What is Boolean Logic?
Boolean was invented by George Boole a 19th century mathematician. Boolean logic refers to the relationship between search terms. It is ideal for searching databases and the Internet which is essentially a gigantic computer database. Boolean consists of three operators: “AND,” “OR,” “NOT.” Each operator has a specific purpose described below. A Venn Diagram provides a visual representation of each relationship.

What does “AND” do?
The operator “AND” is used to narrow your search. For example:

I need information about organizations AND leadership.

Only searches containing both words will be retrieved (i.e. the darkened portion of the circle). The more terms combined with “AND” the fewer results retrieved.

What does “OR” do?
The operator “OR” is used to broaden your search.

I need information about organizations OR leadership

This search will retrieve ALL articles about animals and ALL articles about plants as well as ALL articles about both terms.

The more terms you combine with “OR” the more results retrieved.
**What does “NOT” do?**

The operator “NOT” is used to limit to one term.

I need information about organizations NOT leadership.

All articles about organizations will be retrieved except for those containing the word leadership even if they contain the word organization. This is represented by the grey portion of the above Venn Diagram.

**Boolean and Searching the Internet**

1. Search engines differ as to whether or not you may use Boolean operators. Always check the Help screen for detailed information.

2. Search engines primarily use three types of searches: A) Full Boolean logic as describe above; B) Implied logic with keyword search. In this case a space between words is often interpreted as OR, a + sign represents AND, and a - sign represents NOT. C) Predetermined language in a fill in template. (See Google’s advanced search where “all,” “at least one,” “exact phrase,” and “without” represent the different Boolean operators.

   For additional assistance with please consult a Reference Librarian.