



Artificial intelligence and inventorship. The DABUS saga goes on but the path remains uphill

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📖 INTELLECTUAL PROPERTY

Roberto A. Jacchia
Giulia Beneduci

Introduction

In a previous article of February 6, 2020, we discussed the EPO Receiving Section's refusal, in January 2020, of two European patent applications where an AI system called DABUS was indicated as the inventor¹. We then looked at the grounds of the decisions² (concerning applications EP 18 275 163 and EP 18 275 174 for "*food container*" and "*devices and methods for attracting enhanced attention*"), and predicted that the EPO Board of Appeal (BoA) was bound to shed light on the novel and intriguing legal issue of whether a non-human, such as an artificial intelligence (AI), could be named as inventor in the system of the EPC. The BoA has now

issued its decision, which is worth commenting.

The rejection by the EPO Legal Board of Appeal

The applicant, one Mr. Stephen Thaler, had filed his appeals against the refusal (cases J 8/20 and J 9/20), along with an auxiliary request whereby no person was allegedly identified as inventor, but a natural person was indicated to hold "*the right to the European Patent by virtue of being the owner and creator of*" the DABUS AI system. By decision of December 21, 2021³, the BoA dismissed the appeal, confirming that the EPC required the inventor to be a person with legal capacity. With reference to the

¹ Available at this [link](#).

² Published on January 27, 2020 and available in the EPO database: see [link](#) and [link](#).

³ See press release available in the EPO website at this [link](#).

auxiliary request, which was similarly dismissed, the BoA pointed out that any statement indicating the origin of the right to the European patent⁴ needed to comply with Article 60(1) EPC, whereby the same belongs to the inventor or his successor in title.

The underlying basic reasoning is to be found in the preliminary opinion issued by the BoA on June 21, 2021, whereby, in particular:

“... under the EPC the inventor designated for the purpose of a patent application must be a person having legal capacity. This follows from Article 60 EPC, according to which the right to the invention belongs to the inventor or to his successor in title, and Article 62 EPC, which refers to the right of the inventor to be mentioned as such. Legal capacity means the ability, according to a source of law, to be the subject of rights and duties. Whether this legal capacity exists is governed not by the EPC but by national law. The EPC does not contain conflict of law-rules in this and other regard(s). However, this lacuna does not need to be discussed or filled for the purpose of these proceedings. The applicant’s case is not that the entity in question has some form of legal capacity under any applicable law. If the appellant had so argued, he would also bear the burden of proof, since the law concerned would be foreign law visa-vis the EPC; hence, iura novit curia-principle would not apply.

Against this background, allowing the applicant to designate an entity without legal capacity as inventor would require going beyond the wording of the applicable rules. This is not excluded under the rules governing treaty interpretation set out in Article 31 of the Vienna Convention on the Law of Treaties (1969). However, the Board does not see any reason for considering this step. A decision dismissing the appeal and based on the above reasoning ... would mean only that the

applicant, while remaining free to explain in the specification of the patent application how a claimed technical teaching was made, would have no right to indicate a machine as inventor in the form to be submitted in order to comply with Article 31 EPC. ...”.

The approach of national patent offices and courts

Mr. Thaler, the “putative father” of DABUS, also filed parallel patent applications, designating the DABUS AI system as the inventor, in a number of national jurisdictions. In most cases, he was not successful.

More particularly, in December 2019 the Intellectual Property Office of the **United Kingdom** (UKIPO) refused Mr. Thaler’s applications, arguing that the naming of a machine as inventor did not meet the statutory requirements of the Patents Act 1977 and that only a “*natural*” person could be the inventor; furthermore, the UKIPO was not satisfied as to the manner in which Mr. Thaler had acquired the rights that would otherwise vest in the inventor himself.

According to the UKIPO, the recognition of AI in all areas of law, including intellectual property, involved in reality issues of how the law should be, rather than applying the law as it is: “... *Dr Thaler’s true complaint is that the law should not be so: that it should recognise some form of personality (or, at least, recognise inventorship) for artificially intelligent machines. ... The Comptroller takes no position, for this appeal, on that debate about what the law should say about artificially intelligent systems. Certainly, the Comptroller has no desire to be dismissive of Dr Thaler’s viewpoint on that issue. This is an important debate, and as artificial intelligence develops it can only become more so. ... But that is a complex policy issue whose resolution must engage issue of law and policy way beyond the remit of*

⁴ Under Art. 81, second sentence, EPC: “If the applicant is not the inventor or is not the sole inventor, the designation shall contain a statement indicating the origin of the right to the European patent.”.

intellectual property. Several relevant public bodies (including the World Intellectual Property Organisation (WIPO) and the UK Information Commissioner's Office (ICO)) have launched consultations on accounting in our laws for developments in artificial intelligence. The European Commission has also recently published a white paper about artificial intelligence in the EU. ... But that wider debate about how artificial intelligence fits into the concept of legal personality in the UK law ... is not properly germane to determining this appeal. ...".

In September 2020, the UK High Court dismissed Mr. Thaler's appeal against the UKIPO decision. By way of postscript, the judgment consistently notes: "... the question of whether the owner/controller of an artificially intelligent machine that "invents" something can be said, him- or herself, to be the inventor was not a matter that was argued before me. ... I would wish to make clear that I in no way regard the argument that the owner/controller of an artificially intelligent machine is the "actual deviser of the invention" as an improper one. Whether the argument succeeds or not is a different question and not one for this appeal: but it would be wrong to regard this judgment as discouraging an applicant from at least advancing the contention, if so advised. ...".

By judgment of September 2021, the UK Court of Appeal upheld the High Court's ruling, similarly arguing that, contrary to what Mr. Thaler's contended, there was no "rule of law" that a new intangible produced by existing tangible property was the property of the owner of the tangible property itself, and certainly no rule that the property in an invention created by a machine is owned by the owner of the machine itself.

A red light also came from the **United States**, where in September 2021 the Virginia Eastern District Court upheld the decision of the USPTO to refuse Mr. Thaler's application, confirming that an inventor must be a human being. More particularly, the Court pointed out that the USPTO's interpretation was consistent

with the Patent Act and case-law, and that it was up to the Congress to decide if and how to expand the subjective scope of inventorship.

In November 2021, in **Germany**, the Federal Patent Court rejected on appeal a domestic patent application for DABUS, holding that - while an AI system could be additionally indicated - the designated inventor needed to be a natural person.

Likewise in November 2021, in relation to Mr. Thaler's patent application pending before the Canadian Intellectual Property Office, the latter took the position whereby under the laws of **Canada** a machine could neither have rights nor transfer those rights to a human, inviting the applicant to attempt identifying himself as the legal representative of DABUS and submitting a statement on its behalf.

In January 2022, it was the turn of the Intellectual Property Office of **New Zealand**, which concluded for the refusal of Mr. Thaler's application.

Two voices out of the chorus are registered instead in South Africa and Australia.

In July 2021, the IP Office of **South Africa** granted a patent to Mr. Thaler, whose application had indicated in the "Inventor(s)" box: "*DABUS, The invention was autonomously generated by an artificial intelligence*". However, as several commentators noted, the South African patent system does not foresee any substantive examination of applications by the Office, which limits itself to verify formal requirements.

As to **Australia**, while the Patent Office had rejected Mr. Thaler's application, in July 2021 the Federal Court upheld his appeal, specifying that no provision of the Australian Patent Act 1990 precluded an inventor from being a non-human AI device (while an AI device could not be the patent owner/applicant), and that such a construction was in line with promoting innovation. The judgment of the Federal Court was, in turn, appealed.



What comes next?

Whilst the legal debate is still at a seminal level, it would appear that the interactive reasoning and self-learning capabilities of a robot cannot, for the time being, justify a reversal of roles between, so to say, subject and object of the invention. At the present stage of legislation, both domestic and international, the subject of the invention process (the inventor) must be endowed with legal personality, which an artificial intelligence does not possess.

On the other hand, this in no way limits the potential of cutting-edge algorithms and technology to become the object of an invention, which remains anchored to the traditional requirements of novelty, inventive step, industrial application and

lawfulness. Significantly, the EPO decision-making practice has been developing specific case-law on the patentability of AI inventions, addressing key-issues such as the presence of a technical feature/effect (which is necessary to patent any computer-implemented invention), and sufficiency of disclosure (the supply of training data in the application is as a rule required to prove sufficiency).

The next step should be that of legislative changes in the EPC and the most advanced national patent systems, to make room for AI inventions, and encourage in that way too innovation and intellectual creation. This may not be a fast process and only time will tell how soon the world is ready to make it a reality.






Roberto A. Jacchia

PARTNER

 r.jacchia@dejalex.com


 +39 02 72554.1


 Via San Paolo 7
20121 – Milano



Giulia Beneduci

ASSOCIATE

 g.beneduci@dejalex.com

 +39 02 72554.1

 Via San Paolo 7
20121 – Milano

MILANO

Via San Paolo, 7 · 20121 Milano, Italia
T. +39 02 72554.1 · F. +39 02 72554.400
milan@dejalex.com

ROMA

Via Vincenzo Bellini, 24 · 00198 Roma, Italia
T. +39 06 809154.1 · F. +39 06 809154.44
rome@dejalex.com

BRUXELLES

Chaussée de La Hulpe 187 · 1170 Bruxelles, Belgique
T. +32 (0)26455670 · F. +32 (0)27420138
brussels@dejalex.com

MOSCOW

Ulitsa Bolshaya Ordynka 37/4 · 119017, Moscow, Russia
T. +7 495 792 54 92 · F. +7 495 792 54 93
moscow@dejalex.com

