

U.S. Patent Office issues guidance for AI-assisted inventions

February 13, 2024 | Client Update | 4-minute read

On February 12, 2024, the United States Patent and Trademark Office issued inventorship guidance for AI-assisted inventions. The guidance follows caselaw establishing that an AI system cannot itself be an inventor and seeks to strike a balance between incentivizing AI-assisted inventions and maintaining the spirit of the Patent Act's requirement for human ingenuity.

The United States Patent and Trademark Office (USPTO) issued [guidance](#) on AI and inventorship on February 12, 2024. Here are the key takeaways.

Inventors must be natural persons. The USPTO confirms that each claim of a patent requires an inventor, joint inventor, or co-inventor who is a natural person that “significantly” contributes to the claim’s conception. The Patent Act does not preclude the use of specific tools, so a natural person’s mere use of an AI system will not preclude them from qualifying as an inventor. Thus, while AI-assisted inventions are not categorically unpatentable, the inventorship analysis should focus on human contributions, and only natural persons may be listed as inventors.

Guiding principles. The USPTO provides a non-exhaustive list of principles to inform the analysis of whether a natural person’s contribution to an AI-assisted invention is sufficiently “significant” to qualify the person as an inventor.

1. A natural person’s use of an AI system in creating an AI-assisted invention does not negate that person’s otherwise “significant” contribution as an inventor.
2. A natural person who simply presents a problem to an AI system may not be a proper inventor or joint inventor of the AI system’s output. However, a significant contribution could be shown by the way the person constructs the prompt in view of a specific problem to elicit a particular solution from the AI system.
3. Reducing an invention to practice, alone, is not a sufficient contribution that rises to the level of inventorship. As such, a natural person who merely recognizes and appreciates the output of an AI system is not necessarily an inventor. However, a person who takes the output of an AI system and makes a significant contribution to the output to create an invention may be a proper inventor.
4. A natural person who develops an essential building block of a claimed invention may provide a significant contribution to its conception, even if the natural person is not present for every activity leading to conception. Thus, a natural person who designs, builds, or trains an AI system in view of a specific problem to elicit a particular solution could be an inventor, where such activity is a significant contribution to the invention.
5. A natural person who owns or oversees an AI system used to create an invention is not an inventor if that person does not provide a significant contribution to the invention’s conception.

Duty of disclosure. The USPTO does not require disclosure of the use of AI in the inventive process in every case and indicates its guidance will not have a major impact on an applicant’s disclosure requirements. However, it reminds applicants of the existing duty to disclose information that (1) raises a prima facie case of unpatentability due to improper inventorship or (2) is inconsistent with an applicant’s position refuting an inventorship rejection. In the context of AI-assisted inventions, this requires applicants to disclose information demonstrating an inventor did not significantly contribute to the invention because that person’s purported contribution was made by an AI system.

Duty of reasonable inquiry. The USPTO does not modify the duty of reasonable inquiry, but reminds patent practitioners who are preparing or prosecuting an application to inquire about proper inventorship. In the context of AI-assisted inventions, the duty of reasonable inquiry may include questions as to whether and how AI is used in the invention process. In addition, if an examiner or other USPTO employee has a reasonable basis to conclude that one or more named inventors may not have contributed significantly to the claimed subject matter, the examiner or other USPTO employee may request information from the applicant.

Assignment. Because an AI system cannot be a named inventor, it has no rights to assign. However, this guidance does not apply to contractual or licensing agreements concerning AI systems in the invention creation process, only to recording assignments with the USPTO.

President Biden's Executive Order of October 30, 2023 directed the USPTO to issue guidance addressing further questions related to patentability and AI, including subject matter eligibility, obviousness, and enablement. We look forward to the USPTO's forthcoming guidance on these issues as well.

If you have any questions regarding the matters covered in this publication, please reach out to any of the lawyers listed below or your usual Davis Polk contact.

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