Artificial Intelligence: Technical Primer & Patenting Tips
by Kirk Coombs

Artificial Intelligence (AI) has emerged as an important area of innovation and development for a variety of clients, whether they develop underlying AI technology, or utilize AI models to enhance their product offerings. AI is intelligence (e.g., perceiving, synthesizing, and inferring information) demonstrated by machines. As a subset of AI, machine Learning (ML) is a field of inquiry devoted to understanding and building methods that “learn” – that is, methods that leverage data to improve performance on some set of tasks. ML algorithms build a model based on sample data, known as training data, to make predictions or decisions without being explicitly programmed to do so. While a variety of ML algorithms are used, some rely on artificial neural networks that mimic the working of a biological brain.

Patents can protect applications of AI to specific use cases and systems, improvements in fundamental AI technologies, and AI-supportive technologies. In any case, it is important to focus on technical features. For example, when patenting applications of AI to specific use cases and systems, a patent may focus on the technical aspects of gathering and preparing training data, the specifics of the AI model used (e.g., model type, training parameters), and how the model outputs are processed and used in a “practical application.”