

Challenging
Patent Validity

By Stephen E. Kabakoff

Non-patent literature can be a great source of prior-art printed publications to assert in an inter partes review.

Proving that a Printed Publication Qualifies as Prior Art Can Make or Break Your Client's Inter Partes Review

Your client has been sued for patent infringement and contacts you about how to respond. You consider potential defenses and counterclaims, knowing that proving the invalidity of the asserted patent is a complete defense to

the infringement allegation. Litigating patent validity, however, can be a lengthy and costly process, even if the litigation progresses only through summary judgment. Patent validity is typically litigated through trial with all other issues in the case. In some cases, validity may be the only pending issue; but by and large, resolving patent validity can require the full scope of discovery, motion practice, and trial of an infringement claim.

There are several ways to prove that a patent is invalid. The most common is to demonstrate that the invention claimed

in the patent was previously known in the “prior art,” or it would have been an obvious variation of what was known. Broadly speaking, the prior art consists of any public disclosure, of any type, anywhere in the world, over all time preceding the priority date of the patent (usually its earliest effective filing date), with some limited exceptions. To scour all possible prior art completely is impossible. In a district court case, a defendant may spend considerable time and money investigating whether the invention was previously disclosed in one or more documents, patents, products, sys-



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tems, public uses, or commercial sales pre-dating the plaintiff's asserted patent.

Recognizing the burdens of conventional patent litigation, Congress created, in the Leahy-Smith America Invents Act (AIA), Pub. L. No. 112-29, 125 Stat. 284 (2011), a proceeding in the U.S. Patent and Trademark Office (USPTO) focused solely on the issue of patent validity. These proceedings are designed to provide an alternative forum for resolving validity challenges more quickly and efficiently than in district court. They involve a streamlined trial, with limited discovery, before a panel of administrative patent judges. As in a district court, both the patent challenger (the petitioner) and the patent owner participate as the parties to the trial. Unlike district court, however, the administrative patent judges are statutorily required to issue a decision within twelve months after the proceeding is instituted. 35 U.S.C. §316(a)(11). In addition to expediency, these post-grant proceedings provide other benefits, such as a lower evidentiary burden to invalidate a patent than in district court, administrative patent judges who specialize in validity determinations, and an opportunity to stay a parallel district court case pending resolution of the validity issue in the USPTO.

The AIA provides several different types of post-grant proceedings for challenging patent validity. The most common type is the inter partes review proceeding (IPR). Any person who is not the patent owner can petition the USPTO to institute an IPR at least nine months after the patent has issued. 35 U.S.C. §311. But if your client has been sued for patent infringement, the client must file an IPR petition within one year of being served with the complaint. 35 U.S.C. §315(b). A similar post-grant review proceeding is available, with some variations, for newer patents issued within the last nine months and for patents that qualify as covered business methods. 35 U.S.C. §321; AIA §18. According to statistics published by the USPTO as of the date of this article, more than 90 percent of all petitions requesting post-grant proceedings have been for IPRs. The USPTO updates its published statistics monthly. *Statistics*, U.S. Trial & Appeal Bd.

Prior art that may be used in an IPR is limited to only "patents and printed pub-

lications." 35 U.S.C. §311(b). Identifying a U.S. or foreign "patent" is straightforward, but determining what qualifies as a "printed publication" for purposes of prior art is surprisingly nuanced. The concept of a printed publication as prior art has been considered in the caselaw well before our current patent laws were enacted, and it is still an issue today. *See, e.g., Jockmus v. Leviton*, 28 F.2d 812 (2d Cir. 1928) (Hand, J.) (analyzing whether a French trade catalogue qualified as a prior-art printed publication). Similar to a district court, the USPTO follows its own precedential IPR decisions in issuing new, final written decisions and relies on its informative (non-precedential) decisions for general guidance. As recently as April 7, 2020, for example, the USPTO designated four of its final written decisions as "informative" on the issue of proving when a reference constitutes a printed publication that qualifies as prior art. Only a few months earlier, it had designated another of its decisions as "precedential" on this same issue.

Whether a non-patent reference with disclosure for invalidating a patent is considered a prior-art printed publication can be critical to succeeding in an IPR. This inquiry can be broken down further: Is the reference a printed publication, and did it predate the priority date of the patent at issue? If either of these criteria is not met, e.g., either because the reference is not a printed publication or because it was not in the prior art, the USPTO may disqualify it as prior art evidence that may be asserted in an IPR. The USPTO has discretion to deny institution of an IPR proceeding if it determines the IPR petition fails to show a reasonable likelihood of prevailing with respect to at least one challenged patent claim. 35 U.S.C. §314(a). The USPTO may use this discretion, for example, when an IPR petitioner has not established an asserted non-patent reference is a prior-art printed publication. As a result, the USPTO may deny a petitioner's request for an IPR based on that reference. Worse yet, the USPTO may institute the IPR only to decide that the petitioner loses at the end for failing to assert a proper prior-art printed publication. The latter situation can be especially problematic because the IPR petitioner (i.e., your client) would be estopped from asserting that same refer-

ence in an invalidity defense in related district court litigation. 35 U.S.C. §315(e)(2).

Accordingly, proving that a reference is a printed publication that qualifies as prior art can make or break your client's patent-validity challenge in an IPR. The discussion below considers different types of printed publications that may be asserted in an IPR and the type of proof that may

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be required to demonstrate that they qualify as prior art.

The Legal Meaning of Printed Publication

Determining whether a document is a printed publication for purposes of prior art would seem to call for a simple test: Was it printed, and was it published? The reality, however, is that there is a wide spectrum of non-patent literature, including not only conventional books and articles but also references that are available only electronically, disseminated without a formal publisher, publicly displayed, or accessible to only select people.



Rather than focusing on “printed” and “published” as separate requirements, the crucial inquiry for finding that a reference is a printed publication is whether it has been made publicly accessible. *In re Klopfenstein*, 380 F.3d 1345, 1348 (Fed. Cir. 2004). See also *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1348 (Fed. Cir. 2016) (finding that determining whether a

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reference qualifies as a printed publication is a legal conclusion based on underlying facts). A reference is considered publicly accessible, and thus a “printed publication,” if persons interested and ordinarily skilled in its subject matter exercising reasonable diligence can locate it. *Kyocera Wireless Corp. v. Int’l Trade Comm’n*, 545 F.3d 1340, 1350 (Fed. Cir. 2008). Public accessibility, moreover, is assessed on a case-by-case basis, based on the facts and circumstances surrounding the reference’s disclosure to members of the public. *Voter Verified, Inc. v. Election Systems & Software, Inc.*, 698 F.3d 1374, 1380 (Fed. Cir. 2012).

In practice, an IPR petitioner must be prepared to prove that each asserted non-patent reference was publicly accessible in the prior art. If, for example, the patent owner can successfully demonstrate that a reference was not sufficiently publicly accessible before the priority date of the patent at issue in the IPR, no matter how strong that reference may be for invalidating the patent, the patent owner may be able to disqualify the asserted reference as prior art and defeat the invalidity ground.

Further still, because it is the IPR petitioner’s burden to prove that an asserted reference is a “printed publication,” the patent owner need only establish the petitioner’s failure of proof in showing the reference’s public accessibility. *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29, at 21 (P.T.A.B. Dec. 20, 2019) (precedential).

Since proving the public accessibility of a reference is fact dependent and determined on a case-by-case basis, the IPR petitioner may need to rely on different types of evidence, depending on the type of reference being asserted. For example, documents from public sources, such as published patent applications, may be undisputed printed publications as of their publication dates. References in public libraries (without access restrictions) may be relatively simple to prove as qualifying as printed publications as of the date that they were indexed and shelved in the library. Other references, however, such as documents having access restrictions, documents that are not widely disseminated, transient documents, translated documents, active or archived webpages, and online videos, can require a more thorough analysis of their public accessibility to determine if they qualify as printed publications in the relevant prior-art time frame.

Some common types of printed publications that may be asserted in an IPR petition are discussed below, along with evidentiary considerations for proving that they qualify as prior art.

Books, Articles, and Theses in a Library

It is unlikely a patent owner would dispute that a reference, such as a book, article, or thesis, that has been indexed and shelved in a library is publicly accessible to persons using reasonable diligence to locate it, unless, perhaps, the reference is located in a restricted area (e.g., a staff-only area), or the library is not open to the public. In IPRs, one evidentiary issue that commonly arises for these types of references is the date when they were made publicly accessible in the library and whether that date precedes the priority date of the patent being challenged in the IPR.

For example, suppose that your client recently found a science textbook in a pub-

lic library and that textbook was ideal for invalidating claims of a competitor’s patent in an IPR. It is unlikely that anyone would dispute that the textbook is a printed publication as of the date when your client located it in the library. To qualify as a prior-art printed publication for purposes of the IPR, however, the textbook would need to have been publicly accessible in the library before the priority date of the challenged patent. So how can you show the earliest date when the textbook was actually made publicly accessible in the library? In short, there is no single answer to this question. The USPTO considers the totality of evidence to evaluate when a reference was publicly accessible to assess whether it qualifies as a prior-art printed publication. *Hulu*, IPR2018-01039, Paper 29, at 3.

The library’s records may indicate when the science textbook in this example was received, indexed, and/or shelved in the library. Such library records, combined with an authenticating declaration from a librarian, may be sufficient to establish the date when the textbook could be located in the library’s catalogue and publicly accessed in its stacks. Alternatively, a custodian of a copy of the textbook could provide a declaration describing the facts and circumstances relating to how and when the custodian obtained his or her own copy of the textbook. If you cannot procure a librarian’s or custodian’s declaration, other indicia of the textbook’s publication date could be submitted as evidence, for example, showing the textbook’s copyright date, the International Standard Book Number, and the Library of Congress Control Number specifying when the book was cataloged in the U.S. Library of Congress. *REG Synthetic Fuels, LLC v. Neste Oil, Oyj*, IPR2018-01374, Paper 11, at 6 (P.T.A.B. Feb. 19, 2019).

Similar library evidence may be used to show the public accessibility of academic papers, such as Ph.D. dissertations and masters theses, to establish that they are prior-art printed publications. Where a dissertation or thesis is physically located in the library, but not cataloged in a meaningful way, it is not sufficiently publicly accessible to qualify as a printed publication. *In re Cronyn*, 890 F.2d 1158, 1161 (Fed. Cir. 1989). For this reason, the IPR petitioner would need to provide evidence

that the dissertation or thesis could have been located in the library by persons of ordinary skill in the relevant technological field in the prior-art time frame. To make this showing, the IPR petitioner may provide evidence of the university's then-existing card catalog that a person of ordinary skill could have used to locate the dissertation or thesis in the library. *Id.* It would be insufficient, however, to show only that the dissertation or thesis could have been located by its student author or the faculty committee members who approved it. *In re Bayer*, 568 F.2d 1357, 1361 (C.C.P.A. 1978).

Journal articles are another common source of prior-art printed publications that may be found in a library to invalidate a challenged patent. In many cases, individual articles are not cataloged in the library because they are part of larger conference proceedings or a journal volume that is indexed in the library's records. They also may be subject to access restrictions in the library, for example, only viewable on microfiche or in designated periodical rooms. Similar to the other types of library references, whether journal articles can be asserted as prior-art printed publications in an IPR ultimately depends on the weight of evidence showing that they were publicly accessible to persons of ordinary skill exercising reasonable diligence to locate them. For such articles, it is sometimes helpful to locate a person who attended a conference where the article was presented and distributed and submit a declaration from that person to establish the article's prior-art status, rather than rely solely on the library's records. *Mass. Inst. of Tech. v. AB Fortia*, 774 F.2d 1104, 1109 (Fed. Cir. 1985).

Temporarily Available Publications

Printed publications that were only temporarily accessible pose additional evidentiary concerns when they are asserted as prior art in an IPR. Fortunately, the seminal case *In re Klopfenstein*, 380 F.3d 1345 (Fed. Cir. 2004), describes how to analyze transient prior art to determine if it was sufficiently publicly accessible to qualify as a printed publication.

In *Klopfenstein*, a fourteen-slide presentation was printed, pasted onto poster boards, and displayed continuously at two

conferences: first, at a conference for two and a half days, and then second, at a conference for less than a day. *Klopfenstein*, 380 F.3d at 1347. It was undisputed that the two conferences predated the relevant priority date for prior art in that case. *Id.* The USPTO relied on the temporarily displayed poster presentation as a prior-art printed publication to reject claims in a patent application. *Id.*

The Federal Circuit identified specific factors to consider and balance when resolving whether a temporarily displayed reference, which was neither distributed nor indexed, was nonetheless made sufficiently publicly accessible to satisfy the requirements of a printed publication. These factors are (1) the length of time that the display was exhibited, (2) the expertise of the target audience, (3) the existence (or lack) of reasonable expectations that the material displayed would not be copied, and (4) the simplicity or ease with which the material displayed could have been copied. *Id.* at 1350. Weighing these factors, the court held that the poster presentation was sufficiently publicly accessible, and thus a printed publication, because it "was shown for an extended period of time to members of the public having ordinary skill in the art of the invention," the "members of the public were not precluded from taking notes or even photographs of the reference," and "the reference itself was presented in such a way that copying of the information it contained would have been a relatively simple undertaking." *Id.* at 1352.

An IPR petitioner relying on a temporarily displayed reference as prior art should submit evidence to the USPTO for as many of the *Klopfenstein* factors above as possible. Besides conference presentations, other transient references could include outdated webpages, proposals and change requests submitted to standards-setting organizations, or product or user manuals disseminated for only a finite duration and falling within the prior-art time frame. The USPTO may deny invalidity grounds based on an asserted prior-art reference if it finds the IPR petitioner did not meet its burden of establishing that the reference constitutes a printed publication under the *Klopfenstein* factors. See, e.g., *Coalition of Affordable Drugs VIII, LLC v. The*

Trustees of The University of Pennsylvania, IPR2015-01835, Paper 56, at 18 (P.T.A.B. Mar. 6, 2017).

Translated Printed Publications

The universe of prior art that may be asserted in an IPR is not limited to English-language references. It is not unusual for an IPR petition to assert at least one

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non-English reference as a prior-art printed publication to invalidate claims of a challenged patent. Besides showing evidence that the reference was publicly accessible in the relevant prior-art time frame, the IPR petitioner also must satisfy the additional requirements of providing an English-language translation with an affidavit attesting to the accuracy of the translation. 37 C.F.R. §42.63(b). Thus, the IPR petitioner must provide each of the original (non-English) reference, a translation of the reference, and an affidavit certifying the accuracy of the translation. The affidavit requirement typically prevents the petitioner from relying on a machine translation.



The IPR petitioner should also confirm that the translator is available to defend his or her affidavit in a deposition if the patent owner challenges the accuracy of the translation. The USPTO's rules for IPRs permit a party to cross-examine any witness of the opposing party who submits a declaration or affidavit. 37 C.F.R. §42.51(b)(1)(ii). This is true for librarians, custodians, and other

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witnesses who submit declarations in support of the public accessibility of a printed publication. It also applies to any translator who submits an affidavit certifying the accuracy of his or her translation of a prior-art reference. Under the IPR rules, the translator's deposition must occur in the United States, absent an agreement by the parties or an order from the USPTO's Patent Trial and Appeal Board compelling otherwise. 37 C.F.R. §42.53(b). This can be a significant consideration since many translators reside outside the United States and/or may be unwilling to participate in a deposition.

Documents, Websites, and Content on the Internet

The internet provides a wealth of possible non-patent literature, not only based on the content of websites, but also based on their embedded, linked, and downloadable documentation. This has led to the issue of how to prove that a reference located on the internet was sufficiently publicly accessi-

ble in the prior art and in the correct time frame. Is it enough for a witness to testify in a declaration that the witness accessed a particular prior-art reference through a website on a certain date? Does the reference need to have been archived to show when it was publicly accessible on the internet? If so, is it further necessary to submit evidence that the reference was actually accessed by a person of ordinary skill in the relevant technology in the prior-art time frame?

For a website, or a reference posted to a website, the ultimate question is still whether the reference was available in the prior art to the extent that persons interested and ordinarily skilled in the relevant subject matter, exercising reasonable diligence, could have located it. *Voter Verified*, 698 F.3d at 1380. For example, in *Voter Verified*, an article from an online periodical qualified as a prior-art printed publication despite a lack of evidence that the article had been indexed by a commercial search engine or accessed by any specific users. *Id.* at 1381. Instead, the evidence showed that the article was included in a periodical that was known as a prominent community forum for discussing the relevant technology in the prior art, and upon accessing the periodical's website, "an interested researcher would have found [the article] using that website's own search functions and applying reasonable diligence." *Id.*

While it may be unnecessary to show that a webpage or some other online reference was indexed by an internet search engine, this can be a persuasive factor in determining its status as a prior-art printed publication. *Id.* at 1380. Locating an archived copy of the webpage or online reference using the "Wayback Machine" from the Internet Archive's library can be an effective way of proving that it was publicly accessible by using a web browser in the relevant time frame. The archived copy can be printed from the Internet Archive's website with a header showing its worldwide-web address at the date when it was captured. The Internet Archive also offers a standard affidavit of authenticity for printouts of archived content in its Wayback Machine. Thus, an IPR petition may include both the printout of the archived prior-art reference with its authentication affidavit from the Internet Archive. *Sandoz*

Inc. v. Abbvie Biotechnology Ltd., IPR2018-00156, Paper 11, at 10–12 (P.T.A.B. June 5, 2018). Where the IPR petitioner relies on an archived reference that spans multiple archived webpages, however, the petitioner may want to consider whether it should be treated as a single reference or as multiple references, depending on their respective capture dates.

It also may be helpful for an IPR petitioner to submit evidence of research aids that would have enabled a person skilled in the art to locate an online prior-art reference. The research aid could be, for example, another prior-art patent or publication, including an express citation to the online reference being asserted as prior art in the IPR. *Blue Calypso*, 815 F.3d at 1350. It would be insufficient, however, merely to show that the online reference was publicly accessible on a personal webpage if there is no additional evidence that persons in the relevant community interested in the subject matter (other than the owner of the personal webpage) would have been able to locate that webpage using reasonable diligence. *Id.* at 1349–50.

As seen above, there are multiple ways that an IPR petitioner can show a webpage or some other online reference was sufficiently publicly accessible in the prior art. For example, the petitioner could submit evidence that the online reference was well known in the prior art to a community interested in its subject matter, was indexed using a search engine in the prior art, and/or was locatable online using appropriate research aids in the relevant prior-art time frame.

Online Videos

The USPTO will consider a digital video as qualifying as a printed publication for the purpose of IPRs if the video was sufficiently publicly accessible in the prior art. *Medtronic, Inc. v. Barry*, 891 F.3d 1368, 1379–80 (Fed. Cir. 2018). See also Manual of Patent Examining Procedure §2128(II) (A). Prior-art videos may have been distributed on different media, such as VHS tapes, CDs, DVDs, or internet streaming. Today, many of the prior-art videos can be found online, through social-media platforms, such as YouTube, and corporate websites.

The IPR petitioner asserting an online video as prior art, therefore, should con-

sider how and when the video was disseminated and to whom. For example, were there any restrictions regarding who could view the video online (e.g., access control or privacy settings), and if so, was it also separately disseminated on a different medium without such restrictions. Evidence based on the *Klopfenstein* factors, discussed above, also can be helpful in proving that the online video was sufficiently publicly accessible to qualify as a printed publication. *Guardian Alliance Techs., Inc. v. Miller*, IPR2020-00031, Paper 23, at 9–13 (P.T.A.B. Mar. 26, 2020). If the video is available from the Wayback Machine, it can be submitted with a supporting Internet Archive affidavit in the same manner as described above for other archived references. Otherwise, a copy of the online video should be submitted in the IPR with a declaration, e.g., from its author, custodian, or owner, to demonstrate how and when it was distributed and to whom.

Online videos further present the opportunity to present evidence of public accessibility that may not be available for other types of online references. For example, some websites hosting a digital video may provide statistics regarding the number of times that video was viewed and associated dates of viewing. There also may be online captions or transcripts that can serve as additional supporting evidence of the video's public accessibility. In some cases, it may be helpful to submit selected snapshots from the video with their playback times, if the relevant prior-art information is located in only certain parts of the video.

Conclusion

When your client has been accused of infringing a patent, an IPR can be a significant tool for challenging the validity of the patent. Because the IPR can only invalidate a patent based on prior-art patents and printed publications, it does not foreclose the possibility of asserting other invalidity grounds and defenses in a district court litigation. Other types of prior art, such as products, systems, public uses (e.g., demonstrations or tests), and commercial sales embodying the patented invention still can be asserted in district court, if necessary, after the IPR.

As discussed above, the amount of non-patent literature is immense and often a

great source of prior-art printed publications to assert in an IPR. A printed publication qualifies as prior art if it was publicly accessible in the prior art through the exercise of reasonable diligence by persons ordinarily skilled in the relevant subject matter. This is a fact-intensive determination and depends on the quantity and quality of evidence of public accessibility.

In practice, an authenticating declaration demonstrating a reference's public accessibility, bolstered by documentation such as supporting library or other archival records, is often used to show that the reference qualifies as a printed publication in the prior art. As discussed above, moreover, different types of references, such as documents in libraries, temporarily available documents, translated documents, active or archived webpages, and online videos may have unique evidentiary considerations for proving their prior-art status in an IPR. Knowing these considerations to establish the status of a prior-art printed publication properly in an IPR can make all the difference in successfully invalidating a patent asserted against your client. **FD**