February 14, 2020

JIPA's comments on Draft Issue Paper

for WIPO Conversation on IP and AI

1. Introduction

   The Japan Intellectual Property Association (JIPA) is a

non-governmental organization representing the world's largest

number of IP system users. With 1,300 member companies and

organizations from 12 countries, JIPA members file about 20% of PCT

applications worldwide. With respect to the Issue Paper summarizing

issues to be discussed in the WIPO Conversation on IP and AI, this

is a timely effort by WIPO to invite opinions from all over the world,

forming an important foundation for future discussions. We are very

grateful for the opportunity to submit our opinions as a user.

2. Premises of JIPA's opinions

   The Conversation deals with a wide range of AI and IP related

issues. In particular, we understand that, for inventions

autonomously generated by AI (hereinafter, referred to as

"AI-autonomous inventions"), core issues include: eligibility of an

AI as inventor, independent of human beings; how these AI should be

protected; and what distinguishes them from inventions generated

merely with the support of AI (hereinafter, referred to as "AI-assisted

inventions").

The impacts of recognizing AI as inventors on the social economy,

entire legal system and ethics have not yet been well evaluated, while

drastic developments in technologies continue. In light of this,

JIPA considers premature the introduction of measures to recognize

AI-autonomous inventors and legislation for the protection of their

inventions. Further, this fundamental view of JIPA applies not only

to the Patent Act, but also the Copyright Act and Design Act.

In order to determine whether or not the protection of

AI-autonomous inventions is necessary, a common frame of reference

must be put in place, such as terminology or technologies which are

regarded as premises, and to investigate and analyze them.

First, we must know what precisely is meant by "an AI autonomously

generates an invention." For this, it is useful to verify how humans

are involved in specific cases concerning AI-autonomous invention,

and to then scrutinize whether such involvement precludes

AI-autonomous inventors. Formulation of a common understanding on

what an AI-autonomous invention is allows it to be distinguished from

other inventions.

In addition, if discussions are conducted on the assumption

that a time will certainly come when AI-autonomous inventions are

generated, analyses should be conducted to identify possible adverse

effects under the existing legal systems and, from an industrial policy

viewpoint, what merits and demerits might arise from differently

protecting AI-autonomous inventions.

If indeed they are to be protected, important points for further

examination include whether it is consistent with existing IP law,

which protects creations by humans: legal paradigms subject to

significant consequential impact will extend beyond IP. Similarly,

as with AI-autonomous inventions, a root and branch study will also

be required in the copyright field, from both industrial and cultural

policy perspectives.

We consider that organization and analysis of the above points

and subsequent evaluation of any social impacts of AI technologies

should be followed by wide ranging discussions among experts in various

fields to determine necessary measures. Moreover, as an IP system

user, JIPA intends to be actively engaged in said discussions.

3.   Modification of Issues

(1) Issue 1/Paragraph 6: Understanding of AI-autonomous inventions

(Comment) The paragraph states without strong grounds that "it would

now seem clear that inventions can be autonomously generated by AI."

(Explanation) Though announcements have surfaced stating that some

AI had autonomously made an invention, some argue that such AI does

not yet exist since it has not objectively been demonstrated that

an AI has autonomously operated to generate an invention. Others

further argue that, since nobody has indicated the path by which it

will be developed, such an AI is decades away.

In these circumstances, it appears invalid to state that "it would now seem clear that inventions can be autonomously generated by AI." Even if studies are to be made as hypothetical discussions on the assumption that AI would autonomously generate inventions sometime in the future, WIPO should elucidate its definition of "autonomously," as used in the phrase "inventions autonomously generated by AI"; irrespective of whether or not autonomously generated inventions have already occurred, or are yet on the horizon. It is desirable to update the Issue Paper based on the views or assumptions on such issues WIPO will show.

(Draft for modification)

6. In most cases, AI is a tool that assists inventors in the invention process or constitutes a feature of an invention. In these respects, AI does not differ radically from other computer- assisted inventions. However, ~~it would now seem clear that inventions can be autonomously generated by AI, and~~ there are several reported cases of applications for patent protection in which the applicant <u>alleges that an invention has been autonomously generated and therefore</u> has named an AI application as the inventor. <u>On the other hand, some believe that an AI capable of generating inventions autonomously remains decades away. In the Issues Paper, we discuss the issues based on the assumptions that…..</u> (WIPO's views or assumptions continue)

(2) Clarification of terminology:

i) "Algorithm" (Issue 4)

(Comment) The term "algorithm" diminishes the clarity of this Issue.

A definition of "algorithm" is required: alternatively, assuming that

it refers here to a "trained model" (AKA "pre-trained model," "learned

model," etc.), the term "trained model" with its definition should

be used.

(Explanation) The term "algorithm" generally indicates a procedure

or method for problem solving, and a program is created by writing

source code to implement said algorithm. "Algorithm," as used in

discussions on AI, can sometimes indicate such a program, but can

sometimes indicate a trained model that includes weighted parameters

defining how to drive a program. Further, in some cases it indicates

a program or machine learning tool that employs learning from data

to generate a trained model. In Issue 4(ii), assuming that repetition

of machine learning causes continuous changes, "algorithm" seems to

indicate a trained model.

ii) "AI invention," etc. (Issues 3, 4, 5, 11)

(Comment) "Invention autonomously generated by AI" and "AI-assisted invention" are intuitively distinguishable from each other. However, in other cases, the syntax is much less clear, e.g. "invention generated by AI," "AI inventions," etc. For example, it is difficult to understand whether "invention generated by AI" is synonymous with "autonomously generated invention," or also whether "AI inventions" refers to an AI technology-related invention or an invention generated by use of AI.

(3) Issue 10 (Further Rights Protection in Relation to Data):

(Comment) Opinions are expressed, some for and some against the protection of data, based on a new right (including protection based on a weak right, not an absolute exclusive right). However, the issues in the current WIPO Issue Paper are formulated so as to generate deep discussion into the protection mechanism, with the starting premise that data should indeed be protected. We believe that discussion from both positions should be promoted by re-formulating the Issue

Paper to include issues:

(Example) Concerns that undesirable chilling side effects will occur bring about opposition to giving new rights beyond current patent law, unfair competition law, contractual arrangements and technological measures in order to protect data. What new protections might be added and what adverse effects might thereby result?

4. Items to be added to Issues

(1) Issues 1, 6 and 11: The necessity of an oath and proof of human involvement in creative activities

Item to be added: Current laws do not protect AI-autonomous inventions, but do protect AI-assisted inventions. If a position not to protect AI-autonomous inventions is established under these laws, and also under future laws, should a system wherein an applicant actively takes an oath be introduced?

(Explanation) If AI does in fact become capable of autonomously creating inventions and it is clearly stipulated that autonomously generated inventions are not protected, then, considering the purpose

of the law, in legally protecting an invention that was not created

by humans, adverse effects may result. If so, AI-autonomous

inventions have to be excluded from protection. In addition,

examination authorities may find it difficult to determine whether

or not an invention is an AI-autonomous invention. Further, an

applicant may take a false oath stating that an invention is not an

AI-autonomous invention.

Declaring opposition to a patent or requesting invalidation of

a patent based upon whether or not an application is an AI-autonomous

invention would present a quandary to the examining authority or court.

To avoid actualizing such disputes, ex-ante regulations may be worth

considering. For example, a system wherein an applicant actively

takes an oath could be possibly introduced. Under this system, an

oath from applicant should be mandated stating that the application

is not for an AI-autonomous invention, a punishment should be

established under the law for false oaths, and the applicant should

bear the burden of proof in defending their rights. Whether to

introduce such system, however, should only be considered after

identifying both the problems the introduction of such system would

solve and any adverse effects which might arise.

(2) Issue 5 (General Policy Considerations for the Patent System):

i) Item to be added: If a right is bestowed to protect AI-autonomous

inventions, should said right be exclusive, as under current law?

(Explanation) Regarding future policies on IP law, it will be important

to study whether or not to contribute to the implementation of values

common to humans, such as SDGs. The progress of AI will undoubtedly

produce a previously unimaginable explosion in new inventions,

worsening the existing thicket of patents. Since it is necessary

not to obstruct innovations that support sound developments for

humans, how best to establish such a right is at issue. Two possible

approaches exist: first, treating as exceptional the scope and effect

of rights within the frame of patent law (for example, no permanent

injunctions, shorter patent terms, etc.); second, creation of a sui

generis, or separate law.

ii) Item to be added: Will a large increase in AI-assisted inventions

change the purpose of patent law and the role of the system?

(Explanation) Even if AI-autonomous inventions remain fictional as yet, AI-assisted inventions are already fact. It seems reasonable to handle AI-assisted inventions in the same manner as existing software inventions. However, it is likely that technological evolution and diffusion of AI in the future will produce a lot of inventions easily and simply, with consequential reductions in development costs. In such a case, is it still necessary to encourage investment in the future through state incentives?

(3) Issue 8 (Deep Fakes):

i) Item to be added: Should legal protection of works created by deep fakes be rejected? If so, based on what law?

(Explanation) Because deep fakes are created on the basis of original performances, they can be considered to infringe original copyrights or related rights. If so, should the protection of deep fakes as new performances be rejected under the copyright law? Is the protection of deep fakes rejected based on other laws also?

ii) Item to be added: In dealing with problems related to deep fakes, what role can IP law play, including copyright law?

(Explanation) Deep fakes can have significant social impacts and can cause problems, not only regarding the protection of right holders based on IP law, but also legally protected interests concerning individuals, such as personal rights, privacy, defamation, and further concerns regarding social order and national security. Some of such performances seem to present problems within the frame of IP rights, but is there any role that can be fulfilled by IP law to solve them?

(4) Issue 12

Item to be added: It is highly likely to be the courts that determine how to protect AI-autonomous inventions. What preparations can be made to facilitate just judgements?

(Explanation) It is often difficult to conduct hypothetical, abstract studies on future events: here, whether or not AI-autonomous inventions should be protected, and if so, what protection is necessary. Thus, there is a good chance that an AI-autonomous invention is actually

generated and its protection is determined in a judgement on a specific

case made at the court (or possibly at ADR or ODR) after all facts

are presented and contested. It is entirely possible that a dispute

may come before the courts which is beyond their current capacity

to handle in terms of specialization or workload when the issues are:

whether an invention is an AI-autonomous invention, which is determined

after evaluating the degrees of involvement by a human and the

contribution of an AI; or how "*an* inventing AI" should be recognized

in contrast to "*an* inventing human." In anticipation of such a

situation, making preparations to enable a court before which a dispute

may be brought to render an appropriate judgement is clearly important.

In order to form a future institutional design, it is desirable to

make clear rules for judges to deal with AI based on current practice

and the capacity of the courts, and further establish a dispute

resolution mechanism to negate this difficult issue appearing before

a court.

(5) Issue 13

Item to be added: Accountability with respect to the use of AI is not only an issue in examining patent applications, but also in making broad decisions by the legislative, administrative and judicial branches. What accountability exists specific to the examination of patent applications, and what accountability is required more broadly in various related situations?

(Explanation) Transparency is required in every sphere where AI is used, such as by governments, companies, universities, organizations, individuals and others. It is important to study accountability in patent applications and related processes. Moreover, concurrent study at national institutions involved in IP of accountability related to the use of AI would be desirable.

Sincerely,

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Yuji Toda
President
Japan Intellectual Property Association