

A. Research Strategy

1. Identify and Develop Your Topic

- State the topic as a question (Is human cloning ethical?)
- Identify key terms (human cloning, ethics, genetics)
- Broaden or narrow the topic as necessary

2. Determine the Information Requirements of the Assignment

- What type of assignment is it? (quick speech, short or long paper)
- How many information sources are needed?
- Is current or historical information needed? For recent topics, see magazines or journals.
- Must the information be from a particular type of publication? (scholarly journals, for instance)
- Primary or secondary sources? -- Primary sources are original materials that contain first-hand information about a topic, including speeches, artwork, newspaper article, diaries, film documentary, autobiographies, etc. Secondary sources explain and analyze primary sources; they are a step removed from event and include textbooks, encyclopedias, biography, etc.
- Format (video, audio, Internet, print, interviews, field trip)
- Point of view (do you need to present one side of an issue or both?)

2. For an Overview of Your Topic, Find Background Information

- Use library reference materials: Subject encyclopedias and current topics books
- Databases: CQ Researcher, Opposing Viewpoints
- Ask a librarian for more background sources or where to find those listed.

4. Find Books on Your Topic using the Library Catalog

- The library has books, e-books, DVDs, and magazines and journals in print.

5. Find Articles from Magazines, Journals, and Newspapers using Databases

- Choose appropriate databases from the list, enter your keywords and conduct a search. Set limits by dates, full-text, and type of publication.

6. Find & Evaluate Internet Resources *(see also handout on Evaluating Sources)*

- Evaluate closely for type of website and its authority, scope, currency, etc.

7. Properly Cite Your Sources in your Bibliography or Works Cited page

- Standard formats commonly used at ARC: APA or MLA. *(see also handout)*
- Online, search for OWL Purdue and APA or MLA for guidance and examples.

B. Basic Search Techniques and Examples

Note: It is useful to consult the help pages of the catalog, database, or search engine because each varies somewhat in recommended technique.

Boolean Logic Search (named for inventor George Boole, 1815-1864)

The Boolean operators **AND**, **OR**, **NOT** allow you to expand or narrow a search.

OR expands a search. AND and NOT narrow a search. For example:

1. **earthquakes AND California** finds documents that must contain both words, which narrows the search from what you would find with either term. You will not retrieve documents on just earthquakes.
2. **earthquakes OR tornadoes** retrieves documents that have one or the other of these terms, as well as documents with both, thus expanding the search.
3. **earthquakes NOT California** finds documents that contain information on earthquakes, but not if the word California is mentioned.
4. **earthquakes AND (California OR Nevada)** finds information on earthquakes and/or California, and/or Nevada.

Phrase Search

Phrase searching allows you to search a string of words which have meaning together. If you type **white collar crime** into a database or a search engine, it may bring back documents that have the three words in different parts of the document. To do a phrase search, use quotation marks around the words, as in "**white collar crime.**"

Truncated Words and Wildcards

Using truncation and wildcards allows you to expand your search by finding plurals or variations of a word. Usually the symbol (*) is used.

1. Truncated example: **veg*** will find documents with the words vegetable, vegetables, vegetarian, etc.
2. Wildcard example: **wom*n** will find woman or women.

Case Sensitivity

Mostly librarians use lowercase for searches. Use uppercase letters to limit your search to proper names.

1. **dolphins** returns more documents on the animal.
2. **Dolphins** returns more documents on the Miami Dolphins football team.