



## Overreaching for Obviousness in IPRs: Enforcing the “Patents or Printed Publication” Requirement

### Introduction and summary

The America Invents Act (“AIA”) restricted the bases on which obviousness challenges may be instituted in *inter partes* review (“IPR”) proceedings. Obviousness attacks can be instituted **“only on the basis of prior art consisting of patents or printed publications.”** 35 U.S.C. § 311. However, in practice, the PTAB has relaxed this requirement and allows obviousness challenges to be based on expert opinions that stray into matters extrinsic to the submitted prior art. This lax application of Section 311 has allowed the PTAB’s purview to balloon, permitting parties to bring challenges when an expert opinion (and not the submitted prior art) states that a claimed invention would have been “predictable” or “obvious to try,” among other such factors. While such opinions would be permitted in the broader evidentiary proceedings of post-grant reviews (“PGRs”) or in district court cases, this exceeds the limited statutory role of IPRs.

The 2018 Trial Practice Guide (“TPG”) of the U.S. Patent & Trademark Office (“PTO”) attempted to circumscribe the use of retained experts at the Patent Trial and Appeal Board (“PTAB”). The TPG updated the original 2012 Practice Guide to “take into account stakeholder feedback, lessons learned since the first AIA trial, and the natural evolution of the Board’s practices.” 2018 TPG at 2. The first topic addressed is experts. The section concludes with the following admonition on excessive use of experts in IPRs to try to fill gaps in the prior art’s disclosures:

Furthermore, because an *inter partes* review may only be requested “on the basis of prior art consisting of patents or printed publications, 35 U.S.C. 311(b), expert testimony may explain “patents and printed publications,” but is not a substitute for disclosure in a prior art reference itself.

2018 TPG at 5. This succinct prescription for limiting the use of expert opinions in instituting IPRs has not taken hold in the ranks of the administrative patent judges (“APJs”) responsible for implementing the statute.

In contravention of the restrictive language of Section 311 and the admonitions of the Trial Practice Guide, the PTAB condones obviousness challenges that rely on extrinsic matters not found in the cited prior art references. Recent IPR institution decisions openly accommodate wide-ranging expert opinions and rely on those opinions as a basis to institute IPRs. For example:

- “We ‘take account of the inferences and creative steps that a person of ordinary skill in the art would employ.’” IPR2018-01155, Paper No. 9, at 16;
- “Obviousness, however, is measured by allowing for what a person of ordinary skill in the art would have considered when faced with the various problems and teachings in the art.” IPR2018-01044, Paper No. 9, at 17;
- “Thus, according to Petitioner, ‘the use of TEOS was a known design choice, and one of a finite number of identified, predictable solutions.’” IPR2018-00951, Paper No. 7, at 11.

In such cases, the finding of obviousness is not based on information found in “patents or printed publications,” but instead on a far more loosely defined universe of inferences and opinions that go well beyond the statutory limitation of IPRs.

The statutory limit of IPRs must be strictly enforced. In *SAS Institute Inc. v Iancu*, 138 S.Ct. 1348 (2018), the Supreme Court made clear that the discretion of the PTO to conduct IPRs is limited by the specific statutory language that Congress chose when it defined the scope of IPRs and created the PTAB to adjudicate them. Given the careful and precise reading of the AIA that the Court used in *SAS*, Section 311 seems to say explicitly that IPRs must be limited to cases where obviousness is established only in patents or printed publications:

A petitioner in an inter partes review may request to cancel as unpatentable 1 or more claims of a patent only on a ground that could be raised under section 102 or 103 and **only on the basis of prior art consisting of patents or printed publications.**

35 U.S.C. § 311 (Emphasis supplied).

Expert declarations, of course, are allowed in IPR proceedings pursuant to Section 312, but the implication of Section 311, quoted above, nevertheless restricts the scope of any such opinion by a retained expert. Thus, although experts may be appropriate for interpreting the scope and content of a prior art reference, experts should not be allowed to opine as to the existence of facts not found in the patents and printed publications being offered to the PTO as establishing obviousness. IPRs, in this respect, are distinctly different from the Post-Grant Reviews (“PGRs”) established in Section 321(b), which allows a challenge to validity “on any ground that could be raised under ... section 282(b) (relating to invalidity of the patent or any claim).”

A prudent way to comply with the limitations of the statute and the strictures of *SAS* is to limit the institution of IPRs to cases where the petition establishes obviousness based only on the teachings of the submitted patents and publications. Factors such as what is “predictable” and “obvious to try” are beyond the limited statutory scope of IPRs.

### **Congress limited the scope of IPRs to allow only the teachings of patents and publications for obviousness attacks**

The scope of IPRs is strictly limited by the statute, which excludes a number of the grounds on which patents can be challenged in judicial proceedings. Enablement challenges under Section 112 are not permitted, for example. Nor are all forms of prior art allowed, such as evidence of public use and prior “system” art. In confining IPR petitions to challenges under Sections 102 and 103, the statute further restricts these challenges – “**only on the basis of prior art consisting of patents or printed publications.**” 35 U.S.C. § 311. IPRs, therefore, are limited to situations where the obviousness of a patent can be established through straightforward “on the papers” arguments not requiring delving into extrinsic factual matters.

Expert declarations do have a proper role in IPRs. Section 312 expressly allows the evidence in support of an IPR challenge to include “affidavits or declarations of supporting evidence and opinions, if the petitioner relies on expert opinions.” 35 U.S.C. §312(a)(3)(B). Allowing an expert to opine on the scope and content of the prior art is an appropriate way for the PTO to ascertain and understand the teachings of a reference. For example, what is a “thermal cyclor”? What is the proper unit conversion? What is the melting point of aluminum? What is the TCP/IP model? These are typical questions that an expert might be called upon to explain to a court or other tribunal as to the teachings of the prior art. However, allowing an explanation of what is taught in “patents or printed publications” is not a license

to override the express limitations of Section 311 on the sources of factual information to be used in the analysis.

This restriction on the scope of IPRs is entirely consistent with the intent of Congress in establishing strict limitations on the use of IPR proceedings, as opposed to the more open PGR proceedings provided for in 35 U.S.C. § 321 *et seq.*, wherein the basis for review is not limited to patents and printed publications. Furthermore, this limitation imposed on IPRs to “patents or printed publications” is reinforced throughout the legislative history of the Leahy-Smith America Invents Act. Early drafts of the Act provided for two separate post-grant challenges, often phrased as a “first window” and a “second window” proceeding. The “first window” proceeding (now enacted as PGR proceedings set forth in Section 321 *et seq.*) allows a challenge to validity on any ground that could be raised in litigation. The temporal window for this “all in” proceeding closes nine months after patent issuance, and thus requires challengers to come forth and make known their objections to the issued patent in a timely fashion. Thereafter, only a far more limited form of relief was made available in the form of a “second window,” with a carefully restricted scope. These “second window” proceedings matured over the course of legislative proceedings into the IPR process.

The drafters of the AIA emphasized that these “second window” proceedings would be “sharply limited” to patents and printed publications. Here are excerpts from the legislative history:

- “The bill’s proposed section 321 authorizes two types of post grant review proceedings, a first-period proceeding in which any invalidity argument can be presented, and a second-period proceeding that is limited to considering arguments of novelty and nonobviousness that are based on patents or printed publications. The first-window proceeding must be brought within 9 months after the patent is issued. The second window is open for the life of the patent after the 9-month window has lapsed or after any first-period proceeding has concluded.” Senator Kyl Speech on S 3600, 154 Cong. Rec. S9982-S9993, at S9986-9987 (Sept. 27, 2008).
- “In this bill ... the issues that can be raised in the second window are so **sharply limited** that the goal of flushing out all claims is unattainable. Only 102 and 103 arguments based on patents and printed publications can be raised in the second window. Accused infringers inevitably will have other challenges and defenses that they will want to bring, and those arguments can only be raised in district court.” Senator Kyl Speech on S 3600, 154 Cong. Rec. S9982-S9993, at S9989 (Sept. 27, 2008) (emphasis supplied).
- “The present bill preserves the agreement reached in the 2009 Judiciary Committee mark up to maintain the current scope of inter partes proceedings: **only patent and printed publications may be used to challenge a patent in an inter partes review.**” Senate Debate on Patent Reform Act of 2011 (“America Invents Act”), 157 Cong. Rec. S1360-1394, at S1375 (Comments of Mr. Kohl) (emphasis supplied).

This streamlined nature of IPRs makes sense in view of the role envisioned by Congress for all post grant proceedings. In IPRs, the PTO assesses cases “on the papers.” While the agency does have certain evidentiary capabilities, these are extremely limited, particularly in IPRs. IPRs were envisioned to be a quick, abbreviated procedures, typically without live witnesses, designed to eliminate bad patents whose invalidity could be established based on unambiguous prior art comprising “patents or printed publications.” Restating the legislative history: “only patent and printed publications may be used to challenge a patent in an inter partes review.” Senate Debate on Patent Reform Act of 2011 (“America Invents Act”), 157 Cong. Rec. S1360-1394, at S1375 (Comments of Mr. Kohl).

### Many KSR factors require findings beyond the statutory scope of IPRs

Many of the factors that courts may consider for obviousness require inquiries of a nature that Congress never intended for the PTO to indulge in as part of an IPR. See *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007). Indeed, the Supreme Court's *KSR* decision itself offers a wide-ranging list of factors may be considered that are based in matters external to the "patents or printed publications." The *KSR* factors include:

- (A) Combining prior art elements according to known methods to yield predictable results;
- (B) Simple substitution of one known element for another to obtain predictable results;
- (C) Use of known techniques to improve similar devices (methods, or products) in the same way;
- (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- (E) "Obvious to try" – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;
- (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

#### MPEP § 2141 & MPEP § 2143

The PTO's own publications confirms that these *KSR* factors delve into matters external to the prior art of record. The Manual of Patent Examining Procedure ("MPEP") explains that under *KSR*, in addressing gaps between a patent claim and the disclosures of a prior art reference, "[f]actors other than the disclosures of the cited prior art may provide a basis for concluding that it would have been obvious to one of ordinary skill in the art to bridge the gap." MPEP § 2141. Only factor "G" above, the traditional "teaching, suggestion, or motivation" ("TSM") test, is limited to the teachings of the submitted prior art.

Assessing these factors necessarily requires fact-intensive determinations ranging well beyond the teachings of prior art "patents or printed publications." For example, in determining whether combining prior art elements according to known methods would yield predictable results (Factor (A) above), the PTO must consider "a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely performs the same function as it does separately." MPEP § 2143 at subsection I.A. Likewise, in assessing an "obvious to try" argument (Factor (E) above), the PTO must make "a finding that one of ordinary skill in the art could have pursued the known potential solutions with a reasonable expectation of success." *Id.* at subsection I.E. These factors rely on matters extrinsic to the submitted prior art.

Although some of the APJ's hired by the PTO may have technical skills in specific areas, the role of APJs has been cabined to interpreting the meaning of prior art references and the motivations apparent from those references. See *In re Berg*, 320 F.3d 1310, 1315, 65 USPQ2d 2003, 2007 (Fed. Cir. 2003) ("As persons of scientific competence in the fields in which they work, examiners and administrative patent judges on the Board are responsible for making findings, informed by their

scientific knowledge, as to the meaning of prior art references to persons of ordinary skill in the art and the motivation those references would provide to such persons.”). Likewise, even though expert declarations are often submitted with an IPR petition, there is no basis in the statute for finding obviousness based on expert assertions that are not grounded specifically in the “patents or printed publications,” which as noted during the congressional debates “sharply limit” the statutory boundary of IPR proceedings. Senator Kyl Speech on S 3600, 154 Cong. Rec. S9982-S9993, at S9989 (Sept. 27, 2008).

Expert declarations can be used to explain what the prior art teaches. 35 U.S.C. §312(a)(3)(B). For example, when a challenged claim refers to a volatile organic compound, an expert could properly opine that a prior art disclosure of methylene chloride satisfies this limitation. Or when a prior art reference discloses using a secure internet communication, a retained expert might properly opine that this would suggest a combination with the known IPsec protocol standard. However, opinions on what might be considered “known methods” or “predictable” or “obvious to try,” for example, exceed the bounds of explaining what the submitted prior art discloses. The TPG confirms, in the context of decisions to institute an IPR, that expert opinions cannot be a substitute for gaps in the teachings of the prior art itself. *Id.* at 5.<sup>1</sup>

The proper line for the PTAB to draw is that the *prima facie* case of obviousness must be established only on the submitted patents and publications. Where there is a combination of references used, that combination must be supported by an express teaching, suggestion, or motivation in the submitted prior art. Experts are free to interpret the disclosures of the submitted prior art, and to explain the explicit teachings, suggestions, and motivation found in that art that would have led a person of skill in the art at the time of invention to combine the teachings of multiple references. Expert opinions not limited to helping the panel understand a reference or its inherent teachings, or helping the panel formulate an appropriate claim construction, should not receive consideration in either an IPR institution or final decision.

### **The PTAB is not limiting institution decisions to patents and publications**

In practice, the PTAB has been lax in restricting its institution decisions on obviousness. Essentially, the PTAB is applying a “full *KSR*” test for instituting IPRs without regard to the statutory restriction of Section 311. For example, the following legal standard is commonly applied in institution decisions:

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved based on underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and

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<sup>1</sup> Addressing the gamut of proceedings at the PTAB, including PGR and CBM proceedings, the TPG recognizes that “[e]xpert testimony may also be offered on the issue of whether there would have been a reason to combine the teachings of references in a certain way, or if there may have been a reasonable expectation of success in doing so.” 2018 TPG at 3. This expansive use of experts in other proceedings, such as PGRs, is limited by the further restriction of Section 311, as the TPG confirms. See TPG at 5.

(4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17–18 (1966).

IPR2018-01091, Paper No. 8, at 9. This standard would of course be correct in district court cases, or in PGR proceedings. However, it ignores the more limited scope of IPR proceedings.

Few if any IPR rulings acknowledge the mandate from the 2018 Trial Practice Guide that expert opinions cannot patch over gaps in the submitted prior art (which *KSR* would allow in the context of district court cases or in PGRs). See 2018 Trial Practice Guide, at 5 (“Furthermore, because an *inter partes* review may only be requested ‘on the basis of prior art consisting of patents or printed publications, 35 U.S.C. 311(b), expert testimony may explain ‘patents and printed publications,’ but is not a substitute for disclosure in a prior art reference itself.”). This directive in the Trial Practice Guide has little traction in the PTAB’s day-to-day IPR institution decisions.

The PTAB generally applies a “full *KSR*” approach to obviousness when deciding whether to institute IPRs. This more permissive approach leads to statements such as the following excerpts from recent IPR institution decisions:

- “We ‘take account of the inferences and creative steps that a person of ordinary skill in the art would employ.’” IPR2018-01155, Paper No. 9, at 16;
- “Obviousness, however, is measured by allowing for what a person of ordinary skill in the art would have considered when faced with the various problems and teachings in the art.” IPR2018-01044, Paper No. 9, at 17;
- “Thus, according to Petitioner, ‘the use of TEOS was a known design choice, and one of a finite number of identified, predictable solutions.’” IPR2018-00951, Paper No. 7, at 11.
- Crediting petitioner’s argument: “[s]ubstituting such an LED for the Nakajima LED would have been a simple substitution of one known element for another,’ ‘would have been well within the skill of a POSITA,’ and ‘would have had a reasonable expectation of success.’” IPR2018-01166, Paper No. 9, at 39.
- Crediting petitioner’s argument: “the combination would be simple and involve ‘well-known technologies that would perform their known functions to produce predictable results’ and would have been ‘obvious to try.’” IPR2018-01091, Paper No. 8, at 14-15.
- Crediting petitioner’s argument: “Based on this suggestion in Spero, Petitioner asserts that replacing Spero’s spray regulator 104 with Haber’s swirl atomizer would be (1) simple substitution of one known element for another to obtain predictable results; (ii) use of a known technique to improve similar devices in the same way; (iii) applying a known technique to a known device ready for improvement to yield predictable results; and (iv) obvious to try. *Id.* at 42–43 (citing Ex. 1003 ¶ 118).” IPR2018-01099, Paper No. 14, at 25.

These statements all call for expert opinions as to matters extrinsic to the submitted prior art, *e.g.*, what creative steps experts would employ, what approaches experts would have considered, what experts contend is known and predictable, what experts believe could be readily substituted, and what



experts state is obvious to try. While those inquiries may be appropriate in the more robust district court context, or even in a PGR, they are outside the statutory limit for IPRs. In such cases, the finding of obviousness is not based on information found in prior art consisting of “patents or printed publications,” but instead on a far more loosely defined universe of inferences and opinions that are not permitted for instituting IPRs.

### **Conclusion and outlook**

The 2018 Trial Practice Guide properly states that when instituting IPRs, “expert testimony may explain ‘patents and printed publications,’ but is not a substitute for disclosure in a prior art reference itself.” 2018 PTG at 5. This effort to enforce the statutory limit of Section 311 is not being applied regularly in practice. Rather, the PTAB is defaulting to a “full *KSR*” approach to obviousness that improperly invites parties to hire experts to opine on factual matters extrinsic to the submitted prior art.

Experts are allowed to explain the disclosures of the prior art, and they are permitted to explain how the teachings, suggestions, and motivations in the prior art would have led a person of skill in the art to combine the disclosures of multiple references. However, there is no basis in the statute for experts to opine on matters extrinsic to the submitted prior art for purposes of instituting an IPR. This is exactly what the Trial Practice Guide attempted to limit. The PTAB, however, in many cases has failed to observe this restriction.

SAS does not provide leeway to loosely apply the PTAB’s governing statutes, including Section 311. The PTAB is a creature of statute, and its limitations must be strictly enforced. While a wide-ranging exploration of expert inferences may be allowed in PGR practice, IPRs are different. Congress established IPRs as a limited “second window” proceeding. Congress directed that these be “sharply limited” to patents and printed publications. Senator Kyl Speech on S 3600, 154 Cong. Rec. S9982-S9993, at S9989 (Sept. 27, 2008) (emphasis supplied). Restated, “only patent and printed publications may be used to challenge a patent in an inter partes review.” Senate Debate on Patent Reform Act of 2011 (“America Invents Act”), 157 Cong. Rec. S1360-1394, at S1375 (Comments of Mr. Kohl).

If the PTAB were to deny institution of IPR challenges where an obviousness challenger relies on factors external to the submitted patents and printed publications, challengers would still have options to invalidate these patents. PGR proceedings accommodate review of all bases for invalidity. And of course district courts remain available for such challenges (and may be more appropriate, given their broader fact-finding role). See Senator Kyl Speech on S 3600, 154 Cong. Rec. S9982-S9993, at S9989 (Sept. 27, 2008) (“Accused infringers inevitably will have other challenges and defenses that they will want to bring, and those arguments can only be raised in district court.”).

A benefit to streamlining PTAB proceedings in this manner is to promote uniformity in rulings. As the MPEP recognizes, the *KSR* test is a “flexible approach.” MPEP § 2141. Maintaining consistency and predictability is a challenge for the PTAB, particularly given the growing size of its corps of APJs and the increased workload imposed by SAS. For institutional stability, having a more consistent and coherent body of law is an imperative, and administering this “flexible approach” to achieve predictable results is at minimum, a challenge.

The Director has wide discretion in limiting the institution of IPRs. See *Cuozzo Speed Techs., LLC v. Lee*, 136 S.Ct. 2131, 2139 (2016). That is, the Director has broad discretion (indeed a statutory mandate) to limit institution of IPRs to those where the *prima facie* case of obviousness is established in the submitted patents and printed publications. Doing so is not only required by statute; it would benefit the PTAB broadly by promoting uniformity in rulings under an established analytical framework

for obviousness and by helping ease the caseload burdens imposed by SAS. The 2018 Trial Practice Guide got this right, and now it is time for the PTAB to apply it consistently.