



Scope and Search Strategies

The first step in successful research is to match the information need with an information resource that has the appropriate **scope**. Four components of scope are 1) subject, 2) time frame, 3) type of materials indexed, and 4) the information provided about the materials indexed. Once an appropriate information resource has been identified, the researcher will need to use five basic search strategies for the MOST effective searching.

- **Help** – explanations of available features and special search techniques. Rarely are any two systems searched exactly the same way. Many systems offer help screens that provide valuable assistance with frequently used search strategies and specialized techniques.
- **Boolean** operators - use of AND, OR, and NOT (or other logical operators) for expanding or narrowing a search statement. An example would be using “global warming OR greenhouse effect” to retrieve items that pertain to either of those concepts. Another example would be to search “career AND engineering” to retrieve items that pertain to something about job opportunities for engineers.
- **Nesting** - use of parentheses to group related concepts together to clarify the order in which a search is executed. The grouped concepts will be searched first, as in a mathematical equation. An example is: academic AND (integrity OR honesty). The algorithms for a few systems are so sophisticated that they require no parentheses, automatically interpreting the order of the search.
- **Truncation** - use of a symbol at the beginning, end, or within a root word that takes the place of a character or characters. Some truncation, wildcard, or substitution symbols take the place of one character only, while others can replace any number. Some examples are “comput*” to retrieve computer, computers, computing, computerized, or computerised and “behavio?r” to retrieve behavior or behaviour. The algorithms for some systems automatically stem terms, which means that every ending for the root word will be found.
- **Controlled vocabularies** - use of terms or subject headings that have been previously identified as standard within a certain field. For example, the terms frequently used to index psychology resources are found in the *Thesaurus of Psychological Index Terms*. The vocabulary often used in the engineering literature can be found in the *Ei Thesaurus*. The *Library of Congress Subject Headings* volumes provide the terms used in most academic library collections, including Florida Tech’s catalog. Although there are some concepts common to many disciplines, specialized terminology may be required to retrieve desired results within specific fields and their databases.