AInsights

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Copyright Office Rejects Application for AI-Generated Work Based on a Photograph

On December 11, 2023, the Review Board of the United States Copyright Office (Board) rejected a Second Request for reconsideration with respect to the registration of a work generated through the use of artificial intelligence (AI). The proposed registration in this case, by the photographer Ankit Sahni, presented a different set of facts from those the Copyright Office has previously considered in AI-related matters because it involved a copyrightable work in the input. This case therefore provides further guidance on how the Copyright Office views the issue of human authorship in AI-generated works.

Background

In December 2021, Sahni filed an application to register a work that listed two authors: himself as the author of "photograph, 2-D artwork" and the "RAGHAV Artificial Intelligence Painting App" as the author of "2-D artwork." Given that the application identified an AI app as an author, the Copyright Office requested additional information about Sahni's use of RAGHAV.

Sahni filed a 17-page submission describing how RAGHAV functions and how he used that technology to create the work. Sahni explained that RAGHAV uses machine learning to perform "Neural Style Transfer," which entails generating an image with the same "content" as a base image, but with the "style" of a chosen picture.

Sahni stated that he had input into RAGHAV an original photograph he had taken, a copy of Vincent van Gogh's *The Starry Night* as the "style" to be applied to the photograph, and a "variable value" that determined the amount of style transfer (*i.e.*, the amount of "style" from the Van Gogh work to apply to his photograph). The end product, which Sahni sought to register, is a rendering of his photograph in the style of *The Starry Night*. Sahni did not claim to have modified the work after it was generated.

The Copyright Office considered the deposit, application and explanation provided by Sahni, and in June 2022 refused to register the work because Sahni's human authorship could not be distinguished or separated from the final work generated by RAGHAV. Sahni appealed that decision through a First Request for reconsideration, which the Copyright Office also rejected on the grounds that the resulting image was a derivative work, and the derivative authorship was not the result of human creativity or authorship. That led to his appeal to the Board through a Second Request for reconsideration.

Second Request

In July 2023, Sahni requested that the Board reconsider the Copyright Office's refusal to register his work, presenting three arguments:

- RAGHAV was merely an assistive software tool, and Sahni's creative decisions in: selecting his original photo, using *The Starry Night* image as the style input, and determining the amount of style transfer to apply were sufficient to render him the author of the resulting work.

- Sahni had provided the traditional elements of authorship by taking the original photograph and directing the RAGHAV tool to make changes to the colors, shapes and style in a particular manner. For example, Sahni asserted that his contributions resulted in the work containing elements such as a sunset and a building in a style of his choosing.

- The work is not a derivative work because it is not "substantially similar" to the original photograph, and the original photograph should be seen instead as "an early stage of what would ultimately become the Work." Sahni analogized his original photograph to an early sketch a painter might start with.

Board's Decision

The Board rejected Sahni's arguments, stressing, as it has in the past, that copyright cannot be used to protect "the creations of non-humans." While the Board acknowledged that determining whether a work that incorporates AI-generated contributions is sufficiently "human-created" to be copyrightable will depend on the circumstances, "particularly how the AI tool operates and how it was used to create the final work," it noted that, if all of a work's "traditional elements of authorship" are generated by AI, the work lacks human authorship, and the Copyright Office will not register it.

The Board disagreed with Sahni's assertion that the final work should be viewed as a whole and take into account the human authorship of his original photograph. Rather, the Board explained that a derivative work analysis requires separate analyses of the pre-existing work and of the new authorship that the derivative author contributed. Here, the Board noted, the RAGHAV program does not layer a style image on top of a base image — the way a visual filter might be applied to a photograph — but rather generates a whole new image based on the features it learns from the base and style images.

The Board dismissed Sahni's arguments that he had creative control over the work, noting that since he only provided three inputs to RAGHAV (the original photograph, *The Starry Night* work and the value for the strength of the style transfer), it was the RAGHAV app, and not Sahni, that "was responsible for

Sahni's original photo (left) and Van Gogh's *The Starry Night*, whose style he applied to the photo:
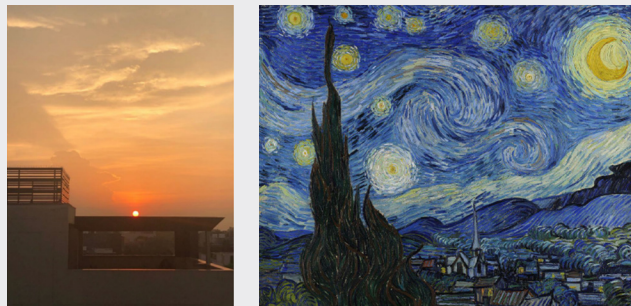
The resulting work Sahni sought to register:
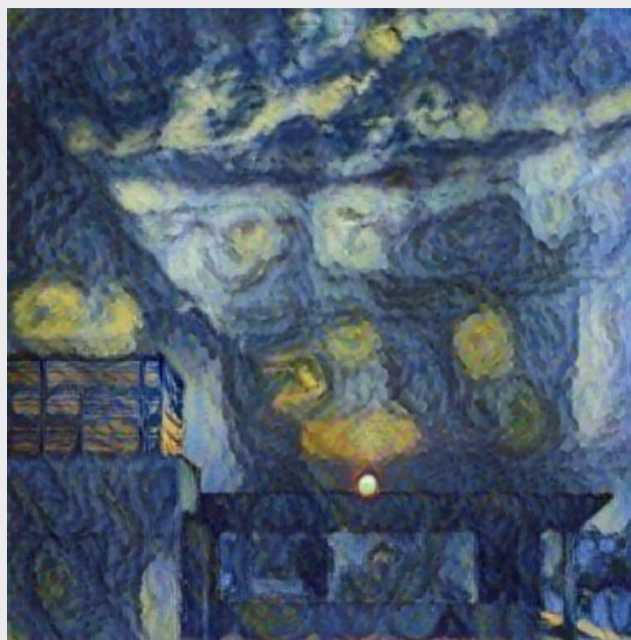
determining how to interpolate the base and style images in accordance with the style transfer value."

While the Board acknowledged that certain elements were present (*e.g.*, a sunset) because of the Sahni inputs, the Board concluded that he did not control where those elements would be placed, whether they would appear in the output, and what colors would be applied to them. Thus, the Board determined that Sahni's contributions did not amount to a product of human authorship.

The Board also found that Sahni's argument that RAGHAV was merely an "assistive tool" similar to photo-editing software such as Adobe Photoshop mischaracterized the AI application. The

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Board highlighted statements from Sahni's own submissions and the research underlying RAGHAV that RAGHAV generates "a new pictorial image based on features learned from user-provided images," and that it "predict[s] stylizations for paintings and textures never previously observed." Thus, the final work that was generated was a function of how the model works and the images on which it was trained, not Sahni's contributions or instructions.

The Board also found that Sahni's selection of the numerical variable for the "strength" of the style was *de minimis* authorship not protected by copyright.

Finally, the Board rejected Sahni's argument that his choices of image inputs and filter strength were creative because they were one choice "from nearly infinite permutations and possibilities of specific inputs." The Board's view was that this choice was an unprotectable idea.

Key Takeaways

Over the last year, the Copyright Office has made clear, both in guidance and in a series of rulings on applications for registration, that works partially or wholly generated by AI lack sufficient human authorship for copyright protection unless there has been meaningful human creative effort.

The Sahni work arguably involved more human authorship than in other applications the Copyright Office has rejected, such as those for *Zarya of the Dawn* and *Théâtre D'opéra Spatial*, where the applicants relied heavily on the argument that the selection of prompts to generate a work satisfied the human authorship requirement. However, as in those matters, the Copyright Office has adopted the position that determining which inputs to use in connection with an AI tool is by itself insufficient to establish human authorship given that these AI tools are effectively generating outputs at random. See our September 14, 2023, alert "Copyright Office Rejects Application for Refusal To Disclaim AI-Generated Elements" and our March 16, 2023, alert "Copyright Office Issues Guidance on AI-Generated Works, Stressing Human Authorship Requirement."

This is not to say that a work cannot be copyrighted because it contains AI-generated components. The Copyright Office has made clear that, as long as such components are disclaimed, the work can be registered. Indeed, in its decision on the Sahni application, the Board notes that in 2023, the Copyright Office granted approximately 100 applications to register works containing AI-generated material, where the AI-generated contributions were disclaimed.

The challenge that Sahni faced was that, given the way RAGHAV operates and the nature of the output (which relied heavily on the AI-generated components of the image), it was not possible for him to merely disclaim the AI-generated components.

Finally, it is important to remember that any copyright analysis, including of AI-generated works, is jurisdiction-specific. The Board's decision in Sahni stands in contrast to a recent decision by China's Beijing Internet Court ruling that AI-generated works could be protected by copyright in certain instances.