

Now & Next

Intellectual Property Alert

February 15, 2024

Patent inventorship requires “significant contribution” by human

By Peter Krusiewicz, Daniel J. Schwartz, and Bradley M. Taub

The USPTO issued inventorship guidance for AI-assisted inventions seeking to “incentivize and reward human ingenuity” while recognizing that AI systems will play a “greater role in the innovation process.”



What’s the impact?

- Humans must have made a “significant contribution” to each claim in order to receive patent protection.
- Applicants and their representatives must understand and analyze the contributions of the humans (i.e., inventors) and the AI systems (i.e., tools) involved in the conception of the claimed invention to properly determine inventorship.

Since the Federal Circuit’s decision in *Thaler v. Vidal*,ⁱ holding that “only a natural person can be an inventor, so AI cannot be,” the USPTO had not provided guidance on the extent to which an AI system may be used to aid in the conception and development of an invention until now.

However, the USPTO's new guidance will generate new issues for inventors and their representatives as the contours of whether a human made "significant contributions" gets addressed by the USPTO and more likely the courts.

Inventorship requirements

AI-assisted inventions are not categorically unpatentable as long as a natural person made a "significant contribution" to each claim in the application. The "significant contribution" inquiry is not a novel concept to patent law and nothing in the new guidance alters this inquiry. As set forth in the Federal Circuit's 1998 decision in *Pannu v. Iolab Corp.*, Courts have considered a person to be an inventor if they:

- / Contributed in some significant manner to the conception and/or reduction to practice of the invention;
- / Made a contribution to the claimed invention that is not insignificant in quality, when that contribution is measured against the dimension of the full invention; or
- / Do more than merely explain to the real inventors well-known concepts and/or the current state of the art.

USPTO's "guiding principles"

The USPTO's new guidance provides the following "guiding principles" to determine whether a person made a "significant contribution" to an AI-assisted invention:

- / A person's use of an AI system in creating an AI-assisted invention does not negate the person's contributions as an inventor;
- / A person merely recognizing a problem and prompting the AI system to produce a solution to the problem is not a proper inventor;
- / 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;
- / A 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 the designing, building, or training of the AI system is a significant contribution to the invention created with the AI system; and
- / A person who maintains intellectual domination over an AI system does not make that person an inventor of any inventions created using the AI system.

Notably absent from the USPTO's "guiding principles" and the progeny of "significant contribution" case law is an actual definition of what constitutes a "significant contribution."

The applicant's duties

Despite the lack of an express definition of "significant contribution," and the recognition "there is no bright line test," the USPTO "does not believe that this inventorship guidance will have a major impact on applicants' disclosure requirements." In addition, while the USPTO "is not changing or modifying its duty of reasonable inquiry" applicable to applicants' representatives, the Office recognizes that its examples are not comprehensive of every possible scenario that will arise in the future. In addition, the Office expressly suggests that representatives inquire regarding the extent of use of AI technologies and explore with clients how AI was used in the invention creation process.

Looking ahead

Both applicants and their representatives will need to pay close attention to how this guidance is implemented, and the circumstances in which it is determined a human either made a "significant contribution" or not. There will likely be scenarios in which the representative in good-faith determines that a person made a "significant contribution" despite the assistance of an AI system such that the person is an inventor, but the USPTO finds that determination to be incorrect, thereby not entitling the applicant to patent protection.

As patents issue in light of this guidance, it seems likely that proper inventorship issues will become a focus for entities seeking to invalidate patent claims. As the use of AI systems increases in the creation process, litigants will likely assert invalidity due to a lack of "significant contribution" of the human inventors on claims.

Nixon Peabody will continue to monitor the development and implementation of the USPTO's new guidance.

For more information on the content of this alert, please contact your Nixon Peabody attorney or:

Peter Krusiewicz

312.977.4473

pkrusiewicz@nixonpeabody.com

Daniel J. Schwartz

312.977.4432

djschwartz@nixonpeabody.com

Bradley M. Taub

312.425.8563

btaub@nixonpeabody.com

¹ *Thaler v. Vidal*, 43 F.4th 1207, 1213 (Fed. Cir. 2022), cert. denied, 143 S. Ct. 1783 (2023).