

## **Comments on AI related issues provided by e state Agency on Intellectual property of the Republic of Moldova (AGEPI)**

### **Contact person:**

**Natalia CAISÎM (Ms)**

Head of Examination Division,

Patents Department

State Agency on Intellectual Property

Tel.: +37322400520, Facsimile : +37322440119

E-mail: natalia.caisim@agepi.gov.md

Web: www.agepi.gov.md

### **Issue 1**

(i) Artificial intelligence is unique because it has the ability to learn how to use the information provided to it by a human being, in a particular field, and to improve that field by using information provided without human intervention or, more exactly, with minimal human intervention. This would mean that artificial intelligence cannot be indicated as an inventor, because it uses and develops the information that it has from a human being, therefore, however, man decides what kind of information to give to artificial intelligence.

However, even if artificial intelligence can autonomously generate an invention of a technical nature, it would probably not be able to textually construct/expose the description of the invention, the claims and the drawings, at the same time it would not be able to organize negotiations with the authorized attorney/representative or with the patent examiner of the Intellectual Property Office, who is actually a human being.

In such a case, one of the solutions would probably be the introduction in the laws, regulations, guidelines on inventions of the indication by the applicant in the title of the invention of the “product/process created/assisted by artificial intelligence or autonomously generated by artificial intelligence” or, probably, the indication in the application by the applicant of the use/presence of artificial intelligence of a technical nature, in addition, it would probably be necessary to create different subclasses in the IPC in the fields to which the invention relates, in addition, it may also be necessary to introduce amendments to laws on inventions indicating as a patentable subject-matter the invention created/assisted by artificial intelligence or autonomously generated by artificial intelligence of a technical nature.

(ii) However, artificial intelligence should not own any patent because it does not have legal personality or independent rights and cannot be the owner of a patent. It would probably be impossible for artificial intelligence to monitor when it is necessary to pay for the validity of the patent, at the same time to understand whether or not the patent is of interest in the market, and to detect the violation of the exclusive right, and if it is detected, it is unlikely that the artificial intelligence will sue for the defense of this exclusive right. The artificial intelligence technology available today cannot copy the human mind and turn it into a computer chip.

(iii) Therefore, the law on inventions should not exclude inventions that are generated by artificial intelligence from patenting, as we are already surrounded by artificial intelligence, from

autonomous vehicles and drones to virtual assistants, etc., which also contributes to the discovery of new drugs, or algorithms capable of predicting our social interests and behaviors.

## **Issue 2**

(i) So, as mentioned above, the patent system cannot exclude artificial intelligence from patentability, even if it is capable of creating inventions autonomously, especially if it is of a technical nature. This exclusion would lead to stopping the development of science in the field of inventions.

(ii) The AI-created invention of a technical nature could be interpreted as a computer/computer program-implemented/created invention of a technical nature, as mentioned in the law on inventions.

Even the invention autonomously generated by artificial intelligence of a technical nature could be treated as a computer/computer program-assisted invention, since a total lack of human intervention has not yet been established.

(iii) Artificial intelligence differs in that it can autonomously generate an invention, demonstrating a rapid development that has encompassed all fields of science, including inventions. Therefore, the patent system cannot ignore this development, which leads irreversibly to the need to introduce amendments in laws, regulations and guidelines on inventions, and probably in the IPC.

As for the amendments in patent examination guidelines, some amendments will be necessary to be introduced, that is, probably, in the part that relates to patentability, where the computer/computer program-assisted inventions are indicated.

## **Issue 3**

(i) Artificial intelligence should be part of the field of technology of the product.

(ii) As artificial intelligence develops in all fields, it is obvious that a person skilled in the art would be needed in the case of inventions autonomously generated by artificial intelligence of a technical nature.

(iii) Artificial intelligence should replace a person skilled in the art, but only in the field of determining the state of the art as a use of artificial intelligence in order to carry out a more efficient and faster document retrieval, but when determining the patentability criteria, in case of need to prepare a written opinion and other notifications for the purpose of communicating with the applicant/owner, a person skilled in the art is required. Therefore, completely replacing a person skilled in the art by an artificial intelligence application would be impossible at the moment.

(iv) AI-generated content in relation to document retrieval may be qualified as prior art. There are databases, such as PatSearch, that use artificial intelligence in document retrieval, but it does not work without human intervention.

#### **Issue 4**

(i) The inventions autonomously generated by artificial intelligence indeed present a problem for the disclosure requirement, because, if the invention relates to a process or chemical compounds, it is almost impossible to identify each successive step or the path of determining a certain chemical compound, the substance of which has proven to be the most active. In the case of inventions that relate to a device, perhaps it would be easier to use reverse engineering.

(ii) Since, according to the law, the invention must be disclosed in the patent application in a sufficiently clear and complete manner, therefore, because the algorithm changes, the disclosure of the initial algorithm would not be sufficient.

(iii) In this case, a system of deposit for algorithms, similar to the deposit of microorganisms, would not be useful. This will mean that the algorithms must be deposited with a certain depository authority, which is not necessary as in the case of microorganisms.

(iv) If the patent application relates to a particular algorithm, it would probably be sufficient to describe, in the closest prior art solutions, the data used for the number of algorithms, to which the algorithm in the patent application also relates.

#### **Issue 5**

(i) The sui generis system of IP rights should not be considered for inventions created using artificial intelligence or autonomously generated by artificial intelligence of a technical nature because they can be interpreted as computer/computer program-implemented/created inventions of a technical character.

(ii) Such approaches could be discussed in the future, but now it is too early because the impact of artificial intelligence on both inventions and science is developing at a too rapid rate to be able to formulate a clear-cut conclusion.

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