Assessment

of Information

Inquiry

Information Tools

# Information and the Research Process:

* Inquiry
  + What is the question/research topic/focus?
  + What types of information are needed?
  + What is the information needed for?
    - Gap in knowledge
    - Findings
    - Methods
    - Topic Review
    - Other?
* Information Tools
  + What information tools are you using to investigate your question and why?
* Assessment of information
  + What criteria are you using/or is required to assess information?
    - Authority
    - Impact
    - Usage/Application Criteria

**Best Bet Tools**

Databases:

* Scopus (https://colby.idm.oclc.org/login?url=https://[www.scopus.com/)](http://www.scopus.com/))
* [Google Scholar](https://scholar.google.com/) (<https://scholar.google.com/>)

Journals

* Ecology, Evolution, Amercan Naturalist, Journal of Theoretical Biology, Conservation Biology, Ecological Modelling, Oikos, Journal of Applied Ecology, Journal of Ecology, Journal of Animal Ecology, Theoretical population biology, Theoretical Ecology

Keywords:

* [whatever aspect of ecology/journal the student is interested in for the project]): ecological modeling (incl. modelling), population dynamics, population modeling, demography, spatially explicit, carrying capacity, Lotka-Volterra, biological model

Online Guides for Using Databases Resources

* [https://www.elsevier.com/ data/assets/pdf\_file/0008/207935/RD-Solutions-Scopus-Quick-Reference-Guide.pdf](https://www.elsevier.com/__data/assets/pdf_file/0008/207935/RD-Solutions-Scopus-Quick-Reference-Guide.pdf)

# Tips:

* Make a mental map of the type of information are you looking for and think about:
  + What do I need to do to address my gap in knowledge?
  + Keywords – do I have the language
  + Publication date - what is my criteria (newest finding or highly cited?)
  + Type of information source - is it a book, article, conference paper, etc. that you might need
  + Does it need to be peer reviewed?
  + Do I have an article/information about the topic that has been given to me by my professor that I can use to start to help me locate like information?
  + Use references, citations and bibliographies in related articles to help you locate like articles/information
  + Look for trends in concepts across articles addressing the same topic/method/experiment
* Register on…Google Scholar, Scopus, PubMed
  + Save searches
  + Alerts
* What fields you are searching and why (title, author, abstract, keyword)
  + Use Boolean logic: AND, OR, NOT\*
  + Put quotes around phrases - example "traumatic brain injury"
* Use filters/classifiers for better results
  + Document type
  + Source
  + Publication dates
  + Subject terms
* Make a plan: evaluation/assessment of information
  + What does my assignment require?
  + Publication date - what is my criteria (newest finding or highly cited?)
  + Who has cited the article - new articles usually won't get cited for a year or more
  + Who is the author - number of publications, etc.
  + Other criteria?
* Keywords and more:
  + Start with a broad keyword search, using words/phrases that describe your topic
  + Browse the results; use assessment criteria, sort and analyze with abstracts, etc.
  + Look at who cited the document to find like articles
  + Look at the Subject or Descriptor fields in the databases and note the terms used (write them down).
  + Redo your search using those terms.
  + Rinse, modify and repeat!
* Use a citation management tool - tag/classify your work <http://libguides.colby.edu/citationhelp>

Boolean Operators

Information systems that use databases (including Google) often use a form Boolean logic – a way to request information from a database. This logic uses operators (commands) AND, OR and NOT to narrow or broaden the search results.

AND

The operator AND narrows the search by instructing the search engine to search for all the records containing the first keyword, then for all the records containing the second keyword, and show only those records that contain both.

OR

The operator OR broadens the search to include records containing either keyword, or both.

The OR search is particularly useful when there are several common synonyms for a concept, or variant spellings of a word.

Examples:

adolescent or teen? medieval or "middle ages" vergil or virgil

NOT

Combining search terms with the NOT operator narrows the search by excluding unwanted terms.

These Venn diagrams help to visualize the meaning of AND, OR and NOT; the colored area indicates the items that will be retrieved in each case.

