Library Research Tools

The tools introduced on this page are intended to prepare you for the different types of research projects that you will complete as an honors student, including your advanced academic courses, honors thesis/project, and other independent projects. Gaining competence and confidence as a researcher will also support you in future graduate studies and in your career. Effective and ethical research requires specialized skills. These skills and the basic knowledge of research methods and conventions are important not only for academic work, but also in personal, workplace, and community contexts. The resources below will help you better understand library research tools, why they are important and how to use them, and what the Libraries at UMass Amherst have to offer your research process.

Topics covered on this page include:

- Getting started with Library Research
- The Research Question
- The Research Log
- Evaluating Sources
- Search Strategies
- The Literature Review
- Documenting Your Sources
- Citation and Bibliographic Management Software
- Responsible Conduct of Research
- Copyright and Fair Use for Students

Contact UMass Amherst Librarians for your research support needs!

Getting Started with Library Research

What is the research process? What are the main phases in the life of a research project? Below are some resources to help you get started. Don't forget that librarians are your best friends in this process.
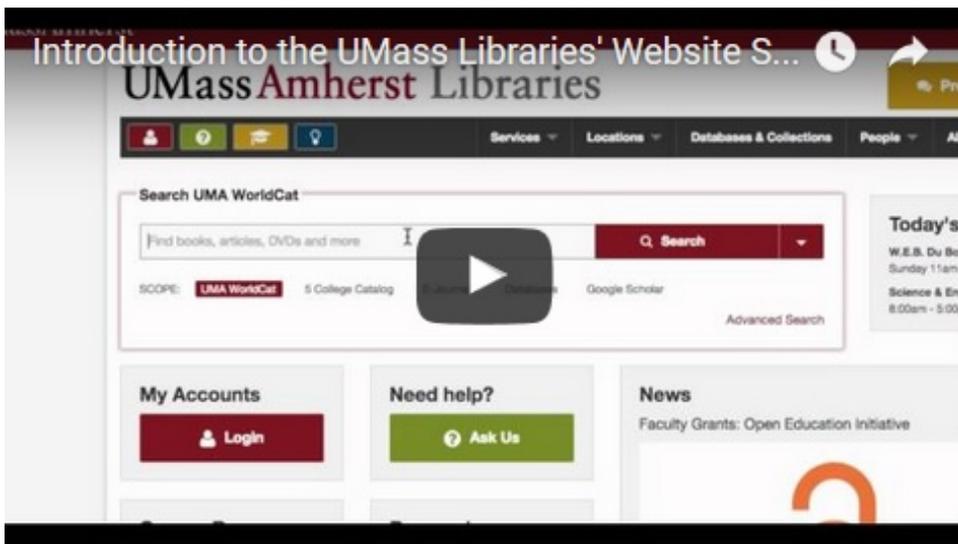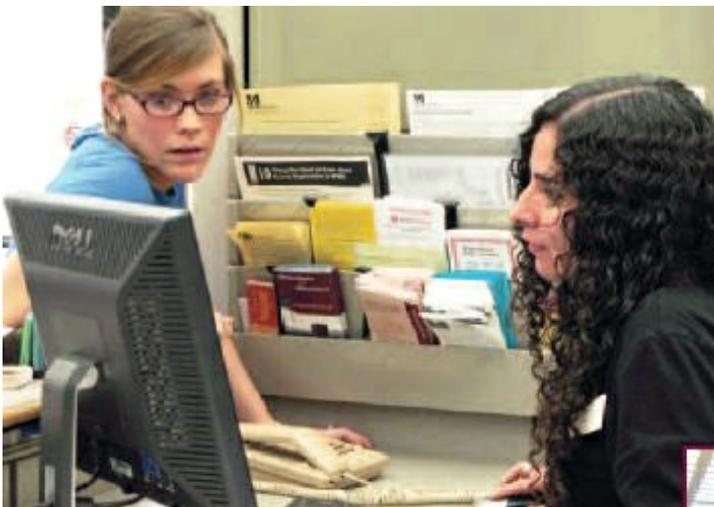
 The Libraries have a few custom video tutorials to help you get started:

[Introduction to the UMass Libraries' Website Search Feature](#)

[Introduction to UMA WorldCat](#)

[Introduction to UMass Libraries' Website Navigation Bar](#)

 [UMass Research Help](#): Information about conducting library research including additional video tutorials.

[Ask a Librarian](#): Information about how to contact a librarian including live chat.

[Subject Research Guides](#): Locate the appropriate page for your subject or a related subject and explore the tabs at the top of the page – be sure to look for "research tips" or "writing in [your discipline]."

 The Purdue Online Writing Lab ("OWL") provides an outline on the

research process - "[Where Do I Begin?](#)" which discusses the scope of information need and where to look. OWL also provides helpful information on:

[Online v. Print Resources](#)

[Searching the Open Web](#)

[Evaluating Information Sources](#)

Learning and developing new knowledge stems from asking thoughtful and novel questions. A good research question will focus your thinking and research, give you a limited scope in which to develop your ideas and evaluate your hypotheses more deeply, and will help you make the best use of your time and energy. A common misstep many researchers make is starting out with an answer before asking the question. A research question is not the same as a thesis statement; a research question is an open-ended beginning not an endpoint.
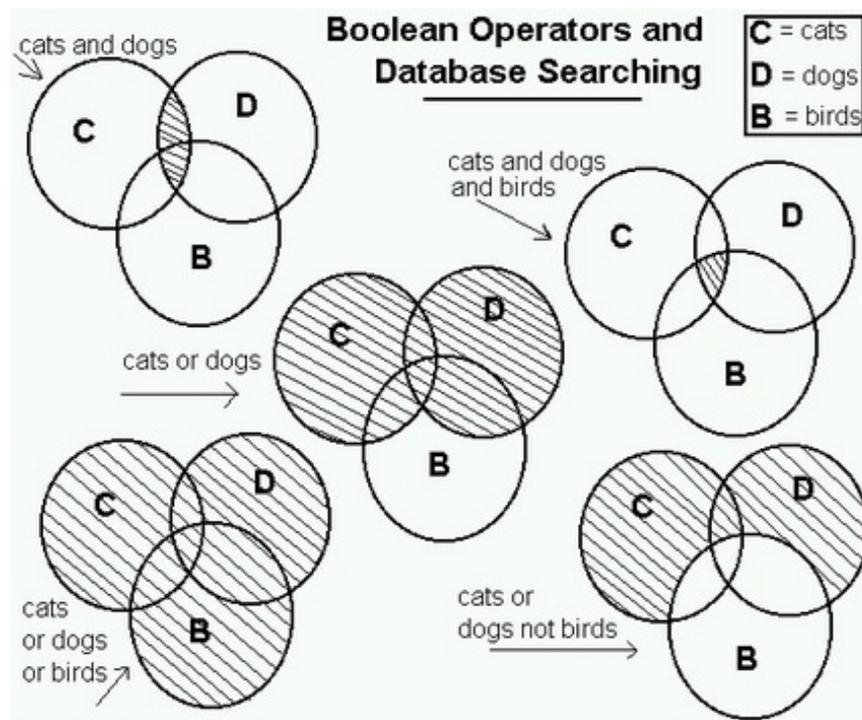
Having a difficult time honing your topic and forming a research question? Try concept mapping to get started.

The Research Log

Research logs are invaluable tools. A log helps you at every stage of the research process by organizing your search process. It helps you get to know the literature of your field, and helps you locate and evaluate resources. The log is a guide for developing a research question and hypotheses, composing your paper or literature review, and compiling a works cited list. Basic research logs provide informal yet detailed records of sources, including author, title, journal or site, and URL. They also include brief summaries or annotations of important points and potentially useful quotations. The expanded research log contains all the information of a basic log plus a record of the researcher's thought processes while evaluating sources and focusing the initial research question.

- Sample Research Log
- Research Log Template

Boolean Operators and Database Searching

C = cats
D = dogs
B = birds

cats and dogs

cats and dogs and birds

cats or dogs

cats or dogs or birds

cats or dogs not birds

Source: John F. Reed Library, Fort Lewis University

Search Strategies

Finding just the information you want without becoming overloaded with too much or coming up empty handed is a challenge for all researchers. Locating exactly what you are seeking depends on a number of factors, including your choice of database or search engine, the search keywords you use, and the specific ways you combine and connect those keywords. The resources below provide strategies for limiting your search without eliminating potential useful sources.

- Guide to Databases and Online Searches
- Advanced Search Tips for Google (useful for all searches – not only Google)

Evaluating Sources

Once you have started locating sources (including journal articles, books, and reports) that inform your research question, it is essential for you to carefully evaluate them for relevancy, accuracy, and reliability.

Website content varies greatly in quality and stability. While some websites are maintained by academic institutions, professional organizations, and individual scholars who uphold rigorous and carefully documented standards, remember that any individual or organization can create a web site without it having to be reviewed by an editor or publisher. The UMass Amherst Libraries' Research Databases contain sources that have already been evaluated for some criteria. However, not all articles and information within these publications is relevant, accurate or appropriate for your particular research project. You still need to approach them with a critical eye and make use of the recommendations below. The library's Course Guides and Subject Guides often list trustworthy "best bet" databases and sources for your particular subject. These are a good place to start.

- [What's a peer-reviewed or refereed journal?](#) - video tutorial

The Literature Review

Written in the style of an expository essay, a literature review not only tells your reader what literature exists on your chosen topic, but also thoughtfully organizes and evaluates those sources. A literature review is different than an annotated bibliography. Annotated bibliographies also provide summaries of sources related to a topic, but they are typically organized in a list format and do not place the same emphasis on comparison and critique that is expected in a well-composed literature review. While all research papers should contain a literature review, the appropriate length and scope of the literature review varies depending on the scale of the research project. While the literature review for a research paper in an academic course may be only a few paragraphs in length, the literature review in a thesis will likely require multiple pages or even an entire chapter. For more detailed information about writing a literature review, check out the resources listed below.

- [Sample Literature Review](#)
- [The Literature Review: A Few Tips on Conducting It](#) (University of Toronto) – Includes a list of important questions to ask yourself when writing a literature review
- [Literature Reviews (University of North Carolina)](#) – Purpose and structure of the literature review

Documenting Your Sources

Different disciplines require different styles of documentation. Writers in the arts and humanities usually use the Modern Language Association (MLA) format; social scientists typically adhere to the American Psychological Association (APA) guidelines; many writers in the natural sciences as well as mathematics follow the Council of Science Editors (CSE) style. Historians traditionally follow a fourth guide, *The Chicago Manual of Style*, often referred to as "Turabian." Some book and journal editors produce their own individual style guides as well.

These style handbooks are available at the UMass Amherst Libraries; however it may be helpful for you to purchase a personal copy of the style manual used in your field of study.

In addition to the complete style manuals, the websites listed below also provide citation information and examples:

- [The Writing Center at the University of Wisconsin-Madison](#) (all citation styles)
- [The Online Writing Lab at Purdue University (MLA and APA styles)](#)

Reference Management Software

There are a number of valuable, web-based tools that can assist in managing citations, creating bibliographies, and importing references from online databases.

- [RefWorks](#) is available free of charge to UMass Amherst students and alumni.
- Other reference management software options include [CiteULike](#) (free), [Mendeley](#)

(free), [Zotero](#) (free), [EasyBib](#), and [EndNote](#) (for purchase).

Responsible Conduct of Research

Responsible Conduct of Research (RCR) is more than a set of policies and guidelines. It is the continual process of ensuring that every stage of a research project is conducted ethically.   Responsible research practices extend to library research as well as more hands-on projects. There are specific policies for undergraduate students working with faculty on NSF-funded projects; however all students engaged in research, working independently or on a faculty member's project, should be informed and committed to Responsible Conduct of Research practices. Additional information is available on the CHC's [Responsible Conduct of Research webpage](#).

Copyright and Fair Use for Students

Asking for permission to use the ideas and images of others is an increasingly important skill in today's digital society. The Univrsity Libraries at UMass Amherst have infomration on copyright including first sale, permission culture, current cases and more on the [Libraries' Copyright Services webpage](#). You can also contact Copyright and Information Policy Specialist, [Laura Quilter](#), if you have specific questions or concerns regarding copyright and fair use.

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