

## Web-Based Publications as Prior Art Under Section 102

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Printed publications often serve as grounds for unpatentability. *See* pre-AIA 35 USC §102(a) and §102(b); *see also* AIA 35 USC §102(a)(1). This is especially true given the popularity of inter partes review (IPR) proceedings at the US Patent and Trademark Office (USPTO), in which the Patent Trial and Appeal Board (PTAB) will only consider patents or printed publications as prior art evidence. 35 USC §311(b). During such proceedings, the petitioner carries the burden to make a threshold showing that a reference qualifies as a "printed publication." *See, e.g., ServiceNow v. Hewlett-Packard Co.*, IPR2015-00707, Paper No. 12 at 8, Institution Decision, (PTAB Aug. 26, 2015). More specifically, there must be evidence proving the reference was sufficiently accessible to an interested person having ordinary skill in the art (POSA) before the critical date. *See, e.g., In re Cronyn*, 890 F.2d 1158 at 1161 (Fed. Cir. 1989). Accordingly, this article includes a review of recent PTAB and federal court decisions in order to provide

strategies for petitioners looking to qualify a reference as prior art, with particular attention to web-based references.

## Framework for Analysis

Two seminal cases highlight the existence of an indexing system as a key consideration in determining whether a reference qualifies as a "printed publication" under §102. First, in *In re Hall*, 781 F.2d 897 (Fed. Cir. 1986), the Federal Circuit analyzed whether a doctoral thesis, catalogued and shelved around December 1977 at a university library, was sufficiently publicly accessible. The court conducted a case-by-case inquiry into the facts and ultimately decided the dissertation was sufficiently publicly accessible to interested POSAs, even though a specific date of cataloguing and shelving was not established. The court reasoned that an affidavit from the director of the Loan Department describing the library's routine cataloguing and shelving practices was enough to show an approximate time of public accessibility before the critical date in February 1978.

Second, in *In re Cronyn*, the Federal Circuit went one step further to say the indexing system must catalogue the reference in a meaningful way. In this case, a senior thesis was shelved in the Chemistry Department library; then, the title and the name of the author were listed on an index card and the index card was filed alphabetically in a shoebox according to the name of the author. However, the name of the author bears no relationship to the subject of the thesis. Thus, the court decided the "shoebox author index" did not make the thesis sufficiently publicly accessible such that interested POSAs exercising reasonable diligence could have known of its relevance and located it.

In addition to the nature and quality of the indexing system, *In re Klopfenstein*, 380 F.3d 1345 (Fed. Cir. 2004), highlights the degree of dissemination as another key consideration in determining whether a reference qualifies as a "printed publication" under §102. Based on these facts, the Federal Circuit decided a 14-slide presentation that was only temporarily displayed to interested POSAs still qualified as prior art. The court explained that it will evaluate: (1) the length of time displayed; (2) the expertise of the target audience; (3) protection measures; and (4) the simplicity or ease with which the subject matter could have been copied. Here, the slides were on display for an extended period of time (i.e., 3.5 days total) without any confidentiality restrictions. Furthermore, the slides presented the subject matter in a simple way, and there was good opportunity for interested POSAs to process and retain the information.

## Analysis of Web-based References

At the start of the digital age, many libraries started using online databases to catalogue references. In one related case, an inventor published a manuscript describing a new method of playing golf which allows the golfer to tee up for every shot on the fairway. *In re Lister*, 583 F.3d 1307 (Fed. Cir. 2009). Two years after receiving a Certificate of Registration for the manuscript from the US Copyright Office (USCO), the inventor sought patent protection from the USPTO. However, the examiner cited the inventor's own manuscript against him as prior art

and the rejection was upheld by the PTAB (formerly, the Board of Patent Appeals and Interferences).

On appeal, the Federal Circuit recognized that the manuscript was available for inspection by interested POSAs at the USCO. Although the manuscript could not be copied, no special authorization was required for inspection, and the disclosed method of playing golf was simple to understand. Still, the USPTO carried the burden to show an interested POSA could have known of its relevance and been able to locate it.

Upon registration, the manuscript was listed in an online database maintained by the USCO. However, like the shoebox author index in *In re Cronyn*, the USCO database was not sorted by subject and could only be keyword searched by the first word of the title or the last name of the author. Therefore, the manuscript was not indexed in a meaningful way in the USCO database such that an interested POSA could find it.

At the time, however, there were two other commercial databases, Westlaw and Dialog, that incorporated reference information from the USCO database; and those commercial databases could be keyword searched by any word in the title. Thus, the court reasoned that an interested POSA exercising reasonable diligence would have attempted several keyword searches using a variety of terms like "golf" or "handicap" in order to locate the manuscript. Therefore, the Federal Circuit held that the manuscript was sufficiently publicly accessible as of the date the manuscript was listed in the commercial databases. As such, the Federal Circuit vacated and remanded the PTAB decision for an investigation of the average time between inclusion in the USCO database and subsequent incorporation into one of the commercial databases.

Similar to an online database, a File Transfer Protocol (FTP) server can be used for uploading and downloading references or information about references. [In SRI Int'l v. Internet Sec. Sys., 511 F.3d 1186](#) (Fed. Cir. 2008), a FTP server owned by SRI included a subdirectory for its EMERALD project related to cyber security. Within the subdirectory was a Live Traffic Paper written for the 1998 Symposium on Network and Distributed System Security (SNDSS). Before the Symposium, the author had emailed the file for the Live Traffic Paper to the SNDSS reviewing committee and also provided the committee with the FTP server's file address as backup. The file address for the Live Traffic Paper was:  
"ftp://ftp.csl.sri.com/pub/emerald/ndss98.ps".

ISS argued that the Live Traffic Paper was sufficiently publicly accessible because the FTP server was not password protected, the Live Traffic Paper was not labeled confidential, and the filename was not ambiguous because interested POSAs were aware of the SNDSS. Also, in the past, the file address for the EMERALD project subdirectory (i.e., "ftp://ftp.csl.sri.com/pub/emerald") had been given to interested POSAs to view other papers related to cyber security.

Despite all that, the Federal Circuit found that the organization of the FTP server was not intuitive, the filename was not obvious, and an interested POSA would not, unprompted, look at the subdirectory for an unpublicized paper. Thus, "[i]n effect, the live traffic paper on the FTP server was most closely analogous to placing posters at an unpublicized conference with no

attendees." *Id.* at 1197. As such, the Federal Circuit decided the Live Traffic Paper was not sufficiently publicly accessible and thus, vacated and remanded the district court's grant of summary judgment. Notably, however, the dissent argued there was an incentive to inspect the Live Traffic Paper because it was in the EMERALD project subdirectory, which is "similar to a librarian directing a researcher to a particular shelf of books." *Id.* at 1201.

On remand, the district court was persuaded by the fact that there was no real motivation for interested POSAs to browse the FTP server for unpublicized papers. 647 F. Supp. 2d 323 (D. Del. 2009). Also, unlike a complete doctoral thesis, the Live Traffic Paper was still subject to review by the SNDSS committee. Moreover, an abstract of the Live Traffic Paper was posted on the SRI website along with a statement that the full paper was "in limited distribution," but could be requested by email. There was also evidence that, despite several email requests, the author did not provide the full paper until after the critical date, which suggests the author intended to keep the Live Traffic Paper confidential. Later, the district court decision was affirmed on appeal without opinion. 401 F. App'x 530 (Fed. Cir. 2010).

*Voter Verified v. Premier Election Sols., 698 F.3d 1374 (Fed. Cir. 2012)*, illustrates another case where the author's intent was considered. Here, an article about electronic voting was published on a website for an online magazine related to cyber security. Unlike the FTP server in *SRI Int'l*, the goal of this website and its FTP server was dissemination. Issues of the online magazine were distributed to interested POSAs through a subscription mailing list and were also freely available for download through a FTP server. Furthermore, the online magazine had already published more than 100 articles about electronic voting by the critical date.

Although the article was indexed by the website and the website could be keyword searched by subject, the article was not indexed by commercial search engines such as Google, Bing, etc. Still, the Federal Circuit found that the article was sufficiently publicly accessible because a POSA interested in electronic voting would have been independently aware of this particular website. That is, a POSA interested in electronic voting would have known to look at this website for relevant information and then exercised reasonable diligence in executing keyword searches with varied terms to find the article. Therefore, the district court decision was affirmed.

Finally, it is important to note that petitioners should not blindly rely on the date of a copyright notice provided on a reference, as it may present authenticity or hearsay issues. In some cases, for example, an IEEE copyright date on an article has been sufficient to show public accessibility since IEEE is a well-known and reputable publisher of scientific and technical articles. *Ericsson v. Intellectual Ventures I*, IPR2014-00527, Paper No. 41, Final Written Decision (PTAB May 18, 2015); affirmed on appeal without a published opinion, 2016 U.S. App. LEXIS 18399 (Fed. Cir. 2016). Still, the PTAB will not always accept a copyright date as prima facie evidence. *ServiceNow v. Hewlett-Packard Co.*, IPR2015-00707, Paper No. 12, Institution Decision (PTAB Aug. 26, 2015); see also Paper No. 14, Denying Request for Rehearing, (PTAB Nov. 2, 2015). Therefore, it is usually prudent for a petitioner to submit a supporting affidavit from someone with personal knowledge about the public accessibility of the reference as of the copyright date.

## Summary of Strategies

It is clear that a petitioner must (1) show the reference is locatable, and (2) establish the approximate date of public accessibility, in order to qualify a web-based publication as prior art under §102. One approach to show a reference is locatable is to prove that the source of the reference is independently known to interested POSAs, which in turn, may suggest an interested POSA had an incentive to inspect the source for relevant information. A petitioner should also point out a lack of confidentiality restrictions, which can suggest an author had intent to disseminate the reference. Another approach is to prove that the reference is locatable using commercial search engines. For example, a petitioner could identify a specific search query that would lead an interested POSA to the reference.

As discussed, evidence of routine practices for indexing and distributing references can be used to establish the approximate date a reference became sufficiently publicly accessible. Of course, evidence that an interested POSA actually inspected the reference is also very useful, even though it is not required under §102. *See* 583 F.3d at 1314. •

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