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3 KEY TAKEAWAYS

Subject Matter Eligibility, Inventorship, and Artificial Intelligence

Recently, Sameer Vadera was a panelist on the "Subject Matter Eligibility, Inventorship, and Artificial Intelligence" panel co-hosted by the Pauline Newman IP American Inn of Court and the PTAB Bar Association. The panelists discussed the application of *Alice* and the USPTO's 2019 Revised Patent Subject Matter Eligibility Guidance to patent prosecution and AIA trials, as well as best practices for prosecution of AI inventions before the USPTO, best practices for actions before the PTAB, and AI as inventor.

Below are three takeaways from the program:

1

A software-related invention is likely to be patent eligible if the invention, as claimed, improves the functioning of a computer. In the AI space, the choice of a specific AI model for a particular implementation can lead to a technological improvement to the functioning of a computer. Similarly, in a pipeline of several AI models, the specific arrangement of AI models can yield a technical improvement. For example, an AI model can be included in a pipeline to reduce the dimensionality (e.g., the number of user features) of data records in a training data set. Arguably, processing data records with reduced dimensionality yields technical improvements to the functioning of a computer.

2

When speaking with inventors of an AI-based invention, an important question to ask inventors might be, for example, "How is the selection of a particular AI model in this network architecture new or technologically advantageous?" If the inventors leveraged existing AI models in their invention, consider asking the inventors about any difficult aspects of applying the existing AI models to their new, unique use case. There is likely a computer-based improvement when applying an existing AI model in a new application or use case.

3

Ex parte Hannun is a PTAB opinion that relates to the patent eligibility of a machine-learning-based invention. The PTAB recently designated *Ex parte Hannun* as an informative decision. The invention at issue in *Ex parte Hannun* is a neural network system trained to convert speech into text. Notably, the PTAB held that the claims at issue, which recited machine-learning techniques, could not qualify as a "mental step" because the steps of the claims could not "practically" be performed mentally.

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