Searching a Database

What’s a Database?

A database is an organized collection of information. Most library databases are bibliographic databases. They provide a description of a book, magazine, etc. Periodical databases (sometimes called indexes) provide descriptions of articles that appear in periodicals such as magazines and journals. Most periodical databases cover a defined subject area such as education or medicine. General Indexes are databases that cover many different subject areas. Some periodical databases not only describe an article, but also provide an online copy of the article.

Boolean Operators

Combine words or phrases using the Boolean operators AND, OR, and NOT. The operators can narrow or broaden a search.

The results of performing Boolean searches are sometimes illustrated by the diagrams below (called Venn diagrams.) The diagrams show graphically how using the AND operator narrows a search, using OR broadens a search, and using NOT excludes material from a search.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Example search</th>
<th>The search will find...</th>
<th>Venn diagram results shown in red</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AND</strong></td>
<td>heart AND cholesterol</td>
<td>items containing &quot;heart and &quot;cholesterol;&quot; AND narrows a search, resulting in fewer hits.</td>
<td><img src="image1" alt="Venn Diagram" /></td>
</tr>
<tr>
<td><strong>OR</strong></td>
<td>heart OR cholesterol</td>
<td>items containing either &quot;heart&quot; or &quot;cholesterol&quot; or both. OR broadens a search, resulting in more hits.</td>
<td><img src="image2" alt="Venn Diagram" /></td>
</tr>
<tr>
<td><strong>NOT</strong></td>
<td>heart NOT cholesterol</td>
<td>items containing &quot;heart&quot; but not &quot;cholesterol.&quot; Caution! It's easy to exclude relevant items.</td>
<td><img src="image3" alt="Venn Diagram" /></td>
</tr>
</tbody>
</table>

*NOTES*: Some systems use AND NOT or ANDNOT in place of NOT. While most systems are case insensitive, a few systems, such as Britannica Online, require you to type Boolean operators in upper case.
**Truncation or Wildcards**

A symbol at the end of a word stem provides for all **variants** on the word stem. The most commonly used symbol is the asterisk (*), but note that the truncation symbol will vary among databases. In GIL the truncation symbol is the question mark (?).

For example, a search for

educat?

will retrieve:

educate, educating, education, educational, educator, educators, etc.

Be careful not to truncate too far, or you will retrieve unrelated words!

**Internal Truncation**

A symbol within a word provides for all possible variants **inside** a word or word stem. The most commonly used symbol for internal truncation is #. For example, a search for

wom#n

will retrieve:

woman, women

You may use terminal and internal truncation on the same word or word stem.

Look at the help pages for the database you are using to determine the truncation symbols. Most systems provide truncation but some provide only simple plurals.