



“Next-Generation” Federated Search: Critical for Intellectual Property Research

A Whitepaper by Deep Web Technologies, Inc.

Overview

Next-generation federated search technologies are quickly becoming an essential and indispensable tool for attorneys, paralegals, expert witnesses, and owners of IP to create, protect, monitor and litigate their intellectual property portfolios.

Such technology provides a significant advantage over traditional forms of search, because it greatly speeds research; helps ensure a more comprehensive search; provides real-time results; can include social networking information from Twitter, LinkedIn, Facebook and others; and most importantly, keeps researchers apprised of new material on a daily basis.

Classical Dilemma in Intellectual Property

Perhaps you've heard of the litigator's nightmare: the lead attorney says "Your Honor, no one has done this before," just before the opposing counsel says, "That's interesting. Your Honor, I have with me proof that this has not only been done before, but that it has been well documented in a respected, peer-reviewed trade journal."

Aside from losing credibility with the judge, an attorney loses credibility with the client. And, in the world of intellectual property, such a mistake could cost dearly.

The dilemma arises when attorneys and other researchers balance cost and time, with the need for a comprehensive and complete search.

This isn't just important in the context of the courtroom. It's important in all aspects of intellectual property: whether attempting to evaluate new brand name options, ascertaining whether to commit a significant budget to a scientific research effort, identifying a solution to a particularly challenging problem, or to simply make sure someone isn't infringing (or disparaging) your brand, technology, patent or copyright.

Abstracts versus Full-Text Search

Many researchers will search on arcane search terms, such as a particular chemical or technology, with the hope that results will be very focused, with few false-positives. The problem is, most comprehensive search mechanisms don't perform a full-text search: Instead, they are performing a search on the title, some key fields in the metadata, and an abstract. If the arcane search term isn't contained within those fields, they miss potentially important documents.

Only next-generation federated search helps ensure your search includes the entire text of articles. Therefore, the latest "unified indexing" tools being proffered by some content aggregators cannot truly deliver what is needed in the IP context: a guarantee that documents containing the search terms haven't been missed.

Next-generation federated search, by conducting a real-time search with key collections, will always provide a greater chance of finding

that all-important needle-in-a-haystack, without introducing a lot of noise.

Next-Generation Federated Search

The next-generation in federated search resolves three major concerns with traditional federated search: speed, research effectiveness and information overload.

In the age of Google, anyone performing research has come to expect immediate results, and quickly becomes impatient when results take more than 5 to 10 seconds. The next-generation in federated search provides rapid response, and keeps chugging to fold-in results from slower collections, as they come in.

As it relates to research effectiveness, traditional federated search technologies dummy-down capabilities and results, to the least common denominator. In layman's terms, this means that traditional federated search platforms would limit search operators to what is minimally acceptable across all collections being searched. Similarly, as it relates to results, they would only rank and display those fields supported by all collections.

Next-generation federated search turns this on its head, using advanced technology to support the most advanced features and best results when possible, working individually with each collection to make the best use of their individual capabilities. This means that next-generation federated search has the power to

include internal databases, which may possess more capabilities than external collections, and include them in your research.

A Better Way: With Alerts and Social Networking

As most proficient attorneys and paralegals will attest, Google hasn't come close to replacing Lexis/Nexis or Westlaw, yet a comprehensive search requires searching multiple sources of information, including Google. In short, it has become common practice, when attempting to conduct a complete and comprehensive search, to search multiple collections, balancing time and costs with the hope (and prayer) that a particular search is exhaustive enough.

Aside from consolidating all the important collections important to an IP researcher under one search, next-generation federated search technology makes it possible to:

Include results from social networking websites, such as Twitter, LinkedIn, Facebook and others.

Use interactive "clustering" to identify other material based on topic, date, author, publication, publishers and more.

Create "alerts" by saving a search, and having the system conduct daily searches using that saved search, and if any new results appear, to report back on those new results.

In most settings where IP is managed, a comprehensive search involving IP is usually performed once or infrequently. A research expert, whether a paralegal, researcher or attorney, will sit down for a couple of hours or a couple of days, and attempt to perform an exhaustive search of all the collections they are aware of, using all the specific search terms they can think of. Once they are done, they compile their results and form their opinion.

The problem with this approach, is that as soon as the searching effort is completed, it becomes dated. "No one is infringing on our brand [today]." "All the discourse about our product is positive [today]." "There are no products out there, that do what ours does [today]." Traditional search strategies produce

results and opinions that require "today" to be inserted at the end of their conclusions.

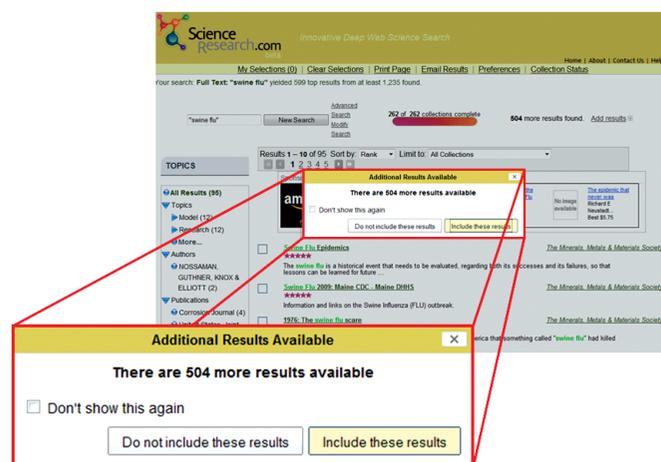
Alerts enable conclusions to include the phrase, "but if that changes, we'll know about it immediately." Alerts significantly raise the stakes and value for IP researchers and practitioners, as they represent **the most powerful** mechanism today, to keep apprised of new material. When used in conjunction with social networking websites, alerts become an absolutely critical tool in monitoring brand, competitors and key concepts in IP.

Alerts use your search parameters, across all relevant collections, and keep track of results from one day to the next. Alerts compare the results of a new search, from those saved from previous searches, and when new material appears, reports back on only the new material identified. It's an absolutely astounding way to keep track of brand names, competitors, key concepts, technologies and anything else that an IP portfolio would be interested in and want to keep track of – without flooding you with noise.

Alerts can be used to track the press, social discourse occurring on social networking websites, patents and trademarks, court cases, journals and articles, news reports, administrative reports and opinions, and everything in-between – in real-time – containing only new material.

How To Get Started: It's Easier Than You Think

If you are a sole practitioner, or represent a firm, corporation or library, your IP practice can stand to significantly benefit from next-generation federated search technology. Regardless of what internal databases you might use, or external collections you might rely on, next-generation federated search can bundle all your important



collections under one search, and give you significant power under that one search.

Depending on the complexity of your particular needs and environment, a next-generation federated search solution can take days to weeks to implement.

If you don't think you need next-generation federated search, ask yourself how you can cope with competition or opposing counsel who do use it?

See Next-Generation Federated Search in Action

Next-Generation Federated Search is in use by some of today's most powerful, free, web-based research tools. See it in action today:

www.WorldWideScience.org
www.science.gov
www.scitopia.org
www.nutrition.gov
www.ScienceResearch.com
www.mednar.com
www.biznar.com

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Deep Web Technologies provides next-generation federated search to the U.S. Department of Defense, U.S. Department of Energy, Fortune 500, law firms and major university libraries. Learn more at <http://www.deepwebtech.com/>.