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Patent Eligibility of AI Inventions (Part II)

Client Updates

US Patent Office Updates Guidelines for AI-Related Inventions – What You Need to Know About AI Patent Eligibility

The United States Patent and Trademark Office (USPTO) has issued a third guidance for Artificial Intelligence (AI)-related patent applications, which took effect on July 17, 2024.

The aim of this guidance is to directly address the patentability of emerging technologies (ET) and clarify that AI inventions are not automatically considered abstract ideas and therefore unpatentable. Instead, using the Alice/Mayo examination framework, the guidelines analyze in detail three separate illustrative examples of hypothetical claims and clarify that if a claimed AI invention includes a technical solution to a technical problem, its subject matter could be patent eligible. Echoing the inventorship guidance from February 2024, the key requirement remains that a human must make a significant contribution to the claimed invention.

Summary of Examples Examined:

		Summary	Eligibility	Explanation
Anomaly Detection	Claim 1	ASIC for an Artificial Neural Network (ANN)	✓	Falls within a statutory category, no judicial exceptions. The specific ASICS is a physical circuit.
	Claim 2	Method of using an ANN	✗	Involves an abstract idea (discretizing data) and mental choices, does not integrate into a practical application.
	Claim 3	Method of using an ANN to detect malicious network packets	✓	Improvement in the technical field of network intrusion by providing real-time remedial actions, thus integrating the abstract idea into a practical application.
Speech Separation	Claim 1	A speech separation method	✗	Contains mathematical concepts without practical application. Additional elements are insignificant or generic.
	Claim 2 [Dependent]	Method of speech separation	✓	Improvement to existing computer technology and integrates abstract ideas into practical application like synthesizing speech and excluding unwanted sources.
	Claim 3	Non-transitory, computer-readable storage medium for instructions	✓	Recites ordered combination of steps, and applies abstract ideas in practical ways, improving speech-to-text technology, especially reducing the gap on transcription performance for accented speakers.
Fibrosis Treatment	Claim 1	Post-surgical fibrosis treatment method	✗	Includes routine and conventional techniques and abstract ideas and mathematical concepts: no improvement to the functioning of any technology
	Claim 2 [Dependent]	"wherein" the appropriate treatment is Compound X eye drops	✓	Provides a "particular treatment", turning the abstract idea into a practical application.

These guidelines assist companies involved in AI development and AI related inventions by providing clearer rules for evaluating patent eligibility and IP protection strategies. AI-related claims are often seen as abstract ideas, which are not patentable. Therefore, when drafting AI invention claims, it is crucial to demonstrate real technological improvements and specific solutions to problems. The guidelines and examples can serve as useful templates for obtaining patent protection for AI technologies.

Key Takeaway: The USPTO's new guidelines offer more detailed instructions for evaluating AI-related patent claims. The fundamental requirement remains that the claimed invention must present a technical solution to a technical problem to be patent-eligible.

This update is intended to provide general and concise information only. It does not constitute a complete analysis of the issues discussed, does not constitute a legal opinion or legal advice, and should not be relied upon.

For more information or assistance with specific cases involving AI-assisted inventions, please feel free to reach out to Dr. Maya Shmailov.

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