President Biden issued the "Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence" on October 30, 2023, including the objective to "promote a fair, open, and competitive ecosystem and marketplace for AI and related technologies so that small developers and entrepreneurs can continue to drive innovation.... stopping unlawful collusion and addressing risks from dominant firms' use of key assets such as semiconductors, computing power, cloud storage, and data to disadvantage competitors." As part of this effort, the USPTO recently issued inventorship guidance for AI-assisted inventions.

The USPTO's guidance centers on two principles: 1. Inventors and Joint Inventors Named on U.S. Patents and Patent Applications Must Be Natural Persons, and 2. Al-Assisted Inventions Are Not Categorically Unpatentable for Improper Inventorship. While the first principle may be readily understood, the USPTO's guidance on the second principle appears to raise more questions than it answers.

Under the guidance, the USPTO treats the natural person using the AI as a co-inventor, essentially finding inventions attributable to only the AI unpatentable, such that an invention is only patentable where a natural person has contributed in some significant manner to the conception or reduction to practice of the invention, made a contribution to the claimed invention that is not insignificant in quality (when that contribution is measured against the dimension of the full invention), and did more than merely explain well-known concepts and/or the current state of the art to the real inventors.

Unfortunately, the guidance does not appear to provide much clarity as to what qualifies as a "significant" contribution, particularly weighed against the use of AI by the natural person. Creating or training an AI system, providing prompts to an AI system, and modifying the output of an AI system are all given as examples where an individual's contribution may or may not be considered significant, but it remains to be seen where the final lines will be drawn.