Boolean Operators

The **Boolean operators** AND, OR and NOT are used to combine words and phrases when performing online searches to place specific conditions on a set of documents to be retrieved. The process is named after George Boole (1815-64), who was an English mathematician and logician. Many online databases and World Wide Web search engines accommodate the use of Boolean operators in information searches; however, there may be slight differences from resource to resource in how they are used. Follow the instructions in the searching tips and help sections for each separate resource.

**AND**

- Retrieves documents containing all terms specified in the search
- Eliminates documents that have only one among any of the terms specified in the search
- Narrows your search, and documents retrieved tend to be more relevant

In most online environments, AND is understood, so it is not necessary to type out AND unless you just want to.

The shaded area in the diagram below illustrates that the documents retrieved contain both cats and dogs.

![Diagram showing the concept of AND in search results](image)
OR

- Retrieves documents containing all terms specified in the search together or separately.
- The rule of thumb in using OR is to remember that “OR gets more.”
- Broadens your search, and documents retrieved tend to be less relevant.
- Usually used for combining synonyms and closely related terms

The shaded area in the diagram below illustrates that the documents retrieved contain the terms individually as well as together.

```
cats OR feline
```

```
cats      feline
```

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NOT

- Eliminates specific aspects of a broader term or concept in a search

The shaded area in the diagram below illustrates that the documents retrieved contain information about any sonnet other than those written by Shakespeare.

```
Sonnets NOT Shakespeare
```

```
sonnets
```

Shakespeare