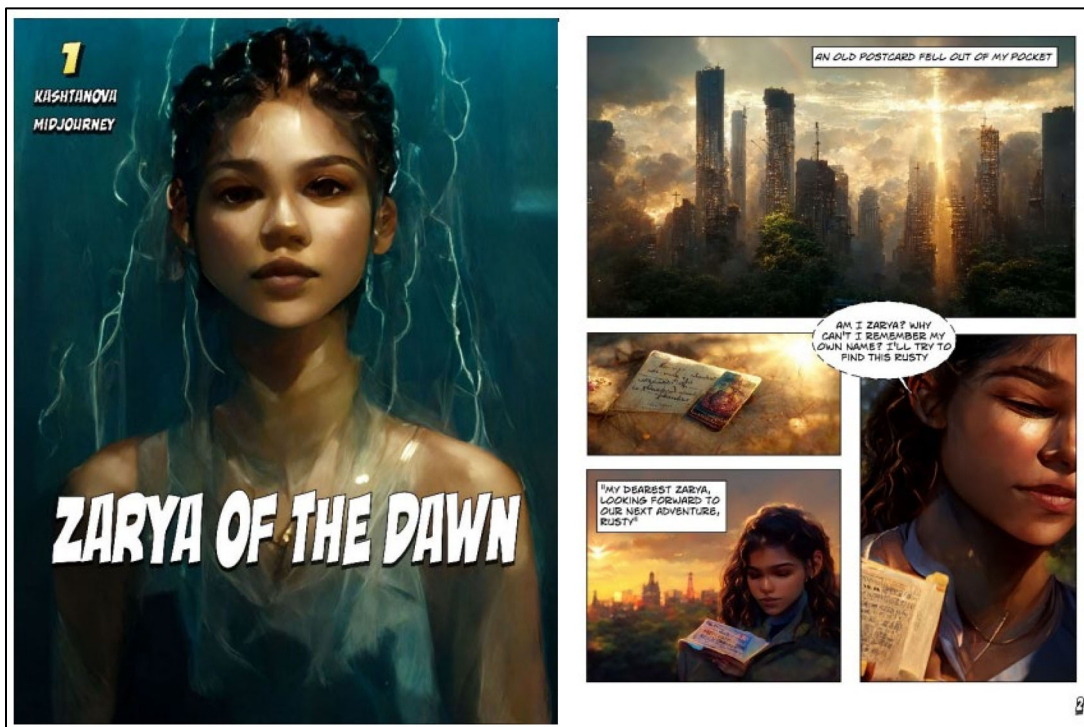


February 21, 2023

Re: [Decision of the Copyright Office in the matter of] Zarya of the Dawn

[In this decision, the Copyright Office canceled Kris Kashtanova’s copyright registration, although she was allowed to file a narrower application to cover some aspects of the work in question.]

As described in the application and accompanying deposit materials provided by Ms. Kashtanova, the Work is a “comic book” consisting of eighteen pages, one of which is a cover. The cover page consists of an image of a young woman, the Work’s title, and the words “Kashtanova” and “Midjourney.” The remaining pages consist of mixed text and visual material. A reproduction of the cover page and the second page are provided below:



On September 15, 2022, Ms. Kashtanova submitted an application for the Work ... listed the author of the Work as “Kristina Kashtanova” and stated that she had created a “[c]omic book.” The application did not disclose that she used artificial intelligence to create any part of the Work, nor did she disclaim any portion of the Work. The Office ... registered the Work. Shortly after registering the Work, the Office became aware of statements on social media attributed to Ms. Kashtanova that she had created the comic book using Midjourney artificial intelligence. [This started this process, in which the application is reevaluated.]

[The Office restates its policy that only human creativity is protected by copyright and applies it to this work]:

The Work’s Text. The Office agrees that the text of the Work is protected by copyright... “the text of the Work was written entirely by Kashtanova without the help of any other source or tool, including any generative AI program.” Based on this statement, the Office finds that the text is the product of human authorship....

The Selection and Arrangement of Images and Text. The Office also agrees that the selection and arrangement of the images and text in the Work are protectable as a compilation. Copyright protects “the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged” in a sufficiently creative way. Based on the representation that the selection and arrangement of the images in the Work was done entirely by Ms. Kashtanova, the Office concludes that it is the product of human authorship....

The Individual Images. Turning to the individual images in the Work, the Office must consider the impact of Ms. Kashtanova’s use of Midjourney’s artificial intelligence technology in its copyrightability analysis...

Based on the record before it, the Office concludes that the images generated by Midjourney contained within the Work are not original works of authorship protected by copyright... Though she claims to have “guided” the structure and content of each image, the process described [by] Kashtanova [] makes clear that it was Midjourney—not Kashtanova—that originated the “traditional elements of authorship” in the images.

Ms. Kashtanova’s ...process consisted of a series of steps employing Midjourney. First, she entered a text prompt to Midjourney, which she describes as “the core creative input” for the image (providing example of first generated image in response to prompt “dark skin hands holding an old photograph). Next, “Kashtanova then picked one or more of these output images to further develop.” She then “tweaked or changed the prompt as well as the other inputs provided to Midjourney” to generate new intermediate images, and ultimately the final image. Ms. Kashtanova does not claim she created any visual material herself ... To obtain the final image, she describes a process of trial-and-error, in which she provided “hundreds or thousands of descriptive prompts” to Midjourney until the “hundreds of iterations [created] as perfect a rendition of her vision as possible.”

Rather than a tool that Ms. Kashtanova controlled and guided to reach her desired image, Midjourney generates images in an unpredictable way. Accordingly, Midjourney users are not the “authors” for copyright purposes of the images the technology generates. As the Supreme Court has explained, the “author” of a copyrighted work is the one “who has actually formed the picture,” the one who acts as “the inventive or master mind.” *Sarony*. A person who provides text prompts to Midjourney does not “actually form” the generated images and is not the “master mind” behind them ... The information in the prompt may “influence” generated image, but prompt text does not dictate a specific result... Because of the significant distance between what a user may direct Midjourney to create and the visual material

Midjourney actually produces, Midjourney users lack sufficient control over generated images to be treated as the “master mind” behind them.

The fact that Midjourney’s specific output cannot be predicted by users makes Midjourney different for copyright purposes than other tools used by artists. Like the photographer in *Burrow-Giles*, when artists use editing or other assistive tools, they select what visual material to modify, choose which tools to use and what changes to make, and take specific steps to control the final image such that it amounts to the artist’s “own original mental conception, to which [they] gave visible form.” ... Users of Midjourney do not have comparable control over the initial image generated, or any final image. ...

[P]rompts function closer to suggestions than orders, similar to the situation of a client who hires an artist to create an image with general directions as to its contents. If Ms. Kashtanova had commissioned a visual artist to produce an image containing “a holographic elderly white woman named Raya,” where “[R]aya is having curly hair and she is inside a spaceship,” with directions that the image have a similar mood or style to a “Star Trek spaceship,” “a hologram,” an “octane render,” “unreal engine,” and be “cinematic” and “hyper detailed,” Ms. Kashtanova would not be the author of that image.... And if Ms. Kashtanova were to enter those terms into an image search engine, she could not claim the images returned in response to her search were “authored” by her, no matter how similar they were to her artistic vision.

The Office does not question Ms. Kashtanova’s contention that she expended significant time and effort working with Midjourney. But that effort does not make her the “author” of Midjourney images under copyright law...

Finally, Ms. Kashtanova suggests that she personally edited some of the images created by Midjourney. Her letter points to two specific images contained in the Work. While the Office accepts the statement that the changes were made directly by Ms. Kashtanova, it cannot definitively conclude that the editing alterations are sufficiently creative to be entitled to copyright.

September 5, 2023

Re: Second Request for Reconsideration for Refusal to Register *Théâtre D’opéra Spatial*

The Review Board of the United States Copyright Office (“Board”) has considered Jason M. Allen’s (“Mr. Allen”) second request for reconsideration of the Office’s refusal to register a two-dimensional artwork claim in the work titled “*Théâtre D’opéra Spatial*” (“Work”). After review[] ... the Board affirms the ... denial of registration. The Board finds that the Work contains more than a de minimis amount of content generated by artificial intelligence (“AI”), and this content must therefore be disclaimed in an application for registration. Because Mr. Allen is unwilling to disclaim the AI-generated material, the Work cannot be registered as submitted.

The Work is a two-dimensional artwork, reproduced below:

On September 21, 2022, Mr. Allen filed an application to register a two-dimensional artwork claim in the Work. While Mr. Allen did not disclose in his application that the Work was created using an AI system, the Office was aware of the Work because it had garnered national attention for being the first AI-generated image to win the 2022 Colorado State Fair's annual fine art competition...



The examiner assigned to the application requested additional information about Mr. Allen's use of Midjourney ... In response, Mr. Allen provided an explanation of his process, stating that he "input numerous revisions and text prompts at least 624 times to arrive at the initial version of the image." He further explained that, after Midjourney produced the initial version of the Work, he used Adobe Photoshop to remove flaws and create new visual content and used Gigapixel AI to "upscale" the image, increasing its resolution and size. As a result of these disclosures, the examiner requested that the features of the Work generated by Midjourney be excluded from the copyright claim. Mr. Allen declined the examiner's request and reasserted his claim to copyright in the features of the Work produced by an AI system. The Office refused to register the claim because the deposit for the Work did not "fix only [Mr. Allen's] alleged authorship" but instead included "inextricably merged, inseparable contributions" from both Mr. Allen and Midjourney. [Allen appealed that decision]

[The Board explains that the Copyright Office will not register anything that was not created by a human, and summarizes The Copyright Office's March 16, 2023, policy on AI-generated works.]

Because the Work here contains AI-generated material, the Board starts with an analysis of the circumstances of the Work's creation, including Mr. Allen's use of an AI tool. According to Mr. Allen, the Work was created by 1) initially generating an image using Midjourney, 2) using Adobe Photoshop to "beautify and adjust various cosmetic details/flaws/artifacts, etc." in the Midjourney Image, and 3) upscaling the image using Gigapixel AI.

After considering the application, the deposit, and Mr. Allen's correspondence, the Board concludes that the Work contains an amount of AI-generated material that is more than de minimis and thus must be disclaimed.⁵ Specifically, the Board concludes that the Midjourney Image, which remains in substantial

⁵ The Board notes that there may be cases in the future where the application of the de minimis standard is a closer call. Here, however, the significance of the AI-generated material to the final work is apparent.

form in the final Work, is not the product of human authorship. In reaching this conclusion, the Board does not decide whether Mr. Allen's adjustments made in Adobe Photoshop would be copyrightable on their own because the Board lacks sufficient information to make that determination. The Board also does not consider Mr. Allen's use of Gigapixel AI because he concedes that Gigapixel AI "doesn't introduce new, original elements into the image" and that "the enlargement process undertaken by Gigapixel AI does not equate to authorship."

Mr. Allen asserts that his use of Midjourney allows him to claim authorship of the image generated by the service because he provided "creative input" when he "entered a series of prompts, adjusted the scene, selected portions to focus on, and dictated the tone of the image." In the Board's view, Mr. Allen's actions as described do not make him the author of the Midjourney Image because his sole contribution to the Midjourney Image was inputting the text prompt that produced it. Although Mr. Allen describes "input[ing] numerous revisions and text prompts at least 624 times" before producing the Midjourney Image, the steps in that process were ultimately dependent on how the Midjourney system processed Mr. Allen's prompts. According to Midjourney's documentation, prompts "influence" what the system generates and are "interpret[ed]" by Midjourney and "compared to its training data." ... It is the Office's understanding that, because Midjourney does not treat text prompts as direct instructions, users may need to attempt hundreds of iterations before landing upon an image they find satisfactory. This appears to be the case for Mr. Allen, who experimented with over 600 prompts before he "select[ed] and crop[p]ed out one 'acceptable' panel out of four potential images ... (after hundreds were previously generated)." As the Office described in its March guidance, "when an AI technology 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." And because the authorship in the Midjourney Image is more than de minimis, Mr. Allen must exclude it from his claim. Because Mr. Allen has refused to limit his claim to exclude its non-human authorship elements, the Office cannot register the Work as submitted.

The Board finds that Mr. Allen's remaining arguments regarding elements of authorship in the Work are unpersuasive. First, he argues that ... his creative choices in operating Midjourney make him the author of resulting output. The Board acknowledges that the process of prompting can involve creativity. But that does not mean that providing text prompts to Midjourney "actually form[s]" the generated images....

Second, the Board rejects Mr. Allen's policy argument that denying copyright protection to AI-generated material leaves a "void of ownership troubling to creators." ... The Office administers the copyright laws as enacted by Congress and cannot exceed the bounds set by Congress and the Constitution.

Third, the Board rejects Mr. Allen's argument that requiring AI-generated material to be excluded from the application for the Work improperly "plac[es] a value judgment on the utility of various tools." ... This requirement is not a value judgment; it is a recognition of the fact that [as decided in *Thaler*] "[h]uman authorship is a bedrock requirement of copyright."

Finally, the Board dismisses Mr. Allen’s argument that “[r]equiring creators to list each tool and the proportion of the work created with the tool would have a burdensome effect.” The Office does not require a detailed disclosure of the specific identity and creative process behind the AI-generated material in a work. The Office’s guidance merely requires applicants to provide a “brief statement” in the application, such as that the text was “generated by artificial intelligence.” The Office does not intend this requirement to be burdensome, and it does not call for a detailed list of the tools used or the precise proportions of the work that were created by each one.

For the reasons stated herein, the Review Board of the United States Copyright Office affirms the refusal to register the copyright.

Notes:

1. Do you think it is fair to describe what Allen did as merely “experiment[ing] with over 600 prompts before he ‘select[ed] and crop[p]ed out one acceptable’” image? Does it matter that nowadays, many institutions offer training in *prompt engineering*, and companies are willing to pay quite well to qualified prompt engineers? *See also* Edward Lee, [A terrible decision on AI-made images hurts creators](#), WA. POST (Apr. 27, 2023).
2. Like Thaler (from *Thaler v. Perlmutter*), Allen seems to be taking a principal stand. What if Allen had agreed to the proposal of the Copyright Office and disclaimed the parts of the work that were created by the computer? How would it de facto impact his rights?
3. Allen argued, among other things, that the Copyright Office approach might provide too little incentive for creativity. Do you agree? Keep this question (and the others) in mind as you read below some of the reactions to this decision.
4. The full decision of the Copyright Office on Zarya of the Dawn is much more detailed and includes a detailed explanation of the technology in question. You can read it (optional reading) [here](#).

Why This Award-Winning Piece of AI Art Can’t Be Copyrighted

Kate Knibbs, WIRED MAGAZINE (Sep. 6, 2023)

[After describing the decision you just read, [the story](#) reports on some of the reactions]

“It’s in line with previous decisions that require human authors,” says Rebecca Tushnet, a Harvard Law School professor and leading copyright scholar... It’s a precedent that goes back to 2018 when a photo taken by a macaque was declared public domain because monkeys can’t hold copyright. PETA may beg to differ, but under the law, monkeys and machines have about the same claim on copyright protections right now. (And this isn’t just in the US. In nearly every country, copyright is pegged to human authorship.) ...

Allen's dashed efforts highlight a solidifying legal consensus. This August, a US federal judge dismissed a case brought by Missouri-based AI researcher Stephen Thalut [sic], who has been on a mission to prove that the AI system he invented deserves copyright protections... Thalut is currently appealing the verdict. Ryan Abbot, his attorney, does not believe that the Copyright Office's decision on Allen will have an impact on his client's appeal. But he does see it as having a chilling effect on the wider world of AI-assisted art. "I think it will be a major disincentive to people developing and using AI to make art," Abbot says.

On this point, Allen (as one might predict) agrees wholeheartedly. "This is the definition of stifling innovation and creativity, the very thing the copyright office claims to protect," he says.

The Allen ruling may certainly nudge artists to increase the amount of work they put into art produced using AI tools. "Tweaks by a human, if they actually have an aesthetic impact, will likely add enough human authorship to get a copyright on the work as a whole," Tushnet says....

Matthew Sag, a professor of law and artificial intelligence at Emory University, in Atlanta, Georgia, believes that artists who give instructions to AI that are detailed enough should be granted copyright protections in certain cases. He also argues that the Copyright Office should be more open to this type of application in the future—but he isn't sure where the line is right now. "Applicants will need to do more than show that they pulled a lever on a slot machine 600 times until they got a result they were happy with," Sag says. Instead, he thinks they may have to detail exactly how they used AI tools to enact their original artistic vision.

Understanding where this line is will be important within many creative fields moving forward, particularly those that are embracing AI tools. In Hollywood, striking writers and actors are petitioning for labor safeguards against AI. Could, then, this ruling offer reassurances that AI work would be harder to monetize? Tushnet isn't convinced this decision will deter companies looking to lower labor costs by using AI. "They will plan to have humans participate just enough to cross the threshold of copyrightability," she says.

Meanwhile, Allen is gearing up for the next round of his fight. He intends to file his federal lawsuit within the next six months. "I'm certain we will win in the end," he says. "The Copyright Office is wanting to play it safe and make the courts decide. They're scaredy cats."