AIPLA

American Intellectual Property Law Association

July 29, 2024

The Honorable Katherine K. Vidal
Under Secretary of Commerce for Intellectual Property
and Director of the United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Re: Response to 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
(89 FR 34217, April 30, 2024; Docket No.: PTO- P-2023-0044)

Dear Director Vidal:

The American Intellectual Property Law Association is pleased to offer its comments to the United States Patent and Trademark Office ("USPTO" or "Office") in response to the 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 ("the RFC").

Founded in 1897, the American Intellectual Property Law Association ("AIPLA") is a national bar association of approximately 7,000 members including professionals engaged in private or corporate practice, in government service, and in the academic community. AIPLA members represent a wide and diverse spectrum of individuals, companies, and institutions involved directly or indirectly in the practice of patent, trademark, copyright, trade secret, and unfair competition law, as well as other fields of law affecting intellectual property. Our members represent both owners and users of intellectual property. Our mission includes helping establish and maintain fair and effective laws and policies that stimulate and reward invention while balancing the public's interest in healthy competition, reasonable costs, and basic fairness.

Introductory Comments

AIPLA thanks the USPTO for soliciting stakeholder input on the timely topics addressed in this RFC. Prior to addressing the individual questions, AIPLA offers the following observations.

<u>The meaning of "AI-generated disclosure"</u>

Any discussion of how to treat "AI-generated disclosures" from a prior art perspective must begin with an understanding of what that term means. There is a wide spectrum of scenarios where a human (or humans) and AI may jointly contribute to a disclosure. For illustration, consider the following examples:

1. A scientist conducts new research, prepares a paper describing the research results, and then uses an AI tool to correct grammar and spelling of the paper.

2. A scientist conducts new research, prepares a written outline describing the substance of the research results, and then uses an AI tool to generate a paper based on the outline.

3. An AI specialist trains a machine learning (ML) system to parse subject matter in existing human-generated publications, combine that subject matter in various new permutations, and generate new papers based on the new combinations.

4. An AI specialist trains an ML system to write a paper based on sensor inputs (cameras, microphones, lidar, *etc*.) with no human input.

There are two variants of each of these examples: a) where a human reviews and verifies the resulting paper prior to publication; and b) where there is no human review or verification prior to publication.

Which of these eight scenarios results in an "AI-generated disclosure"? One person might consider only scenario 4(b) to be truly "AI-generated." Another person might argue that all the scenarios are "AI-generated" at least to some extent. Yet another person might believe that "variant (b)" publications are "AI-generated" but "variant (a)" publications are not. There is no one correct answer. However, for purposes of addressing policy questions such as those raised in the RFC it is critical to have a common understanding of this term.

The RFC uses the term "AI-generated disclosure" without providing a definition of what this means. Section II, "Considerations for the Impact of AI on Prior Art," makes reference to "AI-generated disclosures, especially those with no human input, review, or validation…."[1] This seems to imply that "AI-generated disclosures" is intended to be a generic term that includes not only *entirely* AI-generated disclosures but also disclosures where some amount of human input is combined with some amount of AI contribution. In the answers below, AIPLA uses the terms "AI-generated disclosures" and "AI-generated prior art" in this generic sense and uses "AI-only generated disclosures" and "AI-only generated prior art" to refer to publications generated by AI with no significant human contribution. AIPLA recommends that in future publications or guidance addressing "AI-generated disclosures," the USPTO clearly define the intended meaning to avoid potential confusion.

<u>Differing views in the stakeholder community</u>

Reasonable minds differ on the potential harm AI-generated publications may do to the patent system. Anecdotally, the concern about harm – and in some cases fear that AI-generated publications will ultimately destroy the patent system – is higher among those practicing in

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[1] RFC, p. 34219, col. 1.

the chemical and life sciences fields than in other fields. Chart 1 below illustrates the broad variance of opinions on this issue:[2]
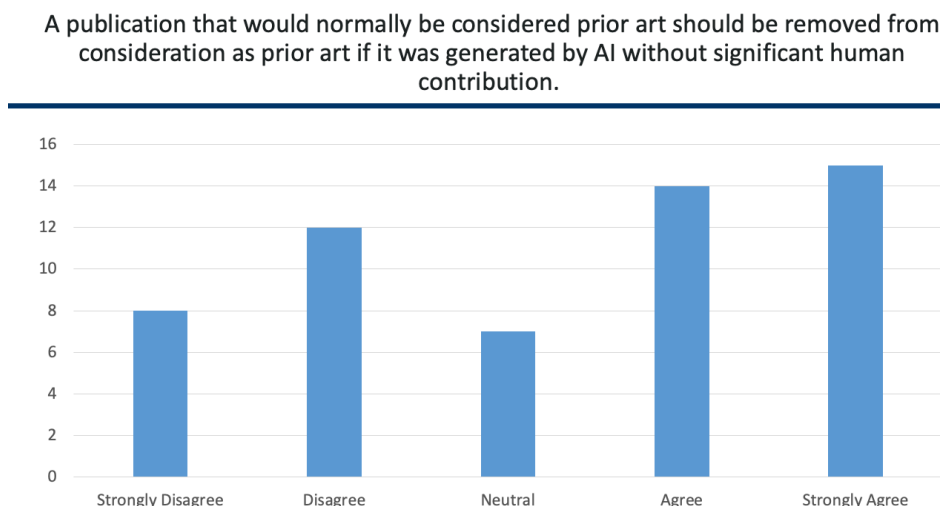
A publication that would normally be considered prior art should be removed from consideration as prior art if it was generated by AI without significant human contribution.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
8	12	7	14	15

CHART 1

The line-drawing problem

Most people would likely agree that examples 3 and 4 are more problematic than examples 1 and 2. This is supported by Chart 2 below.

If you believe publications should be removed from consideration as prior art in at least some circumstances, which of the following examples illustrates a level of AI versus human contribution where removal would be appropriate?
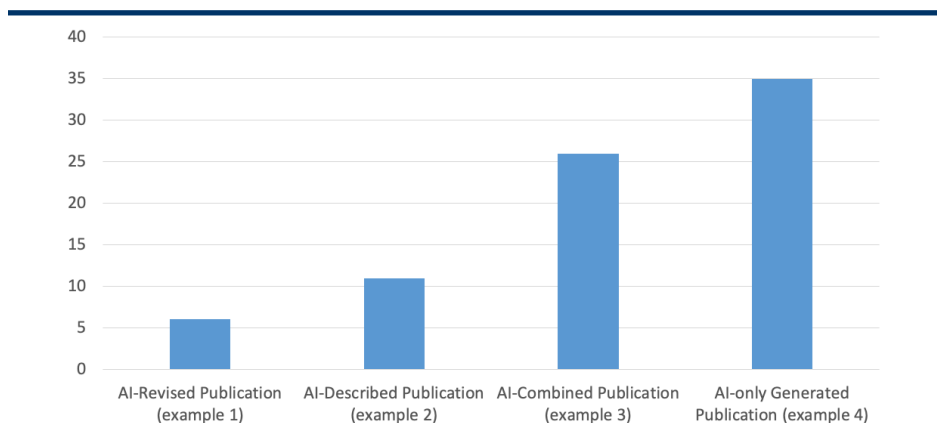
AI-Revised Publication (example 1)	AI-Described Publication (example 2)	AI-Combined Publication (example 3)	AI-only Generated Publication (example 4)
6	11	26	35

CHART 2

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[2] Charts 1 and 2 reflect results of a nonscientific survey taken over several weeks in June 2024. 64 people responded to the survey. Being a nonscientific survey, it is not intended to be representative of a larger body of stakeholders; only to illustrate opinions among the participating respondents.

However, in real life the delineation is not so clear. There are an infinite number of possible human/AI interaction scenarios. AIPLA believes that drawing a line based on relative human/AI contribution would be extremely difficult and likely unworkable in practice, particularly as the technology continues to develop at a very rapid pace. Predictability of knowing what is or is not prior art is critical to users of the patent system. Any rule or "line" that would differentiate prior art from "not prior art" based on factors that are not apparent from the face of a publication would introduce great expense and unpredictability into the patent system. Further, it is unclear how any such differentiating line could be aligned with the existing statutory framework.

<u>Use of AI to intentionally create barriers to patentability</u>

Another factor to consider is the presence of existing AI systems that are explicitly attempting to generate prior art as barriers to patentability. One such system, *allpriorart.com*, explains on its "about" page:[3]

> *All Prior Art is a project attempting to algorithmically create and publicly publish all possible new prior art, thereby making the published concepts not patent-able. The concept is to democratize ideas, provide an impetus for change in the patent system, and to preempt patent trolls. The system works by pulling text from the entire database of US issued and published (un-approved) patents and creating prior art from the patent language. While most inventions generated will be nonsensical, the cost to computationally create and publish millions of ideas is nearly zero – which allows for a higher probability of possible valid prior art.*

As admitted in the excerpt above, AI-only generated publications are likely to be nonsensical (or, to patent attorneys, not enabled or inoperative). However, the sheer number of these publications, and the resultant burden on a patent applicant to prove lack of enablement for large numbers of references, may have significant negative impact on the patent system even if the references, once challenged, do not pass the bar as valid prior art. Further, it is reasonable to assume that these systems will evolve and improve with time, increasing the likelihood of AI-only generated publications that do describe operable technology with an enabling disclosure.

<u>The problem of design patents</u>

While, as explained in more detail below, lack of enablement is an approach under existing law that may address some concerns about AI-generated disclosures as they relate to utility patents, this approach may not be applicable to design patents. An AI system may be used to generate billions of variations of existing designs or combinations of existing designs and put these in the public domain. This may be done offensively or defensively. Because the drawing itself could be sufficient to describe the design in some cases, arguing the lack of enablement of AI-only generated designs could be less effective in some instances. Thus, the potential for the impact of AI-generated disclosures on the design patent system may be

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[3] Allpriorart.com/about/, accessed July 24, 2024. *See also* alltheclaims.com.

greater than that for utility patents.

Possible approaches to prior art treatment of AI-generated disclosures

Three approaches are possible:

1. Amend 35 U.S.C. § 102 to exclude certain AI-generated disclosures

2. Interpret 35 U.S.C. § 102 to exclude certain AI-generated disclosures

3. Introduce guidance and procedural tools within the existing legal framework to minimize burdens imposed by AI-generated disclosures

Approach 1 might involve adding a human authorship requirement or practical accessibility requirement to §102.[4] However, any amendment to §102 would be a lengthy and difficult endeavor. Moreover, it would necessarily raise the line-drawing problem discussed above and may create uncertainty for both examiners and applicants as to what is or is not prior art. Further, any amendment to the statute could have unintended consequences on other types of prior art.

Approach 2 might attempt to read a human authorship requirement into §102 or build on the foundation of existing accessibility law to exclude from prior art a one-in-a-billion AI-only publication that would not reasonably have been found by a person of skill in the relevant art. However, like Approach 1, this may create uncertainty as to what is or is not prior art. Further, while the USPTO might create a policy along one of these arguments, there is no guarantee that this would be followed by the courts.

Approach 3, described in more detail below, would leverage existing law and procedure relating to operability, enablement, public availability, and analogous art to mitigate the impact of AI-generated disclosures on the patent system. Application of these requirements to AI-generated disclosures would not remove AI-generated disclosures as prior art *per se* but may be effective to forestall or mitigate the impact of prophesied harms and reduce burdens on the USPTO and applicants. However, as noted previously, this approach is likely to be less effective for design patent applications.

As demonstrated by our responses below, AIPLA supports Approach 3 at this time. AIPLA also believes discussion on this topic should continue and the real impact of AI-generated disclosures on the patent system should be monitored and reported on a regular basis. Should current law prove unworkable in the future under the weight of AI-generated disclosures, amendments to one or both of §102 and §103 should be considered at that time. Without first seeing the impacts of AI-generated prior art on patenting and how current law is applied to it, making statutory changes would be premature.

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[4] AIPLA is not proposing any specific amendment at this time; these comments are illustrative only.

AIPLA Comments to the Specific Questions of the RFC

A. The Impact of AI on Prior Art

1. In what manner, if any, does 35 U.S.C. 102 presume or require that a prior art disclosure be authored and/or published by humans? In what manner, if any, does non-human authorship of a disclosure affect its availability as prior art under 35 U.S.C. 102?

35 USC §102 defines what qualifies as prior art. In §102(a)(1), anything available to the public before the effective filing date is considered prior art. We are aware of no recognized basis for interpreting §102 to require that a prior art disclosure be authored in whole or in part by a human or be *published* by a human.

AIPLA reads the second part of this question as asking whether AI contribution to a disclosure (with or without combined human authorship) affects its availability as prior art under §102. Again, we are not aware of any recognized basis for making this distinction. However, while AI contribution to a prior art disclosure does not remove the disclosure from the prior art under current law, it may impact how that prior art is treated under current law by the courts and USPTO, as we explain in more detail below.

2. What types of AI-generated disclosures, if any, would be pertinent to patentability determinations made by the USPTO? How are such disclosures currently being made available to the public? In what other ways, if any, should such disclosures be made available to the public?

AI-generated disclosures may be pertinent to patentability determinations made by the USPTO so long as such disclosures qualify as prior art under 35 USC §102 under current jurisprudence.

Some AI-generated disclosures are currently published on websites automatically. The manner in which a prior art disclosure is made available to the public is not relevant to whether it qualifies as prior art under §102 so long as the requirements of public accessibility are met.

3. If a party submits to the Office a printed publication or other evidence that the party knows was AI-generated, should that party notify the USPTO of this fact, and if so, how? What duty, if any, should the party have to determine whether a disclosure was AI-generated?

Practitioners and applicants remain bound by the duty of candor and good faith, and by extension, the duty to disclose all prior art including AI-generated disclosures. Individuals covered by Rule 56[5] continue to have a duty to disclose to the USPTO all material information of which they are aware regardless of the source of or how they become aware of the information.[6]

As noted in the introductory comments, "AI-generated" as used herein is a generic term. It encompasses a wide range of situations from, for example, a human using an AI-enabled tool to improve a research paper to a publication generated solely by a

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[5] 37 C.F.R. § 1.56.
[6] *See* MPEP §2001.06 (citing to *Brasseler, U.S.A. I, L.P. v. Stryker Sales Corp.*, 267 F.3d 1370, 1383, 60 USPQ2d 1482,1490 (Fed. Cir. 2001)).

Large Language Model (LLM) with minimal or no human input. Classification of individual publications based upon where they fall within this range is both difficult and unnecessary. Parties should have no duty to disclose the extent of AI contribution of a publication when filing an Information Disclosure Statement and certainly have no affirmative duty to investigate the extent of AI contribution of each cited document. Parties do, however, consistent with Rule 56, have a duty to disclose when they know that a publication (AI-generated or not) cited to support a particular position is incorrect, falsified, contains hallucinations, or otherwise contradicts a position being taken.

4. Should an AI-generated disclosure be treated differently than a non-AI-generated disclosure for prior art purposes?

As already mentioned, § 102 does not appear to provide basis for excluding AI-generated disclosures as prior art. Absent an amendment to section 102, existing law must be applied.

AI-generated disclosures present at least two distinct challenges. One is whether the ability of an AI system to generate and then publish all possible alternatives in a certain technical space would effectively preclude humans from obtaining patents. The second is whether the sheer volume of publications that may be generated by AI systems – even if much of it is nonsensical -- would result in increased cost and delay for applicants who would have to prove inoperability for one publication after another. AIPLA believes existing practice, if emphasized and applied properly, can address both of these challenges.

First, proper application of current law requires that an anticipatory reference be enabled. As explained by the Court of Customs and Patent Appeals (CCPA) in *In re Sasse*,[7]

> [T]he proper test of a description in a publication as a bar to a patent as the clause is used in section 102(b) requires a determination of whether one skilled in the art to which the invention pertains could take the description of the invention in the printed publication and combine it with his own knowledge of the particular art and from this combination be put in possession of the invention on which a patent is sought. Unless this condition prevails, the description in the printed publication is inadequate as a statutory bar to patentability under section 102(b).

When a prior art *patent* (including both claimed and unclaimed material) expressly anticipates a claim in a later patent application, the disclosure is *presumed* to be enabling. The Federal Circuit held in *Amgen v. Hoechst*:[8]

> In patent prosecution the examiner is entitled to reject application claims as anticipated by a prior art patent without conducting an inquiry into whether or not that patent is enabled or whether or not it is the claimed material (as opposed to the unclaimed disclosures) in that patent that are at issue.

This doctrine of presumptive enablement, and shifting of the burden to the applicant,

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[7] *In re Sasse*, 629 F.2d 675, 681 (C.C.P.A. 1980).
[8] *Amgen Inc. v. Hoechst Marion Roussel, Inc.,* 314 F.3d 1313, 1355 (Fed. Cir. 2003).

was extended to non-patent prior art in *In re Antor Media Corp.*:[9]

> *[T]hat presumption applies in the district court as well as the PTO, placing the burden on the patentee to show that unclaimed disclosures in a prior art patent are not enabling. [Amgen], however, did not decide whether a prior art printed publication, as distinguished from a patent, is presumptively enabling during patent prosecution. As the issue regarding non-patent publications is squarely before the court today, we now hold that a prior art printed publication cited by an examiner is presumptively enabling barring any showing to the contrary by a patent applicant or patentee.* (citations omitted).

Thus, in a normal situation, an examiner may presume an anticipating publication is enabled and the applicant has the burden to prove otherwise. However, in the year following the *Antor* decision the Federal Circuit considered how the shift in the burden of proof should operate in a situation where the cited prior art publication is not enabled "on its face." As explained in *In re Morsa*:[10]

> *The presumption [of prior art enablement] in Antor is a procedural one— designed to put the burden on the applicant in the first instance to challenge cited prior art; the PTO need not come forward with evidence of enablement before it may rely upon a prior art reference as grounds for a rejection. Once an applicant makes a non-frivolous argument that cited prior art is not enabling, however, the examiner must address that challenge. While an applicant must generally do more than state an unsupported belief that a reference is not enabling and may proffer affidavits or declarations in support of his position, we see no reason to require such submissions in all cases. When a reference appears to not be enabling on its face, a challenge may be lodged without resort to expert assistance.* (citation omitted).

Morsa therefore permits applicants, in the case of cited publications that are not enabled on their face, to shift the burden by merely presenting a non-frivolous argument and without a requirement to submit affidavits or declarations. This has been incorporated into the Manual of Patent Examining Procedure (MPEP) as follows:[11]

> *When the reference relied on expressly anticipates or makes obvious all of the elements of the claimed invention, the reference is presumed to be operable. Once such a reference is found, the burden is on applicant to rebut the presumption of operability. Where a reference appears to not be enabling on its face, however, an applicant may successfully challenge the cited prior art for lack of enablement by argument without supporting evidence.* (citations and quotations omitted).

The MPEP then briefly addresses when prior art having questionable operability may be used in a rejection (§2121.01) and provides specific guidance on what constitutes enabling prior art for compounds and compositions (§2121.02), plant genetics (§2121.03), and apparatus and articles (§2121.04).

AIPLA suggests that the Office issue expanded guidance for treatment of prior art

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[9] *In re Antor Media Corp.*, 689 F.3d 1282, 1288 (Fed. Cir. 2012).
[10] *In re Steve Morsa*, 713 F.3d 104, 110 (Fed. Cir. 2013).
[11] MPEP § 2121(I.).

disclosures that are not enabled on their face. This would be for any non-enabled disclosure regardless of authorship, but we suggest the guidance should include specific examples of AI-generated disclosures with explanations of when examiners should or should not use such disclosures in a rejection. This guidance should also reinforce the *Morsa* rule. Additional examiner training in this area likely will be needed.

As noted previously, one concern about AI-generated publications is the sheer volume combined with the fact that the vast majority are likely to be nonsensical and hence not enabled. One out of a billion AI-generated publications might, in a nonsensical manner and completely by accident, disclose all the elements of a claimed invention. As a first step, a prudent examiner should view *any* publication that is non-enabling on its face – which will be the case with many AI-only generated publications – with skepticism, and guidance should weigh against citing it in a rejection. In the event it is used in a rejection, examiners should be aware that the burden to prove enablement can be shifted back to the examiner by a mere non-frivolous argument.

AIPLA believes that leveraging this existing law and procedural framework, through new guidance, examples, and training, will mitigate to at least some degree the potential negative impact of AI-generated publications on the patent system. It does not require a change in the law (nor does it preclude a change in the law in the future). An AI-generated, facially non-enabled prior art publication would be treated exactly the same way as a human-generated, facially non-enabled prior art publication. However, because of the unique potential of AI systems to flood the patent system with prior art, this area of existing law and procedure is likely to become much more pertinent and commonly used than it has been in the past. Thus, specific guidance, examples, and training on its application to AI-generated publications will be critical.

Second, as we mention below, massive numbers of AI-generated disclosures may create questions of regarding public availability and raise questions about whether an AI-generated disclosure constitutes analogous prior art under § 103. We address these issues below. Additional guidance on these issues might be needed.

For example:

a. Should the treatment of an AI-generated disclosure as prior art depend on the extent of human contribution to the AI-generated disclosure?

As mentioned above, we are aware of no basis under current law to treat AI-generated disclosures differently than other prior art publications. AIPLA is concerned that an "extent of human contribution" standard would be unworkable for the reasons set forth in the Introductory Comments.

b. How should the fact that an AI-generated disclosure could include incorrect information (e.g., hallucinations) affect its consideration as a prior art disclosure?

c. How does the fact that a disclosure is AI-generated impact other prior art considerations, such as operability, enablement, and public accessibility?

[b-c]

> Please see the answer to Question 4. Current jurisprudence on enablement, operability considerations, and public accessibility would apply. Therefore, the basic principles for determining anticipation, enablement and operability, and public accessibility would not change. However, guidance, examples, and training on how to properly apply these principles to AI-generated disclosures is likely to be helpful. A publication – AI-generated or not – is considered available to the public as of its actual publication date.

5. At what point, if ever, could the volume of AI-generated prior art be sufficient to create an undue barrier to the patentability of inventions? At what point, if ever, could the volume of AI-generated prior art be sufficient to detract from the public accessibility of prior art (i.e., if a PHOSITA exercising reasonable diligence may not be able to locate relevant disclosures)?

> There is no way to know. As explained in the answer to Question 4, leveraging existing law and procedure relating to enablement and operability of prior art publications may prevent or at least delay AI-generated disclosures from becoming an undue barrier to patentability of human-conceived inventions.

> While no caselaw exists on public accessibility in the context of AI-generated disclosures, if the volume of AI-generated prior art becomes so large that a person skilled in the art would not have been able to, from a practical standpoint, find the needle in a haystack of nonsensical disclosures, it may be possible, on a fact basis, to draw a parallel between this situation and the existing caselaw on public accessibility. As explained in *Medtronic v. Barry*:[12]

>> *The determination of whether a document is a "printed publication" under 35 U.S.C. § 102(b) involves a case-by-case inquiry into the facts and circumstances surrounding the reference's disclosure to members of the public. Because there are many ways in which a reference may be disseminated to the interested public, "public accessibility" has been called the touchstone in determining whether a reference constitutes a "printed publication" bar under 35 U.S.C. § 102(b). (citations and quotation omitted).*

6. Does the term "person" in the PHOSITA assessment presume or require that the "person" is a natural person, *i.e.*, a human? How, if at all, does the availability of AI as a tool affect the level of skill of a PHOSITA as AI becomes more prevalent? For example, how does the availability of AI affect the analysis of the PHOSITA factors, such as the rapidity with which innovations are made and the sophistication of the technology?

> Yes, the "person" in PHOSITA should be presumed to be a natural person. Any other interpretation would be inconsistent with the logic that underpins the assessment based on the hypothetical "person having ordinary skill in the art to which the claimed invention pertains."[13] Further, although we are unaware of caselaw that has addressed

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[12] *Medtronic, Inc. v. Barry*, 891 F.3d 1368, 1380 (Fed. Cir. 2018).
[13] 35 U.S.C. § 103.

this question directly, courts have traditionally viewed this standard though the eyes of a natural person. For example, in *KSR*[14], the Supreme Court held, "When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill in the art has good reason to pursue the known options within *his or her* technical grasp." (emphasis added).

Like any other tool, how AI is used in a particular art, as opposed to merely whether it is available, could be a factor in assessing the level of skill of a PHOSITA as AI becomes more prevalent. This will depend on various factors such as the technology at issue, the PHOSITA's level of skill using tools of this type, the rate of development in a technology area (established vs. emerging technology), and other factors. The availability of AI to a PHOSITA must be based on how a PHOSITA would have used such tools at the pertinent time (prior to the effective filing date) and only a model that existed at that time, trained in the manner that model would have been trained at that time, may be considered.

7. How, if at all, should the USPTO determine which AI tools are in common use and whether these tools are presumed to be known and used by a PHOSITA in a particular art?

In general, the USPTO may rely on commonly established tools used by a PHOSITA in an art and how they are used to determine the "ordinary skill in the art." No presumptions should be made.

As noted in the reply to Question 6, a determination of availability of any AI tool to a PHOSITA must be based on how a PHOSITA would have used such tools at the pertinent time (prior to the effective filing date) and only a model that existed at that time, trained in the manner that model would have been trained at that time, may be considered.

8. How, if at all, does the availability to a PHOSITA of AI as a tool impact:

a. Whether something is well-known or common knowledge in the art?

Like any other tool, AI tools can make certain things faster and easier. The mere availability of an AI tool is not sufficient to establish that the AI tool, much less how to use it, is well-known or common knowledge in the art. If ordinarily skilled persons in the art would have had access to a particular AI tool prior to the critical date, and that tool had a particular known functionality, then that functionality might represent part of the common knowledge. AI tools are designed to gather information that is known in the art and make inferences from it, but this information could be gleaned from other sources in other ways.

b. How a PHOSITA would understand the meaning of claim terms?

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[14] *KSR Intern. Co. v. Teleflex Inc.*, 550 U.S. 398, 402 (2007).

Claim construction is conducted through the eyes of a hypothetical PHOSITA. It seems unlikely that the availability of an AI tool to a PHOSITA would impact how the PHOSITA would understand the meaning of the terms of a claim.

9. In view of the availability to a PHOSITA of AI as a tool, how, if at all, is an obviousness determination affected, including when:
a. Determining whether art is analogous to the claimed invention, given AI's ability to search across art fields? Does the "analogous" art standard still make sense in view of AI's capabilities?

Yes, the two-step analogous art determination[15] still makes sense and, unless new caselaw says otherwise or statutory amendments are made, must still be applied. The ability to search across art fields is not new; search engines have been able to do it for decades. The question is not whether the PHOSITA could have found it in other arts using AI (or other tools). Rather, the question is whether the prior art from another art was reasonably pertinent to the problem the inventor was trying to solve. To be reasonably pertinent, it must "logically have commended itself to an inventor's attention in considering his problem."[16] It is not enough that an AI tool might have been able to bring it to the attention to the PHOSITA. Rather, it is whether the prior art reference commends itself to the PHOSITA. In other words, the question is whether the PHOSITA would have recognized the prior art reference as being reasonably pertinent to the problem that the PHOSITA was trying to address, including how the PHOSITA would understand the contents of the reference.

Regardless of whether AI tools were available to be used by the PHOSITA at the relevant time, the obviousness determination should continue to be made based on the Supreme Court holding in *KSR* and subsequent jurisprudence.

b. Determining whether there is a rationale to modify the prior art, including the example rationales suggested by *KSR* (MPEP 2143, subsection I) (e.g., "obvious to try") or the scientific principle or legal precedent rationales (MPEP 2144)?

There could be some impact on the "obvious to try" and other rationales under *KSR* if pertinent AI tools, which may differ from previously available tools and resources available in a field of endeavor prior to the critical date: (a) materially reduce the time, effort, or resources needed to test potential alternatives (including a finite number of potential alternatives) to previous solutions; and/or (b) when used along with other experience enable a PHOSITA to more easily predict results or have a more reasonable expectation of success.

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[15] *In re Wood*, 599 F.2d 1032,1036 (C.C.P.A. 1979) ("The determination that a reference is from a nonanalogous art is therefore two-fold. First, we decide if the reference is within the field of the inventor's endeavor. If it is not, we proceed to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved.")
[16] *In re ICON Health and Fitness, Inc.*, 496 F.3d 1374, 1379-80 (Fed. Cir. 2007).

c. Determining whether the modification yields predictable results with a reasonable expectation of success (*e.g.,* how to evaluate the predictability of results in view of the stochasticity (or lack of predictability) of an AI system)?

> The obviousness determination related to potentially predictable results should not be materially affected despite AI's development. Current predictable results standards should not change despite AI advancement. AI may, however, like other previously available tools, such as search engines and other computing devices among many other examples, facilitate the analysis of potentially predictable results and the speed of the related potential analysis.

d. Evaluating objective indicia of obviousness or nonobviousness (*e.g.,* commercial success, long felt but unsolved needs, failure of others, simultaneous invention, unexpected results, copying, etc.)?

> Current objective indicia standards should not change despite advancements in AI tools. While AI tools might be used to determine and/or analyze the objective indicia, it does not impact the indicia themselves. The obviousness determination related to objective indicia should be the same. Reliance on various indicia (*e.g.*, commercial success, long felt but unsolved needs, failure of others, simultaneous invention, unexpected results, copying, *etc*.) should be unchanged even as AI-assisted analysis becomes easier. This is similar to leveraging other technical tools in addition to separate evidence.

10. How, if at all, does the recency of the information used to train an AI model or that ingested by an AI model impact the PHOSITA assessment when that assessment may focus on an earlier point in time (*e.g.,* the effective filing date of the claimed invention for an application examined under the First-Inventor-to-File provisions of the America Invents Act)?

> If the level of skill in the art prior to the critical date is determined to include knowledge of and availability to an AI tool by a PHOSITA, any attempt to determine what would have been obvious to the PHOSITA must consider *only* the AI tool in the state it was in at that time. This means: 1) the AI model must have been available; and 2) the AI model must have been trained only with data obtained prior to the critical date.

11. How, if at all, does the availability to a PHOSITA of AI as a tool impact the enablement determination under 35 U.S.C. 112(a)? Specifically, how does it impact the consideration of the *In re Wands* factors (MPEP 2164.01(a)) in ascertaining whether the experimentation required to enable the full scope of the claimed invention is reasonable or undue?

> If the level of skill in the art prior to the critical date is determined to include knowledge of and availability to an AI tool by a PHOSITA, and that AI tool would be of use to make and use a claimed invention, then that tool should be considered as part of the inquiry under §112(a) to determine whether a claim has been enabled. In such a

situation, the availability of the AI tool may affect various of the *In re Wands* factors, but the legal test – the factors themselves – would not change.

12. What guidance from the USPTO on the impact of AI on prior art and on the knowledge of a PHOSITA, in connection with patentability determinations made by the Office, would be helpful?

Please see the answer to Question 4. AIPLA suggests that guidance and AI-generated publication examples be issued, and examiner training be conducted, to reinforce: 1) when facially non-enabled publications should or should not be used in a rejection; and 2) how the burden of proof on enablement can be shifted under *Morsa*. Guidance is also needed for circumstances in which examiners rely on a combination of prior art where at least one piece of prior art is an AI-generated publication. Finally, AIPLA believes that, in situations where examiners are using AI tools to search for prior art and formulate rejections, guardrails such as the PHOSITA standard and the analogous art standard are at risk of erosion. The USPTO should provide guidance to examiners on how to keep these standards in place, regardless of the sophistication of the search tools used by examiners.

13. In addition to the considerations discussed above, in what other ways, if any, does the proliferation of AI impact patentability determinations made by the Office (e.g., under 35 U.S.C. 101, 102, 103, 112, etc.)?

AIPLA notes the procedures used for determining enablement, written description, and obviousness have always evolved in conjunction with the level of skill of the PHOSITA, which includes the sophistication of the tools used by the PHOSITA.

For instance, the PHOSITA standard in the context of an examiner making obviousness determinations should reflect the actual level of skill of a practitioner in that field of art prior to the critical date. In other words, the examiner has access to the same tools the PHOSITA would have had prior to the filing date, no more and no less. Identifying those tools, or at the very least determining a procedure for identifying those tools and the ways in which they are used, should be a collaborative effort between the USPTO and stakeholders.

Furthermore, AIPLA believes that more transparency and discussion are required regarding AI search tools used by examiners. As explained above, while examiners conducting their work should be assumed to have the same level of skill as PHOSITA, and fundamental concepts of obviousness should not be revisited here, the USPTO should allow further exploration into how these new tools can impact obviousness determinations particularly where, as noted above, there is a danger of using an AI tool that has been trained with data that post-dates the filing date of the application under consideration.

AIPLA supports legislative changes to 35 U.S.C. 101 as set forth in S. 2140, Patent Eligibility Restoration Act of 2023.[17]

14. Are there any laws or practices in other countries that effectively address any of the questions above? If so, please identify them and explain how they can be adapted to fit within the framework of U.S. patent law.

AIPLA is not aware of any such laws or practices. AIPLA notes that international harmonization of the definition of prior art is extremely important for obtaining consistent results across jurisdictions, and suggests the USPTO pursue this topic through discussions with other offices.

15. Should title 35 of the U.S. Code be amended to account for any of the considerations set forth in this notice, and if so, what specific amendments do you propose, and why?

As stated above, AIPLA does not believe that revisiting fundamental patent laws and policies is warranted at this time and recommends leveraging existing law and procedures to mitigate potential harm to the patent system by large volumes of AI-generated publications. However, the impact of AI-generated publications on the patent application process should be monitored and reported on a regular basis. If it appears the ability to obtain patents that result from genuine human ingenuity begins to be impaired, appropriate amendments to the statutory framework should be considered at that time.

AIPLA gratefully acknowledges the significant and timely efforts of the USPTO to provide guidance in this rapidly evolving field. We thank the USPTO for this opportunity to provide our comments.

Sincerely,

Ann M. Mueting

Ann M. Mueting
President
American Intellectual Property Law Association

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[17] https://www.aipla.org/docs/default-source/advocacy/aipla-letter-in-support-of-s.-2140-pera.pdf?sfvrsn=5203369b_1