms of intellectual property protection related to AI on the other?

Yes, my view is, as I have stated in this letter,that curated datasets merit suit generis property rights. The reasoning for this view is in the AUTM letter.

12. Are there any other AI-related issues pertinent to intellectual property rights (other than those related to patent rights) that the USPTO should examine?

Standards for confidentiality: Yes. I would to see NIST play a role in characterizing, at a technical level, the standards and practices required to show that a party is keeping its electronic confidential information confidential and is complying with requirements for handling protected health information: "PHI". What are reasonable measure to ensure confidentiality and secrecy today?

What constitutes malicious re-identification? Is actual theft necessary? Some technical input is required to create a workable legal standard of "reasonable measures" for keeping confidential information confidential, whether it is a trade secret or PHI.

Synthetic datasets: Furthermore, additional clarity on various potential uses of synthetic datasets would be appreciated. Will funders, in particular government agency funders, require use of synthetic data sets to enable researchers to reproduce published results generated from using AI to analyze confidential data?

Would the USPTO consider synthetic datasets as potentially helping to fulfill 112 requirements?

13. Are there any relevant policies or practices from intellectual property agencies or legal systems in other countries that may help inform USPTO's policies and practices regarding intellectual property rights (other than those related to patent right

Directive 96/9/EC of the European Parliament and of the Council on the legal protection of databases is of interest, as are the four November 2004 opinions of the European Court of Justice (ECJ) limiting, and thus, further defining the concept of sui generis rights.

I appreciate the opportunity to submit these comments to the USPTO.

Sincerely,
Lori Pressman