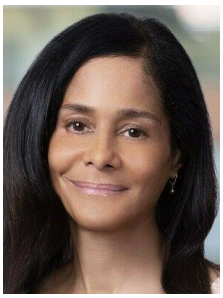
When Can Human Input Render AI Work Copyrightable?

By **Daphne Higgs, Aaron Rubin and Tessa Schwartz** (September 18, 2023)



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The U.S. District Court for the District of Columbia recently affirmed the U.S. Copyright Office's position that a work generated entirely by artificial intelligence technology is not eligible for copyright protection.

In the case of Thaler v. Perlmutter, Dr. Stephen Thaler had challenged the Copyright Office over its denial of his copyright registration application for an image known as "A Recent Entrance to Paradise." Thaler told the Copyright Office that the image was created solely by an AI tool called the "Creativity Machine" without any human authorship.

The August decision in Thaler is unlikely to have direct impact on a significant number of applications for copyright registration.

There are not many applicants trying to register works "autonomously created by a computer algorithm running on a machine" without any human authorship.

But the decision does leave open the question of how much human input is necessary to qualify the user of an AI system as the author of a generated work — a question the Copyright Office solicited public feedback on in a notice published in the Federal Register on Aug. 30.[2]

And on that question, the court's dicta suggests that some amount of human input into a generative AI tool could render the relevant human an author of the resulting output.

Here are the key takeaways from the decision.

First, a work generated entirely by AI is not eligible for copyright. The court stated that "human authorship is a bedrock requirement of copyright."

Second, the Copyright Act's "work made for hire" doctrine is not an exception to the human authorship requirement. Thaler unsuccessfully asserted that nonhuman authorship is already recognized in the work made for hire context, since in that context, copyright can vest in a nonhuman company in the first instance and not in the human author. Creativity Machine was, Thaler argued, like his employee, and any copyrights in the Creativity Machine's works should vest immediately in him. Neither the Copyright Office nor the district court was convinced.

And lastly, no court has squarely addressed whether — and if so, when — a human's use of generative AI tools to create content will result in a copyrightable work. Looking into the future, defendants accused of infringing works created using AI tools are bound to argue that the works are not protected by copyrights at all.[3]

The Impact of the "How Much Human Input" Issue

It is worth underscoring the impact that will result from the unaddressed issue of when a human is the author of an output they create using a generative AI tool.

In the software industry, for example, coding assistants such as GitHub Copilot, which can auto-complete code, are widely used to generate very large amounts of code.

Microsoft CEO Satya Nadella said last month that 27,000 companies are paying for a GitHub Copilot enterprise license.[4] In addition, many engineers use coding assistants without their employers paying for it — or even knowing about it.

As of February, GitHub announced that, for developers using Copilot, Copilot is behind 46% of the developer code across all programming languages and 61% of all code written in Java. Those percentages will only increase as these tools get better, and companies are currently competing to provide the go-to coding assistant tool that developers will use.

But if a company's developers are not the authors of the code they create using coding assistants, then that code will not be protected by copyright.

Given the volume of code generated through the use of such tools, as noted above, some companies may find themselves in the position of having no copyright protection for a significant portion of what they consider to be proprietary code.

Regardless of one's views on the extent to which copyright should protect software code, the fact that a significant amount of code created in the future may not be protected by copyright is important and underappreciated.

The issue of human authorship of works generated using AI tools should also be top of mind for both Hollywood studios and screenwriters. The Copyright Office has stated that copyright registration applicants must explicitly disclose and disclaim any copyright protection in content generated by AI tools that is more than de minimis.[5]

If Hollywood studios were to use generative AI tools to write scripts, the only aspects of those scripts that are likely to be protected by copyright — at least under the Copyright Office's current guidance — are the original expressive material contributed by screenwriters on top of that AI-generated base.

Given the billions of dollars at stake, it would be very surprising to see Hollywood studios taking that sort of gamble.

Thaler Court Analysis: Works of (Human) Authorship

The progress clause of the U.S. Constitution gives Congress the power to "promote the Progress of Science ... by securing for limited Times to Authors ... the exclusive Right to their ... Writings."

Pursuant to this authorization, according to Title 17 of the U.S. Code, Section 102(a), the Copyright Act extends copyrights to "original works of authorship fixed in any tangible medium of expression."

The Copyright Act defines neither "authorship" nor "works of authorship."

That said, according to Section 101, something cannot be a work of authorship without being the work of at least one author, if for no other reason than the work must be "fixed" in a tangible medium of expression "by or under the authority of the author."

The district court in Thaler reviewed the Copyright Office's refusal to register the work under the Administrative Procedure Act's arbitrary and capricious standard.

The court then gave four main reasons why only humans can be authors and why summary judgment for the Copyright Office was appropriate.

Precedent

Courts have never recognized copyright protection in works or elements of works that were not authored by humans, but there are a handful of cases where courts affirmatively refused to do so on the grounds that copyright only protects works of human authorship.

As one example of this, the district court pointed to the 1997 decision in Urantia Foundation v. Kristen Maaherra from the U.S. Court of Appeals for the Ninth Circuit.

In Urantia, the Ninth Circuit found a collection of "revelations" purportedly authored by divine beings copyrightable, but only as a compilation.

While the selection and arrangement of the "revelations" by humans met the "'extremely low' threshold level of creativity required for copyright protection," the individual "revelations" themselves were not "original" to any human author and thus were not copyrightable.

Some commentators have incorrectly taken Urantia to stand for the proposition that works by nonhumans can be copyrightable. But the only copyrightable aspect of the work in Urantia was the humans' selection and arrangement of nonprotected elements.

The Copyright Office took a similar approach with respect to its treatment of Kristina Kashtanova's comic, "Zarya of the Dawn," when it registered the work as a compilation but refused to find the images that Kashtanova made using Midjourney to be copyrightable.[6]

The District Court's Reading of the Supreme Court

While the U.S. Supreme Court has never squarely addressed the question of whether nonhumans can be authors — many claims to the contrary notwithstanding — the district court found that "[h]uman involvement in, and ultimate creative control over, the work at issue was key to the [Supreme Court's] conclusion that [photography] fell within the bounds of copyright" in the 1884 decision in Burrow-Giles Lithographic Co. v. Sarony.[7]

The district court also thought that the Supreme Court's decisions in the 1954 case of Mazer v. Stein and the 1973 case of Goldstein v. California centered authorship on "acts of human creativity."

The district court's account of why the Sarony court concluded that photographs are copyrightable highlights how much lower the bar for photography is today than it was in 1884 and, consequently, hints at the brewing tension between the Copyright Office's treatment of works that artists create using generative AI tools and the treatment of works that artists create using cameras, including camera phones.

Indeed, the National Press Photographers Association recognized that the arguments that the Copyright Office made against the copyrightability of AI-generated works could also be used to cast doubt on the copyrightability of many photographs at the Copyright Office's recent listening session on generative AI and copyright for visual works.

As the NPPA's representative stated:

> a concern that we are monitoring is that journalists, like many photographers, do use technology in some ways that are, in fact, quite ethical, and so we're watching what the Copyright Office is doing as they frame the question of what is copyrightable. We understand that something entirely AI-created might not be copyrightable, but we want to make sure that in making policy we don't risk the copyrightability of photographs that for generations, frankly, have used special timers and triggers, such as the kind of things a sports photographer or a nature photographer might use.[8]

The Copyright Act's "Plain" Language

While acknowledging that the Copyright Act does not define "author," the district court cites modern definitions of author to support its conclusion that "[b]y its plain text, the [Copyright Act] requires a copyrightable work to have an originator with the capacity for intellectual, creative, or artistic labor."

The district court then asserts that an "originator" must be human while also dropping a footnote that, somewhat facetiously, considers the possibility that "non-human sentient beings" may be covered by the term "person" in the Copyright Act.

Specifically, citing Justin Hughes' work, the court notes, "The day sentient refugees from some intergalactic war arrive on Earth and are granted asylum in Iceland, copyright law will be the least of our problems."[9]

Some day in the future, as the technology continues to advance, there may be generative AI that some people will believe to be sentient, and those people will latch on to this comment.

Indeed, in the Hughes article that the court cites, Hughes envisions something along these lines, noting that, "once some AI is sentient enough to demand its own civil rights and protection under the 13th Amendment, my guess is that 'person' in copyright law will not be limited to homo sapiens."

Of course, an AI tool can say that it demands its own civil rights and protection under the 13th Amendment today.

Purpose of Copyright Protection

Referring to the progress clause, the district court notes that the purpose of copyright, which it characterizes as the promotion of the public good through incentivizing human individuals to create, is not furthered by extending copyright to works created without any human involvement:

> Non-human actors need no incentivization with the promise of exclusive rights under United States law, and copyright was therefore not designed to reach them.

Concluding Thoughts

The result in Thaler v. Perlmutter is not surprising.

Nonetheless, Thaler's lawyer has stated that Thaler plans to appeal. Thaler's appeal to the Federal Circuit and petition for certiorari in his analogous patent case were both unsuccessful.

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Disclosure: Morrison Foerster represents Kashtanova in connection with their application to register "Rose Enigma."

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