2020 – Study Question

Inventorship of inventions made using Artificial Intelligence

Contributors: Marcell KERESZTY (head); Mónika BIACS; Zsuzsanna BUZÁS-NAGY; András CSERNY; Gábor HARANGOZÓ; Zoltán KOVÁRI; Katalin MÉSZÁROS; Tivadar PALÁGYI; Árpád PETHŐ; Zsolt SZENTPÉTERI

Questions

I. Current law and practice

1) What are the requirements to be considered an inventor of a patented invention in your jurisdiction? When this Study Question is referring to "your law" or "your jurisdiction", please note this is intended to be inclusive of both statutory law and case law.

As follows from the wording of Art. 7 of the Hungarian Patent Act (HPA, see: https://www.sztnh.gov.hu/sites/default/files/patent_act_xxxiii_1995_en_20190512-v5.pdf, including the wording of the title of the article), inventors are natural persons who have created an invention. Section I.16.1.1. of the Guidelines of Examination (Guidelines, see: https://www.sztnh.gov.hu/sites/default/files/files/professional/ial-talanoseljarasiszabmodszer20160915honlapra.pdf) also expressly mentions that only natural persons can be inventors.

2) Assuming valid inventorship, does your law include provisions concerning the naming of the inventor of an invention? If yes, please briefly explain.

Yes.

Art. 7(5) HPA: The inventor shall have the right to be mentioned as such in the patent documents. Published patent documents shall not mention the inventor if she/he so requests in writing.

Art. 57(3) and 68 HPA stipulates that a patent application shall contain the name and address of the inventor, or an indication that the inventor requests that her/his name and address are not to be indicated in the patent documents, in which case the inventor gives her/his name and address on a separate sheet. If these data are not duly submitted, the patent application is rejected.

3) Does your law, including any regulations or official guidelines, provide any specific guidance or rules on inventorship of inventions made using AI?

No.

4) Under your law, is it possible for an AI entity to be considered an inventor or co-inventor in a patent application? If yes, please explain.

No.

No.

6) In connection with a hypothetical patentable invention made using AI, which of the following contributions by one or more human contributors could be considered under your law as being at least co-inventorship of an invention made using AI? In each case, please explain why or why not. Please note this question does not consider inventorship of the AI itself; only inventorship of an invention made using the AI:

☑ (a) Using AI to design a particular type of product or process, when the resulting patentable invention is of the type of product or process intended (e.g., a car designer who wishes to design a car body might start with a general shape, and then use AI to perfect aerodynamic or other characteristics leading to a patentable invention. Here, AI is being used as a tool to help invent, but the intent for the result lies with the user);

In this case the human contributor is considered the inventor (or the co-inventor in the case of at least two human contributors) under the HPA. This is independent of the tools used to help to invent, whether it is AI or a more conventional one.

☑ (b) Using AI to achieve a particular intended goal, when a resulting patentable invention made using the AI is not directly related to that intended goal (e.g., an AI system is developed to go through social media data looking for one thing and then discovers a useful relationship leading to a patentable invention that was not an original objective of the system);

In this case the human contributor is considered the inventor (or the co-inventor in the case of at least two human contributors) under the HPA, as recognizing an invention is also within the meaning of creating same.

☑ (c) Designing or contributing to the design of the AI algorithm that is used in (a) or (b);

Although there is no relevant domestic case law known to the Hungarian Group, we believe that

- in case of the AI algorithm used in (a), the design or contributing to the design may constitute inventorship, as it can be considered as part of the invention-creation process, and
- in case of the AI algorithm used in (b), the design or contributing to the design may not constitute inventorship, as it clearly does not form part of the invention-creation, being in this case a human recognition/acknowledgment of a useful output generated by a tool designed for a different purpose.

☑ (d) Selecting the data or the source of the data that is used to train the AI algorithm used in (a) or (b);

The same applies here as in point (c) above, as providing the training data forms part of creation of the AI tool.

☑ *(e) Generating or selecting the data or the source of the data that is input to the trained AI algorithm used in (a) or (b); and*

The same applies here as in point (c) above, as providing the input data forms part of the use of the AI tool.

☑ *(f) Selecting one from a large number of outputs produced by the AI of (a) or (b) and recognizing it to be a patentable invention.*

In this case the human contributor is considered the inventor (or the co-inventor in the case of at least two human contributors) under the HPA, as recognizing an invention is also within the meaning of creating same.

7) Assuming an invention was made using at least a minimum amount of AI contribution during the inventive process at any stage, would this be considered as a red flag under your law leading to an exclusion of the patentability of the invention as a whole? Please briefly explain.

No. AI is considered as any technical tool that can be used to create the invention.

II. Policy considerations and proposals for improvements of your Group's current law

8) According to the opinion of your Group, is your current law regarding inventorship of inventions made using AI adequate? Please briefly explain.

Yes; there are no AI specific provisions in the Hungarian laws, but it is not necessary to have those. Firstly, AI entities should not have moral/personal rights. Secondly, recognition of the invention by a human is necessary for a patent application, as a minimum human contribution, in which case the recognition will necessarily constitute an invention-creation, i.e. inventorship for the human.

Apart from these, the Hungarian Group would be in favour to have a legal provision explicitly declaring that inventors are natural persons.

9) According to the opinion of your Group, would recognition of an AI entity as an inventor or co-inventor conflict with the public policy issue of fostering innovation (you may also refer to other general patent law doctrines under your law, if applicable)? Please briefly explain.

Yes. There are human incentives towards the inventors in the public policy of fostering innovation, such as inventors' remuneration. A negative impact can therefore be expected in case of a reduction of such incentives to humans.

10) In your jurisdiction, what is the purpose of naming the inventor in the patent application? Does the naming of the inventor in the patent application, if applicable, consider aspects of personal rights under your law, e.g., does it fulfill a reward function for personal effort? Please briefly explain.

Naming the inventor in the patent application is part of personal rights under the Hungarian law. It fulfils a reward function for the personal effort.

Yes. AI entities should not have moral/personal rights.

Yes. Otherwise applicants would have to face the risk of country-specific rejections for formality reasons.

A human contribution to the creation should be the requirement to be considered an inventor or co-inventor of an invention made using AI. Recognizing an invention should also be within the meaning of human contribution.

No. AI should be considered as a tool, only.

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to a patentable invention. Here, AI is being used as a tool to help invent, but the intent for the result lies with the user);

In this case the human contributor should be considered the inventor (or the co-inventor in the case of at least two human contributors). This is independent of the tools used to help to invent, whether it is AI or a more conventional one.

☑ *(b) Using AI to achieve a particular intended goal, when a resulting patentable invention made using the AI is not directly related to that intended goal (e.g., an AI system is developed to go through social media data looking for one thing and then discovers a useful relationship leading to a patentable invention that was not an original objective of the system);*

In this case the human contributor should be considered the inventor (or the co-inventor in the case of at least two human contributors), as recognizing an invention should also be within the meaning of creating same.

☑ *(c) Designing or contributing to the design of the AI algorithm that is used in (a) or (b);*

–   In case of the AI algorithm used in (a), the design or contributing to the design should be a ground for constituting inventorship, as it can be considered as part of the invention-creation process, and
–   in case of the AI algorithm used in (b), the design or contributing to the design should not be a ground for constituting inventorship, as it clearly does not form part of the invention-creation, being in this case a human recognition/acknowledgment of a useful output generated by a tool designed for a different purpose.

☑ *(d) Selecting the data or the source of the data that is used to train the AI algorithm used in (a) or (b);*

The same should apply here as in point (c) above, as providing the training data forms part of creation of the AI tool.

☑ *(e) Generating or selecting the data or the source of the data that is input to the trained AI algorithm used in (a) or (b); and*

The same should apply here as in point (c) above, as providing the input data forms part of the use of the AI tool.

☑ *(f) Selecting one from a large number of outputs produced by the AI of (a) or (b) and recognizing it to be a patentable invention.*

In this case the human contributor should be considered the inventor (or the co-inventor in the case of at least two human contributors), as recognizing an invention should also be within the meaning of creating same.

17) If an invention was made using at least a certain level of AI contribution during the inventive process should the invention be excluded from patentability as a whole?

No. If an invention was made using at least a certain level of AI contribution during the inventive process, the invention should not be excluded from patentability as a whole. A tool used for creating the invention should not exclude the invention from patentability.

18) Please comment on any additional issues concerning any aspect of inventorship of inventions made using AI you consider relevant to this Study Question.

The most widely accepted „contract theory" behind the patent system holds that its function is to promote the disclosure of innovative knowledge. Assuming that in the absence of patent protection innovators would rely on trade secrets, it views patents as a contract between innovators and society whereby an exclusive property right is granted in exchange for disclosure of the invention, i.e. for enriching technical knowledge of the society. The Hungarian Group is of the view that a human contribution in the form of at least a recognition of the invention is necessary in the inventing process for a patent application, independently from any tools used for the invention, such as AI. A lack of even such a minimum human contribution would mean that the first meritorious human interaction with the invention would occur after filing, at the examination of the application by patent authorities, which would not fit with the patent system at least from the following aspects:

- enabling this possibility would open the door wide for potential abuse of the patent system by generating via AI countless patent applications on a „let us see what we get" basis, which would also overload patent authorities, especially by the fact that
- submitting such applications to patent authorities would inevitably necessitate that patent examiners would be the first to take the recognizing steps, i.e. a part of the creation process of the invention would be left to patent authorities.

The Hungarian Group agrees with the reasoning of the EPO decisions in the DABUS cases. For the time being, it provides a clear guidance in the matter. As for the followings: who knows what the future may hold.

19) Please indicate which industry sector views provided by in-house counsels are included in your Group's answers to Part III.

Pharmaceutical industry.