UNITED STATES COPYRIGHT OFFICE

Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence

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ACTION: Statement of policy

SUMMARY: The Copyright Office issues this statement of policy to clarify its practices for examining and registering works that contain material generated by the use of artificial intelligence technology.

DATES: This statement of policy is effective March 16, 2023.

FOR FURTHER INFORMATION CONTACT: Rhea Efthimiadis, Assistant to the General Counsel, by email at *meft@copyright.gov* or telephone at 202–707– 8350.

SUPPLEMENTARY INFORMATION

I. Background

The Copyright Office (the "Office") is the Federal agency tasked with administering the copyright registration system, as well as advising Congress, other agencies, and the Federal judiciary on copyright and related matters.[1] Because the Office has overseen copyright registration since its origins in 1870, it has developed substantial experience and expertise regarding "the distinction between copyrightable and noncopyrightable works."[2] The Office is empowered by the Copyright Act to establish the application used by applicants seeking registration of their copyrighted works.[3] While the Act identifies certain minimum requirements, the Register may determine that additional information is necessary for the Office to evaluate the "existence, ownership, or duration of the copyright."[4] Because the Office receives roughly half a million applications for registration each year, it sees new trends in registration activity that may require modifying or expanding the information required to be disclosed on an application.

One such recent development is the use of sophisticated artificial intelligence ("AI") technologies capable of producing expressive material.[5] These technologies "train" on vast quantities of preexisting human-authored works and use inferences from that training to generate new content. Some systems operate in response to a user's textual instruction, called a "prompt."[6] The resulting output may be textual, visual, or audio, and is determined by the AI based on its design and the material it has been trained on. These technologies, often described as "generative AI," raise questions about whether the material they produce

is protected by copyright, whether works consisting of both human-authored and AI-generated material may be registered, and what information should be provided to the Office by applicants seeking to register them.

These are no longer hypothetical questions, as the Office is already receiving and examining applications for registration that claim copyright in AI-generated material. For example, in 2018 the Office received an application for a visual work that the applicant described as "autonomously created by a computer algorithm running on a machine." [7] The application was denied because, based on the applicant's representations in the application, the examiner found that the work contained no human authorship. After a series of administrative appeals, the Office's Review Board issued a final determination affirming that the work could not be registered because it was made "without any creative contribution from a human actor." [8]

More recently, the Office reviewed a registration for a work containing human-authored elements combined with AI-generated images. In February 2023, the Office concluded that a graphic novel[9] comprised of human-authored text combined with images generated by the AI service Midjourney constituted a copyrightable work, but that the individual images themselves could not be protected by copyright. [10]

The Office has received other applications that have named AI technology as the author or co-author of the work or have included statements in the "Author Created" or "Note to Copyright Office" sections of the application indicating that the work was produced by or with the assistance of AI. Other applicants have not disclosed the inclusion of AI-generated material but have mentioned the names of AI technologies in the title of the work or the "acknowledgments" section of the deposit.

Based on these developments, the Office concludes that public guidance is needed on the registration of works containing AI-generated content. This statement of policy describes how the Office applies copyright law's human authorship requirement to applications to register such works and provides guidance to applicants.

The Office recognizes that AI-generated works implicate other copyright issues not addressed in this statement. It has launched an agency-wide initiative to delve into a wide range of these issues. Among other things, the Office intends to publish a notice of inquiry later this year seeking public input on additional legal and policy topics, including how the law should apply to the use of copyrighted works in AI training and the resulting treatment of outputs.

II. The Human Authorship Requirement

In the Office's view, it is well-established that copyright can protect only material that is the product of human creativity. Most fundamentally, the term "author," which is used in both the Constitution and the Copyright Act, excludes non-humans. The Office's registration policies and regulations reflect statutory and judicial guidance on this issue.

In its leading case on authorship, the Supreme Court used language excluding non-humans in interpreting Congress's constitutional power to provide "authors" the exclusive right to their "writings."[11] In *Burrow-Giles Lithographic Co.* v. *Sarony*, a defendant accused of making unauthorized copies of a photograph argued that the expansion of copyright protection to photographs by Congress was unconstitutional because "a photograph is not a writing nor the production of an author" but is instead created by a camera.[12] The Court disagreed, holding that there was "no doubt" the Constitution's Copyright Clause permitted photographs to be subject to copyright, "so far as they are representatives of original intellectual conceptions of the author."[13] The Court defined an "author" as "he to whom anything owes its origin; originator; maker; one who completes a work of science or literature."[14] It repeatedly referred to such "authors" as human, describing authors as a class of "persons"[15] and a copyright as "the exclusive right of a man to the production of his own genius or intellect."[16]

Federal appellate courts have reached a similar conclusion when interpreting the text of the Copyright Act, which provides copyright protection only for "works of authorship."[17] The Ninth Circuit has held that a book containing words "authored by non-human spiritual beings" can only qualify for copyright protection if there is "human selection and arrangement of the revelations."[18] In another case, it held that a monkey cannot register a copyright in photos it captures with a camera because the Copyright Act refers to an author's "children," "widow," "grandchildren," and "widower,"— terms that "all imply humanity and necessarily exclude animals."[19]

Relying on these cases among others, the Office's existing registration guidance has long required that works be the product of human authorship. In the 1973 edition of the Office's *Compendium of Copyright Office Practices*, the Office warned that it would not register materials that did not "owe their origin to a human agent."[20] The second edition of the Compendium, published in 1984, explained that the "term 'authorship' implies that, for a work to be copyrightable, it must owe its origin to a human being."[21] And in the current edition of the *Compendium*, the Office states that "to qualify as a work of 'authorship' a work must be created by a human being" and that it "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."[22]

III. The Office's Application of the Human Authorship Requirement

As the agency overseeing the copyright registration system, the Office has extensive experience in evaluating works submitted for registration that contain human authorship combined with uncopyrightable material, including material generated by or with the assistance of technology. It begins by asking "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."[23] In the case of works containing AI-generated material, the Office will consider whether the AI contributions are the result

of "mechanical reproduction" or instead of an author's "own original mental conception, to which [the author] gave visible form." [24] The answer will depend on the circumstances, particularly how the AI tool operates and how it was used to create the final work.[25] This is necessarily a case-by-case inquiry.

If a work's traditional elements of authorship were produced by a machine, the work lacks human authorship and the Office will not register it [26] For example, when an AI technology receives solely a prompt [27] from a human and produces complex written, visual, or musical works in response, the "traditional elements of authorship" are determined and executed by the technology—not the human user. Based on the Office's understanding of the generative AI technologies currently available, users do not exercise ultimate creative control over how such systems interpret prompts and generate material. Instead, these prompts function more like instructions to a commissioned artist—they identify what the prompter wishes to have depicted, but the machine determines how those instructions are implemented in its output. [28] For example, if a user instructs a text-generating technology to "write a poem about copyright law in the style of William Shakespeare," she can expect the system to generate text that is recognizable as a poem, mentions copyright, and resembles Shakespeare's style. [29] But the technology will decide the rhyming pattern, the words in each line, and the structure of the text. [30] When an AI technology determines the expressive elements of its output, the generated material is not the product of human authorship.[31] As a result, that material is not protected by copyright and must be disclaimed in a registration application. [32]

In other cases, however, a work containing AI-generated material will also contain sufficient human authorship to support a copyright claim. For example, a human may select or arrange AI-generated material in a sufficiently creative way that "the resulting work as a whole constitutes an original work of authorship." [33] Or an artist may modify material originally generated by AI technology to such a degree that the modifications meet the standard for copyright protection. [34] In these cases, copyright will only protect the human-authored aspects of the work, which are "independent of" and do "not affect" the copyright status of the AI-generated material itself. [35]

This policy does not mean that technological tools cannot be part of the creative process. Authors have long used such tools to create their works or to recast, transform, or adapt their expressive authorship. For example, a visual artist who uses Adobe Photoshop to edit an image remains the author of the modified image, [36] and a musical artist may use effects such as guitar pedals when creating a sound recording. In each case, what matters is the extent to which the human had creative control over the work's expression and "actually formed" the traditional elements of authorship.[37]

IV. Guidance for Copyright Applicants

Consistent with the Office's policies described above, applicants have a duty to disclose the inclusion of AI-generated content in a work submitted for registration and to provide a brief explanation of the human author's contributions to the work. As contemplated

by the Copyright Act, such disclosures are "information regarded by the Register of Copyrights as bearing upon the preparation or identification of the work or the existence, ownership, or duration of the copyright." [38]

A. How To Submit Applications for Works Containing AI-Generated Material

Individuals who use AI technology in creating a work may claim copyright protection for their own contributions to that work. They must use the Standard Application, [39] and in it identify the author(s) and provide a brief statement in the "Author Created" field that describes the authorship that was contributed by a human. For example, an applicant who incorporates AI-generated text into a larger textual work should claim the portions of the textual work that is human-authored. And an applicant who creatively arranges the human and non-human content within a work should fill out the "Author Created" field to claim: "Selection, coordination, and arrangement of [describe human-authored content] created by the author and [describe AI content] generated by artificial intelligence." Applicants should not list an AI technology or the company that provided it as an author or co-author simply because they used it when creating their work.

AI-generated content that is more than *de minimis* should be explicitly excluded from the application. [40] This may be done in the "Limitation of the Claim" section in the "Other" field, under the "Material Excluded" heading. Applicants should provide a brief description of the AI-generated content, such as by entering "[description of content] generated by artificial intelligence." Applicants may also provide additional information in the "Note to CO" field in the Standard Application.

Applicants who are unsure of how to fill out the application may simply provide a general statement that a work contains AI-generated material. The Office will contact the applicant when the claim is reviewed and determine how to proceed. In some cases, the use of an AI tool will not raise questions about human authorship, and the Office will explain that nothing needs to be disclaimed on the application.

B. How To Correct a Previously Submitted or Pending Application

Applicants who have already submitted applications for works containing AI-generated material should check that the information provided to the Office adequately disclosed that material. If not, they should take steps to correct their information so that the registration remains effective.

For applications currently pending before the Office, applicants should contact the Copyright Office's Public Information Office and report that their application omitted the fact that the work contained AI-generated material. [41]

Staff will add a note to the record, which the examiner will see when reviewing the claim. If necessary, the examiner then will correspond with the applicant to obtain additional information about the nature of the human authorship included in the work.

For applications that have already been processed and resulted in a registration, the applicant should correct the public record by submitting a supplementary registration. A supplementary registration is a special type of registration that may be used "to correct an error in a copyright registration or to amplify the information given in a registration." [42] In the supplementary registration, the applicant should describe the original material that the human author contributed in the "Author Created" field, disclaim the AI-generated material in the "Material Excluded/Other" field, and complete the "New Material Added/Other" field. As long as there is sufficient human authorship, the Office will issue a new supplementary registration certificate with a disclaimer addressing the AI-generated material. [43]

Applicants who fail to update the public record after obtaining a registration for material generated by AI risk losing the benefits of the registration. If the Office becomes aware that information essential to its evaluation of registrability "has been omitted entirely from the application or is questionable," it may take steps to cancel the registration. [44] Separately, a court may disregard a registration in an infringement action pursuant to section 411(b) of the Copyright Act if it concludes that the applicant knowingly provided the Office with inaccurate information, and the accurate information would have resulted in the refusal of the registration. [45]

V. Conclusion

This policy statement sets out the Office's approach to registration of works containing material generated by AI technology. The Office continues to monitor new factual and legal developments involving AI and copyright and may issue additional guidance in the future related to registration or the other copyright issues implicated by this technology.

DATED: MARCH 10, 2023
SHIRA PERLMUTTER, REGISTER OF COPYRIGHTS AND DIRECTOR OF THE U.S. COPYRIGHT OFFICE
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END NOTES

1. *See* 17 U.S.C. 408 (copyright registration requires delivering deposit, application, and fee to Copyright Office), 701(a) (all administrative functions and duties set out in Title 17 are the responsibility of the Register of Copyrights), 701(b)(2) (the Register's duties include providing "information and assistance" to Federal agencies and courts on copyright and related matters).

2. *Norris Indus.* v. *Int'l Tel. & Tel. Corp.*, 696 F.2d 918, 922 (11th Cir. 1983). For this reason, courts credit the Office's expertise in interpreting the Copyright Act, particularly in the context of registration. *See, e.g., Esquire, Inc.* v. *Ringer*, 591 F.2d 796, 801–02 (D.C. Cir. 1978) (giving "considerable weight" to the Register's refusal determination); *Varsity Brands, Inc.* v. *Star Athletica, LLC*, 799 F.3d 468, 480 (6th Cir. 2015) ("the Copyright Office's expertise in identifying and thinking about the difference between art and function surpasses ours"), *aff'd on other grounds*, 580 U.S. 405 (2017).

3. 17 U.S.C. 409.

4. *Id.* at 409(10).

5. The term "expressive material" is used here to refer to AI output that, if it had been created by a human, would fall within the subject matter of copyright as defined in section 102 of the Act. *See id.* at 102(a).

6. *See Prompts*, Midjourney, *https://docs.midjourney.com/docs/prompts* (noting for users of the artificial intelligence service Midjourney a prompt is "a short text phrase that the Midjourney [service] uses to produce an image"). To be clear, this policy statement is not limited to AI technologies that accept text "prompts" or to technologies permitting prompts of a particular length or complexity.

7. U.S. Copyright Office Review Board, *Decision Affirming Refusal of Registration of a Recent Entrance to Paradise* at 2 (Feb. 14, 2022), *https://www.copyright.gov/rulings-filings/review-board/docs/a-recent-entrance-to-paradise.pdf*.

8. *Id.* at 2–3. The Office's decision is currently being challenged in *Thaler* v. *Perlmutter*, Case No. 1:22–cv–01564 (D.D.C.).

9. On the application, the applicant described the work as a "comic book." *See* U.S. Copyright Office, *Cancellation Decision re: Zarya of the Dawn (VAu001480196)* at 2 (Feb. 21, 2023), *https://www.copyright.gov/docs/zarya-of-the-dawn.pdf*.

10. *Id.*

11. U.S. Const. art. I, sec. 8, cl. 8 (Congress has the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.").

12. 111 U.S. 53, 56 (1884) (explaining that the defendant had argued that photographs were merely "reproduction on paper of the exact features of some natural object or of some person").

13. *Id.* at 58.

14. *Id.* at 57–58.

15. *Id.* at 56 (describing beneficiaries of the Constitution's Copyright Clause as "authors," who are one of "two classes" of "persons").

16. *Id.* at 58; *see also id.* at 60–61 (agreeing with an English decision describing an "author" as the "person" who was "the cause of the picture which is produced" and "the man" who creates or gives effect to the idea in the work).

17. 17 U.S.C. 102(a).

18. *Urantia Found.* v. *Kristen Maaherra*, 114 F.3d 955, 957–59 (9th Cir. 1997) (internal punctuation omitted) (holding that "some element of human creativity must have occurred in order for the Book to be copyrightable" because "it is not creations of divine beings that the copyright laws were intended to protect"). While the compilation of the book was entitled to copyright, the alleged "divine messages" were not. Id.

19. *Naruto* v. *Slater*, 888 F.3d 418, 426 (9th Cir. 2018), decided on other grounds.

20. U.S. Copyright Office, *Compendium of U.S. Copyright Office Practices* sec. 2.8.3(I)(a)(1)(b) (1st ed. 1973), *https://copyright.gov/history/comp/compendium-one.pdf* (providing example of shapes formed by liquid petroleum); see also U.S. Copyright Office, *Sixty-Eighth Annual Report of the Register of Copyrights for the Fiscal Year Ending June 30, 1965*, at 5 (1966), *https://www.copyright.gov/reports/annual/archive/ar-1965.pdf* (noting that computer-generated works raise a "crucial question" of whether the work "is basically one of human authorship").

21. U.S. Copyright Office, *Compendium of U.S. Copyright Office Practices* sec. 202.02(b) (2d ed. 1984), *https://www.copyright.gov/history/comp/compendium-two.pdf* (explaining that as a result, "[m]aterials produced solely by nature, by plants, or by animals are not copyrightable"). It went on to state that because "a work must be the product of human authorship," works "produced by mechanical processes or random selection without any contribution by a human author are not registrable." *Id.* at 503.03(a).

22. U.S. Copyright Office, *Compendium of U.S. Copyright Office Practices* sec. 313.2 (3d ed. 2021) ("*Compendium (Third)*").

23. *Id.* (quoting U.S. Copyright Office, *Sixty-Eighth Annual Report of the Register of Copyrights for the Fiscal Year Ending June 30, 1965*, at 5 (1966)).

24. *Sarony,* 111 U.S. at 60.

25. Many technologies are described or marketed as "artificial intelligence," but not all of them function the same way for purposes of copyright law. For that reason, this analysis will be fact specific.

26. This includes situations where an AI technology is developed such that it generates material autonomously without human involvement. *See* U.S. Copyright Office Review Board, *Decision Affirming Refusal of Registration of a Recent Entrance to Paradise* at 2–3 (Feb. 14, 2022), *https://www.copyright.gov/rulings-filings/review-board/docs/a-recent-entrance-to-paradise.pdf* (determining a work "autonomously created by artificial intelligence without any creative contribution from a human actor" was "ineligible for registration").

27. While some prompts may be sufficiently creative to be protected by copyright, that does not mean that material generated from a copyrightable prompt is itself copyrightable.

28. One image-generating AI product describes prompts as "influencing" the output but does not suggest the prompts dictate or control it. *See Prompts*, Midjourney, *https://docs.midjourney.com/docs/prompts* (explaining that short text prompts cause "each word [to have] a more powerful *influence*" and that images including in a prompt may "*influence* the style and content of the finished result") (emphasis added).

29. AI technologies do not always operate precisely as instructed. For example, a text-generating tool prompted to provide factual information may provide inaccurate information. One AI service describes this as the AI "mak[ing] up facts or 'hallucinat[ing]' outputs." *ChatGPT General FAQ*, OpenAI, *https://help.openai.com/en/articles/ 6783457-chatgpt-general-faq*. *See* also James Romoser, *No, Ruth Bader Ginsburg did not dissent in Obergefell—and other things ChatGPT gets wrong about the Supreme Court*, SCOTUSblog (Jan. 26, 2023), *https://www.scotusblog.com/2023/01/no-ruth-bader-ginsburg-did-not-dissent-in-obergefell-and-other-things-chatgpt-gets-wrong-about-the-supreme-court/*.

30. Some technologies allow users to provide iterative "feedback" by providing additional prompts to the machine. For example, the user may instruct the AI to revise the generated text to mention a topic or emphasize a particular point. While such instructions may give a user greater influence over the output, the AI technology is what determines how to implement those additional instructions.

31. *See* id. at 61 (quoting British decision by Lord Justice Cotton describing an author as the person "who has actually formed the picture").

32. *See Compendium (Third)* sec. 503.5 (a copyright registration "does not cover any unclaimable material that the work may contain," and applicants "should exclude that material from the claim").

33. 17 U.S.C. 101 (definition of "compilation"). In the case of a compilation including AI-generated material, the computer-generated material will not be protected outside of the compilation.

34. *See Compendium (Third)* sec. 507.1 (identifying that where a new author modifies a preexisting work, the "new authorship . . . may be registered, provided that it contains a sufficient amount of original authorship"); *see* also 17 U.S.C. 101 (defining "derivative work" to include works "based upon one or more preexisting works" where modifications to the work "which, as a whole, represent an original work of authorship").

35. 17 U.S.C. 103(b).

36. To the extent, however, that an artist uses the AI-powered features in Photoshop, the edits will be subject to the above analysis.

37. *Sarony*, 111 U.S. at 61.

38. 17 U.S.C. 409(10).

39. The Office's other types of application forms do not contain fields where applicants can disclaim unprotectable material such as AI-generated content. For example, the Single Application may only be used if "[a]ll of the content appearing in the work" was "created by the same individual." 37 CFR 202.3(b)(2)(i)(B).

40. The Office does not require applicants to disclaim "brief quotes, short phrases, and other *de minimis* uses" of preexisting works. *Compendium (Third)* sec. 503.5.

41. The Public Information Office can be reached through the Office's website (*https://copyright.gov/help/*) or by phone at (202) 707–3000 or (877) 476–0778.

42. 17 U.S.C. 408(d); *see also Compendium (Third)* sec. 1802 (discussing supplementary registration process); U.S. Copyright Office, *Circular 8: Supplementary Registration*, *https://copyright.gov/circs/circ08.pdf* (last revised Mar. 2021); 37 CFR 201.3(c)(14) (fee schedule for supplementary registration).

43. Though the supplementary registration certificate will have a new registration number and effective date of registration, the original registration "will not be expunged," and the two effective dates "will coexist with each other in the registration record" so that a court can determine which date to apply if the copyrighted work is later subject to litigation. 37 CFR 202.6(f)(1)–(2); U.S. Copyright Office, *Circular 8: Supplementary Registration*, *https://copyright.gov/circs/circ08.pdf* (last revised Mar. 2021).

44. *See* 37 CFR 201.7(c)(4). If the work contains human authorship intermingled with AI-created material, the Office may add an annotation to clarify the scope of the claim.

45. 17 U.S.C. 411(b)(1)(A); *Unicolors, Inc.* v. *H&M Hennes & Mauritz, L.P.*, 142 S. Ct. 941, 948 (2022) (requiring that the applicant "was actually aware of, or willfully blind to" the inaccurate information).