AI-Related Challenges Are Becoming A Reality For Copyrights

By **Michael Kasdan and Brian Pattengale** (November 9, 2022)

While we are still not in the realm of sentient machines, current-day iterations of artificial intelligence, or AI, are demonstrating themselves to be potential sources of creativity which are challenging our understanding of authorship in the context of intellectual property.

If AI can create new content based upon its perceptions, how is that distinct from human authorship and, more importantly, how does AI fit into the current U.S. copyright landscape?

This article discusses AI creativity and its impact on what is protectable and not protectable under U.S. copyright law. (A second article will describe further copyright issues and the outlook for the future.)

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The answer to the above questions of whether and how AI authorship differs from human authorship and how AI is treated under copyright law matters; they are no longer academic or theoretical questions, but questions that must be grappled with and answered to deal with art, music, and literature that is being created right now.

A few recent examples of apparent AI contributions to works called original have included music[1][2][3] and works of visual art.[4][5][6]

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One striking example in the music space is the use of AI in 2019 to complete the unfinished Eighth Symphony by Franz Schubert based upon 90 previous compositions.[7][8] A composer, Lucas Cantor, utilized the AI output as a starting point to develop two additional movements to the unfinished piece.[9][10]

Further examples are the thousands of Avatars that are created when fashioning non-fungible token, or NFT, collections like Bored Ape Yacht Club.

These collections are made by taking a set of traits and randomly assigning them in accordance with a preset rarity condition.

While a human artist may create the traits, a machine implementing an AI algorithm creates the final images. Of course, these examples are more in line with AI-assisting a significant human creative input. But that is not always the case these days.

As a recent New York Times headline states: "A.I.-Generated Art Is Already Transforming Creative Work." As the article stated:

> Only a few months old, apps like DALL-E 2, Midjourney and Stable Diffusion are changing how filmmakers, interior designers and other creative professionals do their jobs.[11]

We must then ask several questions. First, can AI really create or author new works with de minimis, or even no human input?

If the answer is currently yes, or likely yes at some point in the future, how will US

copyright law deal with this apparent inconsistency? Spoiler alert: Sole AI authorship is not currently allowed under U.S. Copyright Office rules.

This begs the question: How creative is AI, really? Perhaps one of the most surprising recent news stories in the music area documented the rise and swift fall of FN MEKA, a virtual AI rapper that creates its own works — save the voicing of the lyrics it generates by a human voice.[12]

The AI rapper was signed by a major record company, Universal Music Group N.V.'s Capitol Records, and apparently even imparted controversial sociopolitical issues into its works — leading to its recent firing for perpetuating stereotypes.[13]

You read that correctly — an AI creative entity under contract with a private company was terminated for its conduct. What a time to be alive.

In the visual arts area, a piece of fine art generated by AI was entered at the Colorado State Fair — and won first place.[14]

The piece, named "Théâtre D'opéra Spatial" was generated using Midjourney, one of a handful of programs such as DALL-E, Wonder,[15] and Stable Diffusion, each being developed for producing art using AI. These programs typically generate new art based upon a short or detailed phrase written in prose. AI creative technologies are not limited to music or visual arts — many commercial programs for AI-assisted or AI-generated writing also already exist.

As the New York Times noted in its recent article on the subject:

> A.I. [has] entered the creative class. In the past few months, A.I.-based image generators like DALL-E 2, Midjourney, and Stable Diffusion have made it possible for anyone to create unique, hyper-realistic images just by typing a few words into a text box.[16]

If companies that are using AI to create movie, books, film scripts, newspaper articles and generative art cannot protect these creations under copyright law — and own and license them — they face a serious business problem. Indeed, earlier this month Getty Images Inc. announced that it was banning all AI-generated art from its platform for this very reason.[17]

In fact, popular art-generating AI programs such as DALL-E — referred to as generative AI programs — are becoming so user friendly that even a complete novice can generate unique and relatively high-quality pieces of art by entering only a simple phrase as input.

To illustrate this precise point — with particular emphasis on the novice aspect — we generated the below images using DALL-E by entering the following phrases as the only inputs.

In the first image, left: "A hyperrealist painting depicting a human surrounded by a grouping of terrifying robots in an urban landscape. The human is using a smartphone to read an article."

In the second image, right: "A woman is surrounded by a grouping of authoritative robots in an urban landscape. She is using a smartphone."
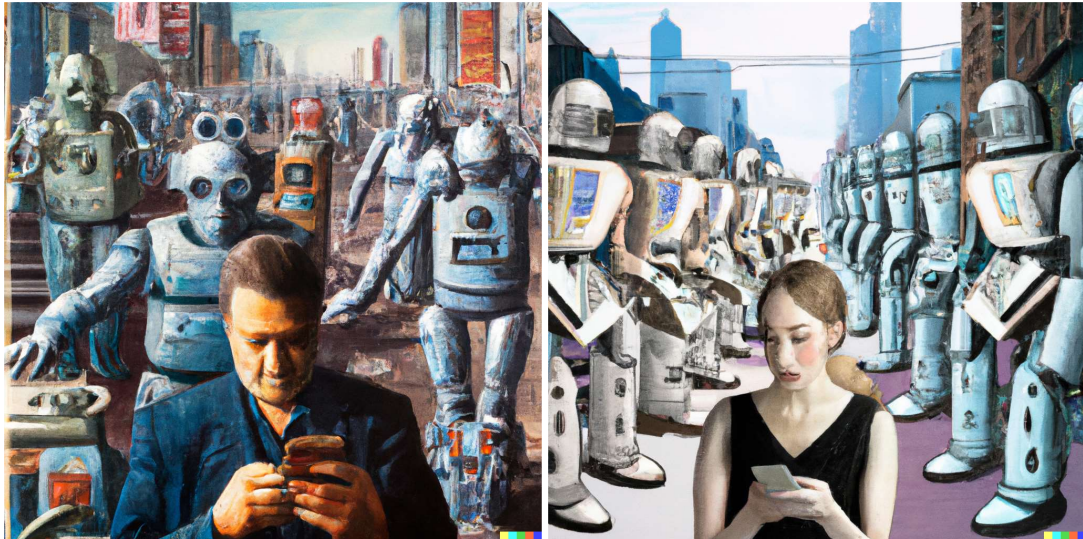
These images were generated by the author using DALL-E.

No special modifications or adjustments were made to the default algorithm. All that we did as human creatives was supply the above phrases; AI generated every other aspect of the pieces from that input.

Still further questions arise. Where does all this land with respect to authorship of copyrightable work products? Should some minimum amount of artistic input be needed from a human?

It should come as no surprise that the issue of authorship rights in computer-generated works, including AI-generated works, has been analyzed in the past.

For example, in a 1986 article, Pamela Samuelson argues that allocating rights to the user of the computer program is the solution most compatible with U.S. Copyright law.[18] It is certainly possible that Samuelson got it right over 35 years ago, as automatic allocation of rights to the AI operator would be somewhat clear-cut, at least on its face.

But with the improvement of AI technologies to their current state, and with near certainty that the pace of such improvements will only continue to accelerate, we are now faced with the reality that the AI operator can claim authorship for, arguably, a work generated with de minimis human input.

That is, a policy issue surrounding this proposition appears to be whether society is willing to accept that human input is not a required ingredient in a copyrighted work.

The underlying question, of course, is whether courts will find it constitutional for an author to receive exclusive rights to writings and discoveries that are not technically theirs.

While assuming absolutely no human input in a work is somewhat of a simplification for the purposes of discussion, it is arguably already possible. This seems to suggest that automatically allocating rights to the AI operator may not always be feasible.

A separate issue to keep an eye on, aside from authorship and copyrightability, is

ownership. For example, if you use a generative AI app like DALL-E or Wonder to generate a painting or some other digital work, who owns it: you or the software company? This depends on the terms of use for the software. So read those terms of use carefully!

We don't aim to offer a solution for these issues here. But the related uncertainties in this emerging space lead to significant business risks related to AI-generated or AI-assisted work products.

With such risk comes untapped economic potential for which a solution would be desirable sooner rather than later. At any rate, the future is both uncertain, but equally exciting, and is also sure to become only more interesting as our robot overlords slowly assume their role.

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