EUROPEAN PATENT OFFICE: PATENTABILITY OF INVENTIONS INVOLVING ARTIFICIAL INTELLIGENCE

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Paris, 4th October 2018 - By decision of the President of the European Patent Office (EPO) dated 25 July 2018 and pursuant to Article 10(2) EPC, the Guidelines for Examination have been amended in accordance with the policy of the EPO which provides for their revision on an annual basis. These Guidelines indicate the practices and procedures to be followed by both Applicants and Examiners, and are a useful tool for monitoring the evolution of EPO policy.

The updated version of the Guidelines1, which will come into effect on November 1, 2018, has just been unveiled, and includes a revision of section G-II, 3.3 on the patentability of mathematical methods. Notably, a new sub-section on Artificial Intelligence and Machine Learning has been created to further define the relevant patentability criteria.

Without bringing a major revolution in patentability, this update clarifies how the EPO's established principles of exclusion from patentability may be applied to Artificial Intelligence.

As a reminder, it is now well-established that mathematical methods that are purely abstract or theoretical (e.g. a prime factorization method) cannot be considered as inventions under Article 52(1) EPC, and are therefore excluded from patentability. In contrast, the concrete technical applications of such mathematical methods contributing to producing a “technical effect” (for example a method of encrypting data that improves security) may be considered as technical processes that are not themselves excluded from patentability. We speak of “contribution to the technical character of the invention”.

In the new section G-II, 3.3.1 of the Guidelines, the EPO recalls that Artificial Intelligence algorithms remain, basically, mathematical algorithms of a purely abstract nature, regardless of the data on which they are trained, and therefore that the established principles of exclusion from patentability of mathematical methods apply: the mere fact of citing, for example, a “neural network” or a “carrier vector machine” in a claim does not render the object of this claim any more technical.

Nevertheless, the EPO also points out that Artificial Intelligence finds a large number of applications in various technological fields. The use of a neural network for the identification of an irregular heartbeat or the classification of images, videos, audio or voice signals, are cited as examples of potential technical applications. The EPO notes, however, that the “abstract” classification, i.e. which would not be for a technical purpose (for example, classifying texts according to their content), is not patentable, even if the classification algorithm has better mathematical properties, such as robustness.

More interestingly, the EPO indicates that if a classification method is indeed for a technical purpose (and thus presents a technical contribution), then steps of constitution of the learning or training base of the classifier can also contribute to the technical character of the invention if they help to achieve this technical purpose.

In summary, the EPO recognizes the growing importance of Artificial Intelligence algorithms in today's inventions, and extends to these algorithms the criteria for assessing the technical character of mathematical methods.

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The specialized team of REGIMBEAU in Artificial Intelligence is at your disposal to advise you and answer your questions. Do not hesitate to contact us.

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