

ARTIFICIAL INTELLIGENCE AND THE LEGAL PROTECTION OF AI-GENERATED CREATIVE WORKS

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Early this year, I attended an exhibition at the Creative Pinellas Gallery at the Florida Botanical Gardens in Largo featuring artwork created by University of South Florida professors McArthur Freeman II and Elizabeth Hordge-Freeman, husband and wife, using artificial intelligence (AI) techniques to generate museum quality images. The artwork was excellent, and could not be distinguished from works created in a conventional manner solely by humans. Below is an example of one of their images displayed at the gallery.

As I looked at these works, the question came to me, as an intellectual property attorney: who are the true creators of these works, who should get credit for them, and who owns the intellectual property rights, and particularly the copyrights, in these works?

Since at least the beginning of the industrial revolution, people have used machines, devices, and other technology to generate creative works, going back to the weaving loom, still and movie cameras, typewriters and word processors, and computer-aided design (CAD) programs. In most cases, these technological devices and systems were seen as aids to the creative process of the human user, and not as the creator itself. That may now be changing with the advent of Artificial Intelligence.

What is the law regarding ownership and copyrightability of works generated through AI technology? The U.S. Copyright Office (“the Office”) has recently weighed in on these questions, issuing a policy statement regarding the right to copyright and register expressive works created through the use of AI technology. The Office focused on AI technologies that “train” on vast quantities of preexisting human-authored works and use inferences from that training to generate new content. Some of these systems operate in response to a user’s textual instruction, called a “prompt.” The resulting output may be textual, visual, or audio, and is determined by the AI system based on its design and the material on which it has been trained.

These technologies, often described as “generative AI,” raise questions about whether the material they produce is protected by copyright, whether works consisting of both human-authored and AI-generated material may be registered with the Copyright Office, and what information should be provided to the Office by applicants seeking to register them.

According to the Office, copyright protects only material that is the product of human creativity. Under the provisions of the Copyright Act, copyright protects “original works of authorship fixed in a tangible medium of expression.” Constitutional, statutory, regulatory, and judicial precedent all lead to the conclusion that the term “author,” is limited to humans. In its current edition of guidance in its Compendium of Copyright Office Practices, the Office states that “to qualify as a

work of ‘authorship’ a work must be created by a human being,” and that it “will not register works produced by a machine or mere mechanical process that operates randomly or automatically without any creative input or intervention from a human author.”

These questions are now becoming important because the Office is receiving and examining a variety of applications for registration that claim copyright in AI-generated material. In one case, for example, the Office received an application for a visual work that the applicant described as “autonomously created by a computer algorithm running on a machine.” The application was denied because, based on the applicant’s representations in the application, the examiner found that the work contained no human authorship. This determination of unregistrability was upheld by a federal court because the work was generated entirely by the machine without any creative contribution from a human actor. See *Thaler v. Perlmutter*, No. 1:22-cv-01564 (D.D.C. Aug. 18, 2023).

The Office further addressed works that contain AI-generated material consisting of “mechanical reproduction” instead of creation by an author’s own original mental conception. If a work’s traditional elements of authorship are produced by a machine, the work lacks human authorship and the Office will not register it. For example, when an AI system receives solely a prompt from a human and produces complex written, visual, or musical works in response, the “traditional elements of authorship” are determined and executed by the technology, not the human user. Thus, if the user does not exercise the ultimate creative control over how such systems interpret prompts and generate material but instead, the prompts function more like instructions to a commissioned artist, then the human is only providing ideas rather than creative expression, and therefore it is the machine that has determined how those instructions are implemented in its output, not the human.

The Office cited the example of a user instructing a text-generating technology to “write a poem about copyright law in the style of William Shakespeare.” The user can expect the system to generate text that is recognizable as a poem, mentions copyright, and resembles Shakespeare’s style. But the technology will decide the rhyming pattern, the words in each line, and the structure of the text. When an AI system determines the expressive elements of its output, the generated material is not the product of human authorship. As a result, that material is not protected by copyright and must be disclaimed in a registration application.

In other cases, however, a work containing AI-generated material may contain sufficient human authorship to support a copyright claim. For example, a human may select or arrange AI-generated material in a sufficiently creative way that “the resulting work as a whole constitutes an original work of authorship.” Or an artist may modify material originally generated by AI technology to such a degree that the modifications meet the standard for copyright protection. In these cases, copyright will only protect the human-authored aspects of the work, which are independent of and do not affect the copyright status of the AI-generated material itself.

This does not mean that technological tools cannot be part of the creative process. Authors have long used such tools to create their works or to recast, transform, or adapt their expressive

authorship. For example, a visual artist or photographer who uses Photoshop to edit an image will be considered the author of the modified image. In such a case, what matters is the extent to which the human had creative control over the work's expression and "actually formed" the traditional elements of authorship.

Undoubtedly, the Copyright Office's policy statement will not be the last word on the subject of the interrelationship between AI technology and intellectual property law. Like other technology, AI will develop and change, and like many new technologies before it, the law will struggle to keep up, continually being tested in the legislatures, administrative agencies, and the courts. It should be an interesting ride!

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