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Inventorship of AI and Türkiye's Position

Artificial intelligence has begun taking over roles normally performed by humans with little difficulty, including the act of inventing. As a result, debates on whether artificial intelligence can be the owner of an invention have emerged across the global and are likely to open many novel discussions.

The debate on whether an artificial intelligence system can be an inventor began after the development of DABUS, the artificial intelligence system developed by Dr. Stephen Thaler. A team led by Dr. Thaler and Prof. Ryan Abbott have filed applications with patent offices worldwide for two separate inventions of DABUS.

An examination of applications for DABUS' inventions serves to illustrate developments and approaches to the issue of AI inventions at patent offices across different jurisdictions.

In July 2019, Thaler submitted patent applications for two DABUS inventions to the United States Patent and Trademark Office (USPTO), listing DABUS as the sole inventor. However, these applications were rejected on the grounds that the applications were incomplete due to the absence of a real human inventor. Following Thaler's requested review of the decisions, the Federal District Court concluded that an "inventor" under the Patent Act must be an "individual", and the meaning of "individual" is a natural person and also emphasized that inventorship is a concept that requires a mental act and thus, an AI cannot be the inventor. Thaler appealed the decision in 2022, and, subsequently, the Supreme Court held that "individual" refers to human beings, and therefore "inventors" must be human beings.

The United Kingdom Intellectual Property Office (UKIPO) rejected Thaler's DABUS applications on the grounds that DABUS is not a "person", and, thus, cannot be considered as the inventor. The UK High Court and the Court of Appeal upheld this decision of the UKIPO. A subsequent appeal to the UK Supreme Court was rejected by the Court's on the 20th of December 2023. The decision of the Court concluded that artificial intelligence is not a "person" and for this reason cannot be considered the owner of the invention.

Similarly, Thaler filed two European patent applications with the European Patent Office (EPO) in 2018, both of which were rejected upon EPO's determination that the inventor designated in a European patent must be a "natural person". Following the request for review by Thaler, the Legal Board of Appeal stated in its preliminary opinion that under



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the European Patent Convention, the inventor designated in a patent application must be a person with legal capacity. In December 2021, the Legal Board of Appeal dismissed Thaler's appeal. Thaler's divisional application, where he is named as the inventor, remains pending before the EPO.

The German Federal Patent Court took a different perspective on the issue of Al inventorship regarding DABUS applications. Upon an appeal filed before the Federal Patent Court concerning the rejection of Thaler's application to the German Patent Office, the Court acknowledged that Al inventions are patentable but stipulated that the inventor must be presented as a natural person in the application. This decision is significant, as it made it possible to include Al's involvement in a patent application, sidestepping the debate over who could be deemed the inventor. The Court set out that the one responsible for the invention must be identified as the inventor on the relevant paperwork, and details regarding the contribution of an Al system may be added as additional information.

While there is no specific regulation addressing the inventorship of artificial intelligence in Turkish Law, it is vital to note that there have been no legal precedents in Türkiye akin to the cases concerning DABUS patent applications, nor have there been any applications to the Turkish Patent and Trademark Office designating AI as the inventor.

Yet, Türkiye's approach is expected to be similar to that of the EPO. Indeed, if the DABUS applications filed before the EPO (which also encompasses Türkiye) had been registered by the EPO instead of being rejected, the patents in question would now be registered before the Turkish Patent and Trademark Office in accordance with the European Patent Convention.

The basis of the problems discussed in Türkiye (as in many other countries) regarding the inventorship of artificial intelligence lies in the determination of the legal status of the AI and the introduction of special legal regulations and precedence on the issue. Designating AI as the inventor in patent applications will pave the way for artificial intelligence to be recognized as the patent owner. In such a case, this will mark the beginning of a new era in patent law, especially in liability law.