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**To:** aipartnership

**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?**

If we're presuming that said AI is a sentient, autonomous intelligence and we're asking whether the law should grant that entity rights, then I believe the AI would be sufficiently intelligent to provide its own insights into the matter. I think with the current state of AI, we don't have much to worry about for at least another 10-20 years and this decision should be deferred until it becomes an issue and we have a better understanding of the underlying context.

I believe that generally speaking, any work which is a unique and creative work is owned by its creator.

**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"?**

Let's say that I develop an evolutionary algorithm to help me design an optimized antenna to maximize signal. The complexity of the task through manual modeling and testing would be very labor intensive for a human, but still possible. The majority of my effort went into building the algorithm itself, rather than the result. The resulting output would likely not have happened, were it not for my effort to develop the algorithm. At first glance, it seems that that copyright belongs to me. But, let's suppose that it is ruled that anything produced by an AI is not copyrightable. Then, let's suppose that I created my AI algorithm in secret, and then tasked it with finding an optimized antenna. I think take the resulting design for myself, claim full credit for its creation, and delete my private AI which created it. How would anyone know that the result was created by an AI instead of a human? The result would be indifferentiable. Someone else would have to accuse me of using AI to generate my work and provide proof or evidence, and since I deleted the AI, there is none. Let's suppose that further in the future, the law becomes increasingly skeptical about human talents, abilities and creations in a market saturated by AI generated creations. A person labors hard to create a creative work, which would be protected under copyright and patent laws, but all someone needs to do in court to overturn the ownership is prove that the work was not created by a person, and thus is not a validly owned copyright. It becomes contradictory and to our own best interests to protect the works created by an AI and assign them to the controller of the AI.

The AI is ultimately a powerful tool which can be wielded by a person, but as with all creative works, a person exercises judgement on whether their tool is performing in accordance to their desired vision. A painter guides their brush on the canvas, choosing what paints, brush strokes, and image to create, and this is done through a personal artistic taste, vision and style. The resulting painting does not belong to the brush, but to the artist who wielded the brush. A programmer would similarly guide their AI, much like a painters brush, to create works.

The question also raises a demarcation question on how much a person must contribute to a work in order for them to be considered the author of that work. The risk is that I create a hyper intelligent AI system which runs on a data center and is tasked with creating every imaginable work in a field. I set it on its task to create every possible variant of an antenna, I go to sleep return the next morning to find 2,000 viable solutions. I go through the process of submitting patent applications for each one, and by the time I am done, I have acquired the rights to every possible permutation and intellectual advancement and I then choose to freeze everyone else out of the market for the lifetime of the patent. I shut down multiple potential sectors of industrial development by inventing everything possible using my datacenter powered AI. The amount of intellectual lifting effort I personally performed is minimal at best.

**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?**

Existing laws are adequate. If an AI generates a derivative work based on copyrighted materials, then that work is held to the same standard of legal scrutiny as if a person had created it.

**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?**

Yes. The burden of liability and responsibility still falls onto the shoulders of the person operating the AI.

**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.

**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?**

Yes. I believe the pace of technological development is accelerating and AI is going to be helping to drive that acceleration in the future. Patent law and policy on technological innovations are just entirely outdated. If I invented a vital technological advancement which became the underlying framework for all technological advancements, I could legally block everyone else in the world from infringing on my patent for up to **\*\*30 years\*\***. If you look at where computers were 30 years ago from today, you can imagine the damage someone could inflict on computational advancement by patenting and blocking development -- we might not enjoy the technologies we have today. There should be shorter patent expiration dates on high technologies.

We're also currently forced to patent anything we invent because it is the only form of legal proof / protection that we created something first and want to avoid someone else patenting our own inventions and freezing us out of our own invention. Releasing an invention into the public domain is not a sufficient enough protection.

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

I think this is more of an administrative question on how to make trademark searching a better user experience rather than a policy question. Any way to improve the end user experience is always a green light in my book.

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

I think there is a larger privacy question lurking here. There are developed programs such as Palantir which can crawl and ingest all sorts of public records, publicly available information sources, and other presumed private information which could then be used to build a detailed profile on a person. In intelligence gathering, a single puzzle piece of data is not useful on its own, but it becomes very useful in the context of other puzzle pieces put together to form a complete picture. An AI system has inhuman capabilities to find these pieces of information and put it together to form pictures, and then it can put those pictures together to form a broader mosaic. We could effectively build computer systems which take away the veil of privacy for every person in the world and the fourth amendment becomes a speed bump rather than a wall. We could pass laws to silo databases to prevent the mixing of data, but I think it may be a more important safeguard to make most data transient and anonymized.