Boolean Basics

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Whether you're looking for a resume or a rhinestone monkey pendant, sometimes searching on the Internet requires more than a simple keyword. For example, searching a resume database for an engineer will be time-consuming and frustrating if you simply search with the keyword "engineer." The search results will likely return thousands if not millions of results, and you'll have a pile of resumes from artificial intelligence engineers, electrical engineers, sanitation engineers and locomotive engineers. Sorting through this mess is no way to spend your lunch hour.

To conduct more advanced searches -- that is, to search smarter with more precise results -- you need to understand Boolean logic. But don't let the name scare you.

Boolean logic is actually pretty easy to understand. The word Boolean is derived from the 19th-century British mathematician George Boole, which is good to know in case it ever comes up in dinner conversation.

Database administrators have used Boolean logic for decades. It's an information retrieval technique that allows a number of search words and phrases to be combined using operators or commands. So you conduct keyword searches using a combination of words, or operators, such as "and," "or" and "not." Learning to use these Boolean operators when conducting keyword searches will help you narrow your results.

The Basic Boolean Operators

Or
This is used to combine keywords so that a document is retrieved if any or all of the keywords occur in it.

For example, searching with "developer or engineer" will find all documents in which developer or engineer appear. Or is the default command on most, but not all, search engines, so if more than one word is used in a search without an operator, it's assumed that each word is linked by or.

And
Use and to combine terms so that information is retrieved only if all the terms occur in the same document.

For example, The words "software and engineer" will find only those documents where both software and engineer occur.
**Not**
Not operator is used to prevent the retrieval of documents in which specified terms occur together. This operator is also good to use when one of your keywords has multiple meanings.

For example, "software not engineer" will find documents where software occurs and will exclude those where engineer also occurs.

**Wildcard Symbol: * **
The asterisk can be used to replace one or more letters at the end of a word. This might help you search for something that can be phrased differently.

For example, "engine*" will find documents containing the words engine, engineer, engineers, engineering, engineered, etc.

**Quotation Marks: ""**
Quotation marks are used to search for words or a phrase in exact order.

For example, putting quotation marks around the words "operating room nurse" will find only those documents containing the three words in that exact order.

There are other Boolean operators that can help you fine-tune your search results, but mastering these basics will increase your accuracy and decrease your frustration level.

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