April 23, 2014

Via Electronic Mail: Software Roundtable2013@uspto.gov
Seema Rao, Director, Technology Center 2100


Dear Director Rao:

I am writing on behalf of the American Bar Association Section of Intellectual Property Law (the “Section”) to provide comments in response to the request the United States Patent and Trademark Office (the “Office” or the “USPTO”) published in the Federal Register on Jan. 6, 2014 (“request for comments”). The views expressed herein are presented on behalf of the Section of Intellectual Property Law. They have not been approved by the House of Delegates or the Board of Governors of the American Bar Association and, accordingly, should not be construed as representing the position of the Association.

The request for comments seeks input on the following two questions:

1. What specific databases, Web sites, tools and other resources do you find useful in searching for software-related inventions? Please indicate strengths and limitations of each resource.

2. What are your concerns regarding the manner in which USPTO examiners formulate and implement search strategies to identify prior art for software related inventions? How should these concerns be addressed?

The Section supports the Office’s efforts to improve patent examination and the quality of issued patents in the software space. Below, we provide an overview, including pros and cons, with respect to various prior art resources that may be available to the Office as part of further enhancing the quality and efficiency of the examination process, as well as a brief discussion of concerns related to formulation of searches for software-related patent applications.

What specific databases, Web sites, tools and other resources do you find useful in searching for software-related inventions? Please indicate strengths and limitations of each resource.
A. Wayback Machine (archive.org/)

The Wayback Machine is an online archive of web sites that is searchable by date. The Office could use the Wayback Machine to search for prior art websites that disclose features similar to the claims under examination. The archive is created by a website "crawler" that automatically visits various websites, stores the pages that it is able to access, and associates a date and time stamp with each page. Users are able to search for archived web pages by entering the Uniform Resource Locator (URL) of the desired website into the Wayback Machine's search box, after which they will be presented with a list of past archival dates. By clicking on an archival date of interest, users may browse archived versions of the website. An archival code stamp representing a date and time when a particular page was archived appears on the top portion of each page.

In spite of its usefulness as an archival resource, the Wayback Machine has a number of limitations that should be carefully considered. In particular, some websites may be stored infrequently and the rate at which the crawled pages become available for viewing is not guaranteed (e.g., it may take six to fourteen months between the date when the website is crawled and the date it appears in the Wayback Machine, although archival status of some popular websites appears to be updated more expeditiously). Additionally, the Wayback Machine provides a mechanism for the website owners to exclude or opt out of the archival process by blocking the automatic crawler and/or by manually requesting that their sites are excluded from the archive. In addition to the above intentional archival exclusion processes, not all data associated with the crawled websites is automatically archived. For instance, pages including flash files, as well as pages requiring a login or including certain JavaScript enabled links and instructions may not be archived or encounter archival issues. The Wayback Machine attempts to fill in missing pages when linked content having a particular archival date stamp is incomplete. This may result in pages having different archival date stamps being linked together and on certain occasions a link to a live version of the web page. Therefore, care must be taken in paying attention to the archival code at the top of each page in order to identify pages having a relevant date range.

To the extent that the Office wishes to utilize the Wayback Machine as a searching tool for software-related inventions, the Section recommends that examiners be trained to recognize and navigate these limitations. It is worth noting that the effort involved in properly navigating these limitations is likely to require an additional time investment from the examiner, possibly decreasing the efficiency of the search and examination process. Another concern is the reliability of the archival date stamp for purposes of establishing that identified content is prior art. The Section recommends that the Office be receptive to well-founded arguments challenging the date stamp reliability for particular archive pages.

---

1 https://archive.org/about/faqs.php
B. Google Search (google.com)

Google search is a widely popular search engine that encompasses a vast amount of online information. In addition to the basic interface, an advanced search interface also exists to allow the user to enter advanced search terms and operators. As do a significant number of Internet users, the Office may consider starting the search for publicly available information on a claimed software-related invention by entering a set of search terms into Google's search interface. Although the search results may be sorted by time up to one year, the results are not searchable by specific date. Thus, another source, such as the Wayback Machine, may need to be consulted to mine for relevant publication dates. Additionally, as is the case with most commercial search engines, the search results are indexed not only by popularity, but are also prioritized to present paid results at the top of the list. This may increase the time required for an examiner to filter through the result list to identify the relevant content. However, most Internet users have by now grown accustomed to this process and the ease with which the Google search interface responds to changes in search terms would make it a viable and efficient supplement to an examiner's toolbox of search sources, as long as the examiner is cognizant of its limitations.

C. Google Books (books.google.com)

Google Books provides a book and/or publication-specific search interface which the Office may use to locate printed publication prior art relevant to software-related inventions. In addition to a basic search bar interface, an advanced interface is provided where a particular title, author, ISBN number, topic, and other advanced search parameters may be entered. Although a date or date range may not be specified as part of the search parameters, the search results may be sorted by date, which would facilitate identification of published content within a relevant date range. Some results may include a preview of the partial content, which may be helpful to identify whether a given book or publication is relevant to the Office's search strategy. Additionally, content of the books that are no longer protected by copyright may be available for browsing free of charge. Some books may be missing pages, which would decrease the efficiency of the search by necessitating consulting other sources to locate such missing content. The Section supports the Office’s use of Google Books as a searching tool, as long as the Office recognizes its limitations.

D. Google Patents (patents.google.com)

Google Patents is a database of issued patents and published patent publications. The search results may be sorted by U.S. and international references, as well as by filing date. The results also identify related foreign patents and publications that may have publication dates earlier than the U.S. counterparts. In addition to utility patents, the search results may include design patents and defensive publications. However, some content may be missing. Therefore, completeness of this database and frequency of its updates in view of newly issued patents or published applications may be an issue. While the Office's current tools for searching for patent prior art are likely to be more advanced, the Google Patents database may still be a useful secondary
source of patent related prior art, especially when the search is combined with other databases, such as Google Scholar discussed below.

E. Google Scholar (scholar.google.com)

Google Scholar is a database of scholarly articles, which the Office may use to supplement the search for printed publication and other publicly available material. The search interface includes an option to specify a date range, an author, and a publication source. The search interface further includes an option to include patents in the search results, which may serve as a convenient secondary source of patent-related references within the specified date range. While some papers may be behind pay-walls, the examiner would likely have access to other databases which contain the paid material and may still be able to preliminarily assess relevance based on the search result summary. Therefore, especially if combined with an option to include the patent references as part of the search results, Google Scholar may be a useful secondary source of prior art to further enhance the quality of the examination process.

F. Article One Partners

Article One Partners (AOP) has an international, multilingual community of prior art researchers. Accused infringers typically use AOP when standard methods of finding prior art were ineffective, or when stakes are high. AOP charges much higher fees for its premium, crowdsourced prior art searches than traditional prior art search firms. However, AOP has recently been able to offer reduced fees for fast searches using proven prior art researchers. AOP achieved this by identifying prior art researchers with a history of success. AOP also has a program for employing US military veterans who can work from home. While crowdsourced prior art searching is effective for commercial businesses, the Section does not advocate the paid outsourcing of prior art searching by the Office at this time. However, as explained below, the Section welcomes additional discussion of how the USPTO may effectively use crowdsourcing to find relevant prior art.

G. USPTO's crowdsourcing initiative as part of the executive actions recently announced by the White House

President Obama identified crowdsourcing as a way to ensure the highest-quality patent applications.\(^2\) Similarly, former Director Kappos, while at IBM, stated, "It's a very powerful concept because it leverages the enormous capabilities of the entire world of technical talent."\(^3\) The USPTO also announced that it will host a crowdsourcing roundtable on April 10, 2014.\(^4\)

\(^3\) http://money.cnn.com/magazines/fortune/fortune_archive/2006/08/21/8383639/index.htm
\(^4\) http://www.uspto.gov/patents/init_events/crowdsourcing_roundtable_04-2014.jsp
The Section recognizes that crowdsourced prior art searching programs may help engage the public and provide a direct conduit for the interested public to increase the quality of granted patents. These programs may bring prior art to light that the examiner may not otherwise have been aware of. Ideally, these programs would combine the efforts of multiple searchers who would work for free, thus reducing costs. However, quality of prior art submitted by the public may vary significantly. This can result in examiners having to spend time sorting through submissions to find relevant prior art, or worse, assuming that a reference is relevant when it actually is not.

The Section supports efforts by the Office to further explore the possible use of crowdsourcing for prior art searching, including searching for software-related inventions. Because it is unclear, at this time, how the Office would implement such a crowdsourcing prior art program, and there is a possibility that such a program would be detrimental to efficiency, the Section suggests that any crowdsourcing program be implemented initially as a limited pilot.

1. **What are your concerns regarding the manner in which USPTO examiners formulate and implement search strategies to identify prior art for software related inventions? How should these concerns be addressed?**

A number of the Section’s concerns over the manner in which USPTO examiners search for software related inventions are embedded in the above comments regarding individual searching tools. The Section also offers the following additional comments.

From the Section’s perspective, the primary challenge with searching software related inventions is the proper selection of search terms by the examiner. The selection of inappropriate terms can lead to art that may be misapplied, thereby creating inefficiencies in the examination process. As an example, an examiner might search for and then apply prior art teaching a "graphical user interface (GUI)" and say that is the same as "a database," without giving any analysis. Each of these are common terms of art and are not reasonably the same, even under the broadest reasonable interpretation standard. Not only is it inefficient for an examiner to search for art using inappropriate terms – it can unnecessarily protract examination.

One way to address this concern would be to encourage early examiner-initiated interviews. Examiner interviews are among the most effective techniques for advancing prosecution. Examiner-initiated interviews can resolve confusion about the meaning of claim terms and the invention early in prosecution, leading to more focused and productive searching. Specifically, if an examiner is unsure of whether a certain search term is appropriate for a particular application, the examiner could call the applicant to clarify the search strategy and to obtain a better understanding of the application. This will lead to a more productive search and ultimately save the Office and applicants time by ensuring a more productive examination.

Another way to address this concern is through examiner education efforts. Public outreach and classes given by stakeholders in the software industry are beneficial to everyone involved. Presenters, such as software-related intellectual property owners, gain a better understanding how examiners examine applications and the state of their knowledge. Examiners gain a better
understanding of the technology they work with, including the terminology which will be useful in searching. Therefore, the Section encourages the Office to continue and expand education efforts between examiners and stakeholders so as to reduce misunderstandings of claim terms that may be used in prior art searches.

CONCLUSION

The Section applauds the Office’s outreach efforts for software-related inventions, and appreciates the opportunity to provide comments on this timely topic.

If you have any questions on our comments or would wish for us to further explain any of our comments, please feel free to contact me. Either I or another member of the leadership of the Section will respond to any inquiry.

Very truly yours,

Robert O. Lindefjeld
Section Chair
American Bar Association
Section of Intellectual Property Law