Analytical Search Strategies: A Tip Sheet with Examples for Teachers and Students

By Roberta Freeland Woods

Roberta Freeland Woods is a Reference and instructional Services Librarian at the University of Hawai‘i at Mānoa, William S. Richardson School of Law in Honolulu, Haw.

An analytical search strategy is not browsing. Browsing is opportunistic and requires one to recognize relevant information. So, browsing, in general, is not a strategy so much as it is an informal and interactive process, like scanning a result set for relevant information. Analytical strategies, on the other hand, require careful planning, but the result sets lead one to a certain level of confidence in the thoroughness of the research.

One uses an analytical search strategy to get the best results or when the result set is confusing because another term is similar to the concept you are researching. For example, imagine you are researching St. Augustine, the priest. The first Google results are to sites about St. Augustine, Florida. Ideally, you need a search strategy to get rid of the results about St. Augustine, Florida. In this example you would use the Boolean NOT operator or similar to remove the Florida results. The Google search would look something like this: St. Augustine –Florida. (The dash in front of the word Florida is equivalent to the Boolean NOT operator.)

Index Method

Using an index to find the target is a very basic search strategy. This is essentially a single-word search, similar to looking up the definition of a word in a dictionary. The strategy is to search for the most specific term first and if you don’t find it, broaden until you do find something. Using a resource index is much more efficient in print, if you have one available, than online.

Hypothetical Example: Can I create a family cemetery on my land in Hawai‘i?

Check the index to the Hawai‘i Revised Statutes.

First, I looked in the online index for the word “cemetery.” No results. Next, I searched for “burial.” That led me to “cemeteries.”

Had I conducted a print search, I would have seen the word “cemeteries” on the same index page where I searched for “cemetery,” which would have saved me an additional step. I eventually found the section that addressed my question in Family Burial Plots, Haw. Rev. Stat. § 441-5.5.

Doing this search online required that I use the correct term, “cemeteries.” I got to it via the word “burial,” but it’s important to know that sometimes using a print index is more efficient, or, if you cannot think of another word that leads you to the correct place try using a print index if you have one readily available to you.¹

<table>
<thead>
<tr>
<th>Print Index</th>
<th>Results</th>
<th>Online HRS Index</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cemetery</td>
<td>See cemeteries</td>
<td>Cemetery</td>
<td>0</td>
</tr>
<tr>
<td>Cemeteries</td>
<td>HRS § 441-5.5</td>
<td>Burial</td>
<td>Cemeteries</td>
</tr>
<tr>
<td>(same page)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cemeteries</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HRS § 441-5.5</td>
</tr>
</tbody>
</table>

Building Blocks

Before embarking on concept oriented search strategies, please review this YouTube video, “What the Heck Is Boolean Searching?” at https://www.youtube.com/watch?v=QfvDPpnV0Pg, which explains Boolean searching.

¹ Often statutory code publishers will sell you the index volume(s) separately without having to purchase the complete set.
Take your topic and break it down into three different “building blocks.” One of the blocks should be the area of law that you are researching. Think about different ways to describe your topic.

- Write down a concept or concepts in each concept block.
- Combine similar concepts with ORs; use no more than two ANDs.
- Encase every OR’d term within parentheses (term1 OR term2).
- E.g. (ham OR turkey OR chicken OR “roast beef”)
- Truncate the terms.
- Refine the query using connectors or other proprietary syntax.
- E.g. (ham OR turkey OR chicken OR “roast beef”) AND (wheat /2 bread OR white /2 bread OR rye) AND (mustard OR mayonnaise OR ketchup)

For example, take a topic or thesis statement like this one: How U.S. legal policy on terrorism (“the war on terror”) is linked to the international narcotics trade and the U.S. “war on drugs” and the effect on U.S. immigration law. It can be parsed like this:

- How U.S. legal policy on terrorism (“the war on terror”) is linked to the international narcotics trade and the U.S. “war on drugs” and the effect on U.S. immigration law.

Depending on the database you are searching, you may not need all three concept groups in one search argument. If your search results are too few, try removing one or more concept groups. Then, browse your search results for other terms that might yield more precise results. In this example, “narco-terrorism” showed up in the result set the first time and the revised search argument became (“war on drugs” OR “war on terror”) AND (“immigration law” OR “narco-terrorism”). I used HeinOnline’s Law Journal Library for this search.

Fish Net Strategy

In this strategy one searches broadly in a database making sure that your search is broad enough to “capture” all of the results about your primary topic. Then search within your large result set for your other concepts. This is a strategy one would use when searching for prior art for a patent filing. It ensures thoroughness provided the initial result set is large enough.²

² In information science this strategy is known as “successive fractions,” but that sounds too much like math so I call it the “fish net strategy” since we are going to search with the idea of creating a very large set to look within to find our search terms. Using the fishing analogy, first get all of the fish in the South Pacific with a very large net, then look through the catch for the ahi tuna or mackerels or whatever you want and send the rest back to the sea.

³ It used to be used as a cost effective strategy on Westlaw Classic and Lexis Classic because those systems allowed you to create a large result set that you could search within as many times as you wanted in a 24-hour time period. But that has changed with WestlawNext and Lexis Advance.
**Hypothetical Example:** How U.S. legal policy on terrorism ("the war on terror") is linked to the international narcotics trade, the U.S. "war on drugs," and the effect on U.S. immigration law.

**Search Within**
Create a result set that will "capture" all of the results for your topic, i.e. the broadest topic. Here, you might begin with "immigration law." Next, choose one of the other concepts and using appropriate synonyms for that concept, enclose your search terms within parentheses ( ) connecting the synonyms with ORs. For example, searching within the immigration law results set, next search for (terrorism OR "war on terror"); then search within the original result set for ("war on drugs" OR narcotics OR "illegal drugs"); finally search within the original result set for "narco-terrorism."

**Pearl Growing or Follow the Footnotes**
First, find the "pearl." The "pearl" is the journal article or treatise section that is on point and completely relevant with footnotes. Follow the footnoted citations in it. Many database vendors create clickable links in the footnotes to make using this strategy easy to adopt. Finally, if it is a cited article, meaning that more recent articles cite to the "pearl," follow the articles that cite it and their relevant footnotes.

**Unique Word or Term**
When you notice that you have a unique word or term that will probably only be found in very few places, use it, by itself, in the most appropriate database.

In the example, above, the unique term is "narco-terrorism." Depending on the database you are searching, you may need to include "immigration law" in the search argument.

ALR Annotations are notorious for having titles with unusual facts. This strategy works well with a quirky fact in an ALR Annotations database.

---

4 You may think it is faster and easier to do a subject or thesaurus search for "immigration" or "immigration law" first, but it will result in a smaller set; one that has been classified as "immigration" or "immigration law" only in the metadata. Not all relevant results will be so classified. It just depends on when the database vendor began the classification.

5 In information science this is also called "known item instantiation strategy."

6 In information science this is also called "most specific facet first."