

Patent Office Issues New Guidance on Inventing with AI

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The rapid development and increased accessibility of artificial intelligence (AI) have led inventors to use and push the boundaries of the technology. AI can digest big data, draft natural language, and assist inventors in numerous and yet unimagined ways. AI has been applied in many industries and is envisioned by some to one day be an inventor.

As AI systems, including generative AI, play a greater role in the innovation process, it raises questions about whether our patent system is prepared to handle inventions that have been created with the use of AI. Can our patent system credit inventors who use AI, and can inventorship be shared with an AI tool? Can AI be a named inventor on a patent? Can the person using AI obtain patent protection? The U.S. Patent and Trademark Office (USPTO) recently released [Inventorship Guidance for AI-Assisted Inventions](#) that presents an initial stance on these issues.

Why is this important? The determination of inventorship, or the listing of inventors of a patent application, is critical both in maintaining the enforceability of any patent that issues from the patent application and in determining who holds rights to the invention. The inventors are those who contributed to the concept of the invention, not those who merely recognized an existing problem or, for example, only created a prototype from someone else's idea. The advance of AI has challenged this notion of inventorship, as AI can be pushed to perform at the level of an inventor, developing new ideas and contributing new concepts.

In a recent case *Thaler v. Vidal*, prompted by the filing of multiple patent applications that named an AI system as an inventor, the Federal Circuit affirmed "that only a natural person can be an inventor, so AI cannot be." *Thaler v. Vidal*, 43 F.4th 1207, 1213 (Fed. Cir. 2022), *cert denied*, 143 S. Ct. 1783 (2023). The USPTO Guidance grapples with the implications of this decision; if AI cannot be an inventor but could be used to invent, what does it mean for inventorship and patent protection?

The USPTO Guidance importantly clarifies that AI participation in an invention does not render the invention unpatentable. Patent protection can still be pursued on inventions developed with the help of AI, even though the AI may be, in theory, a missing "inventor" that contributed to the concept of the invention but is not able to be listed on the patent application.

A person creating an invention using AI, however, must "contribute significantly" to every claim in the patent application. AI cannot be the sole source of any concept for which protection is claimed. To aid in the understanding of the "contribute significantly" requirement, the USPTO provided several guiding principles, including most notably:

- One who merely presents a problem to AI is generally not an inventor of the output of the AI but could be an inventor if the prompt to the AI is constructed "in view of a specific problem to elicit a particular solution from the AI system."
- Likewise, a person who designs, builds, or trains AI "in view of a specific problem to elicit a particular solution" could be an inventor in certain circumstances.

- Recognizing the output of AI as an invention does not make a person an inventor, but making a significant contribution to the output may be sufficient.

The USPTO has invited [public comment](#) on this Guidance, and multiple members of the Barley Intellectual Property Practice Group will be closely involved with providing comments from leading intellectual property professional organizations, such as the American Intellectual Property Law Association (AIPLA).

Promoting responsible innovation, competition and collaboration by, in part, properly accounting for AI in the patent system will allow the United States to lead in AI and unlock the technology's potential to solve some of society's most difficult challenges. This Guidance is one of the first official steps toward handling patent issues that arise from AI. The intersection of AI and IP protection, and particularly how the "contribute significantly" requirement is applied to real-world situations, is only going to become more interesting in the coming years. If you have any questions about AI and IP protection, please contact [Kevin Myhre](#), [Sal Anastasi](#) or any member of the [Barley Snyder Intellectual Property Practice Group](#).

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