

How to Do Research

- Research thinking
- Finding sources
- Hierarchies and databases
- Library catalogs and indexes
- Internet resources
- Notes on bibliographies

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Research Thinking

- Develop a plan.
- Develop a “research mindset.”
 - Be as objective as possible.
 - Clarify your presuppositions.
 - Be organized.
 - Practice intellectual honesty.
 - Practice humility.

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Research Thinking

- Think critically.
 - Ask questions.
 - Analysis: taking a source or idea apart to see how the pieces fit together.
 - Synthesis: putting two sources or ideas together to produce a new whole.
 - Application: use results for a practical purpose.
 - Evaluation: see if something is of value, according to some standard.

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Research Thinking

- Use valid reasoning.
 - Inductive reasoning: particular to general.
 - Move from data to generalities, principles.
 - Problem = insufficient data to make generalizations.
 - Deductive reasoning: general to particular.
 - Move from universal assumptions to particular data.
 - Problems = ignoring data, circular reasoning.

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Finding Sources

- Types of sources:
 - Primary sources = sources that originate in the same time period you’re studying.
 - Secondary sources = Later works by researchers reflecting on earlier times; they present the results of their analysis of primary sources.
 - Tertiary sources = Reviews or analyses of the research of others. Use these to direct you to primary and secondary sources.

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Finding Sources

- Use the library catalog.
- Check bibliographies in reference works:
 - General reference works (*Encyclopedia Britannica*)
 - Specialized reference works (*Encyclopedia of Early Christianity*)

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Finding Sources

- Find relevant bibliographical guides.
 - General: *Reader's Guide to Periodical Literature*
 - Specialized: *Religion Index I*
 - Online or CD-ROM: ATLA
 - Bibliographical books and research guides
 - Bibliographies & reviews of research in journals
 - Once you have a Library of Congress or Union subject heading, see if it has “bibliography” as a sub-heading.

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Finding Sources

- Other possible resources:
 - Theses or dissertations
 - *Books in Print*
 - Internet resources: primary texts, other library catalogs, research databases, useful sites, search engines.

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Hierarchies and Databases

- Questions about Badke's chapter on information hierarchies?
 - You need to know what hierarchies your topic is in, and where it is in the hierarchy.
 - Brainstorm possible hierarchies.
 - Identify the most likely one.
 - If you don't find information, go up to the next largest category and search again.
 - For more general books, move left.

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Hierarchies and Databases

- No standards for database search engines.
 - You have to learn each one.
 - Read the on-screen instructions and help files.
- What's the difference between a controlled vocabulary search and a keyword search?

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Hierarchies and Databases

- Controlled vocabulary = predetermined subject headings, like Library of Congress.
 - Terms are decided by system designers.
 - Actual wording of title isn't important to find it.
- Keyword search = looks for word in title, etc.
 - You decide which terms to enter.
 - Actual wording of title can be very important.
- The browse function of search engines may get you into their controlled vocabulary.

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Hierarchies and Databases

- What are wildcards in database searches?
 - Usually a character like “*” or “?”.
 - Any letters (or none) can fit in the wildcard slot.
 - Mission* = mission, missions, missionary, etc.
 - Usually used at the end, sometimes at the beginning or in the middle.

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Hierarchies and Databases

- What are Boolean operators in searching?
 - A **and** B = find sources that have both terms.
 - A **or** B = find sources that have either term.
 - A **not** B = find sources that have A but not B.
 - **A B** = may be the same as “A and B” or may be a string “A B.”
 - “**A B**” = search for string “A B.”
 - Some databases use “+” and “-.”
 - More precise than natural language searches.

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Library Catalogs and Indexes

- Library catalog systems
 - ATS uses Library of Congress and Union (moving to Library of Congress).
 - AU uses Library of Congress.
 - Notice which library a book is in – and remember that the call number may be different!
- Library of Congress call number:
 - First two lines = subject heading.
 - Third line = author’s name (1st letter, last name).
 - Fourth line = date of publication.

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Library Catalogs and Indexes

- Hints on finding a book:
 - Leading article (a, an, the) doesn’t count; all others do.
 - Not all books on a topic will be under the same subject heading.
 - In LC, biblical books are alphabetically arranged.

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Library Catalogs and Indexes

- Periodical indexes – journal articles.
 - Search by author or subject.
 - See handout for some printed indexes.
- Copy down your results or get printouts.
- Check any special collections, such as archives.

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Library Catalogs and Indexes

- Once you have one source, follow its “bibliographical trail” to find others.
 - Back of title page: LC subject headings.
 - Bottom of catalog entry: subject headings.
 - Click on call number or browse the shelves.
 - Check bibliography and notes.
 - Check index for frequently used sources.
 - Stop when the resources keep repeating or become inaccessible or outdated.

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Internet Resources

- Search the Internet in two ways:
 - Start at a site you know and link to others.
 - Use a search engine: Google, Bing.
- For sites, see Badke, handout, Dr. Morton’s page.
- Use search engines as you would use any database tool.
- Check discussion groups, listservs.

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Internet Resources

- Evaluate Internet information.
 - More difficult than with printed information.
 - Internet information has no “filter.”
 - Information can change hourly.
 - Check author and/or organization behind it.
 - Evaluate it for sound scholarship.
 - Is it well documented?

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Notes on Bibliographies

- Maintain an annotated bibliography.
 - Take down all relevant info *before* you read.
 - Check title page and back of title page.
 - If some data is missing, check catalog entry.
 - Keep on “bib cards” or in computer files separate from your notes and drafts – and back it up!
 - Write publication data on photocopies.
 - Jot down brief comments on every source you examine.

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Notes on Bibliographies

- Software can automate bibliographies.
 - Zotero (free Firefox and Word plugin for PC):
www.zotero.org
 - Biblioscape: www.biblioscape.com
 - Endnote: www.niles.com
 - Nota Bene (ATS has site license).

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