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?

Artificial intelligence is a tool, just as much as Photoshop, Garage Band, or any other consumer software in wide use today. Even the most basic of consumer creative programs can perform generative functions, such as filters, that enhance a creator’s work. These generative processes do not render the programs or their creators “authors” any more than an iPhone auto-correct renders Apple or the iPhone itself the author of one’s text messages. While an AI can create, it cannot exercise the creativity to render its output a work of authorship eligible for copyright protection. Indeed, the Copyright Office has long recognized that “To qualify as a work of ‘authorship’ a work must be created by a human being. Works that do not satisfy this requirement are not copyrightable.”¹

It is worth noting that the current debate over whether a non-human object or process can be “creative” is not new; the government has long resisted calls to extend authorship to entities that are not natural humans or corporations. The Copyright Office (and the courts) have been urged to extend the definition of authorship to include everything from monkeys to

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extraplanetary beings. Each time it has held firm on requiring that an author be a (living) human being or corporation.

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?**

As the Copyright Office’s compendium notes in discussing registrability,


> [T]he Office will not register works produced by a machine or mere mechanical process that operates randomly or automatically without any creative input or intervention from a human author. The crucial question is whether the ‘work’ is basically one of human authorship, with the computer [or other device] merely being an assisting instrument, or whether the traditional elements of authorship in the work (literary, artistic, or musical expression or elements of selection, arrangement, etc.) were actually conceived and executed not by man but by a machine.

We see no reason why the sophistication of the tool—in this case, artificial intelligence—should change this fundamental principle. The classic standard of creativity articulated in *Feist*—“that it possesses at least some minimal degree of creativity”—remains sufficient to generate copyright protection. *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345.

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?**

With regards to copyrighted input data, the ruling in *Authors Guild v Google*, 804 F.3d 202, provides a useful analytical framework. In that case, the Second Circuit, citing its prior decision in *Authors Guild, Inc. v HathiTrust*, 755 F.3d 97, held that digitizing books for the purposes of creating search and snippet functions was sufficiently transformative, as the purpose of the use was “different in purpose, character, expression, meaning, and message from the page (and the book) from which it is drawn.” 804 F.3d 202, 217. Using a library of copyrighted data to

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2 See, e.g., *Urantia Foundation v. Maaherra*, 114 F.3d 955 (9th Cir. 1997); *Naruto v. Slater*, 888 F.3d 418 (9th Cir. 2018).

train an AI is a fundamentally transformative purpose. (An AI that has been trained on copyrighted input data is neither a reproduction nor a derivative work of its input data; the only copyright interest is any reproductions that might be made as part of a training corpus.)

However, it is important that we not treat AI designed for creative purposes in a vacuum. AI and machine learning are fundamentally transforming issues of governance and social policy. We have already seen a backlash against “black box” algorithms used to calculate criminal sentence lengths, steer social media engagement, and enable mass surveillance. Given the potentially disastrous consequences of biased AI, such systems must, by default, have inputs that are auditable by researchers or other interested parties. This audit principle should likely extend to creative AI as well; developers should be required to publicly disclose (or at least describe) their training data. Public disclosure would serve a dual purpose of providing credit to the artists for the use of their work, and allowing interested parties to audit the inputs to protect against bias or misuse. However the source of any such obligations would not be found in intellectual property policy, but would be concerns of AI policy more generally.

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?

No. As noted above, AI is fundamentally a sophisticated creative tool. Just as Adobe holds no copyright interest in the works created using Photoshop, the individuals or organizations who train AI do not hold a copyright interest in that AI’s output.

Respectfully submitted,

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