

Baker McKenzie. AI, inventorship & patent law: a cross-jurisdictional review






Background

- ▶ Dr Stephen Thaler, a Missouri-based engineer, filed patent applications in various worldwide patent offices for inventions relating to food and beverage containers and methods for attracting enhanced attention. In each of the patent applications, Dr Thaler identified an AI-system he created called DABUS (an acronym for “device for the autonomous bootstrapping of unified sentience”) as the sole inventor.
- ▶ Dr Thaler avers that DABUS, which he characterizes as a “creativity machine”, was programmed as a series of neural networks and was not created to solve any particular problem nor trained on any data especially relevant to the inventions. Rather, DABUS “independently conceive[d] of the invention and [identified] it as novel and salient”. On this basis Dr Thaler contends that DABUS, not any human agency, is the true inventor.
- ▶ The United Kingdom Intellectual Property Office (UKIPO), IP Australia, and the United States Patent & Trademark Office (USPTO) each rejected the patent applications, on the basis that only a natural person can be the inventor of a patent. Dr Thaler appealed these rejections to the respective courts in these jurisdictions.



To the right, our summary table...

compares the current judgments in Australia, the United Kingdom, and the United States as at October 2021. It shows the similarities and differences in the legal framework and analyses across each of these jurisdictions. While a final resolution on the AI inventorship issue is not expected for some time, the differing perspectives of the courts provide a useful study in the arguments for and against AI inventorship as such matters become increasingly relevant to innovation in multiple industries.

Court	 Federal Court of Australia	 England and Wales Court of Appeal	 Eastern District of Virginia
Relevant provisions	s15 of the Patents Act 1990 (Cth). reg 3.2C of the Patents Regulations 1991 (Cth).	ss7 and 13 of the Patents Act 1977 (UK).	35 U.S.C. §§ 100, 115 (Patent Act).
Statutory definition of inventor	“Inventor” not defined.	s7(3): “inventor” in relation to an invention means the actual deviser of the invention.	§ 100: the term “inventor” means the individual or, if a joint invention, the individuals collectively who invented or discovered the subject matter of the invention.
Application to AI systems	As the word “inventor” is not defined in the Act or the Regulations, it has its ordinary meaning. In this respect, the word “inventor” is an agent noun. The agent can be a person or a thing (e.g. “computer”, “controller”, “regulator”). None of the dictionary definitions relied upon by the Commissioner precluded a non-human actor from being an inventor. Dr Thaler derives title to the invention from the inventor, DABUS, under s15(1)(c) by reason of: <ul style="list-style-type: none"> ▪ his possession of DABUS, ▪ his ownership of the copyright in DABUS’ source code, and ▪ his ownership and possession of the computer on which it resides. 	Within the meaning of the 1977 Act the “inventor” is the person who actually devised the invention. LJ Birss held that the rest of the 1977 Act is drafted on the footing that the inventor is a natural person. For example s7(2)(c) of the 1977 Act refers to “person or persons mentioned in paragraph (a) or (b)” and s13 of the Act require an applicant to identify the “person or persons whom he believes to be the inventor or inventors”. LJ Arnold found support in the Oxford English Dictionary definition of “deviser” is “a person who devises; a contriver, a planner, an inventor”.	The plain language of the statute requires an inventor to be a natural, human person. Considerations that Judge Brinkema held to be persuasive included: <ul style="list-style-type: none"> ▪ a recent Supreme Court decision that interpreted the term “individual” (as its used in the Torture Victim Protection Act) to refer exclusively to a natural person. ▪ other sections of the Patent Act e.g. § 115(b)(2), in which the inventor is to include a statement that “such individual believes himself or herself to be the original inventor, which would be meaningless if applied to an AI system. ▪ recent Federal Circuit decisions interpreting the Patent Act and holding that inventors must be natural persons.
Policy considerations	Material. Justice Beach held that: <ul style="list-style-type: none"> ▪ the expansion of inventorship to non-human agencies parallels the “widening conception of ‘manner of manufacture’ [that] is a necessary feature of the development of patent law in the twentieth and twenty-first centuries as scientific discoveries inspire new technologies.” ▪ the notion of computer inventorship is compatible with object clause at s2A of the Patents Act which states that the patent system should “promote” economic wellbeing through technological innovation and the transfer and dissemination of technology.” Acknowledging the inventive role of AI systems, would incentivize the development of AI systems capable of producing inventions and would lead to broader scientific innovation. 	Not material. Conclusion that inventor must be a natural person was reached “without any need to examine the policy arguments raised by both parties”. Essentially the decision turned on “the correct way to process patent applications through the Patent Office” and not on any wider policy considerations around the patentability of AI-generated inventions. Birss LJ considered the UKIPO was incorrect to deem the application withdrawn as Thaler complied with s13(2) because he sincerely <i>believed</i> DABUS to be the inventor of the patent. The majority (LJ Laing and LJ Arnold) disagreed on the basis that Dr Thaler’s statement, as a legal impossibility, could not comply with s13(2), and so it was right that the application was deemed withdrawn.	Not material. With respect to the policy argument that conferring inventorship on AI systems would “incentivize the development of AI capable of producing patentable output”, Judge Brinkema: <ul style="list-style-type: none"> ▪ followed Supreme Court and Federal Circuit findings that policy considerations cannot overcome a statute’s plain language. Matters of policy were for Congress, not the courts, to decide. ▪ held that in this case, the evidence was clear that Congress intended to limit the definition of inventor to “natural persons”.