# AI-Generated Works Should Not Have Copyright Protection

By **Thomas McNulty** (April 7, 2023)

Artificial intelligence has emerged in the past year as a new way of generating creative works.

Programs such as Dall-E 2, Stable Diffusion and Midjourney create images based on textual prompts from users, while other programs, such as ChatGPT, AI Writer and Rter create written works and interact with users in a conversational manner.

The rise of such software, and subsequent attempts to register copyright on works generated by AI software, has created interesting questions with respect to whether any intellectual property rights should attach to works created using artificial intelligence.

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For a number of reasons, it would be unwise to grant copyright protection to works that were not created by human beings.

Copyright law exists to promote the progress of the useful arts, and allowing copyright protection for AI-created works would not serve this purpose.

It is not clear, for example, who would own the copyright in AI-generated works. Would it be the person requesting the creation of the work, the AI itself, the owner of the software, the developer of the software, or some other person or entity?

In many ways, the software developer plays a more significant role in works created by AI than the person entering the prompts that direct the AI. But granting exclusive rights in an AI-generated work to any of these parties would be unlikely to further the creation of additional works.

Providing protection directly to the AI software would create no additional incentive for the software to produce art — it will operate whenever directed to do so, without regard to potential monetary gains.

As owners and developers of AI software generate revenue by licensing their products rather than through the works created by their products, they are more likely to be incentivized to create AI software if the end users remain free to utilize the fruits thereof.

Similarly, creators would be less likely to create works combining AI- and human-generated content if copyright in the works generated by AI were held by the AI's owners or coders, as they would be subject to the whims of those owners in exploiting their works.

Given the rate at which AI software is advancing and the speed with which it can produce new works, there is fear among human authors and artists that AI works will swamp the marketplace at the expense of human artistry.

Denial of copyright protection in AI-generated works may serve to mitigate this risk, as the resultant freely copyable product would be harder to monetize than would a human-created work.

The speed with which new works can be created might also place significant limits on human authorship if copyright protection were granted to AI-generated works.

Software can create so many iterations of a work in such a short time that allowing exclusivity in the works might serve to effectively preclude human authors from delving into the subject matter at all.

Image-generating software could, for example, utilize a prompt to generate a "photograph-like image of the Parthenon" in order to create and publish images capturing all lighting and framing that naturally exists.

Copyright in those images could then be used to prevent human photographers from publishing their own, substantially similar images.

In fact, musician and lawyer Noah Rubin and programmer Damien Riehl developed a software program capable of generating 300,000 melodies per second. They then created and published to the internet a catalog of 68 billion eight-note melodies, with the intention of eventually publishing every possible melody.[1]

If this material were protected by copyright, human musical authorship would be stifled.

While U.S. courts have yet to address this issue directly, the U.S. Copyright Office recently determined that work created solely by AI does not qualify for protection.[2]

The office rescinded the registration it had granted to comic book author Kristina Kashtanova for a work titled "Zarya of the Dawn," following social media posts by Kashtanova and a series of news stories in which she indicated that she had used Midjourney artificial intelligence software to create images for the book.

The office indicated that, to qualify for copyright protection, a work must have been independently created by the author.

Section 313.2 of the Compendium of U.S. Copyright Office Practices notes that courts in the U.S. have consistently limited authorship to human authors, citing the upholding of refusals to register works produced by nature, animals or plants, as well as rejections for copyright applications claiming the Holy Spirit as the author.[3]

The Compendium states that no registration would be given to

> works produced by a machine or mere mechanical process that operates randomly or automatically without any creative input or intervention from a human author. The crucial question is whether the work is basically one of human authorship, with the computer [or other device] merely being an assisting instrument, or whether the traditional elements of authorship in the work… were actually conceived and executed not by man but by a machine.[4]

Looking to this last factor, the office determined that Kashtanova's text, as well as the overall selection and arrangement of that text and the images created by Midjourney AI software, warranted protection, but that the images themselves did not.

Midjourney does not interpret user prompts as specific instructions to create a particular expressive result, but instead converts the prompts into smaller pieces called tokens that it then compares to its training data to generate an image.

The software then uses these tokens to refine a field of random visual static into a recognizable image using an algorithm. According to the office, the significant distance between what a user may direct Midjourney to create and the visual material Midjourney actually produces means that the user lacks sufficient control over generated images to be treated as the master mind behind them.

Given that the user cannot control or predict what Midjourney will produce, the office determined that it was Midjourney, and not Kashtanova, that was the originator of the traditional elements of authorship in the images.

The office's decision is correct, in that the images selected for the comic book were not actually created or formed by Kashtanova. As the office noted, if Kashtanova had provided the same prompts to a human visual artist, there would be no question that Kashtanova would not be the author of an image created by the visual artist.

The office further points out that the lack of ability to make specific modifications or alterations to AI-generated images distinguished those works from images that were created using software such as Adobe Photoshop, where a user selects the image to be modified and takes specific steps to achieve specific outcomes that result in creation of the artist's own conception.

The office's Kashtanova decision keeps with decisions of most other courts regarding the refusal to grant intellectual property protection to AI-generated subject matter.

The U.S. Patent and Trademark Office has refused to examine a patent application where the inventor was identified as DABUS, an artificial intelligence machine, and the refusal was upheld by the U.S. Court of Appeals for the Federal Circuit, which ruled that only a human being can be an inventor under U.S. patent law.

The DABUS application was also rejected by a U.K. appeals court, the European Patent Office, the Federal Court of Australia and the German Federal Patent Court.

The sole entity that issued a patent to DABUS was the Companies and Intellectual Property Commission of South Africa, although that office does not substantively examine applications and may not have been aware of the issue.

Of note, the U.K. is one of the few countries that does provide copyright protection to computer-generated literary, dramatic, musical or artistic works, defined as a work that is generated by computer in circumstances such that there is no human author of the work.[5]

The author of such a work is deemed to be the "person by whom the arrangements necessary for the creation of the work are undertaken."[6] These computer-generated works do not receive the 70-year scope of protection afforded human authors, however, and instead are protected for only 50 years.[7]

In its Kashtanova decision, the Copyright Office did not rule out the possibility of copyright existing in an AI-generated image, depending on the amount of control that a human user had over the creation of the image.

The office noted that an artist might be able to obtain copyright protection in an AI-generated image that the artist had then altered sufficiently to meet copyright's minimum degree of creativity requirement.

Determining the degree of human involvement will need to be further addressed, but short of legislation or action by a higher court, content created by artificial intelligence remains unlikely to receive copyright protection in the U.S.

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[1] https://www.independent.co.uk/tech/music-copyright-algorithm-lawsuit-damien-riehl-a9364536.html (Feb. 28, 2020).

[2] See U.S. Copyright Office, Cancellation Decision re: Zarya of the Dawn (VAu001480196) at 2 (Feb. 21, 2023), https://www.copyright.gov/docs/zarya-of-the-dawn.pdf.

[3] Compendium of U.S. Copyright Office Practices at Section 313.2.

[4] Id.

[5] UK Copyright, Designs and Patent Act of 1988 at Section 178.

[6] UK Copyright, Designs and Patent Act of 1988 at Section 9(3).

[7] UK Copyright, Designs and Patent Act of 1988 at Section 12(7).