Using Boolean Operators

Boolean operators “AND”, “OR”, and “NOT” define relationships between words. How do they work?

“AND” – searches all of your search terms. Example: poverty and population and income. Records will contain all these terms. Fewer records are retrieved, but more precise.

“OR” – either or both terms are retrieved. Example: mouse OR rat. More records are retrieved, but less precise.

“NOT” – when used it excludes or ignores words from the search. Example: dementia NOT Alzheimer’s. Alzheimer’s is excluded from the search results. Using “NOT” can be tricky. You may eliminate a word associated with your topic that may provide additional information. This search helps to narrow your results, but is very restrictive.

1. Once you have decided on a topic for your research, describe your topic in a short paragraph.

________________________________________________________________________________________

• Tip: Consider what the information is you want to find
• Example: I want to locate information on the percentage of the population that is considered to be impoverished. I want to include statistics on non-working and low income working families.

2. First, you’ll want to identify the main concepts of your topic. Using your statement from above choose the main concepts/ideas and combine each using the Boolean operator “and”.

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<thead>
<tr>
<th>Keywords #1</th>
<th>Keywords #2</th>
<th>Keywords #3</th>
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<tbody>
<tr>
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<td>and</td>
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3. Second, develop a list of search terms that may be synonymous, related, broad, or narrow. These should be based on the concepts listed above in #2.

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</tbody>
</table>

• Tip: Consider alternative words and phrases. Consider synonyms or related terms; spelling variations (plurals); broader terms if your results are too few; or consider narrower terms if your results are too many. Use a thesaurus if necessary or consult the Library of Congress Subject Headings available in the library.
4. **Build three search statements/sentences by combining the Boolean operators “and” and “or” from step two and three.**

   1. _______________________________________________________________________

      Example: poverty and population  (use of “and” indicates the results will contain all of the terms)

   2. _______________________________________________________________________

      Example: poverty or low income  (use of “or” indicates the search results will contain any of these terms)

   3. _______________________________________________________________________

      Example: (poverty or low income) and population  (this search will use both Boolean operators)

5. **Identify relevant resources and perform a search using the above concepts.**

   - To look for a book go to the library's online catalog **WorldCat** [https://wvutech.on.worldcat.org/discovery](https://wvutech.on.worldcat.org/discovery)

     Cite two books found using MLA or APA citation formatting. Also, in the boxes include call numbers to the books you found. To locate books in the WVU Tech Library you must have the call number.

     1. _______________________________________________________________________

     2. _______________________________________________________________________

   - To look for journal articles go to [http://libguides.wvutech.edu/az.php](http://libguides.wvutech.edu/az.php) to locate relevant e-resources.

     Database: ________________________________

     Database: ________________________________

     - **Tip:** Use refinement features such as (1) full-text, (2) Field searching, (3) Source types, (4) Publication range
     - **Tip:** Selected articles may be printed or sent to your email account.

     Cite two relevant articles you found using MLA or APA citation formatting:

     1. _______________________________________________________________________

     2. _______________________________________________________________________