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Can AI inventions be patented? The USPTO speaks.

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"Can AI inventions be patented?" is one of several important questions intellectual property lawyers have been asking as the widespread use of artificial intelligence ("AI") makes its mark on the legal landscape.

On February 13, 2024, the United States Patent and Trademark Office ("USPTO") issued its clearest statement yet on the patentability of AI-assisted inventions. In a notice published in the Federal Register, the "Inventorship Guidance for AI-Assisted Inventions,"[1] the USPTO laid out new guidance on the determination of inventorship for AI-assisted inventions.

The new USPTO guidance is aligned with similar approaches from the United Kingdom Intellectual Property Office and the European Patent Office.

Notably, the guidance stated that AI-assisted inventions are not categorically unpatentable due to improper inventorship if one or more natural persons ***significantly contributed*** to the invention. The notice follows President Biden's October 2023 executive order on the "Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence," which promised further guidance from the administration in February 2024.

While the guidance states the USPTO's position on patenting AI-assisted inventions, it is not yet a rule; the office is seeking public comments during the 90-day comment period. In addition, the USPTO guidance also provided some principles for determining the inventorship of an AI-assisted invention as well as the impact such determination has on other aspects of patent practice.

Below are some important takeaways from the USPTO guidance.

- **Inventors and joint inventors named on U.S. patents and patent applications must be natural persons. Applicants should not list AI systems as joint inventors**. The USPTO clarified the principles set forth in *Thaler v. Vidal*,[2] specifically noting that *Thaler* is an acknowledgment that the statutory language clearly limits inventorship to natural persons but is not a recognition of any limits on the current or future state of AI. While AI systems and other non-natural persons may not be listed as inventors on U.S. patents and patent applications, the use of an AI system by a natural person will not preclude that natural person from qualifying as an inventor (or joint inventors) if the natural person significantly contributed to the claimed invention (as discussed below). Accordingly, the inability to list an AI system used to create an invention as a joint inventor does not render the invention unpatentable due to improper inventorship.
- **A natural person who creates an invention using an AI system must "contribute significantly" to every claim set forth in the invention, as specified by the *Pannu* factors**. In determining AI-assisted inventorship, the USPTO pointed to the test used in *Pannu v. Iolab Corp.*,[3] which is often used to determine joint inventorship. To be considered a named inventor, each natural person must "(1) contribute in some significant manner to the conception or reduction to practice of the invention,[4] (2) make a contribution to the claimed invention that is not insignificant in quality, when that contribution is measured against the dimension of the full invention, and (3) do more than merely explain to the real inventors well-known concepts and/or the current state of the art." A natural person must have significantly contributed to each claim in a patent or patent application, and determination is made on a claim-by-claim and case-by-case basis.[5] For example, where a single person uses an AI system to create an invention, that single person must make a significant contribution to every claim in the patent or patent application.
- **The USPTO provided a non-exhaustive list of principles that can help inform the application of the Pannu factors in AI-assisted inventions:**
  - A natural person's use of an AI system in creating an AI-assisted invention does not negate the person's contributions as an inventor.
  - Merely recognizing a problem or having a general goal or research plan to pursue does not rise to the level of conception.
  - Reducing an invention to practice alone is not a significant contribution that rises to the level of inventorship.
  - A natural person who develops an essential building block from which the claimed invention is derived may

be considered to have provided a significant contribution to the conception of the claimed invention even though the person was not present for or a participant in each activity that led to the conception of the claimed invention.

- A person simply owning or overseeing an AI system that is used in the creation of an invention, without providing a significant contribution to the conception of the invention, does not make that person an inventor.

- **There is no requirement to disclose to the USPTO that the inventor used AI as part of the invention process**. This differs from the United States Copyright Office's policy on AI applications, which requires the disclosure of AI tools used in the generation of the works and explanation of the human author's contribution.
- **This guidance regarding AI-assisted inventions applies to design and plant patents and patent applications as well**. For example, the use of AI by a natural person will not disqualify that person as an inventor or joint inventors of the claimed plant so long as the plant was created with significant contribution(s) from the natural person.
- **The USPTO has taken a similar approach to other national courts and patent offices on prohibiting the listing of AI as an inventor on a patent or patent application**. The new USPTO guidance is aligned with similar approaches from the United Kingdom Intellectual Property Office and the European Patent Office.

Written comments to the above guidance must be submitted to the USPTO within 90 days (*i.e.*, on or before Monday, May 13, 2024). The USPTO is also seeking public comments on the examples provided to the public and examiners on the application of the guidance in specific situations listed here.[6]

Notes

[1] https://bit.ly/49gzKsC

[2] *Thaler v. Vidal*, 43 F.4th 1207, 1213 (Fed. Cir. 2022), *cert denied*, 143 S. Ct. 1783 (2023).

[3] *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1351 (Fed. Cir. 1998).

[4] The USPTO further clarified that the reference to reduction to practice in this first *Pannu* factor does not imply that reduction to practice is sufficient for invention or is a substitute for conception.

[5] The guidance advised that examiners and other USPTO personnel "should carefully evaluate the facts from the file record or other extrinsic evidence when making determinations on inventorship."

[6] https://bit.ly/3I7W7EC

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