



## Building Search Strings, Part 2: Nesting, Phrase Searching, Truncation, and Wild Cards—English Transcript

In this tutorial, you'll continue to learn strategies that help you combine search terms into effective search strings. This will put you in control of your results. In part one, you learned how to use the three Boolean operators-- AND, OR, NOT. Let's quickly review those.

Using AND between two search terms tells the system that both search terms must be present to be included in the results. AND narrows the search.

Using OR between two search terms tells the system to include results that have one term or the other term or both of them. OR broadens the search.

Using NOT between two search terms means that the first term must be present, but the second term cannot be present. NOT narrows the search.

Our first new strategy is called nesting. Nesting involves using parentheses to clarify relationships between search terms when using more than one Boolean operator. Let's say you're doing a report about the problems of teens drinking alcohol. Some keywords or search terms are teen AND alcohol. A teen is also commonly called a teenager or adolescent, so we should include those terms in our search string by combining them with OR.

To find information about teens and alcohol, you could try this. However, this search string does not make it clear that teen and its two synonyms should be grouped together. Using parentheses to group the three synonyms lets the system know that all of the results must include the word alcohol, but they can either mention the term teen, teenager, or adolescent. Arranging the terms in this order would accomplish the same thing.

Now it's your turn. How would you nest these terms to indicate that you want to find articles that include the word car or automobile, but all articles must also include the term sales? Let's start by adding some operators. Now, let's add the parentheses to nest car OR automobile. This order would work, too.

Sometimes you'll need to use advanced search options to apply this strategy. We encourage you to experiment with nesting to see how it affects your search results.

Let's move on to the next strategy, phrase searching, which narrows your search. Here's how phrase searching works. Use quotation marks around a phrase when your search terms must be kept together in that exact order. This will force the system to search for your terms as a phrase, not as individual words. For example, let's look at the phrase polar ice cap. Search like this-- as three individual words-- and many of your results would be irrelevant. Instead, if you put quotation marks around the phrase, like this, you're telling the system to limit results to articles that use these three words, in this exact order.



Here are a few more examples of words that often appear together as a phrase. To avoid irrelevant hits, put the phrase in quotation marks when using it as a search term. Using the advanced search option of your library database or search engine, your search string might look like this.

Our next strategy is truncation. Truncation involves using special symbols within a search term to improve the quality and quantity of your search results. Truncation uses a symbol at the end of a word stem to provide for all variations of the word. The most commonly used truncation symbol is the asterisk, but some search engines or library databases may use a dollar sign or question mark.

For example a search for `educat*` followed by an asterisk will receive results that use the terms educate, educating, education, educational, educator, educators, and so on. Be careful not to truncate too early in the word. Otherwise, you could end up with many results that are not helpful. If you searched for `ed*` instead of `educat*` your result could include articles that have nothing to do with education like ones about eden, edge, and edible.

In our earlier example, you could use `teen*` for teen, teens, and teenager. That means that this would become this.

Finally, a similar strategy is the wildcard search, which uses a symbol within a word to provide for all possible variations within that word. The most commonly used symbols are the hashtag or number sign, question mark, and exclamation point. A wildcard search for women with the E replaced by a hashtag will retrieve results that use either the term woman or women.

Check the resource you are using to see which wildcard symbol it recognizes.

To recap, in the two tutorials about building search strings, we covered the Boolean operators AND, OR and NOT, nesting, phrase searching, and the related concepts of truncation and wildcards. Knowing how to use these search strategies puts you in the driver's seat to help you find exactly what you're looking for.

For specific examples and for more information about this topic and the entire research process, explore OSLIS. OSLIS-- Learn to Research. Research to Learn.