

The Challenges of Generative Artificial Intelligence and US Copyright Law

By Tyler C. Park

The use of AI in the legal field, specifically in copyright, brings about transformative changes.

In 2010, while I was attending my computer information systems class as a freshman at Arizona State University, my professor introduced me to the concept of Moore’s Law - the observation that the number of transistors on an integrated circuit will double every two years with minimal rise in cost. It was my first time really digesting how fast technology moves in an academic sense. My generation, born in the early 90s, call it the latter half of millennials, is often described as one of the last generations to equally experience both playing outside and engaging in the rise of technology while growing up. I, for example, received my first flip cell phone in 2006. By my freshman year of college in 2010, I was carrying a pocket computer in the form of an iPhone 4 around campus. I realize now this is likely why Moore’s Law resonated so well with me. Simply because I experienced, understood, and could apply firsthand the pace at which technology moved throughout my life. Fast forwarding to my first year of law school in 2015, my professors introduced me to how slowly the law moves. It is understandable that the steady pace of the law creates little issues in areas such as property, contracts and torts. However, how can laws that are centuries-old apply to technology that, according to Moore’s Law, essentially doubles every two years? This is the question that the US Copyright Office faces as generative artificial intelligence becomes more popu-

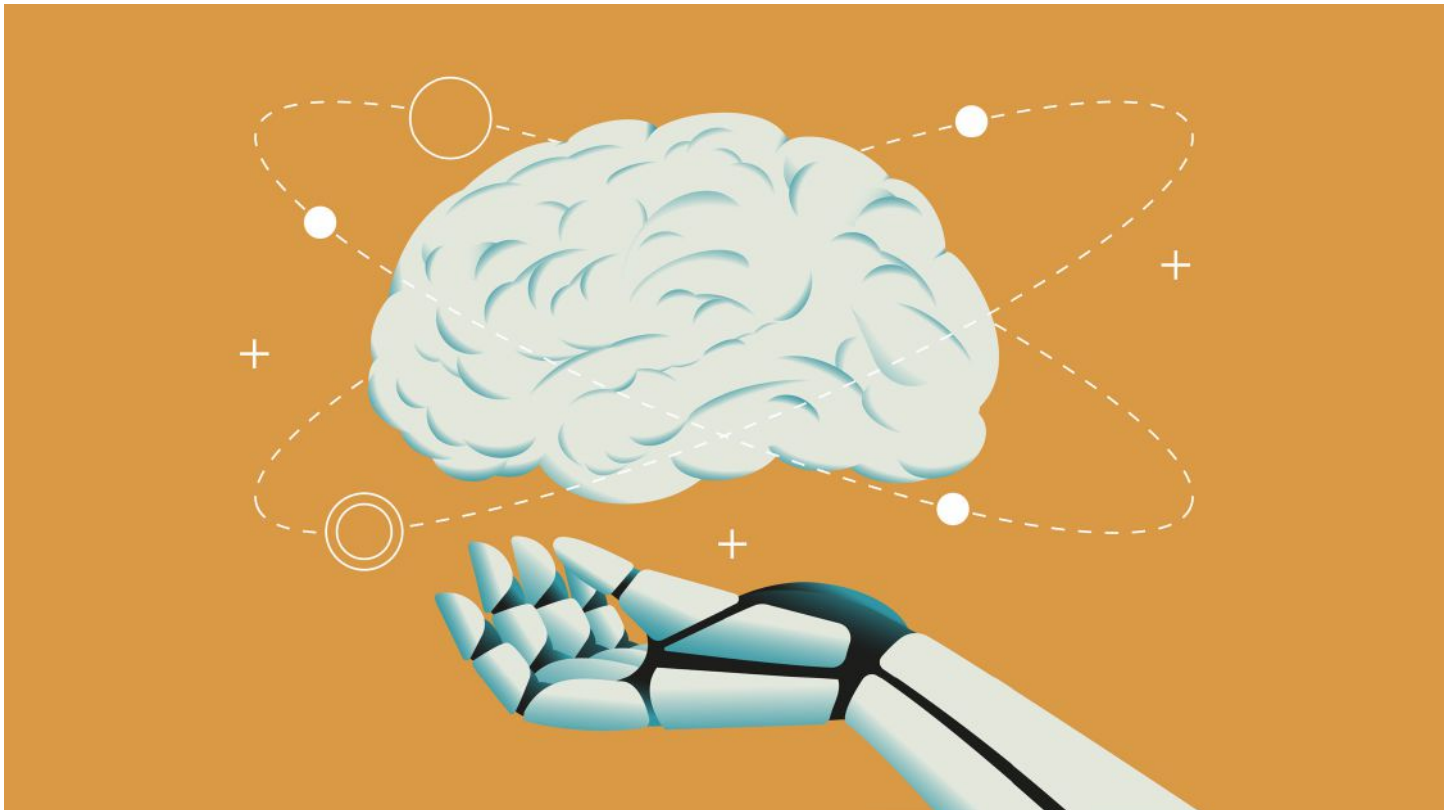
lar and more accessible by the day. By no means is this an easy task, nor is it a “one size fits all” solution. Generative artificial intelligence is AI that is capable of creating text, images, videos, songs and other similar data using generative models. Unlike prior machine learning models that could learn to make a prediction based on dataset, generative AI is a machine learning model trained to create new data. The outputs of generative AI are usually created in response to prompts. Of course, ChatGPT is one of the most popular and accessible generative AI models currently in use.

Naturally, as a latter half millennial in preparation for this article, I posed the following question to both ChatGPT and myself: “How is AI being utilized in copyright law?”

For myself, I immediately thought of AI’s ability to make research quicker and easier as I have personally utilized AI tools in Westlaw and eDiscovery. But I also thought of the potential issues that I know arise with the increasing use of generative AI under the copyright laws of the United States. All United States copyright laws are man-made and therefore are, no offense, riddled with flaws and inherent biases, whereas generative AI models, such as ChatGPT, are novel widely accessible tools that interact and pose unique inquiries to the legal field on a non-human level. Thus, it is very possible, if not likely, that generative AI could bring these flaws within our



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own legal system to the surface and lead to a need for an update to the copyright laws of the United States.

As you can imagine, ChatGPT had some similar, some different “thoughts”. ChatGPT provided the following detailed response to the prompt, “How is AI being utilized in copyright law?”:

“Artificial Intelligence (AI) is revolutionizing various industries, and the legal field is no exception. In the realm of copyright, AI is playing a crucial role in streamlining processes, enhancing efficiency, and addressing challenges. One significant application of AI in copyright law involves content identification and infringement detection. Advanced algorithms can analyze vast amounts of digital content to identify similarities and differences, helping copyright holders protect their intellectual property. This not only expedites the identification of potential infringement but also reduces the burden on legal professionals.

Moreover, AI is utilized in automating routine legal tasks, such as document review and contract analysis. AI-powered tools can efficiently

scan and analyze complex legal documents, extracting relevant information and identifying potential copyright issues. This accelerates the legal research process, allowing legal professionals to focus on more strategic and nuanced aspects of copyright cases. In addition to content identification, AI aids in predicting copyright disputes. By analyzing historical legal data, machine learning algorithms can provide insights into potential legal outcomes, helping legal practitioners make informed decisions and devise effective strategies. Furthermore, AI contributes to the development of smart copyright contracts. These contracts leverage AI to adapt to changing circumstances, ensuring that licensing agreements remain relevant and compliant over time. This proactive approach minimizes disputes and legal challenges by addressing potential issues before they escalate.

Despite these advancements, it’s important to note that AI in copyright law is not without challenges. Issues related to bias in algorithms, ethical considerations, and the need for

human oversight persist. Striking a balance between technological innovation and legal principles remains a key consideration in the ongoing integration of AI in the legal landscape.

In conclusion, the use of AI in the legal field, specifically in copyright, brings about transformative changes. From content identification and infringement detection to automating routine tasks and predicting legal outcomes, AI enhances efficiency and effectiveness. As technology continues to evolve, it is essential for legal professionals to adapt and leverage these tools responsibly to navigate the complexities of copyright law.”

I admittedly have not utilized ChatGPT much. First, I cannot move on without noting ChatGPT’s response, which was provided in less than a second, would have likely taken me over forty minutes to research and draft. Secondly, I mostly agree with its response. Generative AI does provide humans with the ability to analyze extensive sets of information at record speeds, as demonstrated by its one second response that would likely have taken me over forty minutes to create. Companies



such as LegalSifter, which provide AI contract management software, have given members of the legal community tools that create an abundance of our most valuable asset, time. However, it feels as though the legal community as a whole tends to slowly adapt to novel concepts. Especially when it comes to technology. This is why ChatGPT's own acknowledgment of the challenges that persist with AI in copyright law in its above response is unironically the topic of this article.

Most notable to me in ChatGPT's above response is its use of the word "transformative". While the doctrine of fair use in copyright law dates back to the 1700s, the concept of transformative use has been around since 1994 when it was raised in the Supreme Court case *Campbell v. Acuff-Rose Music*, 510 US 569 (1994). Fair use is the legal doctrine that promotes freedom of expression by permitting any copying of copyrighted material done for a limited and "transformative" purpose. When traditional factors weigh against fair use, a creator can argue transformative use as using the source work in a new or unexpected way. A common example is a parody mocking an original work. A latter half millennial example would be the parody tracks of "Weird Al" Yankovic.

Because the doctrine of fair use intends to avoid stifling creativity that copyright law was designed to foster, the test for fair use does not need a bright-line rule, but rather a case-by-case analysis. To achieve this analysis, the Supreme Court in *Campbell* employed a four factor test for Fair Use in which they looked to (1) whether the purpose and character of the use is transformative; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market. *Campbell*, 510 US at 577.

In *Campbell v. Acuff-Rose Music*, members of the rap group 2 Live Crew were sued for their use of satirizing parts of Roy Orbison's song "Oh, Pretty Woman." The Supreme Court found 2 Live Crew's use of "Oh, Pretty Woman" was transformative fair use since it added something new with a further purpose or different character, altering the first ["Oh, Pretty Woman"] with new expression, meaning or message.

Furthermore, the Supreme Court reasoned that while it is true that 2 Live Crew copied the opening riff of the song as well as the first line of words, it was essential to the nature of the parody that it copy some recognizable portion of the song. In other words, copying does not become excessive just because the majority of the work was copied, but context is everything in determining what is transformative fair use versus what is not. The Supreme Court reasoned that it was significant that 2 Live Crew immediately departed from the lyrics after the first line and proceeded to incorporate other sounds into the music. Lastly, the Supreme Court found that when the second use of a work is transformative, as in *Campbell*, the extent of market harm may not be readily inferred, as it could with a duplication of the entirety of the original. *Campbell*, 510 US at 577-83.

The question then becomes, is ChatGPT arguing on behalf of generative AI that its responses to human-generated prompts could qualify as "transformative" use? Well, when asked the question, "What is transformative fair use in copyright law and how does it pertain to AI?" ChatGPT provided:

"Transformative fair use in copyright law refers to the modification or use of copyrighted material in a way that transforms the original work into something new and adds value, rather than merely reproducing it. This concept often comes up in cases where the use is considered for purposes such as commentary, criticism, parody, or education. When applied to AI, like ChatGPT, it means the generated text should serve a new or different purpose than the original data it was trained on.

For example, if ChatGPT generates text for commentary, criticism, or parody, it may be considered transformative. Or, if a user employs ChatGPT to generate content for educational purposes, such as creating unique explanations, analyses, or critiques that significantly transform the original input data, it could potentially be considered a transformative use. This education context, where the generated content serves a distinct purpose from

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the original data, might align with the principles of fair use in copyright law.

However, the application of fair use in AI is complex, and the legal interpretation can vary. The evolving nature of AI and copyright law means there is ongoing discussion and development in this area. Consulting legal experts for specific guidance on AI-related copyright issues is recommended." (I appreciate ChatGPT's recommendation of consulting a legal expert for specific guidance on AI-related copyright issues to ensure we as lawyers will always have a job; even if the future consists of heavy doses of generative AI.)

If ChatGPT is inherently making an argument that outputs from generative AI can qualify as "transformative" use, this could dramatically shift the way in which both the legal community and the US Copyright Office rely and depend on generative AI models. In other words, if ChatGPT is able to make a "transformative" use argument in its own defense for generative AI to be copyrightable, then the more advanced generative AI models become, should it follow the more willing the legal community and US Copyright Office can rely on its responses and their ability to be copyrighted? Let's consider ChatGPT has been trained on data sourced from the internet, and much of this data is likely already sourced from copyrighted works. When a human user inputs a prompt, ChatGPT provides responses based on that input, preexisting works, and the phrase patterns

it has been trained on. It follows then that ChatGPT is not copying anything in a literal sense while creating a response to a prompt.

This leads us to fair use. What if the owner of an original work were to challenge copyright infringement against ChatGPT? You can envision the argument for “transformative” use based on the Four Factor fair use test described above. Would a theoretical use of a generative AI output response transform an underlying copyright work in a material way, thus qualifying as “transformative” use? Would it economically impact the original copyright holder? As to the purpose and character of the use, research is often a purpose courts consider to be in the realm of fair use, and the fair use statute itself provides that non-profit educational purposes are generally favored over commercial uses. An argument can be made that ChatGPT would qualify as a form of research as OpenAI, the creator of ChatGPT, holds itself out as a nonprofit entity providing what can be considered a research project for the public. Moreover, each response given from a ChatGPT prompt arguably is “transformative” and not merely a reproduction of an original copyrighted work as ChatGPT responses transform a vast number of original works into something with new expression, meaning or message. As to the nature of the copyrighted work, it is a difficult factor to analyze without providing a specific example for a prompt. As a general rule of thumb, nonfiction prompt responses would be more likely to qualify as fair use, whereas fiction and more creative works prompt responses would pose difficulties. This factor would truly need to be analyzed on a case-by-case basis. As to the amount and substantiality of the portion used in relation to the copyrighted work as a whole, assuming only portions of copyrighted works were used as part of the training for ChatGPT, the output response given by ChatGPT would likely be considered fair use so long as a significant portion of any one copyrighted work was not used in creating the response. Last, as to the effect of the use upon the potential market, since ChatGPT uses millions and millions of underlying texts, ChatGPT’s responses would likely not have a negative economic impact on a particular copyright holder.

However, negative market impact and substantial use of singular work is possible. For example, imagine a prompt requesting ChatGPT to “write a short story about skiing stylized like Dr. Seuss” as opposed to a prompt that is asked to simply “write a short story about skiing”. Confusion in the marketplace and what could be considered copying “the heart” of a work is therefore possible as a prompt becomes more detailed to a specific existing work. Looking to policies on generative AI training set forth in other countries, the European Union, Japan, Taiwan, Malaysia, Israel, and the Republic of Korea have all included safe harbors for generative AI training to qualify as what we in the US would consider fair use. Should the US then provide fair use to generative AI training?

I tend to agree with ChatGPT’s own acknowledgment that it “brings about transformative changes” and “as technology continues to evolve, it is essential for legal professionals to adapt and leverage these tools responsibly to navigate the complexities of copyright law”. The US Copyright Office is likely the entity in our country best equipped to set the standard for navigating the complexities of copyright law and AI. As of the drafting of this article, the US Copyright Office has made it clear that creative works created with the aid of AI cannot constitute as copyrighted works. Regardless of whether ChatGPT’s output responses would theoretically qualify as fair use, whether those output responses would qualify as a valid copyright due to human authorship is an entirely different issue.

It is no secret, at least to us in the intellectual property space, that generative AI has moved from the stages of “a fun tool that can assist in everyday mundane tasks” into the stages of “a tool capable of generating creative works with limited human contribution”. This poses the US Copyright Office to have to make difficult determinations as to how works created with the aid of AI can qualify as copyrighted works.

The US Copyright Office has recently answered this question in a way that upholds the original purpose of copyright law, which is to provide humans a monopoly over their created works as a way to incentivize them to continue creating. As a result, the US Copyright Office has

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stated that works generated entirely by AI are not copyrightable for lack of human authorship. Thus, the human authorship requirement sets forth that a work is copyrightable so long as it was created by a human being because copyright law only protects “the fruits of intellectual labor” that “are founded in the creative powers of the mind.”

As courts have continued to more recently grapple with the increasing advancement of technology, they have continued to uphold the US Copyright Office’s stance that human authorship is required to gain copyright protection. In 2019, inventor Stephen Thaler filed a copyright application for visual artwork titled, “A Recent Entrance to Paradise,” but instead of naming himself as the author of the work, he attributed it to his AI creation, the “Creativity Machine.” *Thaler v. Perlmutter, et al.*, 1:22-cv-01564-BAH (ECF #24) D.D.C. (Aug. 18, 2023).

Thaler argued ownership based on the work-for-hire doctrine and claiming the AI-generated machine as his creation. Nevertheless, the US Copyright Office rejected Thaler’s application, asserting that copyright only applies to works crafted by human authors, not those that are created autonomously by AI algorithms. When Thaler challenged this determination in court, the United States District Court for the District of Columbia rejected his argument and sided with the US Copyright Office. The Court reasoned that although copyright law is “malleable enough to cover works created with or involving technologies developed long after traditional media of writings memorialized on paper.” *Id.* at *7 (citing *Gold-*



stein v. California, 412 US 546, 561 (1973)). This malleability is explicitly identified in the Copyright Act, as it “provides that copyright attaches to ‘original works of authorship fixed in any tangible medium, now known or later developed.’” *Id.* at *8 (citing 17 U.S.C. § 102(a)). Simply put, copyright law is “designed to adapt with the times,” but that does mean we are to abandon its foundational purpose of supporting human creation when presented with the introduction of AI. *Id.* Thus, the Thaler case reinforces the US Copyright Office’s narrow approach to analyzing creative works in order to uphold the founding principles of the Copyright Act.

In a more recent example, a similar determination came on December 11, 2023, when Ankit Sahni became the latest creator to have his work denied the ability to obtain a copyright by the US Copyright Office because Sahni’s work was created with the assistance of AI. Sahni’s work, entitled “SURYAST”, contained a two-dimensional computer-generated image created partly by himself and partly by a software program entitled RAGHAV. Pursuant to the US Copyright Office’s formal policy statement issued on March 16, 2023, the US Copyright Office stated with regards to works partially created by AI, “[t]he answer will depend on the circumstances, particularly how the AI tool operates and how it was used to create the final work.” In determining whether “SURYAST” fit those circum-

stances, the US Copyright Office focused on lack of human control, contradictory descriptions of the tool used, and whether the expressive elements of the work were human authored. Surely, one can imagine differing levels of human involvement while using generative AI to author creative works. A human author simply prompting generative AI to draft an entire story about a man who visits space with his pet monkey clearly involves limited human creativity. However, humans prompting generative AI to assist in creating a new species of monkey, a new planet, or a new type of space travel seems to register as a level of human creative input that could possibly qualify for copyright protection. So, should an increase in human input increase the probability that a work can be protected by US copyright laws? If so, what percentage of human input would suffice? These are the questions that we await answers to.

At bottom, as generative AI gains prominence, the US Copyright Office will need to continue to confront the copyrightability of works created autonomously by AI algorithms. Both the Thaler case and the denial of Sahni’s copyright exemplify this struggle, emphasizing the Copyright Office’s adherence to the requirement of human authorship for copyright protection. Consequently, the juxtaposition of Moore’s Law, dictating the rapid evolution of technology, and the inherently slow progression of legal processes becomes evident. This

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intersection of generative AI and copyright law presents a dynamic landscape where the pace of technological advancement clashes with the traditional foundations of legal frameworks. ChatGPT’s implicit argument that its responses could be considered transformative use sparks contemplation about the evolving role of AI models in the legal landscape. If Moore’s Law has taught us anything, it is that by the time the US Copyright Office, or anyone for that matter, fully determines how generative AI applies to US copyright laws, there will be an entirely new type of AI to digest.



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