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US PTO guidelines for AI suggest amplified need for documentation

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The U.S. Patent and Trademark Office (PTO) has released a draft version of patent examiner guidelines to address the increasing use of artificial intelligence (AI) in the inventive process, reflecting the standing U.S. position that AI cannot be an inventor. However, these new guidelines reinforce the notion that inventors should meticulously document the inventive process if they are to avoid problems that could arise in connection with the role of the AI in that process, a failure of which could invalidate one or more claims in the patent application and significantly damage or even destroy the value of the patent.

The index legal controversy over whether AI can be an inventor was the algorithm developed by Stephen Thaler, who appealed to the U.S. Court of Appeals for the Federal Circuit to have a patent awarded to his so-called DABUS algorithm. That appeal failed, although the courts in Australia saw the question in a decidedly different light. The PTO draft examiner guidance, announced Feb. 12 in the Federal Register, hews to the courts' position that AI cannot be named an inventor, but clarifies a few key points regarding the use of AI to develop an invention. This draft examiner guidance will in final form apply to any patent-related proceedings undertaken by the agency's Patent Trial and Appeal Board as well as to the processing of patent applications.

AI as the no-name inventor

The PTO had engaged in several public listening sessions over the past two years to take the pulse of stakeholders on their perspectives on AI as inventor, but also on the question of whether the time is ripe to provide guidance to the agency's patent examiners. One of the key passages in this draft examiner guidance is that while AI cannot be named an inventor, an invention is still eligible for patent protection even when an algorithm has been deployed in a manner that would constitute inventorship had a human performed those activities.

Additionally, PTO said that jurisprudence makes clear that any individual who had meaningfully contributed to the conceptualization of the invention is legally entitled to the status of inventor, a status that is not conferred upon the incidence of an "unrecognized accidental creation." Furthermore, each claim in a patent must be attributed to at least one of the named inventors, and consequently an application that names an algorithm as

the author of one or more claims may lead to a rejection of any such claims. While a reduction of the invention to repeatable practice is a key element in conferring inventorship, PTO said that reduction to practice is by itself insufficient to confer that status upon an individual.

Michael Borella, a partner in the Chicago office of McDonnell Boehnen Hulburt & Berghoff LLP, told BioWorld that this examiner guidance is not a complete departure from the PTO position on the use of tools to aid in the inventive process. Nonetheless, Borella said the increasingly common use of AI tools, such as ChatGPT, suggests that the inventorship issue "is going to get bigger rather than smaller" over the next few years.

Novel questions of infringement likely to surface

There are several scenarios in which infringement related to an algorithm will arise in the courts, but Borella said one scenario has not drawn much attention in legal proceedings to date. When a machine learning algorithm is licensed by a developer, the algorithm may be modified by the user or may unilaterally undertake its own modifications, and Borella said that as matters stand, liability for any infringement might hinge primarily on the licensing agreement and the construction of any purportedly violative claims. However, Borella said he has misgivings about the current state of U.S. jurisprudence, stating, "I'm a little concerned that we take this strict no-AI" approach to inventorship, "we could end up shooting ourselves in the foot" if numerous other nations decide that AI inventorship does not cross a legal and ethical line.

Brian Landry, a partner in the Boston office of Saul Ewing LLP, told BioWorld that the inventorship problem for AI might prompt some inventors to rely on trade secret protection for an invention rather than patent protection, but that the utility of the trade secret approach has its limitations. Landry said academic researchers may find the trade secret approach next to useless given the need to publish their studies and developments, although he observed that the PTO is in possession of data that suggest that patent applications mentioning AI had become more common in recent years."

"One of the primary factors we consider" when advising clients on this dilemma, Landry said, hinges on the degree to which the invention is going to be exposed to the marketplace. Internal corporate processes are one of the better uses of trade secrets, but pharmaceuticals present a poor business case for trade secret protection. **Medical devices of various types present somewhat varying arguments for the use of the trade secret path, but Landry noted that even the algorithm in a cardiac electrophysiology device could in principle be reverse engineered.**

Borella said the broad outlines of the PTO document present few surprises, if any, but noted that the guidance serves to prompt patent attorneys and inventors alike to tread carefully where disclosure is concerned. Attorneys charged with the task of prosecuting the patent application may be ethically responsible for disclosing the role of AI in the development of the invention, but he said it is not entirely clear at present where the line is drawn. “This is a potential gotcha” for applicants and their legal representatives, he predicted, particularly if the documentation developed during the inventive process would seem to conflict with any statements made to the PTO by the inventor and/or the prosecuting attorney.

Global patents a potential problem

Another potential headache may arise when an invention was developed with AI named as an inventor in a patent application filed outside the U.S., which is now a plausible scenario given where the courts in Australia landed on the question. Borella said this is a potentially massive problem because the PTO won’t recognize a patent obtained in another nation under these circumstances, a predicament that calls for careful strategizing by companies doing business in multiple national jurisdictions.

Landry said the examiner guidance encodes a few take-aways for inventors and prosecuting attorneys alike, one of which is that an application should explicitly disclose whether AI was used in the development of that invention. He said this is standing practice for research tools, but it may be imprudent to wait until the PTO’s examiners issue requests for information to make such a disclosure. Landry predicted that PTO requests for additional information may become more frequent in this new world of intellectual property, but this may vary between the individual technological offices at PTO.

Nonetheless, Landry said, “to my mind, AI is ultimately just another tool. It is orders of magnitude more powerful than AutoCAD, which I don’t think anyone thinks is remarkable” as a tool anymore, he said, adding that while this new class of software products might have a significant impact on innovation, “I don’t view AI as anything fundamentally different.”