CLIENT ALERTS & INSIGHTS

Artificial Intelligence Presents Challenges for Intellectual Property Laws' Focus on Human Creation

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Artificial intelligence (AI) and its ability to generate content closely resembling human output present issues with respect to IP ownership. Maybe you have asked ChatGPT to create a flashy advertisement or write some code to support software development. Generative AI's efficiencies cannot be understated. Is that efficiency worth the reality that you may not be able to claim ownership over the output? More importantly, is that efficiency worth the reality that you may not be able to prevent others from using that output?

Background:

Under current statutory regimes, there are several requirements for (1) eligibility of protection and (2) authorship, inventorship, and ownership, respectively. At the heart of these requirements, however, is human creation, discovery, or use.

Because generative AI tools are programmed to think and learn like humans, and generate content closely resembling human output, content generated or created using AI tools leave open the question of whether the human creation requirement is met and who owns the content.

Businesses using AI to innovate, create, and operate should have a clear understanding of how AI impacts IP ownership, especially with respect to the valuable rights that come with IP ownership, namely reproduction, sale, and use by others without consequence.

1. Traditional IP Ownership Requirements

Copyright Authorship

An author of a copyrighted work is the *person* or entity who creates an original work of authorship fixed in any tangible medium of expression. If there are multiple people or entities who create the work, only those who contributed copyrightable elements are considered authors.

Originality refers to the requirement that a work be independently created, *i.e.* not copied and comprised of a modicum of creativity. Works of authorship include literary works, musical works, pictorial / graphic / sculptural works, audiovisual works, and sound recordings.

The Copyright Act grants a collection of exclusive rights, including the right to reproduce, create derivative works, and distribute copies, to the copyrighted work from the moment of creation for the life of the author(s) plus 70 years.

Patent Inventorship

An inventor of a patented invention is the person or entity who invents or discovers any novel, non-obvious, and useful: (1) process, machine, manufacture, or composition of matter, or any novel, non-obvious, and useful improvement thereof; (2) ornamental design for an article of manufacture; or (3) variety of plant.

Novelty means that the invention or discovery must be new, something not done before. Non-obviousness means a person having ordinary skill in the art or field of invention would not have invented or discovered the item. Usefulness requires the invention or discovery to provide some benefit to society.

Patent law provides monopolistic rights to the inventor(s) and / or patent owners for 20 years from the date the first non-provisional application was filed.

Trademark Ownership

The owner of a trademark is the person or entity who uses any word, name, symbol, or device, or combination thereof, in commerce to identify or distinguish their goods or services from those made or sold by others and to indicate the source of the goods or services.

Use of the trademark is the most important requirement because trademark protection provides consumers with information about their purchasing decisions. Therefore, the individual who thought of the trademark and the owner of the trademark can differ if the individual never *used* the trademark in commerce in connection with goods or services.

2. Impact of Artificial Intelligence on IP Ownership

Copyright Authorship

The United States Copyright Office ("Copyright Office") has repeatedly denied registration for AI-generated works based on a lack of human authorship.

Most notably, Dr. Stephen Thaler attempted to register a work titled "A Recent Entrance to Paradise" which was created by his AI system, "Creative Machine." The Copyright Office denied registration stating that "human authorship is a prerequisite to copyright protection in the United States" and the work for hire doctrine was inapplicable because AI was not an employee nor could expressly agree to work for hire contracts. This denial was affirmed by the U.S. District Court for the District of Columbia.

In another instance, the Copyright Office cancelled in part a registration owned by artist Kristina Kashtanova's for a comic book titled "Zarya of the Dawn" after determining that some portions of the book were generated by the AI program "Midjourney." The Copyright Office held that the images generated by Midjourney contained within the work were not original works of authorship because they were generated by a machine or mere mechanical process that operates without any creative input or intervention from a human author.

From these decision and the Copyright Office's recently issued guidance on registration of works created with AI-generated material, we can understand that the Copyright Office requires human authorship-at least for now.

The Copyright Office explained that human prompts to AI "function more like instructions to a commissioned artist" identifying what they want depicted, but it is up to the AI machine to implement them in the output.

Businesses and creatives should ensure they are not relying entirely on AI in creating works otherwise eligible for copyright protection to avoid the risk of refusal of registration or protection for lack of human authorship.

Without a copyright registration, a business or creative could not enforce their right to prevent others from reproducing, creating derivative works from, or even selling that *same* flashy advertisement created using generative AI or that code that you used to develop your software. Any work created by the business or creative-otherwise eligible for copyright protection had AI not been involved-could be fair game for competitors to use without repercussion.

Patent Inventorship

Following President Biden's Executive Order on AI, the United States Patent and Trademark Office ("USPTO") issued guidance on patents for inventions developed using AI. From these materials, we can understand that AI assistance does not *preclude* patentability, but that some inventorship requirements warrant closer attention.

The USPTO stated that "while AI-assisted inventions are not *categorically* unpatentable, the inventorship analysis should focus on human contributions, as patents function to incentivize and reward human ingenuity." Specifically, a human being must make a "significant contribution" to the invention. What is unclear is how this "significant contribution" test will be applied with generative AI.

The USPTO gave *some* guidance-simply making or using an invention AI suggested or asking AI to solve a human-recognized problem is not significant human contribution. On the other hand, conducting experiments to alter or improve the AI suggestion or development of detailed prompts to elicit particular solutions from the AI could be sufficient.

Additionally, the USPTO will require human contribution to every claim in the patent, and "inventorship is improper in any patent or patent application that includes a claim in which at least one natural person did not significantly contribute to the claimed invention."

Because of this requirement, including even *one claim* in a patent without any human contribution greatly increases the risk of unpatentability.

Businesses and inventors should ensure they identify each instance of significant human contribution in each claim of a patent and inform their attorney to provide the best possible level of protection for AI-assisted inventions.

Without a registered patent on software generated with assistance of AI, a business or inventor would not be able to prevent others from impermissibly misappropriating and using the software. The key incentive of patent law-to promote innovation, investment, and invention-would vanish with the ability to simply take the efforts of another and AI for one's own gain.

Trademark Ownership

Trademarks are somewhat less impacted by generative AI. Because generative AI does not presently impact the use-in-commerce requirement, the ownership analysis has not changed.

For example, if a business uses AI to create a catchy slogan or product name, AI's generation of an output should not prevent the business from later using in commerce and claiming ownership in that trademark. Businesses and brands should, however, still run clearance searches to determine the risk of use and/or registration on that output.

In conclusion, AI is creating waves in IP ownership analysis such that businesses seeking to thrive with this innovative technology should take note. Adopting and implementing clear policies and procedures regarding use of AI in creation, invention, and discovery can mitigate risk, protect investments, and unlock new opportunities for success with confidence.

Continue to follow Benesch's AI Commission as we address the following issues in-depth: infringement; the legal and regulatory landscape; and more. Stay tuned!

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