



Submissions on “Draft Issues Paper on Intellectual Property Policy and Artificial Intelligence

14 February 2020

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FICPI aims to study all administrative or legislative reforms and all improvements to international treaties and conventions, with the object of facilitating the exercise by inventors and IP owners of their rights, of increasing their security, and of simplifying procedure or formalities.

In pursuance of this aim, **FICPI** strives to offer well balanced opinions on proposed international, regional and national legislation based on its member' experience with a great diversity of clients having a wide range of different levels of knowledge, experience and business needs of the IP system.

FICPI is pleased to have the opportunity to provide input on the “Draft Issues Paper on Intellectual Property Policy and Artificial Intelligence” – these submissions are based on the collected input from our Work & Study Group, and should not be taken as a FICPI view on any of the issues raised.

DEFINITIONS

- “CGI” refers to a computer-generated invention, i.e. an invention made by an artificial intelligence (AI) entity running on a computer. CGI should not be confused with “CII”, defined below.
- “CII” refers to computer implemented inventions, i.e., inventions related to the operation or use of a computer. CGI and CII should also be distinguished from “AI Invention”, defined below.
- An “AI Invention” refers to an invention related to the structure, architecture or other features of an AI system, which term can be prone to misunderstandings.
- “Fictitious inventor” refers to a natural person who would, under current legal standards, not be regarded as inventor, but will be defined as inventor for a CGI under special to be defined standards.

PATENTS

It seems paramount that before entering into detailed discussions on inventorship and obviousness, there should be a discussion of two key issues:

I) An overview and understanding of the capabilities of state-of-the-art AI tools

This is particularly important for those policy makers who might not be sufficiently acquainted with state-of-the-art AI technology. The topic should not only cover current capabilities of specialized AI tools in some industry sectors, but also an outlook on future trends and possibilities. Without such a factual introduction, a discussion may run the risk of going astray as misunderstandings could be omnipresent.

Key questions in this regard could be:

- Can AI generate an invention autonomously (without being given a problem by a human)?
- Can AI find a new technical solution to a problem posed by a human?
- Can AI make an inventive contribution to an invention (i.e., qualify as co-inventor if it were a human)?
- Can AI only assist humans in making inventions, without qualifying as co-inventor if it were a human?

Most of these issues are addressed later in the Draft Issues Paper, but we suggest that the discussion begin with this understanding.

Following this, it is important to clarify:

II) Do we want patent protection for CGIs?

Although such a discussion might find more differentiated answers under issues like obviousness, it should still be made clear from the start, whether protection is generally deemed adequate or not for principle grounds. A discussion of AI as an inventor can meaningfully only be conducted if the underlying assumption whether protection is denied for principle grounds or not has been clarified.

Key questions in this regard could be:

- Should there be patent protection for autonomously generated CGIs?
- Should there be patent protection in a situation where a human posed the problem and an AI found the technical solution?
- If the AI should be regarded as a tool, does it make a difference if the tool is proprietary or publicly available to skilled persons?
- Should there be patent protection in a situation where an AI would qualify as co-inventor in the case it were human?
- Are there any new forms of intellectual property protections that are needed for AI inventions, such as data protection?

Only if the two above key issues have been answered in the positive can the following discussion on inventorship make sense. In the following, for the indicated issues, we have provided thoughts on the questions already set out in the draft paper.

Issue 1: Inventorship and Ownership

WIPO:

(i) Should the law permit or require that the AI application be named as the inventor or should it be required that a human being be named as the inventor? In the event that a human inventor is required to be named, should the law give indications of the way in which the human inventor should be determined, or should this decision be left to private arrangements, such as corporate policy, with the possibility of judicial review by appeal in accordance with existing laws concerning disputes over inventorship?

- Should a human be recognized as an inventor although that human would not qualify as inventor under current standards for determining inventorship?
- In the case that a human inventor is considered to be compulsory, should the law make it clear that in the case of CGIs the usual standard for determining inventorship or co-inventorship will not apply but instead a special standard to be defined applies for identifying the inventor for a CGI?

For the sake of the argument let's call this human the "fictitious inventor".

Key issues in this regard could be:

- Who should be identified as fictitious inventor?
 - The creator / developer / programmer of the AI?
 - The human who trained the AI?
 - The human who ordered the CGI to be made?
 - The owner of the AI software / hardware?
 - The human who posed the problem, if there is such a human?
 - The human who operated the AI during the creation of the CGI?
 - The human who received the output describing the invention from the AI?
 - The human who selected the invention out of a group of suggestions generated by the AI?
 - The human who identified the solution generated by the AI as invention?
- If AI is to be recognized as inventor, does patent law or case law have to be adapted?

WIPO:

(ii) The inventorship issue also raises the question of who should be recorded as the owner of a patent involving an AI application. Do specific legal provisions need to be introduced to govern the ownership of autonomously generated AI inventions, or should ownership follow from inventorship and any relevant private arrangements, such as corporate policy, concerning attribution of inventorship and ownership?

- In this regard, the first issue to be answered is whether the AI can be the owner of an invention / a patent / patent application stemming from its CGI?

Further issues are:

- Is the "fictitious inventor" the original proprietor of the rights in the CGI?
- Or is the person who qualifies in the traditional sense as inventor the original proprietor of the CGI?

And what if there is none?

WIPO:

(iii) Should the law exclude from the availability of patent protection any invention that has been generated autonomously by an AI application?

As mentioned above, this question should be answered before discussing inventorship.

Issue 2: Patentable Subject Matter and Patentability Guidelines

WIPO:

Computer-assisted inventions and their treatment under patent laws have been the subject of lengthy discussions in many countries around the world. In the case of AI-generated or -assisted inventions:

- (i) Should the law exclude from patent eligibility inventions that are autonomously generated by an AI application?*
- (ii) Should specific provisions be introduced for inventions assisted by AI or should such inventions be treated in the same way as other computer-assisted inventions?*
- (iii) Do amendments need to be introduced in patent examination guidelines for AI-assisted inventions? If so, please identify which parts or provisions of patent examination guidelines need to be reviewed.*

As mentioned above, these questions of Issue 2 should be answered before discussing inventorship and ownership under Issue 1.

Issue 3: Inventive Step or Non-Obviousness

WIPO:

A condition of patentability is that the invention involves an inventive step or be non-obvious. The standard applied for assessing non-obviousness is whether the invention would be obvious to a person skilled in the relevant art to which the invention belongs.

- (i) In the context of AI inventions, what art does the standard refer to? Should the art be the field of technology of the product or service that emerges as the invention from the AI application?*
- (ii) Should the standard of a person skilled in the art be maintained where the invention is autonomously generated by an AI application or should consideration be given to replacing the person by an algorithm trained with data from a designated field of art?*
- (iii) What implications will having an AI replacing a person skilled in the art have on the determination of the prior art base?*
- (iv) Should AI-generated content qualify as prior art?*

An issue that should be added here is whether it makes a difference if the AI tool is proprietary or publicly available to skilled persons.

Issue 5: General Policy Considerations for the Patent System

WIPO:

11. A fundamental objective of the patent system is to encourage the investment of human and financial resources and the taking of risk in generating inventions that may contribute positively to the welfare of society. As such, the patent system is a fundamental component of innovation policy more generally. Does the advent of inventions autonomously generated by AI applications call for a reassessment of the relevance of the patent incentive to AI-generated inventions. Specifically,

*(i) Should consideration be given to a *sui generis* system of IP rights for AI-generated inventions in order to adjust innovation incentives for AI?*

(ii) Is it too early to consider these questions because the impact of AI on both science and technology is still unfolding at a rapid rate and there is, at this stage, insufficient understanding of that impact or of what policy measures, if any, might be appropriate in the circumstances?

As mentioned above, these questions of Issue 5 should be answered before discussing inventorship under Issue 1.

DESIGNS

Many of the points made above about inventorship and ownership of patents apply equally here.

Issue 11: Authorship and Ownership

WIPO:

(i) Should the law permit or require that design protection be accorded to an original design that has been produced autonomously by an AI application?

If a human designer is required, should the law give indications of the way in which the human designer should be determined, or should this decision be left to private arrangements, such as corporate policy, with the possibility of judicial review by appeal in accordance with existing laws concerning disputes over authorship?

In addition to the comments made above, we note that some systems for the protection of designs do not require the naming of an inventor, and so some of the legal issues discussed above would not arise here.

If a designer is required to be named, the extent to which AI was involved in the creation of the design should be considered.

(ii) Do specific legal provisions need to be introduced to govern the ownership of autonomously generated AI designs, or should ownership follow from authorship and any relevant private arrangements, such as corporate policy, concerning attribution of authorship and ownership?

We refer to our comments above for patents.



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