JAPAN INTELLECTUAL PROPERTY ASSOCIATION

July 29, 2024

The Honorable Ms Kath Vidal
Under Secretary of Commerce for Intellectual Property
and Director of the United States Patent and Trademark Office

Re: Request for comment on the Impact of the Proliferation of Artificial Intelligence on Prior Art, the Knowledge of a Person Having Ordinary Skill in the Art, and Determinations of Patentability Made in View of the Foregoing

Dear Director Vidal,

We, the Japan Intellectual Property Association "JIPA", are a private user organization with about 1,000 major Japanese companies as regular members. When appropriate opportunities arise, we offer our opinions on the global intellectual property system of other countries and make recommendations for more effective implementation of the systems.

Having learned a request for comment on the Impact of the Proliferation of Artificial Intelligence on Prior Art, the Knowledge of a Person Having Ordinary Skill in the Art, and Determinations of Patentability Made in View of the Foregoing, No. PTO-P-2023-0044,I am attaching the opinion as follows.

Your consideration on our opinions would be greatly appreciated.

Sincerely yours,

Kyoko Izumi
Vice President
Japan Intellectual Property Association

Comment on USPTO "Request for Comments Regarding the Impact of the Proliferation of Artificial Intelligence on Prior Art, the Knowledge of a Person Having Ordinary Skill in the Art, and Determinations of Patentability Made in View of the Foregoing"

0. Introduction

Adequate utilization of AI as a tool accelerates human inventions and creative activities, thereby contributing to further growth of industry. While promoting such adequate utilization, it is important to make efforts to minimize adverse influence that AI may bring about on the patent system in response to technological advancements and changes in societal acceptance.

On the other hand, AI may produce erroneous or unsubstantiated information, which is referred to as 'hallucination'. The proliferation of hallucinations, particularly when cited as prior art, could severely complicate the protection of novel creations and adversely affect the intellectual property system, which must be avoided. Given the rapid advancement of AI technology including measures against hallucinations, it is challenging to accurately predict the influence on the intellectual property system. As such, it is desirable to adopt flexible measures in examination standards and guidance, rather than relying solely on legislative amendments.

Important points are described below.
- It is not desirable to adopt a treatment that may discourage the use of AI, for example, not allowing to use a document (a printed publication) solely for the reason of having used AI. The "Guidance on Use of Artificial Intelligence-Based Tools in Practice Before the United States Patent and Trademark Office" also admits the use of AI as a tool.
- Various types of hallucinations that could adversely affect the intellectual property system are presumed to exist. We expect that the USPTO categorize such harmful information and show an existing or novel legal framework to eliminate such information from prior art. In doing so, the incentive of the applicant to their technical development and the conditions specific to each industrial field should be considered. Moreover, it should be avoided that the burden of the applicant increases, such as proving the groundlessness of information and that the examination period is prolonged.
- Utility Patent and Design Patent should be separately examined because the contents and extents of adverse influence regarding the two are different.

Based on the fundamental points mentioned above, we would like to present opinions on some

of the individual issues.

1. **A. Regarding the Impact of AI on Prior Art**

- With the development of AI, we are concerned about, for example, the following adverse influences due to the generation of false information or groundless information.
    - i) If information generated by hallucination is conveniently cited as a prior art reference, the applicant may face an undue burden to prove that the information is groundless.
    - ii) If the amount of the references submitted as relevant prior art becomes huge, this may overload the examiner with enormous amount of examination materials, leading to prolonged examination periods.
- A portion of these adverse influences may not be sufficiently addressed in the framework of the existing US patent law, and therefore we encourage the USPTO to consider presenting existing or novel legal frameworks to exclude these adverse influences.
- Regarding the concern over i) in particular, references having adverse influence on the development of science and technology by being cited as prior art ought to be eliminated from materials for determination of novelty and non-obviousness. Therefore it is effective to show an existing or novel legal framework to exclude references that may have such adverse influence.
    - When classifying references, the following points should be considered:
        - ○ 35 U.S.C. § 102 does not stipulate that prior art must be authored or disclosed by a natural person.
        - ○ Documents created by natural persons may also have a detrimental effect on the advancement of science and technology. Consequently, it is unnecessary to make a distinction based on whether the document is generated by artificial intelligence or not.
        - ○ Evaluation of whether a document can be used as prior art for determining novelty and non-obviousness should consider whether its citation could impede the progress of science and technology.
        - ○ In such discussion, consideration should include incentive of the applicant to technical development, burden of proof, and conditions specific to the industrial field.

2. **Regarding The Impact of AI on a PHOSITA**

- The so-called a person having ordinary skill in the art is a "hypothetical person presumed to have known all techniques relevant to making an invention", and considering that a person eligible as inventor is a natural person who made "important contributions" to the

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invention, it is reasonable to interpret the 'person skilled in the art' as also being a natural person.

- However, it is appropriate to interpret that a PHOSITA who is a natural person can use an AI tool. Therefore, as the rapidity of technical innovation and high degree and complexity of technology (MPEP §2141.03) progress by the development of AI, it is expected that the skill level of the PHOSITA will also advance.
  - On this occasion, there is no need to categorically identify an AI tool that should be considered to determine the level of PHOSITA (since PHOSITA is not limited to a person using a specific tool).

- Interpreting that a PHOSITA can use an AI tool would influence on the ascertaining level of a person having ordinary skill in the art (MPEP §2141), which is one of the determining factors of non-obviousness shown in the Graham decision, but the extent of the influence seems to vary depending on the field.

- Moreover, similarly in the case of description requirements, we consider that utilization of AI tools may influence and vary determination of fulfillment of descriptive requirements. However, the extent of this impact may differ significantly between fields where precise conditions are essential for reproducibility or where biological testing is required to confirm effectiveness, such as in chemistry, pharmaceuticals, and life sciences, and those like general software and information processing.

- Performance of AI is advancing every day, and we consider it extremely difficult to identify, at the time of examination, the performance of AI that would have been generally used by PHOSITA at the time of filing an application. Therefore we do not consider that it is appropriate to alter the assessment of a PHOSITA based solely on the assumed performance of AI, for which clear evidence cannot be provided. Although there are concerns that non-obviousness or written description requirements might be assessed based on AI capabilities that may not have been attainable at the time, finding a definitive solution to this issue remains difficult. Thus, ongoing discussion on this matter is encouraged.

3. The Implications of AI That Could Require Updated Examination Guidance and/or Legislative Change

- Regarding the definition of a PHOSITA and the like such as issues described in 2. above, we consider it effective to clarify them in the guidance to reduce the recognition gap between applicants and examiners.

- Regarding the influence of AI on prior art and knowledge of PHOSITA, we expect that an easily comprehensible guidance showing case examples be provided.
  - Such influence may differ between the case of Utility Patent and the that of Design Patent,

it is desirable that guidance and case examples be provided respectively.

- Case examples of patent examinations of AI related inventions of JPO, which include both fulfilling and non-fulfilling examples for each of inventive step, descriptive requirements and invention applicability, are useful in facilitating practitioners' understanding of the practice. Similarly, in the USPTO as well, when publishing case examples, it is good practice to describe both the fulfilling and non-fulfilling examples.

END