UTRECHT JOURNAL OF
INTERNATIONAL AND EUROPEAN LAW

Copyright Denied for Generative AI: Remarks on *Thaler v Perlmutter*

CASE NOTE

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ubiquity press

ABSTRACT

In *Thaler v Perlmutter*, the United States District Court for the District of Columbia had to decide whether an artwork allegedly produced autonomously by an artificial intelligence ('AI') system was copyright subject matter. The Court held that a work must be a result of human authorship to receive copyright protection and therefore upheld the decision of the United States Copyright Office denying the registration of copyright for a piece of AI-generated visual art. The Court reached this conclusion considering the meaning of 'author' in the Copyright Act of 1976, the Copyright Clause in the United States Constitution, and prior judicial decisions dealing with non-human authorship.

The Court's constitutional analysis of the issue implies that the Copyright Act cannot be interpreted to protect AI-generated works and may suggest that Congress is constitutionally precluded from amending it to protect such works. This outcome would be inconsistent with the power of Congress under the Copyright Clause in the United States Constitution. Furthermore, despite the strong role of the economic incentive theory in United States copyright law, its use by the Court against the protection of AI-generated works overlooks the fact that the connection between this theory and human authorship is not exclusive.

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KEYWORDS:
Generative AI; human authorship; copyright law; Copyright Clause; incentive theory

TO CITE THIS ARTICLE:
Saleh Al-Sharieh, 'Copyright Denied for Generative AI: Remarks on *Thaler v Perlmutter*' (2025) 40(1) *Utrecht Journal of International and European Law* pp. 48–54. DOI: https://doi.org/10.5334/ujiel.644

I. INTRODUCTION

The ability of generative artificial intelligence ('AI') to produce human-like expressions has significantly increased in recent years.[1] Today, generative AI produces a wide variety of creative expressions including literary works, music, paintings, and computer programs.[2] This has already impacted some aspects of our lives in the information society and is expected to have further effect in the future.[3] For example, there are concerns associated with the widespread use of generative AI on the employment of knowledge workers.[4] From a legal perspective, the use of generative AI raises many legal issues that vary from one legal context to another, such as the admissibility of AI evidence in court proceedings and the protection of personal data.[5] In the realm of copyright law particularly, generative AI presents many questions relating to the copyrightability of AI-generated works, the ownership of the rights in AI-generated works if found copyrightable, the possible liability associated with training generative AI on copyright-protected works, and the infringement of copyright by AI outputs.[6]

In *Thaler v Perlmutter,*[7] the United States District Court for the District of Columbia had to decide specifically on whether AI-generated artistic works are copyright subject matter.[8] The Plaintiff Stephen Thaler applied to the United States Copyright Office ('Copyright Office') to obtain copyright registration for a piece of visual art, titled 'A Recent Entrance to Paradise' ('work').[9] Although the Plaintiff alleged that the work was authored autonomously by an AI computer system ('Creativity Machine'), he claimed copyright in the work as a work-for-hire because of his ownership of the Creativity Machine.[10] The Copyright Office, and later the Copyright Office Review Board, rejected the application since the author of the work was not a human being.[11]

The Plaintiff sought a judicial review of the decision on the grounds that it violated the Administrative Procedure Act for being '"arbitrary, capricious, an abuse of discretion and not in accordance with the law, unsupported by substantial evidence, and in excess of Defendants' authority"'.[12]

The Copyright Office and Shira Perlmutter, in her capacity as the Register of Copyrights and Director of the Copyright Office, ('Defendants') filed a cross-motion for summary judgment emphasizing the centrality of human authorship to copyright protection and accordingly denying the registrability of the work allegedly produced by a computer system autonomously.[13]

United States District Judge Beryl A. Howell found that the Defendants were right in rejecting the copyright registration of a work produced without any human contribution.[14]

II. HUMAN AUTHORSHIP AS A REQUIREMENT FOR COPYRIGHT PROTECTION

Under the United States Copyright Act of 1976,[15] a work must be produced by an author to qualify for copyright protection.[16] This is established by the statutory requirement of fixation of the work in a tangible form 'by or under the authority of the author' to be eligible for copyright.[17] The requirement for a work to have an author also originates from the Copyright Clause of the United States Constitution, which grants Congress the power '[t]o promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries'.[18] The Supreme Court of the United States ('Supreme Court') held that the beneficiaries of this clause were 'authors and inventors'.[19] Nonetheless, the Copyright Act does not define the word 'author'. Therefore, in *Thaler*, the only issue before the Court was whether a work generated by a computer system autonomously without any contribution from a human author was eligible for copyright protection.[20]

Judge Howell held that human authorship was the 'bedrock requirement of copyright' and, accordingly, the work was not copyright subject matter.[21] To reach this conclusion, the Judge considered the dictionary meaning of 'author', the legislative intent in the Copyright Act, the constitutional basis of copyright protection in the United States, and prior case law confirming human authorship as a requirement for copyright protection.

Considering the dictionary meaning of 'author' as a 'source' or 'creator' of intellectual works, Judge Howell presumed that such a creator needed to be a human to claim copyright protection, arguing that this presumption results from a long-standing understanding of the notion of authorship in copyright law in the United States.[22] For Judge Howell, protecting copyright in the Constitution as a form of property was meant to create an incentive for authors to produce and disseminate works in order to serve the public interest.[23] The Judge's reasoning continued that incentivization was inapplicable to non-human actors and, thus, they were excluded by design from the scope of copyright law.[24]

Furthermore, Judge Howell explained that an overlap between 'authorship' and 'human creation' existed in the 1909 Copyright Act, the predecessor of the Copyright Act of 1976, as it provided that only a 'person' can receive copyright protection for 'his work'.[25] The Judge held that this legislative intent of limiting copyright to works of human authorship was meant to remain unchanged in the Copyright Act, as evidenced by a congressional report, although the explicitly human-focused words from the 1909 Copyright Act were not maintained.[26]

Although agreeing with the Plaintiff on the ability of the Copyright Act to cope with technological developments and survive the passage of time, Judge Howell emphasized that human authorship continued to be the cornerstone of copyrightability even as technology progressed to shape the means for the creation and dissemination of works.[27] In support, the Judge cited the Supreme Court decision in *Sarony*, which upheld the copyrightability of photographs due to the intellectual and controlling role of the human photographer in their creation despite the use of a camera.[28] The Judge also cited other cases where courts had denied an animal the statutory standing to sue under the Copyright Act, excluded a cultivated garden shaped by the power of nature from copyright protection, and recognized copyright in a work claimed to be the product of a celestial being only when the work contained enough expressions of human creativity supporting a finding of human authorship.[29]

III. REFLECTIONS ON THE COURT'S RATIONALE

Although not stated explicitly by Judge Howell, by holding that the copyright incentive articulated in the Copyright Clause was not meant to be applicable to non-human actors, the Judge's constitutional analysis of the issue implies that human authorship is one of the limitations in the Copyright Clause in the United States Constitution. Accordingly, the Copyright Act cannot be interpreted to protect AI-generated works and Congress is constitutionally precluded from amending it to protect such works. However, the drafters of the Copyright Clause did not codify a natural right of copyright for authors but laid the foundation for a mechanism to be created by Congress as an incentive for authors to engage in intellectual creation.[30] In *McClurg v Kingsland*,[31] the Supreme Court explained that 'the powers of Congress to legislate upon the subject of patents is plenary by the terms of the Constitution ....'[32] Congress has the same legislative power over copyright.[33] Hence, it has in principle the power to amend the Copyright Act to include new copyright subject matter. Nonetheless, an amendment of the Copyright Act to cover AI-generated works would raise the constitutional question of whether the copyright protection of AI-generated works would be consistent with, or instead defeat, the purpose of the Copyright Clause, for '[t]he congressional power to grant monopolies for "Writings and Discoveries" is [...] limited to that which accomplishes the stated purpose of promoting "the Progress of Science and useful Arts"'.[34] A definite answer to this inquiry requires sufficient empirical evidence, which is currently not available.

Furthermore, Judge Howell emphasized that AI systems as non-human actors cannot be incentivized and, hence, they were not meant to fall within the scope of the Copyright Act. The economic incentive theory is the predominant justification for copyright in the United States.[35] However, it is not necessarily a valid argument against the copyright protection of AI-generated works because its connection with human authorship is not exclusive. As a justification for copyright, the economic incentive theory is utilitarian in that its ultimate purpose is to encourage the production and dissemination of intellectual works for the benefit of society.[36] The Supreme Court explained that '[w]hen technological change has rendered [the Copyright Act's] literal terms ambiguous, [the Act] must be construed in light of this basic purpose'.[37] Human authors are indeed one actor targeted by the economic incentive of copyright, but copyright owners and intermediaries are equally important stakeholders in the copyright system, and stimulating their participation in it is essential for its sustainability.[38] An act of authorship is often enabled by the availability of someone willing to financially invest in the creation of a work in exchange for copyright.[39] Given the significant role of non-human legal persons in the production and dissemination of works, insisting on human authorship in this context seems to be an issue of form rather than substance,[40] unless protecting AI-generated works by copyright is found to undermine the incentive for human authors to produce works or proven to stifle the achievement of the constitutional purpose of advancing science and arts. Admittedly, some concerns exist in this regard. For example, there are concerns that generative AI may threaten the profession of composers and lyricists and that recognizing a legal personality for AI systems would have a chilling effect on incentivizing human authors.[41]

The essential role of non-human legal persons in the production and dissemination of works is best addressed in the Copyright Act under the work-for-hire doctrine whereby they can be deemed 'authors' and 'owners' of a copyrighted work if the statutory conditions of the work-for-hire doctrine are met.[42] For example, a corporation can be the first author and owner of the copyright in the works produced by its employees in the course of their employment.[43] It is true that the first creator of such a work is a human, but human authorship here serves no function but to pave the way for a person other than the actual author, possibly a non-human legal person, to reap the economic benefits of copyright, especially since the human author does not have moral rights.[44] Through this lens, the Plaintiff's argument that he was entitled to register the work as the owner of the copyright, which was transferred to him from the computer system by virtue of the Copyright Act's work-for-hire doctrine or common law property principles, appears relevant and not necessarily an approach that 'put the cart before the horse', as Judge Howell described it.[45]

Notably, efficiency is an important rationale for the work-for-hire doctrine,[46] but whether the protection of AI-generated works under United States copyright law would

achieve or decrease efficiency is a question that requires an empirical investigation. The answer will certainly enrich the debate regarding the copyright protection of AI-generated works given the normative effect of efficiency in the United States copyright system.[47]

IV. SIGNIFICANCE AND IMPLICATIONS

The outcome of this case may have significant implications for the AI industry and the future development of copyright law in the United States. First, as Judge Howell held that copyright would not extend to cover works generated by any technology 'absent any guiding human hand',[48] firms using autonomous AI systems to produce intellectual works will have to search for means of protection other than copyright, such as secrecy, to protect AI-generated works in the United States.[49] In economic terms, this may increase the transaction costs of the United States innovation system as AI becomes ubiquitous in firms' business processes, products, and services.[50] Also, AI firms would be inclined to adopt innovation strategies based on closed innovation models rather than open innovation paradigms given the difficulty of the internal and external sourcing of AI-generated innovations in the absence of copyright and other formal types of intellectual property protection.[51]

Second, despite the certainty that this decision brings to the scope of the Copyright Act's subject matter in the AI era, if the approach adopted in *Thaler* is to persist, a foreign jurisdiction protecting AI-generated works could have a legal competitive advantage over United States law in attracting AI investments.[52] For instance, the United Kingdom (UK) Copyright, Designs and Patents Act[53] defines a 'computer-generated work' as the work 'generated by computer in circumstances such that there is no human author of the work.'[54] It considers an author of this type of work 'the person by whom the arrangements necessary for the creation of the work are undertaken'[55] and, hence, this person is the first owner of the copyright in the work.[56] The UK Intellectual Property Office has confirmed the copyright protection of AI-generated works in UK copyright law but concluded in a study that the intellectual property system is not a major factor in AI-related investment decisions.[57] Canada is another example of a jurisdiction where copyright registration can be obtained for AI-generated outputs at the moment. In 2021, the Canadian Intellectual Property Office accepted the copyright registration of an AI-generated image titled 'SURYAST'.[58] However, this registration is being challenged before the Federal Court of Canada.[59] Indeed, when considering the copyright protection of AI-generated works as a regulatory competitive advantage, it is worth noting that there are other jurisdictions besides the United States similarly deny AI-generated outputs copyright protection. For instance, in the Czech Republic, the Municipal Court of Prague refused to recognize copyright in an image produced by an AI-image creator because it was not 'a unique result of the creative activity of a natural person'.[60] Also, the South Korean Ministry of Culture, Sports and Tourism along with the South Korean Copyright Commission issued a guide explaining that AI outputs without a human contribution are not eligible for copyright protection in South Korea.[61] Furthermore, in China, the Beijing Internet Court found a picture of a woman produced using a generative AI model to be a work protected by Chinese copyright law.[62] However, the Beijing Internet Court reached this conclusion upon finding the work to reflect an original intellectual achievement that could be attributed to a natural person, in addition to being expressed in a certain form of art.[63] Particularly, the Court explained that during the use of the generative AI model to produce the picture, the Plaintiff exercised personal and non-mechanical 'intellectual investment' including 'designing the presentation of the character, selecting the prompt words, arranging the order of the prompt words, setting parameters, and selecting the picture that he wanted.'[64] Therefore, the Court found the picture to embody the Plaintiff's 'personalized expression', which qualified him as the author of the picture and owner of copyright.[65]

Third, owners of autonomous AI systems that produce intellectual works may describe them as AI-assisted works to increase the chances of securing copyright registration and protection. Judge Howell refused to rule on the copyrightability of the work 'A Recent Entrance to Paradise' as an AI-assisted work. The Judge noted that the Plaintiff's assertion that he had directed and controlled the actions of the computer system that produced the work contradicted his initial claim before the Copyright Office that the work had been produced autonomously by the computer system.[66] Nonetheless, Judge Howell, in dicta, highlighted some of the legal questions relating to the assessment of the copyrightability of AI-assisted works including the standard for assessing human authorship and originality in this context.[67] Answers to some of those questions have already emerged. For example, the Review Board of the Copyright Office has affirmed the refusal of the application to register an artwork titled 'Théâtre D'opéra Spatial' on the grounds that it included 'more than a de minimis amount' of content generated by an AI application that the applicant refused to disclaim in the copyright registration application.[68]

V. CONCLUSION

At a time when the ability of generative AI applications to enrich culture with high quality intellectual works rapidly improves, the Court's decision in *Thaler* stands as the most explicit and recent judicial confirmation of the centrality of the human author to copyright law in

the United States. It is a clear reminder of the extent to which the issues relating to the copyright protection of AI-generated (or assisted) works are intertwined with the proper interpretation of the scope of the Copyright Clause in the United States Constitution. It is also an illustration of the difficulty of adjudicating AI issues under the umbrella of copyright law without disturbing the coherence of its theoretical underpinnings. As legislators and courts in the United States and around the world embark on tackling the uncertainties generative AI raises for copyright law, it is certain that copyright law is on the verge of a new stage in its evolution.

NOTES

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7 *Thaler v Perlmutter*, 687 F Supp 3d 140 (DDC 2023), (appeal filed, No 23–5233 (DC Cir October 18, 2023).

8 ibid 142.

9 ibid.

10 ibid 142–43.

11 ibid 143–44.

12 ibid 144.

13 ibid 142.

14 ibid 150.

15 Copyright Act of 1976, 17 USC § 101 et seq (2018) (Copyright Act).

16 *Thaler* (n 7) 147.

17 ibid 146–47, citing Copyright Act, §102(a) (identifying copyright subject matter) and § 101 (defining the requirement of fixation).

18 US CONST art I, 8, cl 8.

19 *Burrow-Giles Lithographic Co v Sarony*, 111 US 53, 56 (1884).

20 *Thaler* (n 7) 142.

21 ibid 146.

22 ibid 147.

23 ibid.

24 ibid.

25 ibid.

26 ibid 147–48.

27 ibid 146.

28 ibid, citing *Sarony* (n 19) 59–60.

29 *Thaler* (n 7) 148–49, citing *Naruto v Slater*, 888 F3d 418, 420 (9th Cir 2018); *Kelley v Chicago Park District*, 635 F3d 290, 304–06 (7th Cir 2011); *Urantia Found v Kristen Maaherra*, 114 F3d 955, 958–59 (9th Cir 1997).

30 *Wheaton v Peters*, 33 US 591, 661 (1834); *Eldred v Ashcroft*, 537 US 186, 236 (2003) (Justice Stevens, dissenting).

31 *McClurg v Kingsland*, 42 US 202 (1843).

32 ibid 206. See also (n 34).

33 *Fox Film Corp v Doyal*, 286 US 123, 131 (1932).

34 *Lee v Runge*, 404 US 887, 890 (1971). See also Michael H Davis, 'Extending Copyright and the Constitution: "Have I Stayed Too Long?"' (2000) 52 Fla L Rev 989, 1008–19 (discussing the constitutional limits in the Copyright Clause); Senator Orrin G Hatch and Thomas R Lee, '"To Promote the Progress of Science": The Copyright Clause and Congress's Power to Extend Copyrights' (2002) 16 JOLT 1, 7 (challenging the view that the words to 'promote the progress of science' as used in the Copyright Clause 'are an empty preamble that lacks substantive content').

35 Estelle Derclaye, 'Eudemonic Intellectual Property: Patents and Related Rights as Engines of Happiness, Peace and Sustainability' (2012) 14 Vand J Ent & Tech L 495, 495. Nonetheless, some paternalistic rules in the Copyright Act seem inconsistent with the economic theory of copyright, which views authors as rational economic actors that can respond to the incentive of copyright. Kevin J Hickey, 'Copyright Paternalism' (2017) 19 Vand J Ent & Tech L 415, 415.

36 *Mazer v Stein*, 347 US 201, 219 (1954). See also Jane C Ginsburg and others, 'The Constitutionality of Copyright Term Extension: How Long is Too Long' (2000) 18 Cardozo Arts & Ent LJ 651, 676 (arguing that the 'Constitution's Copyright and Patent Clause is instrumentalist in wording').

37 *Twentieth Century Music Corp v Aiken*, 422 US 151, 156 (1975).

38 Samuelson, 'Allocating Ownership Rights in Computer-Generated Works' (n 6) 1227; David Nimmer, Elliot Brown and Gary N Frischling, 'The Metamorphosis of Contract into Expand' (1999) 87 Cal L Rev 17, 77.

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42 Copyright Act, §101 (defining the 'work for hire') and § 201(b) (allocating the deemed authorship and ownership rights in works made for hire).

43 Copyright Act, § 101(1) (listing works produced by employees in the course of their employment as works made for hire).

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45 *Thaler* (n 7) 145.

46 Fisk (n 44) 4.

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48 *Thaler* (n 7) 146.

49 Gregory Gerard Greer, 'Artificial Intelligence and Trade Secret Law' (2022) 21 UIC Rev Intell Prop L 252, 263; Saleh Al-Sharieh, 'Competitive Advantage in the International Market of Laws: The Case of Copyright Law' (2024) 33 Information & Communications Technology Law 115, 135.

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62 *Li v Liu*, Beijing Internet Court Civil Judgment (2023) Jing 0491 Min Chu No. 11279, 13 <https://english.bjinternetcourt.gov.cn/pdf/BeijingInternetCourtCivilJudgment112792023.pdf> accessed 20 August 2024.

63 ibid 10–11.

64 ibid 11–12.

65 ibid 15.

66 *Thaler* (n 7) 149.

67 ibid 149.

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COMPETING INTERESTS

The author has no competing interests to declare.

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TO CITE THIS ARTICLE:
Saleh Al-Sharieh, 'Copyright Denied for Generative AI: Remarks on *Thaler v Perlmutter*' (2025) 40(1) *Utrecht Journal of International and European Law* pp. 48–54. DOI: https://doi.org/10.5334/ujiel.644

Submitted: 11 June 2024 **Accepted:** 24 June 2025 **Published:** 21 August 2025