# The Art of Discovery: Federated Search Engines in the Science and Technology

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## **Abstract**

For the general audience, searching the Internet is now a common skill as driving a car. Many people are using just one search engine to find information they are looking for. As all librarians know, Google is not the only tool for discovering knowledge. Not only there are alternative general search engines beyond Google, there are other specialized search engines for specialized content. Results can be categorized, clustered, or displayed graphically. This poster session will show the attendees a number of additional ways to search for scientific information on the Internet beyond Google and commercial databases and will provide them with the tools to become more confident searchers.

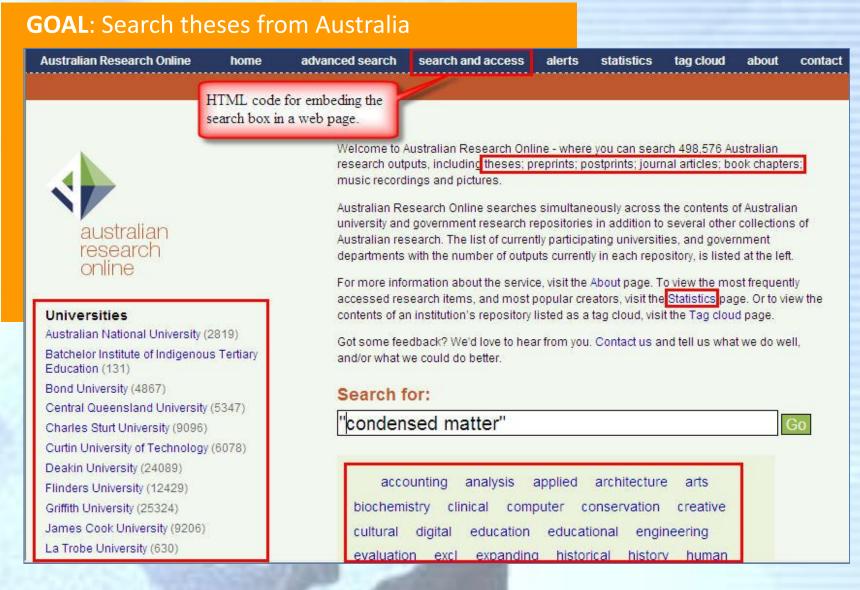


# Definition

Federated search engines are developed to search multiple databases, regardless of location and structure, with one query and to display the results packaged in the most relevant way.

"Federated search is a "starting point for research," a shotgun approach. Each federated search engine is different, ranks results in different ways, and presents results in different ways."

Drake, M. (2008). Federated Search One Simple Query or Simply Wishful Thinking? *Searcher*, *16*(7), 22-62.



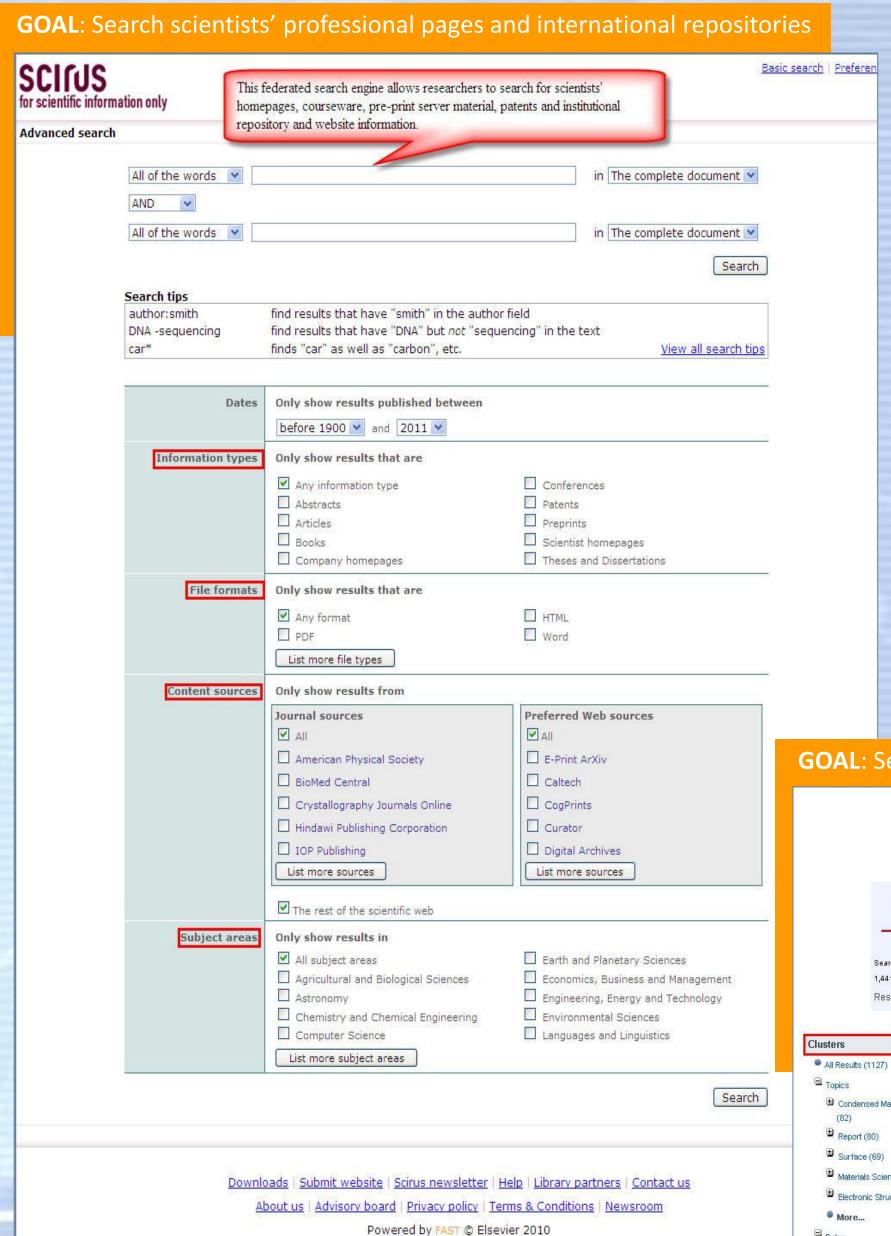


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partnership to enable federated searching of national and international scientific databases and portals

#### Pros

- Save time using one-stop searching from a single interface
- Find some background information about authors
- Access indexes from other countries





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#### Cons

- Not effective for all types of questions and queries
- Imprecise searching
- Possibility of lower-quality results
- Unpredictable reactions to queries by various databases
- Slow response time
- Common authors' names present special search problems
- Languages present many problems

## Conclusion

If you find that a federated search engine meets your needs, use it! However, they are not the solution for an exhaustive—or even a moderately extensive—search. Effective information finding requires users to have extensive knowledge of sources, to know how to build effective search strategies, and to have the experience to evaluate results.

