STAY ORIGINAL: ORIGINALITY DOCTRINE TO GUIDE AI COPYRIGHTABILITY ANALYSIS

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Abstract

The increasing prevalence of generative artificial intelligence ("AI") has introduced new legal and administrative complexities, particularly in copyright law. To address these challenges, the U.S. Copyright Office implemented a disclosure and disclaimer requirement for works containing AI-generated material. However, the approach of this requirement, rooted in the authorship doctrine, leaves more to be desired. It fails to account for the historically interwoven role of automation in facilitating human creativity. A more reliable and robust solution lies in embracing the originality doctrine, the very cornerstone of copyrightability analysis. Originality ensures that works reflect a minimal level of human intellectual conception and creativity prior to their registrability. By contrast, the authorship doctrine focuses on human involvement and control, creating an ineffective evaluation framework that fails to appreciate the relationship between creators and AI tools. Consequently, the current disclosure requirement is both overbroad—sweeping in works where AI is merely a tool for fixation—and underinclusive—ignoring circumstances where AI-generated material serves as the primary source of creative inspiration. A shift toward an originality-driven framework would better distinguish between works that truly merit protection and those that do not. Copyright law should embrace its foundational doctrines and recognize that creativity has always involved the interplay between human ingenuity and evolving technologies. There is nothing unoriginal about staying original.

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INTRODUCTION

The rise of generative artificial intelligence ("AI")[1] in the public consciousness has ushered in new legal issues and administrative challenges, one of which relates to the copyrightability of works containing AI-generated material.[2] In response, the U.S. Copyright Office ("Copyright Office") published a disclosure and disclaimer procedure ("disclosure requirement") that is rooted in copyright law's authorship doctrine. This Note argues that the Copyright Office's disclosure requirement for works containing AI-generated material should be guided by copyright law's originality doctrine rather than the authorship doctrine.

Part I of this Note outlines the context of the debate, which includes the background of the disclosure requirement, the two competing copyright doctrines that dominate this discussion—originality and authorship—and the evolution of automation. With this background, Part II introduces AI into the equation. Part II.A identifies the types of automation—expressive and non-expressive automation—and Part II.B articulates the three uses of the outputs from expressive automation tools. Part II seeks to circumscribe a more precise boundary of the types and uses of automation that should be relevant to copyright law in the age of artificial intelligence. Then, Part III uses those boundaries to demonstrate how the disclosure requirement is categorically overbroad and underinclusive. Finally, Part IV proposes a solution to address these issues: shifting the focus of analyzing the copyrightability of an AI-generated work from the authorship doctrine to the originality doctrine.

To be clear, this Note does *not* seek to identify the amount of originality needed to qualify an AI-generated work as copyrightable. Rather, it argues that the Copyright Office should take a different approach to its disclosure requirement. Additionally, this Note does not attempt to resolve the issue of whether non-humans (e.g., AI tools, machines, or animals) can be authors. Although often raised within the context of the copyrightability of AI-generated work, non-human authorship is a separate issue and should not be conflated with the issue of *approaching* the registration procedures of AI-generated works.[3] Finally, this Note acknowledges that even if all elements of

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[1] For the scope and arguments of this Note, the terms "generative AI" and "AI" hold the same meaning and will be used interchangeably.

[2] *The Legal Implications of Generative AI*, DELOITTE, https://www2.deloitte.com/us/en/pages/consulting/articles/generative-ai-legal-issues.html [https://perma.cc/Q3PH-276B].

[3] *See Artificial Intelligence and Intellectual Property: Part III – IP Protection for AI-Assisted Inventions and Creative Works: Hearing Before*

originality and human authorship are satisfied, other grounds (e.g., copyright infringement) may bar the copyrightability of AI-generated work. However, since issues regarding such bars are beyond the scope of this Note, any reference to the copyrightability of AI-generated work presupposes that there are no *other* bars on the registrability of the work unless otherwise stated.

I. BACKGROUND

A. COPYRIGHT OFFICE'S DISCLOSURE AND DISCLAIMER REQUIREMENT

In March 2023, the U.S. Copyright Office published a statement of policy: *Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence* (the "Guidance").[4] It established the application process ("disclosure requirement") for works containing material generated by AI ("AI-generated work").[5] The procedure was rooted in the "human authorship requirement" of copyright law.[6] It required applicants of such works to disclose certain information by completing the "Author Created" field to claim the selection, coordination, and arrangement of the human-authored content and to describe the AI-generated content.[7] The Copyright Office's main consideration of copyrightability for AI-generated works is "whether the AI contributions are the result of 'mechanical reproduction' or instead of an author's 'own original mental conception, to which [the author] gave visible form.'"[8]

The statement also defined "expressive material" as "AI output that, if it had been created by a human, would fall within the subject matter of copyright as defined in section 102 of the [Copyright] Act."[9] As an example, the Copyright Office suggested that, in the

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the Subcomm. on Cts., Intell. Prop. & the Internet of the H. Comm. on the Judiciary, 118th Cong. 2–7 (2024) (statement of Professor Kristelia García, Professor of Law, Georgetown University Law Center); Universal Music Group, Comment to U.S. Copyright Office Notice of Inquiry, Artificial Intelligence & Copyright, Docket No. 2023–6 (Oct. 30, 2023), https://www.regulations.gov/comment/COLC-2023-0006-9014 [https://perma.cc/EG8E-WH7R].

[4] U.S. Copyright Office, Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence, 88 Fed. Reg. 16190 (Mar. 16, 2023) (to be codified at 37 C.F.R. pt. 202).

[5] *Id.* at 16191.

[6] *Id.*

[7] *Id.* at 16193.

[8] *Id.* at 16192.

[9] Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence, 88 Fed. Reg. at 16191.

context of poems, the "expressive elements" of a work include its "rhyming pattern," the selection of "the words in each line," and the "structure of the text."[10] If "an AI technology determines the expressive elements of its output," the generated material "[will] not [be] protected by copyright and must be disclaimed in a registration application."[11]

In August 2023, the Copyright Office published a notice of inquiry ("Notice") and requested comments on "the appropriate levels of transparency and disclosure with respect to the use of copyrighted works, and the legal status of AI-generated outputs," among other issues.[12] The Notice noted that in a 2022 copyright registration application, the Copyright Office determined that where a human author lacks sufficient creative control over the AI-generated components of a work, the human is not the "author" of those components for copyright purposes.[13] The Notice also acknowledged a warning from then-Register of Copyrights Barbara Ringer, one of the principal architects of the 1976 Copyright Act, that the Copyright Office could not take a "categorical position" and deny registration "merely because a computer may have been used in some manner in creating the work."[14]

Finally, for purposes of the Notice, AI was defined as a "general classification of automated systems designed to perform tasks typically associated with human intelligence or cognitive functions" and employ "machine learning." Machine learning is defined as "the ability to automatically learn and improve" based on "data or experience, without relying on explicitly programmed rules," and involves "ingesting and analyzing materials," "obtain[ing] inferences about qualities of those materials," and "using those inferences to accomplish a specific task."[15]

B. THE ORIGINALITY AND AUTHORSHIP DOCTRINES

Under the Copyright Act, "[c]opyright protection subsists . . . in *original* works of *authorship* fixed in any tangible medium of expression."[16] As such, originality and authorship are foundational requisites for copyrightability. Generally, arguments about whether AI-generated works can be registered are framed under either the doctrine of originality (whether there is sufficient originality) or

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[10] *Id.* at 16192.

[11] *Id.*

[12] U.S. Copyright Office, Artificial Intelligence and Copyright, 88 Fed. Reg. 59942 (Aug. 30, 2023).

[13] *Id.*

[14] *Id.*

[15] *Id.*

[16] 17 U.S.C. § 102(a) (emphasis added).

authorship (whether the author is human). While both doctrines—originality and authorship—are correlated and often interdependent, parties arguing against copyrightability for AI-generated material have focused on authorship, while parties arguing for copyrightability emphasize originality. For example, Professor Sandra Aistars, arguing for the copyrightability of AI-generated materials, framed her argument under originality, stating that "[i]f a work created with the assistance of []AI is the product of an author's own *intellectual conception*, it should enjoy copyright protection."[17] On the other hand, Universal Music Group ("UMG") relies on the authorship doctrine to argue against the copyrightability of AI-generated work, stating that "UMG does not believe that a human being using a generative AI system can qualify as the author of outputs of that system, because the output is never copyrightable."[18] Likewise, Professor Kristelia García argues that "works wholly or substantially generated by AI do not merit copyright protection" because "AI does not meet the statutory definition of an 'author'. . . ."[19]

1. *Originality: "Intellectual Conceptions" and "Creativity"*

The originality doctrine is a fundamental principle of copyright law that explores the requisite intellectual conception of a work and whether the work possesses a modicum of creativity sufficient for copyright protection. In 1879, in *Trade-Mark Cases*, the Supreme Court held that for a work to be copyrightable, it must be "*original*, and . . . founded in the *creative* powers of the mind."[20] The Court reasoned that the author's writing was protected because it was "the fruits of intellectual labor."[21] In *Burrow-Giles Lithographic Co. v. Sarony*, the Supreme Court extended copyright protection over any subject matters "so far as they are representatives of *original intellectual conceptions* of the author."[22] In contrast, "mere mechanical reproduction" falls outside the constitutional protection of the Copyright Clause.[23] In the well-known 1991 case of *Feist*

[17] *See Artificial Intelligence and Intellectual Property: Part III – IP Protection for AI-Assisted Inventions and Creative Works: Hearing Before the Subcomm. on Cts., Intell. Prop. & the Internet of the H. Comm. on the Judiciary*, 118th Cong. 2–7 (2024) (statement of Professor Sandra Aistars, Clinical Professor, George Mason University, Antonin Scalia Law School) (emphasis added).

[18] Universal Music Group, *supra* note 3, at 75.

[19] García, *supra* note 3, at 3.

[20] *See In re* Trade-Mark Cases, 100 U.S. 82, 94 (1879).

[21] *See id.*

[22] Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 58 (1884).

[23] *Id.* at 59.

Publications, Inc. v. Rural Telephone Service Co., the Supreme Court pursued the line of reasoning of originality by holding that copyright protection extends to "*the fruits of intellectual labor*" that are "founded in the creative powers of the mind."[24] More importantly, *Feist* rejected the "sweat of the brow" theory.[25] Instead, *Feist* declared that copyrightability requires a "modicum of creativity,"[26] strengthening originality as the touchstone of creativity, and creativity as a bedrock principle of copyright law.

2. *Authorship: Human Being and Control*

The authorship doctrine—which has been invoked more often in the last decade—relates to human involvement and control. In 2018, the Ninth Circuit in *Naruto v. Slater* held that a monkey who took selfies with a camera is not an author under the Copyright Act, applying textualism to conclude that only humans can be considered authors under the Copyright Act.[27] The trial court relied on the language of past cases where "the Supreme Court and Ninth Circuit have repeatedly referred to 'persons' or '*human beings*' when analyzing authorship under the Act."[28] Cases like *Naruto* form a symbiotic relationship with the U.S. Copyright Office's position—as published in its Compendiums—that only humans can be authors.[29]

The second element of authorship is control, which relates to an author as "the originator or the person who causes something to come into being," "the person with *creative control*,"[30] or "the inventive or master mind" of the work.[31] In early 2022, computer scientist Steven Thaler's registration for his AI-generated painting, *A Recent Entrance to Paradise*, was rejected because it had insufficient contribution from a human author.[32] Thaler appealed the decision to

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[24] Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 346 (1991).

[25] *Id.* at 353–54.

[26] *Id.* at 346.

[27] Naruto v. Slater, 888 F.3d 418 (9th Cir. 2018) (finding that a monkey who took selfies with a camera lacked standing to sue under the Copyright Act).

[28] Naruto v. Slater, No. 15-CV-04324-WHO, 2016 WL 362231, at *3 (N.D. Cal. Jan. 28, 2016), *aff'd*, 888 F.3d 418 (9th Cir. 2018).

[29] U.S. Copyright Office, Compendium of U.S. Copyright Office Practices § 306 (3d ed. 2021).

[30] Jefri Aalmuhammed v. Spike Lee, 202 F.3d 1227, 1232–33 (9th Cir. 1999).

[31] Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 61 (1884).

[32] *See* U.S. Copyright Office Review Board, Second Request for Reconsideration for Refusal to Register a Recent Entrance to Paradise (Feb. 14, 2022).

the district court, which agreed with the Copyright Office's decision and reasoned that "[h]uman involvement in, and ultimate creative control over, the work . . . was key" to determining its copyrightability; the U.S. Court of Appeals for the District of Columbia Circuit affirmed the decision on the same grounds.[33]

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The originality doctrine and the authorship doctrine form the legal basis for the arguments around the copyrightability of AI-generated work. As this Note will eventually demonstrate, artificial intelligence is not a novel technology in the production of creative works. The subsequent section uses the evolution of music production to illustrate the use of AI in producing creative outputs. Additionally, exploring the process of electronic music production provides a tangible example of the process of producing a creative and copyrightable work, which can then be used to expose the deficiencies of the approach that the Copyright Office has deployed to determine whether a work containing AI-generated material may be afforded copyright registration.

C. EVOLUTION OF AUTOMATION

While generative AI tools have garnered much public attention in recent years, automation has been commonly used and embraced in various domains, such as music production.[34] Automation is especially prevalent in genres such as electronic dance music, where repetition of musical elements (e.g., four-to-the-floor) and manipulation of digital signals to create new synthetic sounds (e.g., oscillation) are celebrated. This section charts the four waves of automation in electronic music production. In doing so, it illustrates the significance of AI tools within the broader history of an artistic process. To a certain extent, this framework can be applied to many other types of copyrightable works beyond music.

1. *First Wave: Hardware Automation*

The first wave involves hardware automation. This type of automation generally utilizes external devices to trigger and modify

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[33] Thaler v. Perlmutter, 687 F. Supp. 3d 140, 146 (D.D.C. 2023), *aff'd,* No. 23-5233, 2025 WL 839178 (D.C. Cir. Mar. 18, 2025).

[34] *The State of AI in 2023: Generative AI's Breakout Year*, MCKINSEY & CO. (Aug. 1, 2023), https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai-in-2023-generative-ais-breakout-year [https://perma.cc/2S93-HAHA].

a musical signal to output new elements based on the input. An example is the use of a guitar pedal to trigger the effect of an arpeggiator, where triggering a single note or chord will output a rhythmic sequence of notes that complements the triggered note.[35] The guitarist can change musical elements of the arpeggiator effect (such as tempo, pattern, and range) by *physically* turning knobs on the hardware.[36] Guitar pedals have been, and continue to be, a part of the creative process that the Copyright Office acknowledges.[37]

2. *Second Wave: Digitization*

The second wave involves the digitization of automation hardware from the first wave. The mid-1990s ushered in the age of digitization, when music started becoming produced on digital audio workstations ("DAWs"), such as Pro Tools, Logic Pro X, or Cubase.[38] MIDI controllers, essentially digital keyboards, would be used as inputs to trigger virtual instruments ("VST") on the DAWs.[39] Likewise, the hardware used to automate musical outputs, such as the arpeggiator guitar pedal, became offered in a VST form.[40] Instead of turning physical knobs, musicians move virtual knobs with their computer mouse. Accordingly, in practice, digital music production generally involves a musician selecting a virtual instrument on their DAW, recording their MIDI performance, and modifying the MIDI input to their liking. They will then repeat the process multiple times, creating multiple tracks before exporting them as one music file, which becomes their song.[41]

VSTs could attempt to virtually emulate one instrument (e.g., a violin, a drum, a guitar) or could be a library of sounds (e.g., an Orchestra VST could have different sounds for each instrument in the orchestra). Most VSTs contain different patches. These patches

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[35] *Arpeggiators 101: How To Use Arps To Add Excitement And Depth To Songs*, NATIVE INSTRUMENTS (May 24, 2023), https://shorturl.at/o5hoN [https://perma.cc/6FC8-N3F3].

[36] *Id.*

[37] U.S. Copyright Office, *supra* note 4, at 16193.

[38] Paul Théberge, *The Network Studio: Historical and Technological Paths to a New Ideal in Music Making*, 34 SOCIAL STUD. SCI. 759, 759–60 (2004).

[39] *What Is VST?: A Comprehensive Guide To Virtual Studio Technology*, AUDIOPHILE ON (Nov. 14, 2024), https://www.audiophileon.com/news/vst-guide-to-virtual-studio-technology [https://perma.cc/RAF4-V4A9].

[40] *Id.*

[41] *See, e.g.,* MusicRadar Tech, *Avicii in the Studio - The Making of Dancing In My Head*, YOUTUBE (Sept. 3, 2012), https://youtu.be/-dIcuU58Oy8 [https://perma.cc/X9P5-L4Z4].

are either variations of one traditional instrument (e.g., "violin staccato," "violin vibrato," and "violin glissando") or a combination of multiple traditional instruments. For example, an "orchestra" patch may trigger the patches of "strings section," "brass section," and "woodwind sections."

3. *Third Wave: Randomization*

The third wave embraces randomization to produce expressive effects. While randomization has been featured in previous waves, the third wave's randomization is distinguishable by its powerful VST algorithms and the computing performance of users' hardware powering the DAWs. For VSTs that embrace modern randomization, the VST is a tool that creates new combinations of complex *patches*. Once the VST is loaded, the user simply hits *one* key on their MIDI keyboard to trigger the automation. An example of such a tool would be Sample Logic's VST, Morphestra, which randomly generates four different patches when a user clicks the button "RANDOM."[42] The underlying concept of this automation is like a first-wave arpeggiator, where the sequence generated from the automation is still based on the note triggered.[43] However, unlike first-wave arpeggiators, which only create new elements for *one* instrument (e.g., a guitar track), third-wave automation produces *every* core element of a completed song—such as the rhythm, harmony, and melody—by triggering just one key on the MIDI controller.

4. *Fourth Wave: Expressive Triggering*

The fourth wave focuses on expressively triggering automation. Instead of triggering an automation through a physical button or a mouse click, users trigger an automation through a more expressive manner. A non-music example would be triggering automation with Siri, where a user can change the light, music, and room temperature by saying, "Hey Siri, turn sleep mode on," instead of pressing a button on their phone.[44] Likewise, in the future, a VST such as Morphestra would foreseeably enable users to trigger automation through expressive word prompting. For instance, a user may create an "intense heartbreak song with orchestra and punk-rock vibes" merely by speaking those words, rather than by pressing a button labeled "random" until they stumble upon that desired sound

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[42] *Morphestra*, SAMPLE LOGIC, https://www.samplelogic.com/products/morphestra-2-for-kontakt-retail/ [https://perma.cc/XP98-STCL] .

[43] *See id.*

[44] *Siri*, APPLE, https://www.apple.com/siri/ [https://perma.cc/68PJ-ZUJP].

combination. While the copyrightability of the expressive prompts is a pending issue,[45] it is not one this Note seeks to address or resolve.

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As this Section has illustrated, the tools that automate many aspects of the creative production process blur the line between AI and non-AI automation. The subsequent Section draws a more precise boundary around the types and uses of automation which should implicate copyright law in the age of artificial intelligence.

II. TYPES AND USES OF AUTOMATION

This section first identifies the *types* of automation—by defining and distinguishing between expressive and non-expressive automation. Then, it identifies the *uses* of *expressive* automation. The types and uses of automation tools illustrate that approaching the copyrightability of AI-generated work by categorizing generative AI tools as a distinct and discrete class of automation does not advance the goals of copyright law. Rather, the Copyright Office should focus on the foundations of copyright law—such as the doctrines of originality and authorship—rather than the label of an automation tool (such as "generative AI").

A. TYPES OF AUTOMATION: EXPRESSIVE AND NON-EXPRESSIVE

Under the Copyright Office's Guidance, "expressive elements" resulting from automation are not registrable.[46] As such, it is beneficial to first categorize all automation tools into two main categories: expressive and non-expressive automation.

Expressive automation refers to a process that outputs original and expressive elements as defined by the Guidance.[47] These automation tools produce elements that "if [they] had been created by a human, . . . would fall within the subject matter of copyright as defined in section 102 of the [Copyright] Act."[48] For example, Midjourney, Morphestra, and ChatGPT would more likely be defined as expressive automation since the outputs they generate are,

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[45] *See, e.g.,* U.S. Copyright Office Review Board, *Second Request for Reconsideration for Refusal to Register Théâtre D'opéra Spatial* (Sept. 5, 2023) (creator of *Théâtre D'opéra Spatial*—the winning work of 2022 Colorado State Fair's annual fine art competition—argues that their creative prompts constitute sufficient creativity for copyrightability).

[46] U.S. Copyright Office, *supra* note 4, at 4.

[47] *See generally* U.S. Copyright Office, *supra* note 4.

[48] *Id.* at 7.

generally, sufficiently expressive to merit copyright protection had a human created them. Non-expressive automation refers to systems where non-expressive elements are produced as outputs. Examples of non-expressive automation include mechanical scraping of the internet, tabulating Excel sheets, snapping MIDI inputs to a grid in a DAW's piano roll, triggering a mechanical lighting sequence through *Siri*, and correcting an author's grammar with *Grammarly*.

B. USES OF THE OUTPUTS FROM EXPRESSIVE AUTOMATION

Merely identifying that an expressive automation tool had been used in creating a work should not be sufficient to disqualify a work from copyright registration. A registration specialist at the Copyright Office should still determine its *role* in the creation of the work for which copyright registration is sought. Section II.B outlines three relevant uses of expressive automation. These uses turn on whether the output of an AI is used for inspiration, fixation, or both.

1. *Output Used for Inspiration Only*

The first manner of use occurs where a creator uses expressive automation for inspiration only—a creator uses an expressive automation tool merely to generate output(s) for inspiration, in the same way a poet uses nature or music before their writing process.[49] After gaining inspiration, the creator will then begin their creation process without the aid of expressive automation.[50] In this case, under copyright law's idea-expression distinction,[51] the user's prompt would be considered an idea (and uncopyrightable), and the

[49] Dan L. Burk, *Thirty-Six Views of Copyright Authorship, by Jackson Pollock*, 58 HOUS. L. REV. 263, 311–12 (2020) ("Authors may be inspired by any of an infinite variety of creative influences—religious encounters, natural beauty, everyday occurrences—without the resulting expression being attributed to the external stimulus . . . [C]opyright law typically assumes that the passage of those creative influences through the artist's interpretation results in the artist adding creative originality to whatever is drawn from the initial source.").

[50] *Accord* Burk, *supra* note 49, at 317 ("[C]reators are influenced by myriad antecedent factors, including the expression fixed by their predecessors. Originality is in some way a conglomeration of antecedents refracted through the consciousness of the author.").

[51] Baker v. Selden, 101 U.S. 99 (1879) (where there exist only a very limited number of ways of expressing an idea, none of those expressions can enjoy copyright protection); *see also* 17 U.S.C. § 102(b) ("In no case does copyright protection for an original work of authorship extend to any idea . . .").

output would be a copyrightable expression had it been produced by a human.[52]

2. *Output Used for Fixation Only*

The second manner of use occurs where a creator uses expressive automation for fixation only—a creator conceptualizes their idea without any expressive automation tool but "fixes" their idea using only expressive automation.[53] For example, a composer identifies the tone and style of an output for a song. The composer then continuously hits "random" on Morphestra until it loads a new combination that aligns with the composer's intended sound.[54] The composer then exports that single-track file without any modification. For purposes of this Note, the term "fixation" shares the same meaning as the fixation requirement under the Copyright Act, [55] which has been interpreted to mean that the work must be embodied in a medium and remain thus embodied for a period of more than transitory duration.[56]

3. *Output Used for Inspiration and Fixation*

Under the third manner of use, the creator uses expressive automation to create an output for inspiration *and* fix the final output

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[52] *See Baker*, 101 U.S. at 107 (holding copyright protects the expression of an idea, but not the idea itself).

[53] Burk, *supra* note 49, at 289 ("[M]echanical or operational choices can be the basis for copyrightable originality."); *see also* Christine Haight Farley, *The Lingering Effects of Copyright's Response to the Invention of Photography*, 65 U. PITT. L. REV. 385, 445–46 (2004).

[54] Burk, *supra* note 49, at 289 ("The fact that the actual mechanics of the [production] process are physically executed by a machine does not negate the direct causal link between artist and the fixation of the work of authorship.").

[55] 17 U.S.C. § 102 ("Copyright protection subsists . . . in original works of authorship *fixed* in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.") (emphasis added).

[56] Cartoon Network, LP v. CSC Holdings, Inc., 536 F.3d 121, 127 (2d Cir. 2008) ("We believe that this language plainly imposes two distinct but related requirements: the work must be embodied in a medium, i.e., placed in a medium such that it can be perceived, reproduced, etc., from that medium . . . and it must remain thus embodied 'for a period of more than transitory duration' . . . .").

they seek to copyright. There are three scenarios from which such mixed uses of inspiration and fixation could arise.[57]

a. Linear Chronology: Human Breaks Causal Chain Between Inspiration and Fixation

The first scenario involves an expressive automation tool generating an output, and the human creator then independently creates a new work based on that inspiration using an expressive automation tool.[58] In this scenario, the human breaks the causal chain between inspiration and fixation and does not register the first output ("inspiration output") for copyright protection.[59]

b. Concurrent Chronology: No Human Break in Causal Chain Between Inspiration and Fixation

Under the second scenario, the creator triggers an output from an expressive automation tool without any prior intellectual conceptualization of their idea. However, the moment the automation tool creates the work, the creator decides that the materialized work is their idea. For example, a user may *mindlessly* prompt Midjourney to create a "photo in the style of Vincent van Gogh of a happy family playing with monkeys in a law school library." As soon as Midjourney renders its several outputs, the creator determines which one of them is nearest to what they had in mind.[60] Another example is when a musician starts recording sounds triggered on their DAW and continuously hits "random" on Morphestra until she hears a sound she likes. She stops the recording and then exports only the part that she desires.

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[57] For more scenarios from which such mixed uses of inspiration and fixation could arise, see Burk, *supra* note 49.

[58] *See* Burk, *supra* note 49, at 316–17 (providing an example and an accompanying authorship theory analysis related to the example).

[59] *See* Lawrence C. Becker, *Deserving to Own Intellectual Property*, 68 CHI.-KENT L. REV. 609, 614 (1993) (arguing that copyright authorship means the work "originates in the agent's labor—that its causal explanation is in some important sense traceable to the agent but not beyond").

[60] *See, e.g.*, Answer to Complaint at ¶ 86, Allen v. Perlmutter, No. 1:24-cv-02665 (D. Colo. Sept. 26, 2024). Implicit in the Copyright Office's argument for refusing registration is the view that Plaintiff Allen, who is challenging the denial of his copyright registration for a work rendered entirely with the AI text-to-image tool Midjourney, cannot demonstrate sufficient intellectual conception of the image, and relied heavily on Midjourney to inspire his creative process. Moreover, it is likely that at the time Allen used Midjourney, the tool imposed a 50-word prompt limit, further suggesting that Allen lacked sufficient creative control over the first output from which his subsequent iterations developed.

c. Reverse Chronology: Fixation Supersedes Inspiration

Under the final scenario, the creator triggers an output from an expressive automation tool without any prior conceptualization of their idea and continues not to have any conceptualization of their idea even after the output is created. However, after contemplating the output for a moment, the creator gets inspired by the output (already fixed in a tangible medium of expression), determines that it is a materialized version of their intellectual conception, and then seeks copyright registration on that output.[61]

III. PROBLEMS WITH THE DISCLOSURE REQUIREMENT

The disclosure requirement only requires registrants to disclose AI-generated works created *during the fixation* process, not the inspiration process.[62] This requirement is underinclusive and overbroad because it fails to consider types of automation (e.g., non-AI expressive automation) and how the tools were used (e.g., merely for inspiration).

A. CATEGORICALLY OVERBROAD

The disclosure requirement is categorically overbroad for two reasons: (1) it includes expressive automation used only for fixation, and (2) it includes non-expressive automation that is mischaracterized as AI tools.

1. *Includes Expressive Automation Used for Fixation Only*

A disclosure requirement focused on human authorship theory is overbroad because it will bar the copyright registration for an AI-generated work even though it is "the fruit[] of intellectual labor"[63] and contains more than a "modicum of creativity,"[64] merely because it was fixed by an AI tool. Works created by the second manner of use described in the previous section ("Output Used for *Fixation* Only") fall within this description. In contrast, the disclosure requirement will not prevent the registration of works under the first manner of use ("Output Used for *Inspiration* Only"):

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[61] *See* Burk, *supra* note 49, at 316 ("[A] causal chain tracing ideas past [the artist] does not change the origination of [their] expression, but a causal chain tracing expression past [the artist] means [they are] not the originator.").

[62] U.S. Copyright Office, *supra* note 4, at 5.

[63] *See In re* Trade-Mark Cases, 100 U.S. 82, 94 (1879).

[64] Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 340–41 (1991).

where the creator bears *de minimis* intellectual creativity because all conception of the idea was generated by an AI tool (as "inspiration") and the human merely copies and fixes that idea into a tangible medium. Put otherwise, the AI tool executes the intellectual creativity, and a human mechanically copies it onto a new medium for copyright registration. There, the Copyright Office does not require disclosure merely because the work submitted for registration was *not fixed* by an AI tool. A comparison of both use cases reveals that the disclosure requirement favors creators without "intellectual labor" and "a modicum of creativity" over those who had intellectual conception over the work for which registration is sought.[65] This requirement undermines the incentive structure of copyright law intended to encourage intellectual labor for the creation of useful work.

2. *Includes Mischaracterized Non-Expressive Automation*

Additionally, the disclosure requirement sweeps into scrutiny the use of non-expressive automation that inaccurately markets itself as an AI tool. With the growth in venture opportunities in artificial intelligence over the past years,[66] there is an incentive for companies to label their tools as AI, despite the lack of actuating AI technology.[67] A London venture capital firm managing £300 million found that 40% of cases purporting to use AI lacked evidence of AI use.[68] In February 2023, the Federal Trade Commission published guidance on the marketing of purported AI tools with respect to avoiding deceptive advertising.[69] Later that year, the FTC brought enforcement action against Automators AI for, *inter alia*, falsely

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[65] *See id*. at 340–48.

[66] *See generally* MCKINSEY & COMPANY, *supra* note 34.

[67] *See, e.g.*, Rachel Metz, *The Tropical Island With the Hot Domain Name*, BLOOMBERG (Aug 31, 2023, 10:00 AM), https://www.bloomberg.com/news/articles/2023-08-31/ai-startups-create-digital-demand-for-anguilla-s-website-domain-name [https://perma.cc/7ZSP-2ER4] (Observing the owner of top-level domain name ".ai" observed a surge in demand for its domain name in 2023).

[68] *See* Parmy Olson, *Nearly Half Of All 'AI Startups' Are Cashing In On Hype*, FORBES (Mar. 4, 2019, 7:10 PM), https://www.forbes.com/sites/parmyolson/2019/03/04/nearly-half-of-all-ai-startups-are-cashing-in-on-hype/?sh=389b8e02d022 [https://perma.cc/27J3-KBH5]. David Kelnar, head of research of the venture capital firm added, "companies that people assume and think are AI companies are probably not." *Id.*

[69] *See* Michael Atleson, *Keep Your AI Claims in Check*, FED. TRADE COMM'N. (Feb. 27, 2023), https://www.ftc.gov/business-guidance/blog/2023/02/keep-your-ai-claims-check [https://perma.cc/U2VZ-67WW].

claiming that their results were based on their product's "AI machine learning."[70]

Accordingly, non-expressive automation tools mislabeled as AI tools will fall under the disclosure requirement even though the user did not intend to use such tools for expressive outputs, nor were any expressive outputs, protectable under the Copyright Act, generated by these mislabeled tools. As such, in taking a categorical approach to "AI" works, the disclosure requirement is overbroad to include non-expressive automation mislabeled as AI tools.

B. CATEGORICALLY UNDERINCLUSIVE

The disclosure requirement is underinclusive for two reasons: (1) it fails to include the use of expressive automation tools that are not characterized as AI but can produce expressive work, and (2) it fails to include works fixed by a human but inspired entirely by AI.

1. *Overlooks Use of Unidentified Expressive Automation*

Conversely to the overbroad issue expressed above, the disclosure requirement is underinclusive because it does not require creators who use tools not marketed as AI to disclose AI-generated work, even if those tools produce expressive outputs that the creator seeks to register. In other words, expressive automation tools not defined as AI are not mandated to be disclosed.

For instance, the arpeggiator produces the "traditional elements of authorship in the . . . musical expression or elements of selection, arrangement."[71] As a text-generating technology that produces a poem with "rhyming pattern, the words in each line, and the structure of the text" would disqualify outputs from that technology from copyrightability, an arpeggiator that produces a musical track with rhythms, the notes in each bar, and the structure of each musical phrase should disqualify the output of an arpeggiator from copyrightability.[72] Yet, the disclosure requirement does not require arpeggiators or even more sophisticated expressive automation tools, such as Morphestra, to be disclosed because these tools are not labeled as AI technology.

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[70] *See* Lesley Fair, *For Business Opportunity Sellers, FTC Says "AI" Stands for "Allegedly Inaccurate,"* FED. TRADE COMM'N. (Aug. 22, 2023), https://www.ftc.gov/business-guidance/blog/2023/08/business-opportunity-sellers-ftc-says-ai-stands-allegedly-inaccurate [https://perma.cc/GAM6-4PGH].

[71] U.S. Copyright Office, *supra* note 4, at 3.

[72] *Id.* at 4.

2. *Overlooks Works Fixed by Humans, Inspired Entirely by AI*

The disclosure requirement also fails to require users who make outputs of AI-generated work for inspiration only but add less than a modicum of creativity to transform that output into a work fixed in a tangible medium. Since the disclosure requirement does not require registrants to disclose AI-generated works created *before* the fixation process, this user will not be scrutinized under the requirement despite not achieving the requisite originality requirement.[73]

IV. SOLUTION: ORIGINALITY DOCTRINE TO GUIDE REQUIREMENT

By focusing on originality, the disclosure requirement can resolve the overbroad and underinclusive issues. First, the originality doctrine helps to resolve the issue of human *involvement*. Second, the originality doctrine resolves the control requirement of human *authorship*. Resolving both issues would allow the disclosure requirement to be more narrowly tailored to advance the registration goals it seeks to achieve.

A. ORIGINALITY DETERMINES THE LEVEL OF HUMAN INVOLVEMENT OF AUTHORSHIP

The first major contention against the copyrightability of AI-generated work is that AI tools are not human, and since being human is required to satisfy the authorship requirement of copyrightability, AI-generated work cannot be copyrighted.[74] Resolving the question of whether non-humans (e.g., an AI tool, an animal) can be authors is necessary to confer copyright protection to non-humans. However, that resolution is irrelevant to whether a *human* interacting with a non-human may be conferred copyright protection over an AI-generated work.

Accordingly, the more relevant issue is the extent of human involvement (or intervention) with the non-human. Opponents of the copyrightability of AI-generated work acknowledge that, even where AI tools are involved, the expressive elements conceptualized by a human can still be copyrighted.[75] For example, Professor García clarified that "where a sufficient degree of human *intervention and contribution* can be shown, works partially generated by AI may be entitled to copyright protection" because the work still reflects the

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[73] *Id.* at 5.

[74] *See, e.g.*, *supra* notes 27–32.

[75] *See, e.g.*, Universal Music Group, *supra* note 3, at 79 (recognizing that "humans can add authorship to previously generated AI outputs . . . by adding expressive, copyrightable content.").

author's "original intellectual conception."[76] Likewise, in the Guidance, the Copyright Office states that the main consideration for works containing AI-generated work is "whether the AI contributions are the result of 'mechanical reproduction' or instead of an author's 'own original mental conception, to which [the author] gave visible form.'"[77]

Logically, if all the components of an AI-generated work reflect original intellectual conceptions of a human, the human should be afforded copyright protection over the AI-generated work. And since the copyrightability of AI-generated works turns on "original intellectual conception," the disclosure requirement should be focused on the human originality doctrine—involving sufficient intellectual conceptions and creativity—instead of the human involvement element of authorship doctrine, which entails human interaction with the AI tool.

Additionally, a focus on the extent of human originality complements a finding of human authorship. By identifying the human "intellectual conceptions" within AI-generated work, a Copyright Office registration specialist will inevitably infer the sufficiency of human intervention—where the AI tool is not solely responsible for producing the expressive elements of the work without human *intellectual* input. In other words, human authorship is merely an *outcome*, not the *cause*, of human creativity. However, an inquiry on authorship may negate a finding of sufficient originality for copyrightability because a registration specialist could conclude sufficient human intervention without identifying a lack of originality. Therefore, by focusing the disclosure requirement on originality, the Copyright Office would be able to identify the sufficiency of *both* authorship and originality requirements of the copyrightability of *any* work.

B. ORIGINALITY RESOLVES THE ISSUE OF CONTROL OF HUMAN AUTHORSHIP

The originality doctrine is compatible with the authorship doctrine's "control" element. Opponents of copyrightability of AI-generated work argue that creators of such work cannot enjoy copyright protection because the creator cannot *control* an AI tool, and therefore, the creator does not satisfy the control requirement of human authorship. However, the control element relates to the control over the *creation process* as a whole—from conceptualization to fixation to approval of the work being registered—not individual tools. For example, the copyrightability

[76] García, *supra* note 3, at 6 (citing Burrow-Giles, 111 U.S. at 58).
[77] U.S. Copyright Office, *supra* note 4, at 4.

of electronic music does not turn on whether a creator can control individual tools, such as the randomization feature in *Morphestra*. A consistent application of such a narrow interpretation of control would require an inquiry into control over *every* tool in the creation process, including non-expressive tools. Such an application of the control requirement is inconsistent with the traditional copyright registration process and the application of copyright law.

Therefore, the more accurate framing of control in the context of AI-generated works is whether the creator has *control* over determining that the final work (i.e., work seeking registration) has *completely manifested* from their original intellectual conception. It may require a creator 1,000 reiterative prompts or one prompt to arrive at the output before a creator's original conception is fixed by an AI tool. Since copyright law has explicitly rejected the physical "sweat of the brow" theory, what should matter is not the number of prompts or iterations.[78] Rather, the focus should be on whether the human conceptualized the idea, not the amount of physical labor it took to arrive at the fixation.

Furthermore, understanding the mechanism behind individual tools used in the creation process has not been, and should not be, grounds to bar copyright registration. The Copyright Office does not inquire into a user's understanding of non-AI functions of Photoshop, the mechanics behind auto-calculations of an animation software, nor the algorithm enabling Morphestra's generation of new combinations of patches. The traditional inquiry from the Copyright Office has been, and should continue to be, focused on the "author's 'own *original mental conception*.'"[79] Any concerns regarding the unpredictability of an AI's output can be overcome by inquiring whether the output reflected the human's original conception. If the output does reflect the human's *original* conception, then the tool functions *only* to fix the user's conception into a tangible medium, and the tool is merely a "mechanical reproduction" that is not barred even under the current Guidance.[80] If the output does not reflect the human's original conception, then, as with all other automation tools, the output would likely be barred from registration since the output could not be traced back to the human's original conception. Accordingly, the bar to copyrightability in such cases arises from the output's insufficient human original conception, not from a categorical rule against the copyrightability of AI-generated works. Therefore, focusing on originality aligns more closely with the Copyright Office's registration traditions and provides a more

[78] Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 340–41 (1991).

[79] U.S. Copyright Office, *supra* note 4, at 4.

[80] *Id.*

effective framework for determining the human element in authorship.

Finally, this reasoning is not inconsistent with the District Court's decision in *Thaler v. Perlmutter*. There, the Court decided against the copyrightability of the AI-generated work under a fact pattern where the human played no "controlling role in generating the work."[81] More importantly, the Court determined that the facts of the case were not "so complex" *because* Stephen Thaler did not have a controlling role in generating the work.[82] Additionally, the Court explicitly acknowledged that there will be "challenging questions regarding how much human input is necessary to qualify the user of an AI system as an 'author' of a generated work."[83]

Accordingly, if Stephen Thaler *had* control in generating the work, the Court may have thought that the case was more "complex," and would have considered "how much human input [would be] necessary to qualify the user of an AI system as an 'author' of a generated work."[84] Consequently, the Court may have then afforded Stephen Thaler authorship if Stephen Thaler's "human input" was deemed sufficient. Therefore, even under *Thaler v. Perlmutter's* reasoning, a human who creates a wholly AI-generated output may be afforded copyright protection to the work so long as there has been sufficient human input.[85]

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In sum, a focus on originality complements the human authorship doctrine and remains consistent with the traditions of the Copyright Office's registration process, the foundational copyright cases, and the federal judiciary's approach to dealing with AI-generated works.

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[81] Thaler v. Perlmutter, 687 F. Supp. 3d 140, 149 (D.D.C. 2023), *aff'd,* No. 23-5233, 2025 WL 839178 (D.C. Cir. Mar. 18, 2025) (holding that, on procedural grounds, Thaler's assertions that he "provided instructions and directed his AI to create the Work" and that "the AI is entirely controlled by [him]" cannot be considered).

[82] *Id.*

[83] *Id.*

[84] *Id.*

[85] *See also* Thaler v. Perlmutter, 130 F.4th 1039, 1049 (D.C. Cir. 2025) (In affirming the trial court, the Circuit Court reasoned that ". . . human authorship requirement does not prohibit copyrighting work that was made by or with the assistance of artificial intelligence. The rule requires only that the author of that work be a human being—the person who created, operated, or used artificial intelligence—and not the machine itself.").

CONCLUSION

The Copyright Office should focus on originality—rather than authorship—as the touchstone of its disclosure requirement for AI-generated work. A focus on authorship obfuscates the inquiry of originality necessary for the copyrightability of *any* work, and it misguides registration specialists into concluding that any work may not be copyrightable merely because it was outputted by an AI, even if there had been sufficient human authorship during its creation process.

However, a focus on originality reveals a creator's sufficiency of originality *and* authorship necessary for these creators to be afforded copyright protection. Such a focus increases the efficiency and accuracy of the copyrightability of any work.

The Copyright Office should heed Barbara Ringer's advice and not "take the categorical position that registration will be denied merely because a computer may have been used in some manner in creating the work."[86] As Ringer may have predicted, placing elevated registration requirements on a category of work merely for containing AI-generated material is overbroad and underinclusive. On the one hand, the requirement is overbroad by including the disclosure of permissible uses of AI and by including tools misidentified as AI. On the other hand, the requirement is underinclusive by excluding impermissible uses of AI and by excluding other non-AI tools that should trigger disclosure. Whether a tool ought to be scrutinized should turn on its ability to generate expressive outputs, not the extent to which it employs machine learning. Even if the Copyright Office were to take a categorical approach, considering that the Copyright Office's main concern is about the author's "own original mental conception,"[87] the relevant category is *expressive automation,* not *generative AI* (a subset of expressive automation).

A disclosure requirement that focuses on originality—original intellectual conceptions and a modicum of creativity—cures these issues. An inquiry of authorship—human involvement and creative control—does not identify the elements of originality. However, an originality inquiry identifies the elements of both originality *and* authorship. As Melville Nimmer astutely articulates it in his leading copyright treatise, "originality, then, may be said to be the essence of authorship."[88]

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[86] U.S. Copyright Office, *supra* note 11.

[87] U.S. Copyright Office, *supra* note 4, at 4.

[88] 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 1.06, LexisNexis (database updated Apr. 2024).