

Better Searching Using AND, OR, NOT

Introduction

In this video we'll give some tips on better searching using AND, OR, and NOT.

These words are called boolean operators, their technical term when used in searching.

You can use them to combine keywords in your search to get quite different search results.

Here's how they work.

Boolean Basics

Let's say you are researching the effects of coffee, especially espresso, on the study habits of university students.

OR: If you search the library catalogue for coffee OR espresso, your results will include all materials that include at least one of these terms. This means all your results will contain either the term coffee or the term espresso, but not necessarily both together.

AND: If you use AND, your search will only find items that contain both terms, coffee and espresso. Since both terms need to be in every item, this means you will get many fewer results than using OR.

NOT: If you use the NOT, as in coffee NOT espresso, your search will retrieve items that contain the term coffee, but will exclude any items that include the term espresso.

You can also combine multiple operators in your search. For example, you might want to search for something with more than 2 search terms, like coffee, students, and espresso. You can combine the operators differently between the different terms to get different results:

- If you search for coffee and students and espresso, you get a small number of results that contain all 3 search terms together.
- If you search for coffee or espresso and students, you get results that have the term students and also have either the term coffee or the term espresso. Using OR this way lets you include synonyms for your search term, which increases the number of results.

Using AND, OR, NOT in Database Searches

Most databases let you combine multiple operators in one search. I'll show you how it works in Proquest:

- I'll enter coffee or espresso in the first box, to indicate I want anything that mentions either coffee or espresso.
- Then, I'll choose NOT from the drop-down menu beside the next row of search boxes.
- Finally, I'll type beans in the search box beside the NOT, to exclude anything that has the term beans.
- Each of the search results will contain either the term coffee or the term espresso; none of them should contain the term beans.

As we've seen, Boolean operators are especially helpful when combining synonyms for the keywords in your search. For example, I want to find out about university students and work:

- I'll type students in the first row.
- I'll leave AND as the boolean operator at the beginning of the second row. This means that anything in this row will be combined with anything in the first row and both concepts will be present in my results.
- In the first search box in the second row, I'll type university. In the second search box in that row, I'll type college, which is a synonym sometimes used for university, especially in the U.S. Notice that the boolean operator separating the two boxes on this row is OR. That means that the search will look for either university or college.
- In my third row, I'll leave AND as the boolean operator at the beginning again. In the first search box in this row, I'll type work. In the second, I'll type employment, which is a synonym for work. Again, the synonyms are separated by OR, which means results will have either one or the other.
- Each of the items in my results will contain the term student, plus either the term university or college, plus either the term work or employment.
- Combining synonyms like this is a good way to make your search better.

As we've seen, it works best to put different concepts on different rows separated by AND, but different words for the same concept on the same row separated by OR.

Questions & Feedback

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