



United States Copyright Office

JUN 05 2020

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Return this sheet if you request reconsideration.

How to request reconsideration:

- 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.**
- 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.

First Request for Reconsideration: The Registration Program Office considers the first request. If it upholds the refusal, you may submit a second request.

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 \$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.

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". The signature is fluid and cursive, with the first letter of the first name being a large, prominent capital "R".

Ryan Abbott
Attorney for Applicant

Date: May 27, 2020