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Locke Lord QuickStudy: Patenting AI Inventions

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Introduction: Artificial Intelligence (AI) has emerged as a transformative force across many industries, revolutionizing the way we live, work, and interact. As AI technologies continue to evolve, the question of intellectual property protection becomes increasingly significant. Patents play a crucial role in safeguarding AI inventions and encouraging innovation in this rapidly advancing field. It is key to know that AI inventions have been examined and issued as U.S. patents for many years. In this advisory, we will explore the challenges and considerations involved in patenting AI inventions and highlight the key factors that innovators need to understand.

(For additional information regarding the interplay between AI and copyright law, I suggest Locke Lord's previous discussion on the topic.)

Understanding AI and Patentability: AI refers to the simulation of human intelligence in machines that are programmed to learn, reason, and make decisions. It encompasses a wide range of technologies, including machine learning (supervised and unsupervised), neural networks, natural language processing, and Large Language Models (LLMs). From autonomous vehicles to medical diagnostics and predictive analytics, AI has broad applications extending across numerous diverse sectors such as from shipping logistics to financial/banking/insurance applications.

Benefits of Obtaining AI Patents: Companies can validate the uniqueness of their innovation. For instance, if they file a patent application in the United States Patent Office, they may use "patent pending" in marketing campaigns highlighting the valuable proprietary nature of their products/services. Patents also signify business growth and innovation, which is important to strategic partners and investors. Of significance, patents fortify a company's innovative technology from being copied by competitors, often presenting entry barriers to its competitors, thus providing substantial income and ROI opportunities.

Patent Qualification: To qualify for patent protection, an AI invention must meet certain criteria. First and foremost, it must be novel (meaning it should not have been publicly disclosed or patented before the filing date) and it must be made by a human inventor. Additionally, the invention must involve an inventive step, meaning it must not be obvious to a person skilled in the relevant field of technology.

Considerations for Patenting AI Inventions

1. Intellectual Property Strategy: Developing a robust intellectual property (IP) strategy is vital for protecting AI

inventions. It involves identifying the core AI technologies, assessing their commercial value, and formulating a comprehensive patent filing plan. Combining patents with other forms of IP protection, such as trade secrets and copyrights, can offer a layered approach to safeguarding AI innovations.[1]

2. Collaborations and Licensing: Given the interdisciplinary nature of AI, collaborations and licensing agreements can play a crucial role in leveraging AI inventions. Establishing partnerships with industry players, research institutions, or startups can facilitate technology exchange and licensing opportunities, thereby promoting innovation while mitigating the risk of patent disputes.

3. Global Patenting Strategies: AI is a global phenomenon, and obtaining international patent protection is often essential for commercial success. Considering the variations in patent laws and examination standards across jurisdictions, it is advisable to seek expert advice and tailor patent strategies accordingly. The strategic selection of countries for patent filings can optimize protection while managing costs effectively.

4. Monitoring the Patent Landscape: Continuous monitoring of the patent landscape is crucial to stay informed about the latest AI innovations and avoid potential infringement. Conducting regular patent searches and analyzing patent publications can help identify white spaces for future R&D efforts.

Keys to Successfully Drafting AI Patent Applications

1. Draft a strong patent application: Prepare a well-written and detailed patent application that clearly describes the technical aspects of your AI invention, which may include an improvement to a computer application and/or improvement to a computer's operation (e.g., a database having a novel data structure).

2. Focus on technical aspects and algorithms: When drafting your patent application, emphasize the technical aspects of your AI innovation, such as the algorithms, architectures, data processing techniques, or unique methodologies. Ensure that the invention is clearly defined and sufficiently disclosed, providing examples when possible.

3. Provide experimental evidence and results: Whenever possible, support your patent application with experimental evidence and results that demonstrate the effectiveness, advantages, or technical contributions of your AI invention. This can strengthen the patentability of your technology.

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[1]For more information on intellectual property protections for AI, see, Kenedy, J.A. & Rutledge, J. (April 12, 2023) ?Locke Lord QuickStudy: Generative AI and Intellectual ?Property: Whether the Wild West or the Matrix, It ?is the ????(Latest) New Frontier. ?

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