Clarifying the Copyrightability of AI-Assisted Works

20 February 2025

The U.S. Copyright Office's long-awaited second report assessing the issues raised by artificial intelligence (AI) makes clear that purely AI generated works cannot be copyrighted, and the copyrightability of AI-assisted works depends on the level of human creative authorship integrated into the work.

With the rise of mainstream generative AI platforms, clarity has been sought by creators, artists, producers, and technology companies concerning whether works created with AI may be entitled to copyright protection. In its most recent report, the Copyright Office concludes that existing copyright legislation and principles are well-suited for the issue of AI outputs' copyrightability and suggests that AI may be used in the creation of copyrighted works as long as there is the requisite level of human creative expression. The Copyright Office's report also makes clear that copyright protection will not extend to purely computer-generated works. Instead, copyrightability must be assessed on a case-by-case basis analyzing whether a work has the necessary human creative expression and originality to be copyrightable. Such intensive analysis equips existing U.S. copyright law to adapt to works made with emerging technologies.

In the process of crafting the report, the Copyright Office considered input from over 10,000 stakeholders seeking clarity on the protection of works for licensing and infringement purposes. *This report does not address issues relating to fair use in training AI systems or copyright liability associated with the use of AI systems; these topics are expected to be covered in separate publications.*

Report on Copyrightability of AI Outputs

The Copyright Office's report examines the threshold question of copyrightability, or whether a work can be protected and endowed with rights that are enforceable against subsequent copiers, which raises important policy questions on the incentives of copyright law and the history of emerging technologies. Overall, the Copyright Office makes clear that tangential use of AI technology will not disqualify any subsequent work of authorship from protection, but rather the level of protection hinges on the nature and extent of the human expression added to the work.

I. Scope of the Report

The Copyright Office sought to clarify several overarching questions on the copyrightability of AI outputs, including:

- Whether the Copyright Clause of the Constitution protects AI-generated works.
- Whether AI can be the author of a copyright.
- If additional protection for AI generations is recommended, and if so what additions.
- If revisions to the human authorship standard are necessary.

II. The Copyrightability Standard and Current AI Technology

Human Authorship —There is a low level of human creativity or "authorship" needed to create copyright protection in a work, and the Copyright Office believes existing legal frameworks are relevant to the assessment of AI-generated outputs. Specifically, the Copyright Office believes that determining whether the authorship standard for copyrightability has been met depends on the level of human expressive intervention in the work.

For example, a photographer's arrangement, lighting, timing, and post-production editing are all indications of the human expression required for copyright protection, even though, technologically, the camera "assists" to capture the photo.[1] On the other hand, photos taken by animals do not create authorship in the animal because of their non-human status.[2] Similarly, "divine messages" from alleged spirits do not contain the requisite human creativity to amount to authorship.[3] In the context of AI, like a photographer using a camera, the use of new technology does not default to a lack of authorship, but like a monkey taking a picture, non-human machines cannot be authors and therefore the expressions created solely by AI platforms cannot be copyrighted.

Assistive AI — The report further comments on the incorporation of AI into creative tasks, like aging actors on film, adding or removing objects to a scene, or finding errors in software code, and concludes that protection of works using such technology would depend on how the system is being used by a human author and whether a human's expression is captured by the resulting work.

Protection of Prompts — The Copyright Office concludes that prompts alone do not form a basis for claiming copyright protection in AI-generated outputs (no matter how complex they may seem), unless the prompt itself involves a copyrightable work. At its core, copyright law does not protect ideas because copyright seeks to promote the free flow of ideas and thought. Rather, copyright law protects unique human expressions of the underlying ideas which are fixed in some tangible medium. The Copyright Office explains that prompts do not provide sufficient human control to make AI-users authors. Instead, prompts function as instructions that reflect a user's conception of the idea but do not control the *expression* of that idea. Primarily, gaps between

prompts and resulting outputs demonstrate that lack of control a user has in the expression of those ideas.

Expressive Inputs – The Copyright Office uses two examples in its report to illustrate this point. The first prompt, detailing the subject matter and composition of a cat smoking a pipe, was considered uncopyrightable because the AI system fills in the gaps of a user's prompt. Here, the prompt does not specify the breed or coloring of the cat, its size, the pose, or what clothes it should be wearing underneath the robe. Without these particular instructions in the user's prompts, the AI system still generated an image based on its own internal algorithm to fill in the gaps, thus stripping away expressive control from the user.

Prompt	***Output***
professional photo, bespectacled cat in a robe reading the Sunday newspaper and smoking a pipe, foggy, wet, stormy, 70mm, cinematic, highly detailed wood, cinematic lighting, intricate, sharp focus, medium shot, (centered image composition), (professionally color graded), ((bright soft diffused light)), volumetric fog, hdr 4k, 8k, realistic	

In contrast, the second prompt, asking the AI system to generate a photorealistic graphic of a human-drawn sketch, was considered copyrightable because the original elements of the sketch were retained in the AI-generated output. In assessing copyrightability, the Copyright Office pointed to the copyright in the original elements of the sketch as evidence of authorship, and any output depicting identifiable elements of the sketch (directed by the human author) was viewed by the Office as a derivative work of the sketch's copyright. The artist's protection in the AI output would overlap with the protectable elements in the original sketch, and like other derivative rights, the AI output would require a license to the original sketch.

In sum, where a human inputs their own copyrightable work into an AI system, they will be the author of that portion of the work still perceptible in the output; the individual elements must be identifiable and traceable to the initial human expression.

Prompt	Input	Output
"a young cyborg woman (((roses))) flowers coming out of her head, photorealism, cinematic lighting, hyper realism, 8k, hyper detailed."		

The Copyright Office views the current use of prompts as largely containing unprotectable (or public domain) ideas but notes that extensive human expression could potentially make prompts protectable, just not with currently available technology. Additionally, the Copyright Office notes that current technology is unpredictable and inconsistent, often producing vastly different outputs from the same prompts, which in its view shows that prompts lack the requisite clear direction of expression to rise to the level of human authorship.

Arrangement and Modification of AI Works —The Copyright Office also concludes that human authorship can be shown by the additions to, or arrangement of, AI outputs, including the use of AI adaptive tools. For example, a comic book "illustrated" with AI but with added original text by a human author was granted protection in the arrangement and expression of the images in addition to any copyrightable text because the work is the product of creative human choices. The same reasoning applies to AI generated editing tools which allow users to select and regenerate regions of an image with a modified prompt. Unlike prompts, the use of these tools enables users to control the expression of specific creative elements, but the Copyright Office clarifies that assessing the copyrightability of these modifications depends on a case-by-case determination.

(1) Generate Candidate Images with Prompt: *meadow trail lithograph*

(2) Select and Upscale Image

(3) Use Freehand Editing Tool to Select Region

(4) Generate Candidate Images with Prompt: *meadow stream lithograph*

(5) Select and Upscale Image

III. International AI Copyright Decisions

In its review of international responses to AI copyright questions, the U.S. Copyright Office notes the general consensus of applying existing human authorship requirements to determine copyrightability of AI works.

Instructions from **Japan's** Cultural Counsel underline the case-by-case basis necessary for assessing copyrightability and noted examples of human AI input that may rise to a copyrightable level. These include the number and type of prompts given, the number of attempts to generate the ideal work, selection by the user, and any later changes to the work.

A court in **China** found that over 150 prompts, along with retouches and modifications to the AI's output, resulted in sufficient human expression to gain copyright protection.

In the **European Union**, most member states agree that current copyright policy is equipped to cover the use of AI, and similar to the U.S., most member states require significant human input into the creative process to qualify for copyright protection.

Canada and Australia have both expressed a lack of clarity on the issue of AI, but neither has taken steps to change legislation.

Unlike other countries, some commonwealth jurisdictions like the **United Kingdom**, **India**, **New Zealand**, and **Hong Kong** enacted laws before modern generative AI allowing for copyright protection for works created entirely by computers. With recent developments in technology, the United Kingdom has considered changing this law, but other countries have yet to clarify whether their existing laws would apply to AI-generated works.

IV. Policy Implications for Additional Protection

Incentives – One of the key components of copyright policy, as written in the U.S. Constitution, is to "promote science and the useful arts." Comments to the Copyright Office varied on whether providing protection for AI-generated work would incentivize authorship; proponents of increasing copyright protection argued that it would promote emerging technologies, while opponents note the quick expansion of these technologies shows incentivization is not necessary. The Copyright Office finds the current legal framework as sufficiently balanced, stating that additional laws are not needed to incentivize AI creation because the existing threshold requirement of human creativity already protects and incentivizes the works of human authorship that copyright law seeks to promote.

Staying Internationally Competitive – Commentators noted that without underlying copyright protection, U.S. creators would be impacted by weaker protection for AI-generated works. The Copyright Office counters that similar protections are available worldwide and align with the U.S.'s standards of human authorship.

Clarity on AI-Generated Protection – Commentators petitioned Copyright Office officials for some legal certainty that works created with AI could be licensed to other parties and be registered with the Copyright Office. The Copyright Office's report provides assurance that works made with assistance from AI platforms may be registered under existing copyright laws and notes the difficulty of any further clarity due to the case-by case nature of copyright analysis.

Conclusion and Considerations[4]

The foundations of U.S. copyright law have been applied consistently to emerging technologies, and the Copyright Office believes those doctrines will apply equally well to AI technologies. With the Copyright Office's affirmation that purely AI-generated works cannot be copyrighted, and that AI-assisted works must involve meaningful human authorship, businesses leveraging AI systems must consider several key legal and strategic factors:

- Maintain detailed records of human prompts and modifications, such as arranging, adapting, or refining AI outputs.
- Focus on enhancing human-made, copyrightable works with AI systems rather than generating works solely through uncopyrightable prompts.
- For companies commissioning AI-assisted work, specify in contracts that employees or contractors provide sufficient human control, arrangement, or modification of AI works to ensure copyrightability.
- For companies offering AI-assisted work as part of their services, consider mitigating risks by excluding AI generated works from standard IP representations/warranties, and further disclaiming any liability in relation to the use of such works.

- Consider variations in international AI copyright laws to assess the impact on global IP strategies.

Given the unique analysis copyright cases require, and the existing precedent requiring human input for protection, copyright law is well prepared to face the challenges posed by AI platforms. Due to the unique facts of each case, creators are encouraged to check with an experienced copyright attorney who can help evaluate whether an individual AI-assisted work includes enough human intervention to be protectable.

---

[1] Burrow-Giles Litho. Co. v. Sarony, 111 U.S. 53, 55–57 (1884).

[2] *Naruto v. Slater*, No. 15-cv-04324, 2016 U.S. Dist. LEXIS 11041, at *10 (N.D. Cal. Jan. 28, 2016) (finding animals are not "authors" within the meaning of the Copyright Act).

[3] *Urantia Found. v. Kristen Maaherra*, 114 F.3d 955, 957–59 (9th Cir. 1997) (holding that copyright law does not intend to protect divine beings, and protects the arrangement of otherworldly messages, but not the messages' content).

[4] As noted above, the Copyright Office's report does not address issues relating to fair use in training AI systems or copyright liability associated with the use of AI systems; these topics are expected to be covered in a separate publication.

Author(s)

Arian F. Jabbary
Associate

Alexander J. Liederman
Associate

Nikhil T. Pradhan
Senior Counsel

Gabriel T. Wrobel
Associate