

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

STEPHEN THALER, an individual,

Plaintiff,

vs.

SHIRA PERLMUTTER, in her official
capacity as Register of Copyright and Director
of the United States Copyright Office; and
THE UNITED STATES COPYRIGHT
OFFICE,

Defendants.

Civil Action No. 22-1564 (BAH)

Chief Judge Beryl A. Howell

NOTICE OF FILING ADMINISTRATIVE RECORD

Pursuant to the Court's October 12, 2022 Order, Defendants submit the following
Administrative Record and certification of the Record.

Index of U.S. Copyright Office Administrative Record

Ex. No.	Title	Date	Description	Bates Range
Ex. A	Declaration of Mark Gray	11/3/2022	Certification of Administrative Record	N/A
Ex. B	"A Recent Entrance to Paradise" Application	11/3/2018	Copyright application	US_0000001-US_0000003
Ex. C	"A Recent Entrance to Paradise" Deposit	11/3/2018	Deposit submitted to Copyright Office	US_0000004
Ex. D	"A Recent Entrance to Paradise" Initial Refusal Letter	8/12/2019	Refusal Letter sent by Copyright Office	US_0000005-US_0000007

Ex. E	“A Recent Entrance to Paradise” First Reconsideration Request	9/23/2019 ¹	First Request for Reconsideration submitted by applicant	US_0000008-US_0000018
Ex. F	“A Recent Entrance to Paradise” Refusal of First Request for Reconsideration	3/30/2020	Refusal Letter sent by Copyright Office	US_0000019-US_0000021
Ex. G	“A Recent Entrance to Paradise” Second Reconsideration Request	5/27/2020	Second Request for Reconsideration submitted by applicant	US_0000022-US_0000030
Ex. H	“A Recent Entrance to Paradise” Refusal of Second Request for Reconsideration	2/14/2022	Refusal letter sent by Copyright Office Review Board	US_0000031-US_0000037

Respectfully submitted,

BRIAN M. BOYTON
Principal Deputy Assistant Attorney General

GARY L. HAUSKEN
Director

Of Counsel:
SCOTT D. BOLDEN
Department of Justice

s/ Jenna Munnelly
JENNA MUNNELLY
Trial Attorney
Commercial Litigation Branch
Civil Division
Department of Justice
Washington, DC 20530
Email: jenna.e.munnelly@usdoj.gov
Telephone: (202) 616-1061

Counsel for Defendants

Dated: November 8, 2022

¹ The top of the First Request for Reconsideration, US_0000009, is dated September 8, 2019, but the attorney’s signature block, US_0000016 has a date of September 23, 2019.

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FOR THE DISTRICT OF COLUMBIA**

STEPHEN THALER, an individual,

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THE UNITED STATES COPYRIGHT
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Defendants.

Civil Action No. 22-1564 (BAH)

Chief Judge Beryl A. Howell

DECLARATION OF MARK T. GRAY

I, Mark T. Gray, make the following declaration.

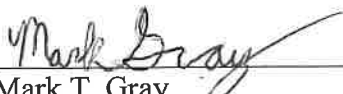
1. I am employed by the United States Copyright Office as Assistant General Counsel. In this capacity, I supervised the compilation of and reviewed the Administrative Record relating to Service Request 1-7100387071 for a work titled “A Recent Entrance to Paradise.”

2. To the best of my knowledge, the attached documents numbered consecutively from US_0000001 through US_0000037 constitute the true and correct Administrative Record appropriate to the allegations in the Complaint filed in the above-captioned matter.

3. The attached Index describes the contents of the Administrative Record.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 3rd day of November, 2022.



Mark T. Gray
Assistant General Counsel
U.S. Copyright Office

Registration #: *-APPLICATION-
Service Request #: 1-7100387071

Mail Certificate

Steven Thaler
1767 Waterfall Dr.
St. Charles, MO 63303 United States

Priority: Routine

Application Date: November 03, 2018

Note to C.O.: Please note this artwork was autonomously created by a computer algorithm running on a machine called the "Creativity Machine". We are seeking to register this computer-generated work as a work-for-hire to the owner of the Creativity Machine.

Correspondent

Name: Ryan Abbott
Email: drryanabbott@gmail.com
Address: Frank Whittle Building
02 AB 05
Guildford GU27XH United Kingdom

Registration Number

-APPLICATION-

Registration Decision Date:

May 19, 2019

Title

Title of Work: A Recent Entrance to Paradise

Completion/Publication

Year of Completion: 2012

Date of 1st Publication: May 25, 2016

Nation of 1st Publication: United States

Author

- **Author:** Creativity Machine
- Author Created:** 2-D artwork, Created autonomously by machine
- Work made for hire:** Yes
- Domiciled in:** United States

Copyright Claimant

Copyright Claimant: Steven Thaler
1767 Waterfall Dr., St. Charles, MO, 63303, United States

Transfer statement: Ownership of the machine

Rights and Permissions

Name: Steven Thaler
Email: sthaler@imagination-engines.com

Certification

Name: Ryan Abbott
Date: November 03, 2018

Correspondence: Yes



US_0000004



United States Copyright Office

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August 12, 2019

Ryan Abbott
Frank Whittle Building 02 AB 05
Guildford, GU27XH
United Kingdom

Correspondence ID: 1-3NPRZ2Y

RE: A Recent Entrance to Paradise

Dear Ryan Abbott:

We cannot register this work because it lacks the human authorship necessary to support a copyright claim. According to your application this work was “created autonomously by machine.”

Copyright protects original works of human authorship that are fixed in some physical form. See 17 U.S.C. '102(a). As used in the copyright context, the term "original" means that the work was independently created by the author (as opposed to copied from other works), and that it possesses at least a minimal degree of creativity. See *Feist Publications v. Rural Telephone Service Co.*, 499 U.S. 340 (1991).

The U.S. Copyright Office will register an original work of authorship, provided that the work was created by a human being. The copyright law only protects “the fruits of intellectual labor” that “are founded in the creative powers of the mind.” *Trade-Mark Cases*, 100 U.S. 82, 94 (1879). Because 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. *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 58 (1884).

Neither the aesthetic appeal or commercial value of a work, nor the amount of time and effort expended to create a work are factors that are considered under the copyright law. See *Bleistein v. Donaldson*, 188 U.S. 239 (1903); *Feist Publications v. Rural Telephone Service Co.*, 499 U.S. 340 (1991). The question is whether there is sufficient creative authorship within the meaning of the copyright statute and settled case law.

After careful consideration, we have determined that this particular work will not support a claim to copyright under the standards described above. Therefore we cannot issue the registration which you requested. The copyright law requires that we retain the deposit of this work. See 17 U.S.C. '704(a). The nonrefundable filing fee has been applied to administrative costs.

Ryan Abbott

- 2 -

1-3NPRZ2Y

This letter is for your information only; no response is necessary.

Sincerely,

Examiner Angello
Visual Arts Division
Office of Registration Policy & Practice
U.S. Copyright Office

Enclosures:
Reply Sheet



United States Copyright Office

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1-3NPRZ2Y

Return this sheet if you request reconsideration.

How to request reconsideration:

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- Explain why the claim should be registered or why it was improperly refused.
- Enclose the required fee – see below.
- Address your request to:
RECONSIDERATION
Copyright RAC Division
P.O. Box 71380
Washington, DC 20024-1380

Note: Include the Correspondence ID Number (see above) on the first page. Indicate either “First Reconsideration” or “Second Reconsideration” as appropriate on the subject line.

Notification of decision: The Copyright Office will send a written notification of its decision, including an explanation of its reasoning.

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Second Request for Reconsideration: The Copyright Office Board of Review considers the second request. The Board consists of the Register of Copyrights and the General Counsel (or their respective designees), and a third member appointed by the Register. The Board’s decision constitutes final agency action.

FEES:

First Request \$250 per claim (i.e. the work(s) contained on one application)

Second Request \$500 per claim (i.e. the work(s) contained on one application)

OCT 16 2019



United States Copyright Office

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1-3NPRZ2Y

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FEES:

First Request	\$250 per claim (i.e. the work(s) contained on one application)
Second Request	\$500 per claim (i.e. the work(s) contained on one application)

OCT 16 2019

September 8, 2019

RECONSIDERATION
US Copyright Office
Receipt Analysis and Control Division
P.O. Box 71380
Washington, DC 20024-1380

RE: **First Reconsideration** Correspondence ID Number: 1-3NPRZ2Y

To the United States Copyright Office:

This first request for reconsideration (“Request”) is responsive to a notice on August 12, 2019 (“Notice”) which reported the Copyright Office’s (“Office”) determination not to issue the requested registration.

I understand this decision was made on the basis that the present submission lacks human authorship, and the Office has a Human Authorship Requirement. U.S. COPYRIGHT OFFICE, COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES §313.2 (3d ed. 2014). It is correct that the present submission lacks traditional human authorship—it was autonomously generated by an AI.

The Request argues that the Human Authorship Requirement is unconstitutional and unsupported by either statute or case law. Both the U.S. Constitution and principles of good public policy require that the Office permit “computer-generated works” (CGWs) to receive copyright protection. In addition, the Office should acknowledge the AI as an author where it otherwise meets authorship criteria, with any copyright ownership vesting in the AI’s owner.

I. Arguments in Support of Protections for CGWs

a. Subsistence

The Office should register copyrights for CGWs because doing so would further the underlying goals of copyright law, including the constitutional rationale for copyright protection, and because there is no binding authority that prohibits copyright for CGWs.

The U.S. Constitution explicitly provides an economic rationale for copyright protection. Namely, that Congress shall have the power to, “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.” UNITED STATES CONSTITUTION, ARTICLE I, SECTION 8, CLAUSE 8. This refers to copyright acting as a financial incentive to generate expressive works.

Copyright can promote the creation of works by allowing copyright owners to keep others from making, using, copying and selling protected works without their permission. Without copyright, it might not be possible to exclude third parties from, say, downloading music or artwork for free. Thus, copyright can increase the financial value of works by allowing copyright holders to charge a premium for their intellectual property. In turn, the increased value of works incentivizes their creation.

In addition to serving as an economic incentive, copyright is also justified on the basis of natural or moral rights, such as the right of attribution, the integrity of an author’s work, and Lockean labor theories.

Allowing copyright for CGWs would further all of these economic and moral objectives. In terms of economic rights, even though AI is not responsive to financial incentives, the

individuals and businesses who own and develop AI are. Allowing copyright for CGWs would increase the value of “creative AIs” that are capable of generating CGWs, which would thereby incentivize their development. This would reward effort upstream from the stage of creative activity and ultimately result in even more expressive works. In addition, it would prevent a perverse situation where an AI is more effective at generating creative output than a person in certain situations, but a party is forced to avoid using AI because only directly human output can attract copyright protection.

In terms of moral rights, acknowledging AI as an author would safeguard moral rights because it would prevent people from receiving undeserved acknowledgement. Taking credit for an AI’s work would not be unfair to a machine, but it would diminish the accomplishments of people who have created without using inventive AI. In addition, acknowledging AI as authors would acknowledge AI developers who can take credit for the accomplishments of their creations.

b. Ownership

An AI should clearly not own copyright. Among other reasons, machines do not have legal personality and cannot own property.

In the event that copyright protection is provided for CGWs, the default owner of copyright should be the owner of the AI that has generated the work. This best achieves the goals of copyright law because it makes a creative AI more valuable to its owner and thus most promotes the development of creative AIs. This would also be consistent with current principles of property ownership, such that the owners of chattel (including machines) are able to exploit their property, and it would not interfere with the transfer of personal property in the form of creative AIs.

Such an arrangement would not be without precedent, particularly with respect to copyright ownership where the Works Made for Hire doctrine allows an employer to be considered an author and to own copyright. 17 U.S.C. § 201(b) (2016). Indeed, in the U.S., non-human, artificial persons such as companies can already be authors under this doctrine.

Alternately, obvious ownership options other than the AI include the machine's owner, user, or programmer(s). In the present case, the current applicant, Stephen Thaler, is the owner of the AI that generated the CGW and should thus be the owner of any copyright. Stephen Thaler was also the AI's user and programmer. There is no other individual involved with the AI in the present case who would be an appropriate recipient of any copyright to the submitted CGW.

c. International Analogs

Providing copyright protection for CGWs would not be without precedent. The United Kingdom was the first jurisdiction to explicitly provide for copyright protection of CGWs. The Copyright, Designs and Patents Act 1998 ("CDPA") is the primary legislation for copyright law and it makes special provision for CGWs with different rules for authorship and copyright duration. These works are defined as those "generated by a computer in circumstances such that there is no human author of the work[s]." Copyright, Designs and Patents Act 1988, §178.

For CGW works, the CDPA provides that, "[i]n the case of a literary, dramatic, musical or artistic work which is computer-generated, the author shall be taken to be the person by whom the arrangement necessary for the creation of the work are undertaken." Copyright, Designs and Patents Act 1988, §9 (3). Since the enactment of the CDPA, jurisdictions such as Ireland, India

and New Zealand have followed the United Kingdom's lead in providing copyright protection for CGWs.

II. Problems with the Human Authorship Requirement

a. Policy Objections

The Human Authorship Requirement strongly discourages the use and development of creative AI. As a result of the Office's policies, CGWs in the United States now automatically enter the public domain and cannot receive copyright protection. As a result, even when an AI would be more efficient than a person, a person may need to be used to create a new work in order for copyright protection to subsist. This is a problematic state of affairs that will become even more inefficient once creative AI is able to routinely outperform people at certain creative acts. Advanced AI may result in significant and widespread social benefits assuming appropriate legal frameworks exist.

In addition, the Human Authorship Requirement is likely to lead to a state of affairs in which people inaccurately claim authorship for work done by machines. Anyone in control of an AI that has generated a CGW with value can register the work simply by listing themselves as an author. Indeed, it has previously been reported that intellectual property filings have not disclosed the fact creative works were CGWs. Ryan Abbott, *I Think, Therefore I Invent: Creative Computers and the Future of Patent Law*, 54 B. C. L. Rev. 1079–1126 (2016). The Office was only aware the present registration was a CGW because this was explicitly disclosed by the applicant. Had this not been disclosed at the time of registration, it would not have been challenged by the Copyright Office and it is unlikely a third-party would become aware of the work's AI origins. This policy encourages applicants to act dishonestly

to capture the value of CGWs. It also undermines the value of human authorship by allowing individuals to inaccurately claim they are authors.

b. Lack of Authority for the Human Authorship Requirement

I am aware of no U.S. statute that specifically addresses CGWs and copyright, or that explicitly requires an author to be a natural person. Indeed, as discussed earlier, non-human entities may be authors under, *inter alia*, the Works Made for Hire doctrine.

The Notice, and the Human Authorship Requirement, cite to dicta from over a hundred years ago to support the assertion that a human being has to create a work. Specifically, the Notice cites to the 1879 Trade-Mark Cases, 100 U.S. 82, 94 (1879), as well as to the 1886 case of *Burrow-Giles v. Sarony*, 11 U.S. 53, 58 (1884), in support of the Human Authorship Policy based on their references to “the creative powers of the mind” and “intellectual conceptions”. However, these cases did not consider whether AI could legally generate works eligible for copyright protection. Indeed, in the late 19th century, AI did not exist in any meaningful sense. The cameras of the time were tools that were incapable of functionally automating human creativity.

Today, it has now been well documented that machines are able to autonomously generate creative works, and to functionally automate human creativity. See, e.g., Ryan Abbott, *Artificial Intelligence, Big Data and Intellectual Property: Protecting Computer-Generated Works in the United Kingdom*, In RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY AND DIGITAL TECHNOLOGIES (Tanya Aplin ed., Forthcoming 2019) <https://ssrn.com/abstract=3064213>. It is not at all clear that there is a mechanistic difference between how people and machines engage in creative acts that justifies different legal rules, and there is certainly not a functional difference that justifies different legal rules. Because copyright law is primarily functional in nature and

concerned with the generation of new works, it should be indifferent to whether people or machines are generating these works so long as copyright law achieves its objective of promoting the useful arts.

The Copyright Office is currently relying upon non-binding judicial opinions from the Gilded Age to answer the question of whether CGWs can be protected. If CWGs are to be prohibited, this should only be on the basis of sound public policy after serious consideration. Indeed, the U.S. Patent and Trademark Office has recently launched a request for comments on patenting artificial intelligence inventions, in part to create an appropriate policy for CGWs. Federal Register / Vol. 84, No. 166 / Tuesday, August 27, 2019 / Notices.

<https://www.federalregister.gov/documents/2019/08/27/2019-18443/request-for-comments-on-patenting-artificial-intelligence-inventions>

To the extent that the cases cited in the Notice have anything useful to offer with respect to CGWs, the relevant dicta is that just as the terms “Writings” have been construed flexibly in interpreting the Patent and Copyright Clause, so too should the term “Authors” be afforded the flexibility needed to effectuate constitutional purposes.

III. Conclusion

I submit the requested registration be granted because the Office’s Human Authorship Requirement is unconstitutional, does not further the goals of copyright law, and it is not supported by existing statutes or case law.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "R. Abbott", written in a cursive style.

Ryan Abbott
Attorney for Applicant

Date: September 23, 2019

OCT 16 2019



United States Copyright Office

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August 12, 2019

Ryan Abbott
Frank Whittle Building 02 AB 05
Guildford, GU27XH
United Kingdom

Correspondence ID: 1-3NPRZ2Y

RE: A Recent Entrance to Paradise

Dear Ryan Abbott:

We cannot register this work because it lacks the human authorship necessary to support a copyright claim. According to your application this work was “created autonomously by machine.”

Copyright protects original works of human authorship that are fixed in some physical form. See 17 U.S.C. ' 102(a). As used in the copyright context, the term "original" means that the work was independently created by the author (as opposed to copied from other works), and that it possesses at least a minimal degree of creativity. See *Feist Publications v. Rural Telephone Service Co.*, 499 U.S. 340 (1991).

The U.S. Copyright Office will register an original work of authorship, provided that the work was created by a human being. The copyright law only protects “the fruits of intellectual labor” that “are founded in the creative powers of the mind.” *Trade-Mark Cases*, 100 U.S. 82, 94 (1879). Because 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. *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 58 (1884).

Neither the aesthetic appeal or commercial value of a work, nor the amount of time and effort expended to create a work are factors that are considered under the copyright law. See *Bleistein v. Donaldson*, 188 U.S. 239 (1903); *Feist Publications v. Rural Telephone Service Co.*, 499 U.S. 340 (1991). The question is whether there is sufficient creative authorship within the meaning of the copyright statute and settled case law.

After careful consideration, we have determined that this particular work will not support a claim to copyright under the standards described above. Therefore we cannot issue the registration which you requested. The copyright law requires that we retain the deposit of this work. See 17 U.S.C. ' 704(a). The nonrefundable filing fee has been applied to administrative costs.

Ryan Abbott

- 2 -

1-3NPRZ2Y

This letter is for your information only; no response is necessary.

Sincerely,

Examiner Angello
Visual Arts Division
Office of Registration Policy & Practice
U.S. Copyright Office

Enclosures:
Reply Sheet



United States Copyright Office

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March 30, 2020

Ryan Abbott
Frank Whittle Building 02 AB 05
Guildford, GU27XH
United Kingdom

Correspondence ID: 1-3ZPC6C3
Original Corresp. ID: 1-3NPRZ2Y

Re: *A Recent Entrance to Paradise*

Dear Mr. Abbott:

This correspondence responds to your September 8, 2019 letter requesting reconsideration of the U.S. Copyright Office's (the "Office") refusal to register a copyright claim in the above-titled work. You made this request on behalf of the copyright claimant, Stephen Thaler.

We reviewed *A Recent Entrance to Paradise* (the "Work") in light of the points raised in your letter. We affirm our decision to refuse registration for the Work because it lacks the human authorship necessary to be eligible for copyright protection.

Discussion

The U.S. Copyright Office will register an original work of authorship only if the work was created by a human being. This includes any human being that prepares a work on behalf of an organizational author as a work made for hire.

As noted in our original refusal letter, the copyright law only protects "the fruits of intellectual labor" that "are founded in the creative powers of the mind." *Trade-Mark Cases*, 100 U.S. 82, 94 (1879). Because 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. *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 58 (1884). See also 17 U.S.C. §102(a) & *U.S. Copyright Office, Compendium of U.S. Copyright Office Practices* § 306 (3d ed. 2017).

The Office will not register works produced by a machine or mere mechanical process that operates randomly or automatically without sufficient creative input or intervention from a human author. *Compendium (Third)* § 313.2. As you state in your letter, the Work here was "autonomously generated by an AI." *Letter* at 1. You have provided no evidence on sufficient creative input or intervention by a human author in the Work. We conclude, therefore, that the Work lacks the human authorship necessary to sustain a claim in copyright. The various legal and policy arguments put forth in your request for reconsideration are insufficient to convince the Office to abandon its longstanding interpretation of the

Ryan Abbott

- 2 -

1-3ZPC6C3

Copyright Act, Supreme Court, and lower court judicial precedent that a work meets the legal and formal requirements of copyright protection only if it is created by a human author.

Conclusion

Because it was not created by a human author, we again refuse copyright registration for *A Recent Entrance to Paradise*.

Sincerely,



Frank Muller

Attorney-Advisor for Registration Policy & Practice
Office of Registration Policy & Practice | U.S. Copyright Office
101 Independence Ave, SE, Washington, DC 20559-6222

Enclosures:
Reply Sheet



United States Copyright Office

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1-3ZPC6C3

Return this sheet if you request reconsideration.

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- Send your request in writing. **Please note that your request must be postmarked (via the U.S. Postal Service) or dispatched (via commercial carrier, courier, or messenger) no later than three months after a refusal is issued.**
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Copyright RAC Division
P.O. Box 71380
Washington, DC 20024-1380

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First Request \$350 per claim (i.e. the work(s) contained on one application)

Second Request \$700 per claim (i.e. the work(s) contained on one application)



United States Copyright Office

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JUN 05 2020



* 1 - 3 Z P C 6 C 3 *

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First Request \$350 per claim (i.e. the work(s) contained on one application)

Second Request \$700 per claim (i.e. the work(s) contained on one application)

May 27, 2020

JUN 5 2020

RECONSIDERATION
US Copyright Office
Receipt Analysis and Control Division
P.O. Box 71380
Washington, DC 20024-1380

RE: **SECOND Reconsideration** Correspondence ID Number: 1-3ZPC6C3; Original

Correspondence ID Number: 1-3NPRZ2Y

To the United States Copyright Office:

This second request for reconsideration (“Request”) is responsive to a notice on March 30, 2020 (“Notice”) which affirmed the Copyright Office’s (“Office”) initial determination not to issue the requested registration.

This decision was made on the basis that the present submission lacks human authorship, and the Office has a Human Authorship Requirement. U.S. COPYRIGHT OFFICE, COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES §313.2 (3d ed. 2014). It is correct that the present submission lacks traditional human authorship—it was autonomously generated by an AI.

The present Request argues that the Human Authorship Requirement is unconstitutional and unsupported by either statute or case law. Both the U.S. Constitution and principles of good public policy require that the Office permit “AI-generated works” or “computer-generated works” (CGWs) to receive copyright protection. In addition, the Office should list the AI as an author where it otherwise meets authorship criteria, with any copyright ownership vesting in the AI’s owner.

I. Arguments in Support of Protections for CGWs

a. Subsistence

The Office should register copyrights for CGWs because doing so would further the underlying goals of copyright law, including the constitutional rationale for copyright protection, and because there is no binding authority that prohibits copyright for CGWs.

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Copyright can promote the creation of works by allowing copyright owners to keep others from making, using, copying and selling protected works without their permission. Without copyright, it might not be possible to exclude third parties from, say, downloading music or artwork for free. Thus, copyright can increase the financial value of works by allowing copyright holders to charge a premium for their intellectual property. In turn, the increased value of works incentivizes their creation.

In addition to serving as an economic incentive, copyright is also justified on the basis of natural or moral rights, such as the right of attribution, the integrity of an author’s work, and Lockean labor theories.

Allowing copyright for CGWs would further all of these economic and moral objectives. In terms of economic rights, even though AI is not responsive to financial incentives, the

individuals and businesses who own and develop AI are. Allowing copyright for CGWs would increase the value of “creative AIs” that are capable of generating CGWs, which would thereby incentivize their development. This would reward effort upstream from the stage of creative activity and ultimately result in even more expressive works. In addition, it would prevent a perverse situation where an AI is more effective at generating creative output than a person in certain situations, but a party is forced to avoid using AI because only directly human output can attract copyright protection.

In terms of moral rights, acknowledging AI as an author would safeguard moral rights because it would prevent people from receiving undeserved acknowledgement. Taking credit for an AI’s work would not be unfair to a machine, but it would diminish the accomplishments of people who have created without using inventive AI. In addition, acknowledging AI as authors would acknowledge AI developers who can take credit for the accomplishments of their creations.

b. Ownership

An AI should clearly not own copyright. Among other reasons, machines do not have legal personality and cannot own property.

In the event that copyright protection is provided for CGWs, the default owner of copyright should be the owner of the AI that has generated the work. This best achieves the goals of copyright law because it makes a creative AI more valuable to its owner and thus most promotes the development of creative AIs. This would also be consistent with current principles of property ownership, such that the owners of chattel (including machines) are able to exploit their property, and it would not interfere with the transfer of personal property in the form of creative AIs.

Such an arrangement would not be without precedent, particularly with respect to copyright ownership where the Works Made for Hire doctrine allows an employer to be considered an author and to own copyright. 17 U.S.C. § 201(b) (2016). Indeed, in the U.S., non-human, artificial persons such as companies can already be authors under this doctrine.

Alternately, obvious ownership options other than the AI include the machine's owner, user, or programmer(s). In the present case, the current applicant, Stephen Thaler, is the owner of the AI that generated the CGW and should thus be the owner of any copyright. Stephen Thaler was also the AI's user and programmer. There is no other individual involved with the AI in the present case who would be an appropriate recipient of any copyright to the submitted CGW.

c. International Analogs

Providing copyright protection for CGWs would not be without precedent. The United Kingdom was the first jurisdiction to explicitly provide for copyright protection of CGWs. The Copyright, Designs and Patents Act 1998 ("CDPA") is the primary legislation for copyright law and it makes special provision for CGWs with different rules for authorship and copyright duration. These works are defined as those "generated by a computer in circumstances such that there is no human author of the work[s]." Copyright, Designs and Patents Act 1988, §178.

For CGW works, the CDPA provides that, "[i]n the case of a literary, dramatic, musical or artistic work which is computer-generated, the author shall be taken to be the person by whom the arrangement necessary for the creation of the work are undertaken." Copyright, Designs and Patents Act 1988, §9 (3). Since the enactment of the CDPA, jurisdictions such as Ireland, India

and New Zealand have followed the United Kingdom's lead in providing copyright protection for CGWs.

II. Problems with the Human Authorship Requirement

a. Policy Objections

The Human Authorship Requirement strongly discourages the use and development of creative AI. As a result of the Office's policies, CGWs in the United States now automatically enter the public domain and cannot receive copyright protection. As a result, even when an AI would be more efficient than a person, a person may need to be used to create a new work in order for copyright protection to subsist. This is a problematic state of affairs that will become even more inefficient once creative AI is able to routinely outperform people at certain creative acts. Advanced AI may result in significant and widespread social benefits assuming appropriate legal frameworks exist.

In addition, the Human Authorship Requirement is likely to lead to a state of affairs in which people inaccurately claim authorship for work done by machines. Anyone in control of an AI that has generated a CGW with value can register the work simply by listing themselves as an author. Indeed, it has previously been reported that intellectual property filings have not disclosed the fact creative works were CGWs. Ryan Abbott, *I Think, Therefore I Invent: Creative Computers and the Future of Patent Law*, 54 B. C. L. Rev. 1079–1126 (2016). The Office was only aware the present registration was a CGW because this was explicitly disclosed by the applicant. Had this not been disclosed at the time of registration, it would not have been challenged by the Copyright Office and it is unlikely a third-party would become aware of the work's AI origins. This policy encourages applicants to act dishonestly

to capture the value of CGWs. It also undermines the value of human authorship by allowing individuals to inaccurately claim they are authors.

b. Lack of Authority for the Human Authorship Requirement

I am aware of no U.S. statute that specifically addresses CGWs and copyright, or that explicitly requires an author to be a natural person. Indeed, as discussed earlier, non-human entities may be authors under, *inter alia*, the Works Made for Hire doctrine.

The Notice, and the Human Authorship Requirement, cite to dicta from over a hundred years ago to support the assertion that a human being has to create a work. Specifically, the Notice cites to the 1879 Trade-Mark Cases, 100 U.S. 82, 94 (1879), as well as to the 1886 case of *Burrow-Giles v. Sarony*, 11 U.S. 53, 58 (1884), in support of the Human Authorship Policy based on their references to “the creative powers of the mind” and “intellectual conceptions”. However, these cases did not consider whether AI could legally generate works eligible for copyright protection. Indeed, in the late 19th century, AI did not exist in any meaningful sense. The cameras of the time were tools that were incapable of functionally automating human creativity.

Today, it has now been well documented that machines are able to autonomously generate creative works, and to functionally automate human creativity. See, e.g., Ryan Abbott, *Artificial Intelligence, Big Data and Intellectual Property: Protecting Computer-Generated Works in the United Kingdom*, In RESEARCH HANDBOOK ON INTELLECTUAL PROPERTY AND DIGITAL TECHNOLOGIES (Tanya Aplin ed., Forthcoming 2019) <https://ssrn.com/abstract=3064213>. It is not at all clear that there is a mechanistic difference between how people and machines engage in creative acts that justifies different legal rules, and there is certainly not a functional difference that justifies different legal rules. Because copyright law is primarily functional in nature and

concerned with the generation of new works, it should be indifferent to whether people or machines are generating these works so long as copyright law achieves its objective of promoting the useful arts.

The Copyright Office is currently relying upon non-binding judicial opinions from the Gilded Age to answer the question of whether CGWs can be protected. If CWGs are to be prohibited, this should only be on the basis of sound public policy after serious consideration. Indeed, the U.S. Patent and Trademark Office has recently launched a request for comments on patenting artificial intelligence inventions, in part to create an appropriate policy for CGWs. Federal Register / Vol. 84, No. 166 / Tuesday, August 27, 2019 / Notices.

<https://www.federalregister.gov/documents/2019/08/27/2019-18443/request-for-comments-on-patenting-artificial-intelligence-inventions>

To the extent that the cases cited in the Notice have anything useful to offer with respect to CGWs, the relevant dicta is that just as the terms “Writings” have been construed flexibly in interpreting the Patent and Copyright Clause, so too should the term “Authors” be afforded the flexibility needed to effectuate constitutional purposes.

III. Conclusion

I submit the requested registration be granted because the Office’s Human Authorship Requirement is unconstitutional, does not further the goals of copyright law, and it is not supported by existing statutes or case law.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "R. Abbott", written in a cursive style.

Ryan Abbott
Attorney for Applicant

Date: May 27, 2020



Copyright Review Board

United States Copyright Office · 101 Independence Avenue SE · Washington, DC 20559-6000

February 14, 2022

Ryan Abbott, Esq.
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Los Angeles, CA 90025

Re: Second Request for Reconsideration for Refusal to Register A Recent Entrance to Paradise (Correspondence ID 1-3ZPC6C3; SR # 1-7100387071)

Dear Mr. Abbott:

The Review Board of the United States Copyright Office (“Board”) has considered Steven Thaler’s (“Thaler’s”) second request for reconsideration of the Registration Program’s refusal to register a two-dimensional artwork claim in the work titled “A Recent Entrance to Paradise” (“Work”). After reviewing the application, deposit copy, and relevant correspondence, along with the arguments in the second request for reconsideration, the Board affirms the Registration Program’s denial of registration.

I. DESCRIPTION OF THE WORK

The Work is a two-dimensional artwork, reproduced below:



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II. ADMINISTRATIVE RECORD

On November 3, 2018, Thaler filed an application to register a copyright claim in the Work. The author of the Work was identified as the “Creativity Machine,” with Thaler listed as the claimant alongside a transfer statement: “ownership of the machine.” In his application, Thaler left a note for the Office stating that the Work “was autonomously created by a computer algorithm running on a machine” and he was “seeking to register this computer-generated work as a work-for-hire to the owner of the Creativity Machine.” In an August 12, 2019, letter, a Copyright Office registration specialist refused to register the claim, finding that it “lacks the human authorship necessary to support a copyright claim.” Initial Letter Refusing Registration from U.S. Copyright Office to Ryan Abbott (Aug. 12, 2019).

Thaler subsequently requested that the Office reconsider its initial refusal to register the Work, arguing that “the human authorship requirement is unconstitutional and unsupported by either statute or case law.” Letter from Ryan Abbott to U.S. Copyright Office at 1 (Sept. 23, 2019) (“First Request”).¹ After reviewing the Work in light of the points raised in the First Request, the Office re-evaluated the claims and again concluded that the Work “lacked the required human authorship necessary to sustain a claim in copyright,” because Thaler had “provided no evidence on sufficient creative input or intervention by a human author in the Work.” Refusal of First Request for Reconsideration from U.S. Copyright Office to Ryan Abbott at 1 (March 30, 2020). The Office also stated that it would not “abandon its longstanding interpretation of the Copyright Act, Supreme Court, and lower court judicial precedent that a work meets the legal and formal requirements of copyright protection only if it is created by a human author.” *Id.* at 1–2.

Now, in a second request for reconsideration, pursuant to 37 C.F.R. § 202.5(c), Thaler renews his arguments that the Office’s human authorship requirement is unconstitutional and unsupported by case law. Letter from Ryan Abbott to U.S. Copyright Office (May 27, 2020) (“Second Request”). The Second Request repeats the same arguments from the First Request, largely advancing public policy arguments that the Office “should” register copyrights in machine-generated works because doing so would “further the underlying goals of copyright law, including the constitutional rationale for copyright protection.” Second Request at 2. In response to the Office’s citation of relevant case law addressing human authorship, Thaler asserts that “there is no binding authority that prohibits copyright for [computer-generated works],” *id.*; that copyright law already allows non-human entities to be authors under the work made for hire doctrine, *id.* at 4; and ultimately that the Copyright Office “is currently relying upon non-binding judicial opinions from the Gilded Age to answer the question of whether [computer-generated works] can be protected.” *Id.* at 7.

III. DISCUSSION

The Board accepts as a threshold matter Thaler’s representation that the Work was autonomously created by artificial intelligence without any creative contribution from a human actor: “As a general rule, the U.S. Copyright Office accepts the facts stated in the registration

¹ The top of the First Request is dated September 8, 2019, but the attorney’s signature bears a date of September 23, 2019.

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materials.” U.S. COPYRIGHT OFFICE, COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES § 602.4(C) (3d ed. 2021) (“COMPENDIUM (THIRD)”). But copyright law only protects “the fruits of intellectual labor” that “are founded in the creative powers of the [human] mind.” COMPENDIUM (THIRD) § 306 (quoting *Trade-Mark Cases*, 100 U.S. 82, 94 (1879)); *see also* COMPENDIUM (THIRD) § 313.2 (the Office will not register works “produced by a machine or mere mechanical process” that operates “without any creative input or intervention from a human author” because, under the statute, “a work must be created by a human being”). So Thaler must either provide evidence that the Work is the product of human authorship or convince the Office to depart from a century of copyright jurisprudence.² He has done neither.

Thaler does not assert that the Work was created with contribution from a human author,³ so the only issue before the Board is whether, as he argues, the Office’s human authorship requirement is unconstitutional and unsupported by case law. Currently, “the Office will refuse to register a claim if it determines that a human being did not create the work.” COMPENDIUM (THIRD) § 306. Under that standard, the Work is ineligible for registration. After reviewing the statutory text, judicial precedent, and longstanding Copyright Office practice, the Board again concludes that human authorship is a prerequisite to copyright protection in the United States and that the Work therefore cannot be registered.

The Copyright Act affords protection to “original works of authorship” that are fixed in a tangible medium of expression. 17 U.S.C. § 102(a). The phrase “original work of authorship” was “purposely left undefined” by Congress in order to “incorporate without change the standard of originality established by the courts under the . . . [1909] copyright statute.” H.R. REP. NO. 94-1476, at 51 (1976). The term is “very broad,” *id.* at 52, but its scope is not unlimited. Congress chose this language to encompass a smaller set of creative works than could be protected under the Constitution.⁴ Because of this gap, the Act leaves “unquestionably other

² Under the heading “Policy Objections,” the Second Request argues that denying copyright protection for machine-generated works will encourage individuals to “act dishonestly” and “inaccurately claim authorship for work done by machines.” Second Request at 5. The Board is unconvinced that applying existing case law will result in applicants committing fraud. The Copyright Act provides criminal penalties for anyone who “knowingly makes a false representation of a material fact in the application for copyright registration . . . or in any written statement tied in connection with the application.” 17 U.S.C. § 506(e). In addition, the Register of Copyrights has the authority to cancel any registration where the “material deposited does not constitute copyrightable subject matter” or “the claim is invalid for any other reason.” 17 U.S.C. § 410(b); *see also* COMPENDIUM (THIRD) § 1807. Applicants who mislead the Office do so at their peril.

³ Because Thaler has not raised this as a basis for registration, the Board does not need to determine under what circumstances human involvement in the creation of machine-generated works would meet the statutory criteria for copyright protection. *See* COMPENDIUM (THIRD) § 313.2 (the “crucial question” of human authorship is whether a computer is “merely being an assisting instrument” or “actually conceive[s] and execute[s]” the “traditional elements of authorship in the work”) (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)).

⁴ As the House Report explains, Congress selected the term to avoid confusion about how the scope of statutory protection compared with the scope of material the Constitution authorizes Congress to protect. H.R. REP. NO. 94-1476, at 51. Under the 1909 Copyright Act, protection accrued to “all the writings of an author,” which led to uncertainty about whether the scope of protected material under the law was “coextensive” with the “writings” of “authors” that the Constitution gives Congress the power to protect. H.R. REP. NO. 94-1476, at 51; *compare* 1909 Copyright Act, Pub. L. No. 60-349, § 4, 35 Stat. 1075, 1076 (1909) (“the works for which copyright may be secured under this Act shall include all the writings of an author”) *with* U.S. CONST. art I, § 8, cl. 8 (authorizing Congress

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areas of existing subject matter that this bill does not propose to protect but that future Congresses may want to.” *Id.* at 52.⁵

Courts interpreting the Copyright Act, including the Supreme Court, have uniformly limited copyright protection to creations of human authors. For example, in *Burrow-Giles Lithographic Co. v. Sarony*, a copyright defendant argued that photographs could not be protected by copyright because the statute at the time protected certain types of creations of an “author or authors” and “a photograph is not a writing nor the production of an author” because it is simply “a reproduction on paper of the exact features of some natural object or of some person.” 111 U.S. 53, 56 (1884). The Court rejected this argument, holding that an author is “he to whom anything owes its origin; originator; maker; one who completes a work of science or literature” and that photographs are “representatives of original intellectual conceptions of [an] author.” *Id.* at 57–59. In the opinion, the Court referred to “authors” as human. *See id.* at 58 (describing a copyright as “the exclusive right of a man to the production of his own genius or intellect”), 60–61 (citing as “instructive” a decision from England where justices described 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).⁶

The Court has continued to articulate the nexus between the human mind and creative expression as a prerequisite for copyright protection. In *Mazer v. Stein*, the Court cited *Burrow-Giles* for the proposition that a work “must be original, that is, the author’s tangible expression of his ideas.” 347 U.S. 201, 214 (1954). And in *Goldstein v. California*, the Court again cited *Burrow-Giles* for the proposition that “[w]hile an ‘author’ may be viewed as an individual who writes an original composition, the term in its constitutional sense, has been construed to mean an ‘originator,’ ‘he to whom anything owes its origin.’” 412 U.S. 546, 561 (1973). The Office is compelled to follow Supreme Court precedent, which makes human authorship an essential element of copyright protection.

In addition to the Supreme Court precedent, lower courts have repeatedly rejected attempts to extend copyright protection to non-human creations. For example, the Ninth Circuit held that a book containing words “‘authored’ by non-human spiritual beings” can only gain copyright protection if there is “human selection and arrangement of the revelations.” *Urantia Found. v. Kristen Maaherra*, 114 F.3d 955, 957–59 (9th Cir. 1997) (holding that “some element

“[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”).

⁵ For this reason, the Board rejects Thaler’s argument that the human authorship requirement is “unconstitutional” because registration of machine-generated works would “further the underlying goals of copyright law, including the constitutional rationale for copyright protection.” *See* Second Request at 1–2. Congress is not obligated to protect all works that may constitutionally be protected. “[I]t is generally for Congress,” not the Board, “to decide how best to pursue the Copyright Clause’s objectives.” *Eldred v. Ashcroft*, 537 U.S. 186, 212 (2003). The Board must apply the statute enacted by Congress; it cannot second-guess whether a different statutory scheme would better promote the progress of science and useful arts.

⁶ In this case, as well as a previous case, the Court suggested that the requirement that an “author” be human is required by the Constitution. *See Burrow-Giles*, 111 U.S. at 56 (describing beneficiaries of the Constitution’s intellectual property clause as “authors,” who are one of “two classes” of “persons”); *see also Trade-Mark Cases*, 100 U.S. 82, 94 (1879) (reading the Constitution’s grant of power to Congress to protect “writings” as extending “only as such [works] as are original, and are founded in the creative powers of the mind” or are “the fruits of intellectual labor”).

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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”). Similarly, 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.” *Naruto v. Slater*, 888 F.3d 418, 426 (9th Cir. 2018); *see also Kelley v. Chicago Park Dist.*, 635 F.3d 290, 304 (7th Cir. 2011) (rejecting a copyright claim in a “living garden” because “[a]uthorship is an entirely human endeavor” and “a garden owes most of its form and appearance to natural forces”) (internal citations omitted); *Satava v. Lowry*, 323 F.3d 805, 813 (9th Cir. 2003) (finding depictions of jellyfish not protected by copyright because material “first expressed by nature are the common heritage of humankind, and no artist may use copyright law to prevent others from depicting them”). These court decisions are reflected in the Office’s guidance in the *Compendium*, which provides examples of works lacking human authorship such as “a photograph taken by a monkey” and “an application for a song naming the Holy Spirit as the author.” COMPENDIUM (THIRD) § 313.2. While the Board is not aware of a United States court that has considered whether artificial intelligence can be the author for copyright purposes,⁷ the courts have been consistent in finding that non-human expression is ineligible for copyright protection.

Federal agencies have followed the courts. In the 1970s, questions about the impact of computing technology on the copyright system led to the creation of the National Commission on New Technological Uses of Copyrighted Works (“CONTU”). CONTU’s mandate was, in part, to study “the creation of new works by the application or intervention of [] automatic systems of machine reproduction.” National Commission on New Technological Uses of Copyrighted Works, Pub. L. 93-573, § 201(b)(2), 88 Stat. 1873, 1873 (1974). After conducting its review, CONTU determined that the existing judicial construction of “original work[s] of authorship” as requiring human authorship was sufficient to enable protection for works created with the use of computers and thus “no amendment [to copyright law] is needed.” CONTU, FINAL REPORT at 1 (1978). As CONTU explained, “the eligibility of any work for protection by copyright depends not upon the device or devices used in its creation, but rather upon the presence of at least minimal human creative effort at the time the work is produced.” *Id.* at 45–46 (noting that “[t]his approach is followed by the Copyright Office today”).

The CONTU Report mirrors the views of the Copyright Office. A decade before passage of the 1976 Copyright Act, the annual report of the Register of Copyrights considered when copyright protection could vest in expressive works created with a computer. The Register concluded that human authorship was required:

The crucial question appears to be whether the “work” is basically one of human authorship, with the computer merely being an assisting instrument, or whether the traditional element of authorship in the work (literary, artistic or musical

⁷ It appears, however, that the Eastern District of Virginia held that artificial intelligence systems cannot claim inventorship of patents. *Thaler v. Hirshfeld*, No. 1:20-cv-903, 2021 U.S. Dist. LEXIS 167393, at *16–18 (E.D. Va. Sep. 2, 2021) (concluding that under the Patent Act, “an ‘inventor’ must be a natural person” and upholding refusal of a patent application). Though the court’s opinion was based on construction of the Patent Act, rather than the Copyright Act, the similarity of the court’s statutory analysis to that in the copyright cases relied on by the Board supports the conclusion here.

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expression or elements of selection, arrangements, etc.) were actually conceived and executed not by man but by a machine.

U.S. COPYRIGHT OFFICE, SIXTY-EIGHTH ANNUAL REPORT OF THE REGISTER OF COPYRIGHTS FOR THE FISCAL YEAR ENDING JUNE 30, 1965, at 5 (1966).

For this reason, the *Compendium of U.S. Copyright Office Practices* — the practice manual for the Office — has long mandated human authorship for registration. After enactment of the 1976 Copyright Act, the second edition of the *Compendium* was updated to reflect the Office’s understanding that human authorship is required by the law. See U.S. COPYRIGHT OFFICE, COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES § 202.02(b) (2d ed. 1984) (“COMPENDIUM (SECOND)”) (“The term ‘authorship’ implies that, for a work to be copyrightable, it must owe its origin to a human being. Materials produced solely by nature, by plants, or by animals are not copyrightable.”), available at <https://www.copyright.gov/history/comp/compendium-two.pdf>. The current *Compendium* retains this requirement and articulates its application in multiple circumstances where non-human expression raises unique challenges. See COMPENDIUM (THIRD) §§ 709.1 (automated computer translations); 803.6(B) (derivative sound recordings made by purely mechanical processes); 805.4(C) & 806.4(C) (human performance required for choreography and pantomimes); 808.8(E) (human selection of color in colorized motion pictures); 906.8 (machine produced expression in visual arts works, such as linoleum flooring); 909.3(B) (x-rays and other medical imaging); 1006.1(A) (hypertext markup language if created by a human being “rather than a website design program”). Although no *Compendium* section explicitly addresses artificial intelligence, the Board concludes that Office policy and practice makes human authorship a prerequisite for copyright protection.

The Office’s position is supported by a recent report from the U.S. Patent and Trademark Office (“USPTO”) addressing intellectual property issues raised by AI. USPTO sought public comment on whether “a work produced by an AI algorithm or process, without the involvement of a natural person . . . qualif[ies] as a work of authorship” under the Copyright Act. U.S. PATENT AND TRADEMARK OFFICE, PUBLIC VIEWS ON ARTIFICIAL INTELLIGENCE AND INTELLECTUAL PROPERTY POLICY at 19 (2020), available at https://www.uspto.gov/sites/default/files/documents/USPTO_AI-Report_2020-10-07.pdf. In its summary of responses, USPTO noted that “the vast majority of commenters acknowledged that existing law does not permit a non-human to be an author [and] this should remain the law.” *Id.* at 20–21. The Board agrees.

Thaler’s secondary argument, that artificial intelligence can be an author under copyright law because the work made for hire doctrine allows for “non-human, artificial persons such as companies” to be authors, is similarly unavailing. See Second Request at 3–4. First, the Work is clearly not a work made for hire as defined in the Copyright Act. A work made for hire must be either (A) prepared by “an employee” or (B) by one or more “parties” who “expressly agree in a written instrument” that the work is for-hire. 17 U.S.C. § 101 (definition of “work made for hire”). In both cases, the work is created as the result of a binding legal contract—an employment agreement or a work-for-hire agreement. The “Creativity Machine” cannot enter

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into binding legal contracts and thus cannot meet this requirement.⁸ Second, the work-for-hire doctrine only speaks to the identity of a work's owner, not whether a work is protected by copyright. As explained above, the statute requires that a work contain human authorship. In sum, the Work is not a work made for hire because it is neither a "work of authorship" nor a work created "for hire."

Much of Thaler's second request amounts to a policy argument in favor of legal protection for works produced solely by artificial intelligence. He cites to no case law or other precedent that would undermine the Office's construction of the Copyright Act. Because copyright law as codified in the 1976 Act requires human authorship, the Work cannot be registered.

IV. CONCLUSION

For the reasons stated herein, the Review Board of the United States Copyright Office affirms the refusal to register the copyright claim in the Work. Pursuant to 37 C.F.R. § 202.5(g), this decision constitutes final agency action in this matter.



U.S. Copyright Office Review Board
Shira Perlmutter, Register of Copyrights
Suzanne Wilson, General Counsel and
Associate Register of Copyrights
Kimberley Isbell, Deputy Director of Policy and
International Affairs

⁸ Autonomous systems are not "artificial persons" because they lack legal personhood. *See* Nadia Banteka, *Artificially Intelligent Persons*, 58 HOUS. L. REV. 537, 593 (2021) (noting the "trend" across state and federal courts that legal personhood requires "that an entity be an aggregate of individuals [who] have legal personhood," as is true for corporations); *cf.* *Software Solutions Partners Ltd. v. H.M. Customs & Excise*, [2007] EWHC 971 [67] (Admin) (noting that "on current authority," "automated systems" could not enter contracts because "only a person with a 'mind' can be an agent in law").