

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA**

STEPHEN THALER,

Plaintiff,

v.

SHIRA PERLMUTTER, *Register of
Copyrights and Director of the United States
Copyright Office, et al.*

Defendants.

Civil Action No. 22-1564 (BAH)

Judge Beryl A. Howell

MEMORANDUM OPINION

Plaintiff Stephen Thaler owns a computer system he calls the “Creativity Machine,” which he claims generated a piece of visual art of its own accord. He sought to register the work for a copyright, listing the computer system as the author and explaining that the copyright should transfer to him as the owner of the machine. The Copyright Office denied the application on the grounds that the work lacked human authorship, a prerequisite for a valid copyright to issue, in the view of the Register of Copyrights. Plaintiff challenged that denial, culminating in this lawsuit against the United States Copyright Office and Shira Perlmutter, in her official capacity as the Register of Copyrights and the Director of the United States Copyright Office (“defendants”). Both parties have now moved for summary judgment, which motions present the sole issue of whether a work generated entirely by an artificial system absent human involvement should be eligible for copyright. *See* Pl.’s Mot. Summ. J. (Pl.’s Mot.”), ECF No. 16; Defs.’ Cross-Mot. Summ. J. (“Defs.’ Mot.”), ECF No. 17. For the reasons explained below, defendants are correct that human authorship is an essential part of a valid copyright claim, and

therefore plaintiff's pending motion for summary judgment is denied and defendants' pending cross-motion for summary judgment is granted.

I. BACKGROUND

Plaintiff develops and owns computer programs he describes as having "artificial intelligence" ("AI") capable of generating original pieces of visual art, akin to the output of a human artist. *See* Pl.'s Mem. Supp. Mot. Summ. J. ("Pl.'s Mem.") at 13, ECF No. 16. One such AI system—the so-called "Creativity Machine"—produced the work at issue here, titled "A Recent Entrance to Paradise:"



Admin. Record ("AR"), Ex. H, Copyright Review Board Refusal Letter Dated February 14, 2022 ("Final Refusal Letter") at 1, ECF No. 13-8.

After its creation, plaintiff attempted to register this work with the Copyright Office. In his application, he identified the author as the Creativity Machine, and explained the work had been “autonomously created by a computer algorithm running on a machine,” but that plaintiff sought to claim the copyright of the “computer-generated work” himself “as a work-for-hire to the owner of the Creativity Machine.” *Id.*, Ex. B, Copyright Application (“Application”) at 1, ECF No. 13-2; *see also id.* at 2 (listing “Author” as “Creativity Machine,” the work as “[c]reated autonomously by machine,” and the “Copyright Claimant” as “Steven [sic] Thaler” with the transfer statement, “Ownership of the machine”). The Copyright Office denied the application on the basis that the work “lack[ed] the human authorship necessary to support a copyright claim,” noting that copyright law only extends to works created by human beings. *Id.*, Ex. D, Copyright Office Refusal Letter Dated August 12, 2019 (“First Refusal Letter”) at 1, ECF No. 13-4.

Plaintiff requested reconsideration of his application, confirming that the work “was autonomously generated by an AI” and “lack[ed] traditional human authorship,” but contesting the Copyright Office’s human authorship requirement and urging that AI should be “acknowledge[d] . . . as an author where it otherwise meets authorship criteria, with any copyright ownership vesting in the AI’s owner.” *Id.*, Ex. E, First Request for Reconsideration at 2, ECF No. 13-5. Again, the Copyright Office refused to register the work, reiterating its original rationale that “[b]ecause copyright law is limited to ‘original intellectual conceptions of the author,’ the Office will refuse to register a claim if it determines that a human being did not create the work.” *Id.*, Ex. F, Copyright Office Refusal Letter Dated March 30, 2020 (“Second Refusal Letter”) at 1, ECF No. 13-6 (quoting *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 58 (1884) and citing 17 U.S.C. § 102(a); *U.S. Copyright Office, Compendium of U.S.*

Copyright Office Practices § 306 (3d ed. 2017)). Plaintiff made a second request for reconsideration along the same lines as his first, *see id.*, Ex. G, Second Request for Reconsideration at 2, ECF No. 13-7, and the Copyright Office Review Board affirmed the denial of registration, agreeing that copyright protection does not extend to the creations of non-human entities, Final Refusal Letter at 4, 7.

Plaintiff timely challenged that decision in this Court, claiming that defendants' denial of copyright registration to the work titled "A Recent Entrance to Paradise," was "arbitrary, capricious, an abuse of discretion and not in accordance with the law, unsupported by substantial evidence, and in excess of Defendants' statutory authority," in violation of the Administrative Procedure Act ("APA"), 5 U.S.C. § 706(2). *See Compl.* ¶¶ 62–66, ECF No. 1. The parties agree upon the key facts narrated above to focus, in the pending cross-motions for summary judgment, on the sole legal issue of whether a work autonomously generated by an AI system is copyrightable. *See Pl.'s Mem.* at 13; *Defs.' Mem. Supp. Cross-Mot. Summ. J. & Opp'n Pl.'s Mot. Summ. J.* ("Defs.' Opp'n") at 7, ECF No. 17. Those motions are now ripe for resolution. *See* *Defs.' Reply Supp. Cross-Mot. Summ. J.* ("Defs.' Reply"), ECF No. 21.

II. **LEGAL STANDARD**

A. **Administrative Procedure Act**

The APA provides for judicial review of any "final agency action for which there is no other adequate remedy in a court," 5 U.S.C. § 704, and "instructs a reviewing court to set aside agency action found to be 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law,'" *Cigar Ass'n of Am. v. FDA*, 964 F.3d 56, 61 (D.C. Cir. 2020) (quoting 5 U.S.C. § 706(2)(A)). This standard "'requires agencies to engage in reasoned decisionmaking,' and . . . to reasonably explain to reviewing courts the bases for the actions they take and the conclusions they reach." *Brotherhood of Locomotive Eng'rs & Trainmen v. Fed. R.R. Admin.*,

972 F.3d 83, 115 (D.C. Cir. 2020) (quoting *Dep’t of Homeland Sec. v. Regents of Univ. of Cal.* (“*Regents*”), 140 S. Ct. 1891, 1905 (2020)). Judicial review of agency action is limited to “the grounds that the agency invoked when it took the action,” *Regents*, 140 S. Ct. at 1907 (quoting *Michigan v. EPA*, 576 U.S. 743, 758 (2015)), and the agency, too, “must defend its actions based on the reasons it gave when it acted,” *id.* at 1909.

B. Summary Judgment

Pursuant to Federal Rule of Civil Procedure 56, “[a] party is entitled to summary judgment only if there is no genuine issue of material fact and judgment in the movant’s favor is proper as a matter of law.” *Soundboard Ass’n v. FTC*, 888 F.3d 1261, 1267 (D.C. Cir. 2018) (quoting *Ctr. for Auto Safety v. Nat'l Highway Traffic Safety Admin.*, 452 F.3d 798, 805 (D.C. Cir. 2006)); *see also* Fed. R. Civ. P. 56(a). In APA cases such as this one, involving cross-motions for summary judgment, “the district judge sits as an appellate tribunal. The ‘entire case’ on review is a question of law.” *Am. Bioscience, Inc. v. Thompson*, 269 F.3d 1077, 1083–84 (D.C. Cir. 2001) (footnote omitted) (collecting cases). Thus, a court need not and ought not engage in fact finding, since “[g]enerally speaking, district courts reviewing agency action under the APA’s arbitrary and capricious standard do not resolve factual issues, but operate instead as appellate courts resolving legal questions.” *James Madison Ltd. by Hecht v. Ludwig*, 82 F.3d 1085, 1096 (D.C. Cir. 1996); *see also* *Lacson v. U.S. Dep’t of Homeland Sec.*, 726 F.3d 170, 171 (D.C. Cir. 2013) (noting, in an APA case, that “determining the facts is generally the agency’s responsibility, not [the court’s]”). Judicial review, when available, is typically limited to the administrative record, since “[i]t is black-letter administrative law that in an [APA] case, a reviewing court should have before it neither more nor less information than did the agency when it made its decision.” *CTS Corp. v. EPA*, 759 F.3d 52, 64 (D.C. Cir. 2014) (internal quotation marks and citation omitted).

III. DISCUSSION

Under the Copyright Act of 1976, copyright protection attaches “immediately” upon the creation of “original works of authorship fixed in any tangible medium of expression,” provided those works meet certain requirements. *Fourth Estate v. Public Benefit Corporation v. Wall-Street.com, LLC*, 139 S. Ct. 881, 887 (2019); 17 U.S.C. § 102(a). A copyright claimant can also register the work with the Register of Copyrights. Upon concluding that the work is indeed copyrightable, the Register will issue a certificate of registration, which, among other advantages, allows the claimant to pursue infringement claims in court. 17 U.S.C. §§ 410(a), 411(a); *Unicolors v. H&M Hennes & Mauritz, L.P.*, 142 S. Ct. 941, 944–45 (2022). A valid copyright exists upon a qualifying work’s creation and “apart” from registration, however; a certificate of registration merely confirms that the copyright has existed all along. See *Fourth Estate*, 139 S. Ct. at 887. Conversely, if the Register denies an application for registration for lack of copyrightable subject matter—and did not err in doing so—then the work at issue was never subject to copyright protection at all.

In considering plaintiff’s copyright registration application as to “A Recent Entrance to Paradise,” the Register concluded that “this particular work will not support a claim to copyright” because the work lacked human authorship and thus no copyright existed in the first instance. First Refusal Letter at 1; see also Final Refusal Letter at 3 (providing the same rationale in the final reconsideration decision). By design in plaintiff’s framing of the registration application, then, the single legal question presented here is whether a work generated autonomously by a computer falls under the protection of copyright law upon its creation.

Plaintiff attempts to complicate the issues presented by devoting a substantial portion of his briefing to the viability of various legal theories under which a copyright in the computer’s work would transfer to him, as the computer’s owner; for example, by operation of common law property principles or the work-for-hire doctrine. *See* Pl.’s Mem. at 31–37; Pl.’s Reply Supp. Mot. Summ. J. & Opp’n Def.’s Cross-Mot. Summ. J. (“Pl.’s Opp’n”) at 11–15, ECF No. 18. These arguments concern *to whom* a valid copyright should have been registered, and in so doing put the cart before the horse.¹ By denying registration, the Register concluded that no valid copyright had ever existed in a work generated absent human involvement, leaving nothing at all to register and thus no question as to whom that registration belonged.

The only question properly presented, then, is whether the Register acted arbitrarily or capriciously or otherwise in violation of the APA in reaching that conclusion. The Register did not err in denying the copyright registration application presented by plaintiff. United States copyright law protects only works of human creation.

Plaintiff correctly observes that throughout its long history, copyright law has proven malleable enough to cover works created with or involving technologies developed long after traditional media of writings memorialized on paper. *See, e.g., Goldstein v. California*, 412 U.S. 546, 561 (1973) (explaining that the constitutional scope of Congress’s power to “protect the ‘Writings’ of ‘Authors’” is “broad,” such that “writings” is not “limited to script or printed material,” but rather encompasses “any physical rendering of the fruits of creative intellectual or aesthetic labor”); *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 58 (1884) (upholding

¹ In pursuing these arguments, plaintiff elaborates on his development, use, ownership, and prompting of the AI generating software in the so-called “Creativity Machine,” implying a level of human involvement in this case entirely absent in the administrative record. As detailed, *supra*, in Part I, plaintiff consistently represented to the Register that the AI system generated the work “autonomously” and that he played no role in its creation, *see* Application at 2, and judicial review of the Register’s final decision must be based on those same facts.

the constitutionality of an amendment to the Copyright Act to cover photographs). In fact, that malleability is explicitly baked into the modern incarnation of the Copyright Act, which provides that copyright attaches to “original works of authorship fixed in any tangible medium of expression, *now known or later developed.*” 17 U.S.C. § 102(a) (emphasis added). Copyright is designed to adapt with the times. Underlying that adaptability, however, has been a consistent understanding that human creativity is the *sine qua non* at the core of copyrightability, even as that human creativity is channeled through new tools or into new media. In *Sarony*, for example, the Supreme Court reasoned that photographs amounted to copyrightable creations of “authors,” despite issuing from a mechanical device that merely reproduced an image of what is in front of the device, because the photographic result nonetheless “represent[ed]” the “original intellectual conceptions of the author.” *Sarony*, 111 U.S. at 59. A camera may generate only a “mechanical reproduction” of a scene, but does so only after the photographer develops a “mental conception” of the photograph, which is given its final form by that photographer’s decisions like “posing the [subject] in front of the camera, selecting and arranging the costume, draperies, and other various accessories in said photograph, arranging the subject so as to present graceful outlines, arranging and disposing the light and shade, suggesting and evoking the desired expression, and from such disposition, arrangement, or representation” crafting the overall image. *Id.* at 59–60. Human involvement in, and ultimate creative control over, the work at issue was key to the conclusion that the new type of work fell within the bounds of copyright.

Copyright has never stretched so far, however, as to protect works generated by new forms of technology operating absent any guiding human hand, as plaintiff urges here. Human authorship is a bedrock requirement of copyright.

That principle follows from the plain text of the Copyright Act. The current incarnation of the copyright law, the Copyright Act of 1976, provides copyright protection to “original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.” 17 U.S.C. § 102(a). The “fixing” of the work in the tangible medium must be done “by or under the authority of the author.” *Id.* § 101. In order to be eligible for copyright, then, a work must have an “author.”

To be sure, as plaintiff points out, the critical word “author” is not defined in the Copyright Act. *See* Pl.’s Mem. at 24. “Author,” in its relevant sense, means “one that is the source of some form of intellectual or creative work,” “[t]he creator of an artistic work; a painter, photographer, filmmaker, etc.” *Author*, MERRIAM-WEBSTER UNABRIDGED DICTIONARY, <https://unabridged.merriam-webster.com/unabridged/author> (last visited Aug. 18, 2023); *Author*, OXFORD ENGLISH DICTIONARY, https://www.oed.com/dictionary/author_n (last visited Aug. 10, 2023). By its plain text, the 1976 Act thus requires a copyrightable work to have an originator with the capacity for intellectual, creative, or artistic labor. Must that originator be a human being to claim copyright protection? The answer is yes.²

The 1976 Act’s “authorship” requirement as presumptively being *human* rests on centuries of settled understanding. The Constitution enables the enactment of copyright and patent law by granting Congress the authority to “promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective

² The issue of whether non-human sentient beings may be covered by “person” in the Copyright Act is only “fun conjecture for academics,” Justin Hughes, *Restating Copyright Law’s Originality Requirement*, 44 COLUMBIA J. L. & ARTS 383, 408–09 (2021), though useful in illuminating the purposes and limits of copyright protection as AI is increasingly employed. Nonetheless, delving into this debate is an unnecessary detour since “[t]he day sentient refugees from some intergalactic war arrive on Earth and are granted asylum in Iceland, copyright law will be the least of our problems.” *Id.* at 408.

writings and discoveries.” U.S. Const. art. 1, cl. 8. As James Madison explained, “[t]he utility of this power will scarcely be questioned,” for “[t]he public good fully coincides in both cases [of copyright and patent] with the claims of individuals.” THE FEDERALIST NO. 43 (James Madison). At the founding, both copyright and patent were conceived of as forms of property that the government was established to protect, and it was understood that recognizing exclusive rights in that property would further the public good by incentivizing individuals to create and invent. The act of human creation—and how to best encourage human individuals to engage in that creation, and thereby promote science and the useful arts—was thus central to American copyright from its very inception. Non-human actors need no incentivization with the promise of exclusive rights under United States law, and copyright was therefore not designed to reach them.

The understanding that “authorship” is synonymous with human creation has persisted even as the copyright law has otherwise evolved. The immediate precursor to the modern copyright law—the Copyright Act of 1909—explicitly provided that only a “person” could “secure copyright for his work” under the Act. Act of Mar. 4, 1909, ch. 320, §§ 9, 10, 35 Stat. 1075, 1077. Copyright under the 1909 Act was thus unambiguously limited to the works of human creators. There is absolutely no indication that Congress intended to effect any change to this longstanding requirement with the modern incarnation of the copyright law. To the contrary, the relevant congressional report indicates that in enacting the 1976 Act, Congress intended to incorporate the “original work of authorship” standard “without change” from the previous 1909 Act. *See H.R. REP. NO. 94-1476*, at 51 (1976).

The human authorship requirement has also been consistently recognized by the Supreme Court when called upon to interpret the copyright law. As already noted, in *Sarony*, the Court’s

recognition of the copyrightability of a photograph rested on the fact that the human creator, not the camera, conceived of and designed the image and then used the camera to capture the image. *See Sarony*, 111 U.S. at 60. The photograph was “the product of [the photographer’s] intellectual invention,” and given “the nature of authorship,” was deemed “an original work of art . . . of which [the photographer] is the author.” *Id.* at 60–61. Similarly, in *Mazer v. Stein*, the Court delineated a prerequisite for copyrightability to be that a work “must be original, that is, the author’s tangible expression of his ideas.” 347 U.S. 201, 214 (1954). *Goldstein v. California*, too, defines “author” as “an ‘originator,’ ‘he to whom anything owes its origin,’” 412 U.S. at 561 (quoting *Sarony*, 111 U.S. at 58). In all these cases, authorship centers on acts of human creativity.

Accordingly, courts have uniformly declined to recognize copyright in works created absent any human involvement, even when, for example, the claimed author was divine. The Ninth Circuit, when confronted with a book “claimed to embody the words of celestial beings rather than human beings,” concluded that “some element of human creativity must have occurred in order for the Book to be copyrightable,” for “it is not creations of divine beings that the copyright laws were intended to protect.” *Urantia Found. v. Kristen Maaherra*, 114 F.3d 955, 958–59 (9th Cir. 1997) (finding that because the “members of the Contact Commission chose and formulated the specific questions asked” of the celestial beings, and then “select[ed] and arrange[d]” the resultant “revelations,” the Urantia Book was “at least partially the product of human creativity” and thus protected by copyright); *see also Penguin Books U.S.A., Inc. v. New Christian Church of Full Endeavor*, 96-cv-4126 (RWS), 2000 WL 1028634, at *2, 10–11 (S.D.N.Y. July 25, 2000) (finding a valid copyright where a woman had “filled nearly thirty stenographic notebooks with words she believed were dictated to her” by a “‘Voice’ which

would speak to her whenever she was prepared to listen,” and who had worked with two human co-collaborators to revise and edit those notes into a book, a process which involved enough creativity to support human authorship); *Oliver v. St. Germain Found.*, 41 F. Supp. 296, 297, 299 (S.D. Cal. 1941) (finding no copyright infringement where plaintiff claimed to have transcribed “letters” dictated to him by a spirit named Phylos the Thibetan, and defendant copied the same “spiritual world messages for recordation and use by the living” but was not charged with infringing plaintiff’s “style or arrangement” of those messages). Similarly, in *Kelley v. Chicago Park District*, the Seventh Circuit refused to “recognize[] copyright” in a cultivated garden, as doing so would “press[] too hard on the[] basic principle[]” that “[a]uthors of copyrightable works must be human.” 635 F.3d 290, 304–06 (7th Cir. 2011). The garden “ow[ed] [its] form to the forces of nature,” even if a human had originated the plan for the “initial arrangement of the plants,” and as such lay outside the bounds of copyright. *Id.* at 304. Finally, in *Naruto v. Slater*, the Ninth Circuit held that a crested macaque could not sue under the Copyright Act for the alleged infringement of photographs this monkey had taken of himself, for “all animals, since they are not human” lacked statutory standing under the Act. 888 F.3d 418, 420 (9th Cir. 2018). While resolving the case on standing grounds, rather than the copyrightability of the monkey’s work, the *Naruto* Court nonetheless had to consider whom the Copyright Act was designed to protect and, as with those courts confronted with the nature of authorship, concluded that only humans had standing, explaining that the terms used to describe who has rights under the Act, like “‘children,’ ‘grandchildren,’ ‘legitimate,’ ‘widow,’ and ‘widower[,]’ all imply humanity and necessarily exclude animals.” *Id.* at 426. Plaintiff can point to no case in which a court has recognized copyright in a work originating with a non-human.

Undoubtedly, we are approaching new frontiers in copyright as artists put AI in their toolbox to be used in the generation of new visual and other artistic works. The increased attenuation of human creativity from the actual generation of the final work will prompt challenging questions regarding how much human input is necessary to qualify the user of an AI system as an “author” of a generated work, the scope of the protection obtained over the resultant image, how to assess the originality of AI-generated works where the systems may have been trained on unknown pre-existing works, how copyright might best be used to incentivize creative works involving AI, and more. *See, e.g.*, Letter from Senators Thom Tillis and Chris Coons to Kathi Vidal, Under Secretary of Commerce for Intellectual Property and Director of the U.S. Patent and Trademark Office, and Shira Perlmutter, Register of Copyrights and Director of the U.S. Copyright Office (Oct. 27, 2022), <https://www.copyright.gov/laws/hearings/Letter-to-USPTO-USCO-on-National-Commission-on-AI-1.pdf> (requesting that the United States Patent and Trademark Office and the United States Copyright Office “jointly establish a national commission on AI” to assess, among other topics, how intellectual property law may best “incentivize future AI related innovations and creations”).

This case, however, is not nearly so complex. While plaintiff attempts to transform the issue presented here, by asserting new facts that he “provided instructions and directed his AI to create the Work,” that “the AI is entirely controlled by [him],” and that “the AI only operates at [his] direction,” Pl.’s Mem. at 36–37—implying that he played a controlling role in generating the work—these statements directly contradict the administrative record. Judicial review of a final agency action under the APA is limited to the administrative record, because “[i]t is black-letter administrative law that in an [APA] case, a reviewing court should have before it neither more nor less information than did the agency when it made its decision.” *CTS Corp.*, 759 F.3d

at 64 (internal quotation marks and citation omitted). Here, plaintiff informed the Register that the work was “[c]reated autonomously by machine,” and that his claim to the copyright was only based on the fact of his “[o]wnership of the machine.” Application at 2. The Register therefore made her decision based on the fact the application presented that plaintiff played no role in using the AI to generate the work, which plaintiff never attempted to correct. *See* First Request for Reconsideration at 2 (“It is correct that the present submission lacks traditional human authorship—it was autonomously generated by an AI.”); Second Request for Reconsideration at 2 (same). Plaintiff’s effort to update and modify the facts for judicial review on an APA claim is too late. On the record designed by plaintiff from the outset of his application for copyright registration, this case presents only the question of whether a work generated autonomously by a computer system is eligible for copyright. In the absence of any human involvement in the creation of the work, the clear and straightforward answer is the one given by the Register: No.

Given that the work at issue did not give rise to a valid copyright upon its creation, plaintiff’s myriad theories for how ownership of such a copyright could have passed to him need not be further addressed. Common law doctrines of property transfer cannot be implicated where no property right exists to transfer in the first instance. The work-for-hire provisions of the Copyright Act, too, presuppose that an interest exists to be claimed. *See* 17 U.S.C § 201(b) (“In the case of a work made for hire, the employer . . . owns all of the rights comprised in the copyright.”).³ Here, the image autonomously generated by plaintiff’s computer system was

³ In any event, plaintiff’s attempts to cast the work as a work-for-hire must fail as both definitions of a “work made for hire” available under the Copyright Act require that the individual who prepares the work is a human being. The first definition provides that “a ‘work made for hire’ is . . . a work prepared by an *employee* within the scope of *his or her* employment,” while the second qualifies certain eligible works “*if the parties expressly agree in a written instrument signed by them* that the work shall be considered a work made for hire.” 17 U.S.C. § 101 (emphasis added). The use of personal pronouns in the first definition clearly contemplates only human beings as eligible “employees,” while the second necessitates a meeting of the minds and exchange of signatures in a valid contract not possible with a non-human entity.

never eligible for copyright, so none of the doctrines invoked by plaintiff conjure up a copyright over which ownership may be claimed.

IV. CONCLUSION

For the foregoing reasons, defendants are correct that the Copyright Office acted properly in denying copyright registration for a work created absent any human involvement. Plaintiff's motion for summary judgment is therefore denied and defendants' cross-motion for summary judgment is granted.

An Order consistent with this Memorandum Opinion will be entered contemporaneously.

Date: August 18, 2023

BERYL A. HOWELL
United States District Judge