

Publications

Two Wins for AI-Inventorship in South Africa and Australia

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South Africa was the world's first jurisdiction to issue a patent listing an artificial intelligence (AI) entity as an inventor. The owner of the AI entity is considered to be the owner of the patent. An Australia court ruled that same week that Australian patent laws do not prohibit an AI entity from being an inventor.

Ryan Abbott, a University of Surrey professor, and his team are fighting an uphill battle with patent offices around the world to patent the creations of DABUS (device for the autonomous bootstrapping of unified sentience), an artificial neural system developed by Dr. Stephen Thaler, CEO of Imagination Engines.

Reportedly, DABUS has conceived of two inventions: (1) an emergency warning light and (2) a food container based on fractal geometry that improves grip and heat transfer. According to Thaler, while DABUS was designed and built by humans, the AI entity is described as "sentient and develops ideas." In an interview with The Recorder, Abbott provide three reasons why DABUS is considered the sole inventor: "One is it functionally did the job of an inventor. Two is to inform the public that this was an AI-generated invention and not a traditional human invention. And three, to prevent someone from taking credit for work that they didn't do."

Since 2018, Abbott's team has filed for patents with DABUS as the sole inventor in over ten jurisdictions including the United Kingdom, Europe, Australia, the United States, Germany, and South Africa. The UK, EPO, and USPTO were the first to address the issue of having a patent application with a non-human inventor. All objected for generally the same reasons. While they did not contend the assertion by Abbott's team that DABUS is the inventor, they objected to the applications because DABUS is not a 'natural person.' In the US, this decision was based, at least in part, on Federal Circuit decisions, one of which states that "only natural persons can be 'inventors.'" *Beech Aircraft Corp. v. EDO Corp.*, 990 F.2d 1237, 1248 (Fed. Cir. 1993).

South Africa was the first to issue a patent where an AI entity, specifically DABUS, is the inventor. However, South Africa's patent laws are quite different from those of the United Kingdom, Europe, and the United States. South Africa does not have a formal examination process. Rather, applicants only need to complete the filing to proceed to a patent. So, this may not be the strongest win for Abbott's team.

The bigger win came the same week in Australia, whose patent laws are more in line with the US and Europe. Initially, the Australian Patent Office rejected the patent applications on similar grounds as the US and Europe. On July 30, an Australian court overturned the patent office's decision ruling that "an artificial intelligence system can be an inventor for the purposes of the Act [15(1) of the Patents Act 1990 (Cth)]."

[Thaler v Commissioner of Patents \[2021\] FCA 879 \(Fed. Court of Australia 2021\)](#).

The ruling goes on to provide reasons that include: "First, an inventor is an agent noun; an agent can be a person or thing that invents. Second, so to hold reflects the reality in terms of many otherwise patentable inventions where it cannot sensibly be said that a human is the inventor. Third, nothing in the Act dictates the contrary conclusion." Further, the ruling clarifies that "only a human, or other legal person can be an owner, controller or patentee." That is, the court made clear that the ruling affects only patent inventorship and not patent ownership.

While the AI-inventorship issue has been favorable to DABUS and future AI entities in South Africa and Australia, many questions remain. Will AI-inventorship be the next subject matter eligibility debacle with sometimes drastically diverse standards in different jurisdictions world-wide? Will lawmakers, e.g., in the US and Europe, amend or clarify inventorship laws to allow for AI entity inventors? Perhaps, the next jurisdictions to consider the AI-inventorship issue, including Japan, India, and Israel, will provide further clarity.

Vorys encourages you to contact your Vorys patent attorney or agent with any questions you may have.