How to Develop a Search Strategy for the Web, Online Catalog, and Research Databases.

Let’s use this topic as our example:

How does the construction of new baseball and football stadiums affect city budgets and city services?

**Search Strategy for the Web**

Many of you make the Web your first stop for information. If you are writing a paper on the above topic, you might do a Web search using a search engine like Google. You might type the whole question in the search box or you might type most of the words in the question, like this:

construction of new baseball and football stadiums and city budgets

If you did this search in Google, you would get over 560,000 results. That’s a lot of information to sift through! It’s the reason many of you go to the Web first – because you will almost always get some information for your research.

Remember, though, that some of that information will be good and some of it won’t. You will need to decide which Web sites to use based on Web evaluation criteria. There are also ways in which you can focus your Web search (advanced search functions, quotation marks around phrases, and limiting to government or organizational sites).

You are probably thinking to yourself, “Why doesn’t he tell me something I don’t already know?”

Okay, what happens when your instructor tells you that you must use at least one book as a reference for your paper? To find books in an academic library you will need to use the library’s online catalog. This means that you will usually need to change your search strategy.

**Search Strategy for an Online Catalog**

If you try doing the same Web search that you used in Google

*(construction of new baseball and football stadiums and city budgets)*

in a library's online catalog, you will probably get ZERO titles. You might then think to yourself, “This library stinks. There are no books on my topic.”

But wait! Stop right there! Your library *does* have books on the topic, but your online catalog search needs to be a bit different than your Web search in order to find those books.

First, you need to choose your words more carefully. To do this, you have to pull out the main ideas and combine them together in a search string.

Let’s look at the topic again.

How does the *construction* of new baseball and football *stadiums* affect *city budgets* and city services?
The main ideas are: (1) construction, (2) stadiums, (3) city budgets

**Construction** is a main idea because you want to get information on the building of stadiums. Building might be another word you could use instead of construction. Keep this in mind for later. You don’t need the word “new” because if you are trying to find out about the construction of something, it automatically means the stadium will be new.

**Stadium** is another main idea since this is what your paper is about. The stadium might be a baseball stadium; it might be a football stadium. Don’t worry about that now. Start by using the word stadium and then come back to specific types later in your research.

**City budget** is the third main idea because you are trying to find out about the relationship between stadiums and city budgets. Other phrases that you might use include: “economic impact” or “municipal budget” or “financing” or “cost.” You can leave out the phrase “city services” for now. Knowing how stadiums impact city budgets will eventually lead you to information about the effect on city services.

Now you are ready to do a new keyword search in the online catalog. This time you type in these words:

construction and stadium and city budget

The word **AND** is a **Boolean connector** and tells the catalog that you want to combine the terms.

If you do a search with these words and you still don’t get anything, try doing a different search. Sometimes you need to start with just a few words to see what results you get and then build from there!

This time just type the words:

construction and stadium

Instead of zero results, you will probably get a list of several book titles. To find other titles, combine different variations of the words. For example:

stadium and economic

stadium and budget

building and stadium

You can also add a wild card to the root word to get all the different endings for that word. This is called truncation. The asterisk * is often used as a wild card in truncation.

If I put the asterisk at the end of the word stadium, I will find books that use the word **stadium** in the title or description AND books that use the word **stadiums**. In other words, I get all variations of the word.

My search would look like this:

construction and stadium*

See [Tips for Truncation from Jason](http://example.com) for more examples.
When I do an online catalog search using these different combinations of words, I get a list of books including these titles:

*Public Dollars, Private Stadiums: The Battle over Building Sports Stadiums*

*Playing the Stadium Game: Financing Professional Sports Facilities in the ‘90s*

*The Business of Sports*

I can use the book’s call number to find it on the library’s shelves. Many times I don’t need to read the whole book since there will be one or two chapters that have the information I need.

As you can see, searching in an online catalog is very different from a Web search. You have to think more about the words you use, but the results can be very satisfying! You will see that searching in a database requires you to alter your search strategy a little bit more.

**Search Strategy for a Database**

Most of the time when you write college-level research papers, you will need to find journal and magazine articles on your topic. Academic libraries (and many high school libraries) provide databases for you to use. Databases are designed to lead you to the citation for an article. Sometimes you will also get the full-text of an article.

Let's use the same topic:

How does the construction of new baseball and football stadiums affect city budgets and city services?

Remember that the main ideas for this topic are construction, stadium, and city budget. In the online catalog search we came up with other words that mean the same thing as these main ideas. Another way of saying this is that we found synonyms for the main ideas. Let’s add to those ideas and create a chart like the one below.

<table>
<thead>
<tr>
<th>Main Idea</th>
<th>Synonyms</th>
</tr>
</thead>
<tbody>
<tr>
<td>construction</td>
<td>building, development</td>
</tr>
<tr>
<td>stadium</td>
<td>football stadium, baseball stadium, arena</td>
</tr>
<tr>
<td>city budget</td>
<td>municipal budget, economic impact, financing, public funds, cost</td>
</tr>
</tbody>
</table>

Many databases automatically give you a series of search boxes for different concepts. This lets you try different combinations of words in the search boxes. You will usually get different results depending on how you change your search. Some of the articles will be the same, but you will also pick up a few new articles each time you change your search.

This is also the place to try using the **Boolean connector** OR in your search strategy. Using OR expands your search options. It is used between words that are synonyms. You would use it this way:

In Search Box #1 you could type one of the following:

- construction OR building
- city budget OR financing
In Search Box #2 you could type one of the following:

stadium OR arena

football stadium OR baseball stadium

In Search Box #3 you could type one of the following:

cost or budget

financing or economic impact

Each of these boxes will be joined together by the **Boolean connector** AND. Using AND between concepts helps focus the search. To make it easier to visualize, look at the [completed search strategy worksheet](#) for this topic.

Remember that you can also truncate the terms you are using with the wild card for that database. Financing could be truncated as financ* which "tells" the database to find finance, finances, financial, and financing. See [Tips for Truncation from Jason](#) for more information.

Although this may seem confusing, you will get the hang of it once you have practiced a few times. Overall, just try to think of your search strategy as a game. Use all of the tools available to you, try different combinations of words, and ask for help when you need it. You will reduce frustration and get much better results!

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