Primates and Processors: Authorship of Non-Human Authors from Monkey Selfies to Generative AI

By Ariel J. Soiffer and Arpi Youssoufian

Many of us remember the case of Naruto, a crested macaque who, perhaps accidentally, took a selfie using a camera placed in the field by a wildlife photographer. If we were interested in copyright law, this case naturally raised the question of whether Naruto could hold a copyright to the photo that he took. And many of us were already thinking of the implications for other non-human authors, such as machines, even though machine authors were more the domain of speculative fiction at the time.

In 2014, the U.S. Copyright Office amended its Compendium of Practices to specify that works created by nature are not protectable by copyright.[1] Although the Copyright Office did not explicitly state so, this was likely in response to the brewing Naruto dispute. Two years later, the U.S. District Court for the Northern District of California held, and the U.S. Court of Appeals for the Ninth Circuit subsequently affirmed, that Naruto did not have the right to assert copyright infringement suits because Naruto is an animal.[2] The Copyright Office now clarifies that "a photograph taken by a monkey" and other "works produced by nature, animals, or plants" are not eligible for copyright.[3]

While the question of natural authors has been silent since *Naruto*, the question of machine authors has quickly drawn substantial attention and interest. The development of generative artificial intelligence (AI) tools and their ability to create new audio, visual, text, and other content is repeatedly raising the question of whether these outputs are protectable by copyright, and who – or what – can claim authorship over these works. And this has led to courts and the Copyright Office considering how and whether to address the question of non-human protection of copyrights – this time, in the form of copyright protection for machines.

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In March, the U.S. Court of Appeals for the District of Columbia Circuit in *Thaler v. Perlmutter* faced the issue of whether machine-created materials can be protected by copyright for the first time, and the circuit court reaffirmed the Copyright Office's human authorship requirement.[4] But in January, the Copyright Office also weighed in on the issue through an installment of the Copyright and Artificial Intelligence Report and presented some nuance: some generative AI outputs may receive copyright protection where the user of the machine exercises sufficient creative control.[5] Taken together, the status quo remains the status quo: a human being must author the work for the Copyright Office to grant registration of the copyright. The door, however, is now open for users of these new technologies to potentially obtain copyright protection over some works produced through the use of generative AI.

Thaler v. Perlmutter Denial of Copyright Application

In *Thaler*, a case of first impression, the District of Columbia Circuit Court of Appeals affirmed a longstanding policy of the Copyright Office: the Copyright Act requires authorship by a human in the first instance, and a machine is not an author for the purpose of the Copyright Act.

Dr. Stephen Thaler, a computer scientist, filed for copyright registration for an artwork titled "A Recent Entrance to Paradise."[6] The colorful image of a train track running through a lush countryside, shown in Exhibit 1, was the output of the Creativity Machine, a generative AI machine which he created, and which Thaler listed as the sole author of the work on the copyright application.[7] The Copyright Office denied Thaler's application on the basis that "a human being did not create the work," which was affirmed twice upon reconsideration within the Copyright Office.[8] Exhausting agency review, Thaler brought the case to the district court, which

Exhibit 1

reaffirmed the agency's denial of the copyright application, reasoning in part that human authorship is a "bedrock requirement of copyright."[9]

Thereafter, the District of Columbia Circuit Court of Appeals weighed in and affirmed the lower court's decision.[10] In doing so, the appellate court relied heavily on statutory construction principles and the Copyright Office's consistent requirement to interpret "author" in the Copyright Act as referring only to human beings.[11]

Thus, the Copyright Office, district court, and circuit court all agreed that only a human, not a machine, could be an author. We note that this is also similar to the Copyright Office's holdings regarding *Zarya of the Dawn*, where the Copyright Office held that machine-generated artwork was non-protectable, while human-generated modifications of the machine-generated artwork would be protectable if those modifications otherwise met the standards of being protectable.[12]

Notably, the court raised but avoided answering the question of whether copyright registration should be granted based on how much Thaler versus the Creativity Machine contributed to the work, finding it an unnecessary consideration because Thaler listed the Creativity Machine as the sole author.[13] A convenient excuse for the court! But luckily, the Copyright Office picks up this point in its January guidance.

The Copyright Office's Updated Guidance

About two months prior to the District of Columbia Circuit Court of Appeals issuing its opinion, the Copyright Office released Part 2 of its Copyright and Artificial Intelligence Report as part of its broader initiative to review the emerging issues at the intersection of AI and copyright. Part 2 focuses on the issue of authorship over works created by generative AI, and in contrast to the courts, rejects implementing a bright line rule of denying authorship on the basis of generative AI being "used in some manner in creating the work."[14] Instead, the Copyright Office takes a more nuanced approach in assessing the amount of creative control the user of the AI machine exercises over the output. The Copyright Office examines works created in three

different ways: prompts, expressive inputs, and by modification or arrangement of AI-generated content, and includes examples illustrating its thinking and approach in each case.

Prompts

In the initial category of prompts, the Copyright Office maintains that providing prompts to a generative AI system alone does not amount to sufficient human control to make the user the author of the output generated by the AI system, even if the prompt is highly detailed and descriptive of the user's "desired expressive elements."[15] This is because even with a highly detailed prompt, the AI machine must still fill in the "gaps" to complete the output and the gaps are likely to be substantial.[16] To demonstrate this point, the Office provided Gemini, Google's generative AI machine, with a detailed prompt involving a bespectacled cat in a robe reading a newspaper and smoking a pipe, with specifications as to the lighting, focus, coloring, and resolution of the image, as shown in Exhibit 2.

The resulting image reflected most of these characteristics, including many of the primary components of the prompt: the cat is the subject of the image, wearing a robe and glasses, reading the newspaper and smoking a pipe, all in cinematic, diffused lighting and with sharp focus on the centered subject. However, the image omitted other characteristics provided in the prompt. There is no "highly detailed wood" in the image, and not much of a sense of a "wet, stormy" scene. The image also accounted for details on its own that were not provided in the prompt, such as the clothes underneath the robe and the human hands of the cat, at least the latter of which should give us pause (or perhaps, paws).

The Copyright Office also points out the fact that the same prompt can generate, and indeed generated for the Copyright Office, multiple different outputs as a further indication of such lack of human control.[17] Indeed, many generative AI systems automatically generate two or more outputs for each prompt for artwork.

The Copyright Office does leave the door open for future work to be protectable by copyright, as the Copyright Office makes this decision only "given current generally available technology."[18] In the future, "[i]n theory, AI systems could someday allow users to exert so much control over how their expression is reflected in an output that the system's contribution would become rote or mechanical."[19] But, until then, given the lack of control, the Copyright Office is not receptive to permitting copyright protection of, or granting registration to, works generated by prompts alone.

Finally, it is worth noting that the Copyright Office distinguishes this issue from whether the prompts themselves may be protectable by copyright, which the Copyright Office does not explore further in this guidance.[20]

Expressive Inputs

The Copyright Office opens the door to copyright protection further for creations that arise from expressive inputs. These inputs go a step beyond a straightforward prompt by providing the AI system

Exhibit 2

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	

with an input that is clearly protectable by copyright and instructions through a prompt of how to modify the other input. The Copyright Office is receptive to granting copyright registration to the user's own creative expression, the "selection, coordination, and arrangement of the human-authored and AI-generated material, even though it would not extend to the AI-generated elements standing alone."[21] For example, the Copyright Office referred to a submission for registration in which the author hand drew an illustration and used that illustration as an input with a prompt to modify its style, lighting, and other visual elements, as shown in Exhibit 3.

Although copyright protection may be limited to certain elements of a work, the Copyright Office provides the opportunity for registration of works where the input includes additional user creative expression.

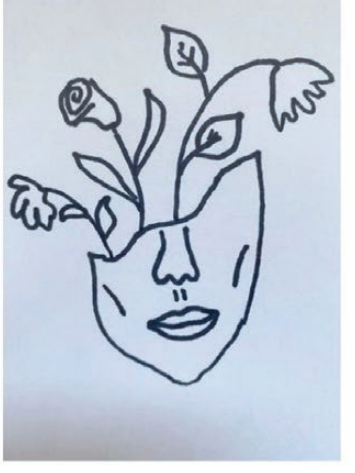
The Copyright Office notes that the drawing itself was protectable by copyright, and the drawing's expressive elements were "clearly perceptible" in the output from the AI system.[22] In its decision, the Copyright Office registered the work as limited to the "unaltered human pictorial authorship that is clearly perceptible in the deposit and separable from the non-human expression that is excluded from the claim."[23] This is consistent with the approach taken by the Copyright Office regarding *Zarya of the Dawn*, where the AI system was first used to generate images, and those images were modified by a human.[24] The Copyright Office provided that the human-generated modifications were protectable by copyright, but the AI-generated original images were not.[25]

Both *Zarya of the Dawn* and this new guidance reflect a broader principle: the Copyright Office views protecting the underlying human images as analogous to derivative work protection, which is limited to the material added by the later author.[26] As such, although copyright protection may be limited to certain elements of a work, the Copyright Office provides the opportunity for registration of works where the input includes additional user creative expression.

Modifying or Arranging AI-Generated Content

The first two categories, prompts and expressive inputs, consider the potential for copyright protection of generative AI output as a final product and as dependent on the type of input. As a third category, the Copyright Office looks beyond the inputs to the AI system to if or how the output of the generative AI system is subsequently altered – regardless of the original input. The Copyright Office recognizes that some AI platforms offer tools for users to further modify the AI-generated content, such as Midjourney, which offers several tools for users to iteratively edit and adapt images generated by Midjourney.[27] For these works, the Copyright Office seems more inclined to

Exhibit 3

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

grant copyright protection, as long as the modifications meet the requisite standard of materiality under the *Feist* test,[28] which is a case-specific determination but a low bar.[29]

Courts, Congress, and the Looming Constitutional Challenge

In *Thaler*, the DC Circuit made one additional point very clear: copyright law in the realm of AI needs to be updated given the challenges of AI, and Congress must step in.[30]

Congress and the Copyright Office have indeed been examining AI and copyright issues, which the District of Columbia Circuit Court of Appeals recognized in its opinion.[31] About one month prior to the Copyright Office's release of the Part 2 guidance, Congress issued a report more broadly discussing issues of AI and intellectual property.[32] Both the Copyright Office's guidance and Congress's report are important in considering and developing frameworks for IP protection for AI-generated works. But until Congress passes updated legislation, courts may feel their hands are tied and abide strictly to the Copyright Office's human authorship requirement, as the District of Columbia Circuit Court of Appeals did in *Thaler*.

Overall, just as monkey selfies are ineligible for copyright protection, so too are works produced by generative AI alone.

However, the District of Columbia Circuit Court of Appeals also dodged the larger question, at least for now. Thaler argued that the human authorship requirement is unconstitutional and unsupported by statute or case law.[33] Because the Copyright Act provided sufficient grounds for the court to resolve the case, the court used the doctrine of constitutional avoidance to dodge addressing the question of whether the human authorship requirement is required by the Constitution's Intellectual Property Clause.[34] This suggests that if or when Congress finally steps in with new legislation, a constitutional challenge may be in store, perhaps by a party that wants to use an AI-generated work without the permission of the author and wants to challenge whether that work is protectable.

Recommendations

Overall, just as monkey selfies are ineligible for copyright protection, so too are works produced by generative AI alone. According to the courts and the Copyright Office, the human authorship requirement firmly stands, at least for now, so a natural person must be set forth as the author for a work to obtain copyright protection. However, the Copyright Office recognizes the potential for generative AI outputs over which the user has sufficient creative control and further recognizes that these technologies will continue to evolve in a way for users to exert further creative control on a work's expressive elements. The distinction lies in the use of generative AI as a tool versus "as a stand-in for human creativity."[35] Users may, for now, be advised that the greater their creative control over the output, the greater the likelihood of receiving copyright protection as authors of that work – that is, until Congress weighs in on this distinction and finally gets the monkey off of everyone's backs.

Notes

1. U.S. Copyright Office, Compendium of U.S. Copyright Office Practices § 313.2 (3d ed. 2021) [hereinafter USCO Compendium].
2. Naruto v. Slater, 888 F.3d 418 (9th Cir. 2018).
3. USCO Compendium § 313.2.
4. Thaler v. Perlmutter, 130 F.4th 1039, 1041 (D.C. Cir. 2025).
5. United States Copyright Office, Copyright and Artificial Intelligence, Part 2: Copyrightability (2025) [hereinafter USCO Report].
6. Thaler, 130 F.4th at 1043.
7. Id.
8. Id.
9. Id. at 1044.
10. Id. at 1052.
11. Id. at 1045-50.
12. Letter from Robert J. Kasunic, Associate Register of Copyrights and Director of the Office of Registration Policy & Practice, to Van Lindberg, counsel to Kristina Kashtanova (Feb. 21, 2023) 812 [hereinafter, Zarya of the Dawn Letter].
13. Thaler, 130 F.4th at 1050.
14. USCO Report, supra note 5, at 2.
15. Id. at 18.
16. Id. at 19-20.
17. Id. at 20.
18. USCO Report, supra note 5, at 18.

19. Id. at 19.
20. Id. at 12-13.
21. Id. at 24.
22. Id. at 23.
23. Id.
24. Zarya of the Dawn Letter, supra note 12, at 10-12.
25. Id. at 12.
26. See 17 U.S. § 106(2).
27. USCO Report, supra note 5, at 26.
28. Id. at 27.
29. Id.; Feist Publ'ns., Inc. v. Rural Tel. Serv. Co., 499 U.S. 240, 362 (1991).
30. Thaler v. Perlmutter, 130 F.4th 1039, 1050-51 (D.C. Cir. 2025).
31. Id. at 1051.
32. Id.; see generally 118th Congress, Bipartisan House Task Force Report on Artificial Intelligence (2024).
33. Thaler, 130 F.4th at 1051.
34. Id.
35. USCO Report, supra note 5, at 12.