

Research Like A Librarian

Accessing Information in the 21st Century

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Chapter 1

Information Literacy

You are looking at a book on the topic of information literacy. Many people think of literacy to be about the ability to read, however today there are many types of literacies. You might have heard people talk about Health Literacy, Mathematical Literacy, or Media Literacy. This book is about Information Literacy. This is the ability to find and use information.

There is so much information available today. We see an exponential increase of information thanks to the ease of adding information to the internet and publishing both print and electronic materials via the web. With so much information it becomes easy to find something, but increasingly more difficult to find exactly the right piece of information.

Shift Happens.

Information Literacy is about identifying your research need, finding the best information possible for your need, and using the information ethically and correctly. Put simply, the [Association of College and Research Libraries](#) identifies Information Literacy as “...the set of skills needed to find, retrieve, analyze, and use information.”

A person who is information literate can tell if a particular question needs high quality information, or if it is something that can be solved quickly with less authoritative information.

For example, wondering who starred in a movie doesn't need perfect information. It might just require you find something fast. However, working on a paper for a professor requires much more reliable information and it might take more effort to find it. This book is designed to help you in your quest to become information literate. The first three chapters are focused on learning how to approach a research project. In Chapter 1, The Research Process, you will learn about the steps in approaching a research project, managing your time, understanding your assignment, and tips for knowing what to do. Chapter 2, Understanding Your Research Needs, will address how to approach your research based on scope of your project. You'll learn about the different types of resources, the information timeline, and how information is organized in the library. Chapter 3 will focus on Developing a Research Strategy. In this chapter you'll learn about defining your topic, search terms, controlled vocabulary, and various ways of searching including boolean, truncation, and advanced searching.

The following five chapters will address resources: reference materials, books, articles, the web, and primary sources. These chapters will explain the importance of each type of resource, how to find them, how each can be evaluated for relevance or scholarliness, and how to use the various types of sources in your work.

Finally, the last two chapters will address using the information you find. The first, Using Resources, will focus on using the information you find and integrating it into your research. The final chapter in the book will address citation and copyright. It will address why you cite and how, copyright, and plagiarism. This chapter will help you make sure not to violate any rules when working on your assignment.

We hope that you enjoy this book—in whatever format you read it in—and that you find it useful in your research and your path to information literacy.

Chapter 2

Understanding Your Assignment

By Rebecca Petersen

Understanding your assignment is the key to successful research process and well researched paper. Starting off with an in depth understanding of what is expected in your paper will allow you to avoid missteps along the way. Some assignments are clarified on the first day in the syllabus, some are given later in the semester. Reading through the assignment as soon as you receive it will allow you to discover questions, possible problems, and time management strategies. Do not put off reading your assignment, it may cause confusion and headaches later.

Make sure you begin a dialog with your professor. Asking questions to clarify what is expected of your research paper benefits both you and the instructor. It is easier to start off on the right foot by asking questions in the beginning than to fix problems by asking questions too late. In some cases, professors provide examples of past papers that were successful. Believe it or not, your professors want you to do your best, provide feedback, and otherwise succeed in their class. They also want you to learn successful research strategies and become an expert on a topic. All of this starts by discussing expectations with the person who has created the assignment.

Interpreting the “rules” of the assignment will help you succeed in fulfilling all of the expectations that your professor has for the assignment. Your professor might require certain types of sources, might have asked a specific question for you to answer, or set out technical details such as font style and size. It is important to recognize and follow the rules set forth in the assignment. This is not attention to detail, this is just doing what is asked of you.

Developing a Research Topic

The first step of the research process is developing a research topic. A good topic is the basis for a good paper and in turn a good grade. The goals of developing a topic are to match the topic to the expectations of the assignment. Make sure that the topic is manageable in the time you have available, and to develop a question that is good so that you can organize your thoughts and sources. All of these goals sound basic enough, but this chapter will guide you through the process and make the research process a less intimidating and more rewarding experience.

There are many factors to consider when picking a topic that matches the assignment: length of paper, type of assignment, resource required or expected, and time available. The length of the paper is important to the breadth of the topic covered. The shorter the paper, the narrower the topic must be. Similarly, if you are expected to write a paper of considerable length, it is important to pick a topic that has broad enough research base to supply you with a lot of information on the topic. The type of resources, or even a need for them, is dependent of the type of paper you are assigned. An opinion paper will require you to pick a topic that has two sides (i.e. gun control or abortion). In contrast, a research paper will involve a topic with enough resources to sustain a lengthy and in-depth look at a broader topic (i.e. history of the national

park system). Creative writing assignments allow freedom in style and flexibility in writing and do not require resources.

You must determine the scope you are planning on covering to focus your research ideas. A very broad scope will provide entirely too much information for you to look through. On the other hand, narrowing your scope too much may leave you with not enough resources and support to write on your topic. Limiting broad topics, like the Civil War, by time period, geographic location, ethnic or gender groups, etc. will allow you to find a more focused topic relating to your general interest in researching the Civil War.

Investing some time and energy into researching your possible topic is well worth it. Before you decide on an unsupported topic and send an email off to your professor, spend a little time on making sure your idea has supporting resources to write your paper. Developing a research question is a great way to help you explore and refine your paper topic and thesis statement. It is in the process of researching your question that you will avoid a paper that narrates a broad topic and will hone in on a specific, arguable thesis. It is this concise research question that will be the focus of your preliminary and superficial research. Choose a topic that has some interest to you, something you actually want to learn more about. Follow this up by scanning some journals and current periodicals to see what is being written on this topic. What questions does this research bring up? As you raise questions, consider the audience who will be reading this paper. Is this something that applies to the readers? Continue asking questions focusing on “who” and “why” types of inquiries to focus your ideas. Evaluate your question, ask yourself if there is enough to support your question, and make sure that the thesis you will use to answer this question is complex enough to support the length and requirements of the assignment.

Once you have determined the question you want to answer, you must develop a thesis statement. Your thesis should be concise and specifically related to what you proving or arguing in your paper. Appearing at the end of your introductory paragraph, your thesis should be supported by the research or supporting evidence that follows in the paper. Including a thesis statement helps both you and your reader understand your paper. It allows you to better organize and develop your argument along with providing the reader with an understanding of what you will be discussing in your paper. Your thesis statement, like your research in general, will change as you write. Your supporting evidence may change the focus and direction of your paper. Be sure to change your thesis statement to match your finished paper.

Matching resources to your assignment

Matching your assignment to appropriate resources is also dependent of what expectations and requirements your professor has for the paper. If the professor wants only books as resources, make sure that your topic is not too recent for published items to be produced. Current events will not have scholarly resources available on them for a while. In contrast, historical events may not have any current or popular information on them. To accommodate a requirement of articles from a scholarly journal, make sure that you pick a topic that has a scholarly perspective. If your instructor requires primary sources, choosing a person or historical event that was in the news will make these sources easier to find. Web sites can sometimes be unreliable. If websites are a mandatory type of source for your research topic, web topics such as business, technology, and current events have more reliably good web information than some others.

An [Assignment Calculator](#) can be a useful tool: using the deadline and type of project, it can generate soft deadlines in order to help you make progress at a good rate.

Time Management

Time management, procrastination, and looming deadlines are not foreign concepts to student researchers. These matters are to be taken into consideration when choosing a topic. Knowing how long you have to research may exclude a broad or complicated research topic. Longer papers take more time to research but so do more complicated subjects. If you are limited on time, have a lot going on, or tend to procrastinate, focus your work on a topic that will have resources readily available. Some libraries do not have in-depth collections on certain areas of research, so knowing what resources you have on hand will help if you are limited on time. Inter-library loan, or ILL, is a wonderful tool available for the time savvy researcher, but if you don't have the time for books to come from another institution, this is not the option for you.

When planning out your assignment, a calendar is an important tool. Schedule goals, deadlines, rewards, and even downtime. Plan ahead, allow for flexibility, be realistic with your time, and make sure you take time to relax. If you know you have a paper due at the end of the month, count backwards from the due date, planning out time to review, time to write, time to research, and time to discover an appropriate topic. Having this pathway clearly set in your calendar will help you avoid procrastination and allow for you to modify your timeline in case something else comes up. With so many responsibilities taking up your time, scheduling your research into your daily activities will payoff in the long run.

Starting Your Research

A “starter topic” is an excellent way to gather information about your topic and help you narrow the focus of a broad theme. Take the time to do a bit of reading on your starter topic to learn about themes, outlines, and background. General reference tools such as Encyclopedia Britannica Online or Wikipedia are starting places to hone your research topic. Note: although Wikipedia is a valid instrument for using when establishing a topic, it is not appropriate to use as a scholarly resource in your paper. Use headings, outlines, and keywords in these sources to give insight and ideas for narrowing and refining your topic.



The “big picture” you can get from reference sources will allow you to focus a topic to get a more concise research topic. This is an important step in forming your thesis question because it

gives you a basic understanding of a very general topic and allows you to explore if there is enough information out there on the more specific topic you might be interested in. Moving from reference sources to books will help you contextualize your area of research on a narrower topic. To hone in on even more niche ideas, checking journal articles for specific areas of research, ideas, and theses will allow you to land on a focused topic you are interested in. If the “starter topic” leads to a dead end, or not enough information to support your research question, you can work back to find a more appropriate and research supported topic. If you do run into roadblocks, or any of these steps are hard to follow, talk to a librarian! Librarians are available for research sessions and are thrilled to help you find the resources that are waiting to be discovered in the library.

Making an Outline

Outlining is a great way to organize abstract ideas, specific points, and areas to further develop. Mirroring the layout of the final paper, an outline helps map out the main arguments that support your thesis statement. An outline is also a great way to see sub-points and supporting arguments, and areas that don't have as much information or need more research.

Outlines can be used at any point during the writing process. A “pre-research” outline helps you organize the preliminary research you might conduct to establish if you have a viable topic for the assignment. A “pre-writing” outline might help you organize the notes and research you have conducted to establish the flow and present your findings in an organized fashion. Finally, a “post-writing” outline helps you assess the words and arguments you have put on paper. Does it make sense? Is your thesis supported? Do you jump around too much? Carefully planning your thoughts by outlining is time well spent. In any or all of the points that you can apply outlining to your paper writing, the work will pay off in the final product.

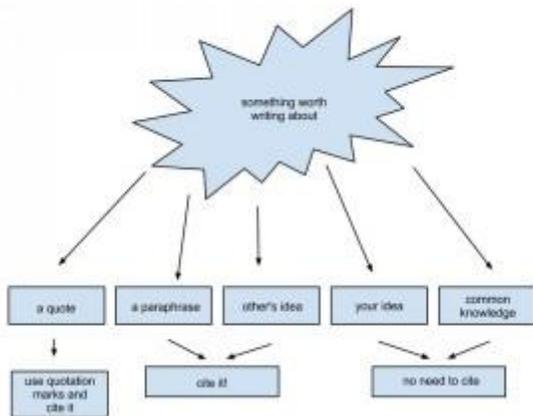
Talking to Your Instructor

Once you have sharpened your topic, opening a dialog with your instructor is a fine idea. Talking early and often will allow you to know that your topic is suitable and he or she might point you towards resources you otherwise might not find. The cyclical nature of research will constantly have you refining your research question, your strategy, and your sources. It is always advisable to keep your professor aware of any changes in topic and problems that you might have with your research along the way.

Citing Your Sources

Copyright and intellectual property are an integral part of the research process. You must consider where you get your information and how you will attribute credit to the author or creator. Citation management tools, such as Zotero, RefWorks, and EndNote are available online and many have tutorials or workshops available for you to learn how to use them. There are many other types of citation management software available and it will greatly help you with ease of research and ensure that you have the tools to give credit where credit is due. It is very important that you understand that citations are an essential part of research and without them you are breaking the law and your college or university's honor code.

Librarians are available to help you with making sure that you are citing your sources correctly. Depending on what style guide your professor is requiring, MLA, APA, Chicago Manual, etc., there are resources both in the library and online to ensure your citations are correct. There is an online guide available at the library specifically tailored to the [MLA style guide](#). Keeping track of your sources is your responsibility and there is no excuse for missed or wrong citations.



Writing and Reviewing

Once you have found your sources, created your outline, and developed your thesis statement, it is time to start writing your first draft. Be sure to remember that you are writing for an academic audience. So many times, students first (and sometimes final) draft is written in a conversational manner. Paragraph and sentence structure should be considered when forming the body of your paper. A research paper states your thesis in the beginning, spends the majority of the body of the paper supporting the argument with flawlessly cited research, and ends with a conclusion.

Depending on the discipline you are writing your paper for, writing styles will change. Science based writing includes a literature review, is based in fact and research, and tends to be more technical and may include charts and graphs to display research. Business writing is concise and to the point, displaying facts and statistics in charts and graphs as well. Social science research is more argumentative and may include some graphically supported materials. History and English writing tends to be more descriptive and uses different types of visual materials like maps and images. There is much overlap in writing styles, but knowing your audience and understanding your assignment are vital to presenting your research in an appropriate manner.

If you have access to a Writing Center, this type of service can be a tremendous resource at your disposal. The staff at Writing Centers are available to help you at any stage of the writing process. Having another person read through your work allows perspective and distance in the editing process. Grammar, punctuation, visual rhetoric, and mechanics all contribute to a successful writing assignment. The Writing Center can assist you with all of this and more, you just need to take advantage.

Revising your first draft may require you to do additional research to support your thesis statement or find more sources. Understanding that the first draft is just that, a draft. Revision

and the evolution of a paper takes many steps to have a great final product. Allowing yourself time to write, revise, edit, and proofread will significantly enhance the grade you get on your research paper. Read your paper, check for spelling and grammar mistakes (spellcheck does not get everything!). Read your paper out loud. Does it make sense? Do your paragraphs and supporting topics make sense and are they supported? Does your paper have an introduction, supporting research, and a conclusion? Consider the reader, the topic, and the final outcome.

The Final Paper

The cyclical nature of the research process allows you to ask many of the same questions at the beginning and the end of the writing journey. Ensuring that your paper fits within the criteria and rubric set out by your professor including length, format, and number or type of sources are basic and required for success. Your professor wants you to do well as much as you do. Turning in a final paper that they enjoy reading and fulfills the requirements is imperative. Following the steps in this chapter, and finding what works best for you, will set you on a path to successful writing. Take advantage of the resources available at your University including the library, the writing center, professor's office hours, a variety of resources, and personal research sessions, and you will not be disappointed.

Chapter 3

Understanding Your Research Needs

By Craig Fansler

How does research happen? When doing research, what materials would one use? There are many ways of doing research, especially within different disciplines, and therefore no one method that everyone uses. However, there are some best practices and likely steps in doing research. Traditionally, moving from general resources (like dictionaries and encyclopedias) to specific ones (like a peer-reviewed journal article) is a good, systematic approach. The general resources help you define your topic and learn the concepts and keywords surrounding it as you target more specific sources.

Peer Review

As an undergraduate conducting your own research, the majority of your research will be using ‘peer reviewed’ materials. This kind of material is read and reviewed by experts in the field, who determine if it is good enough to publish. If an article passes the ‘peer review’ test then it will be added to the overall body of knowledge.

Why is this kind of article so important and used by so many of your professors? It is important not only because it is so well scrutinized by experts, but because it often is a way of creating new thoughts, ideas and knowledge. The review process, produces articles and books called “refereed” examines all the areas of an article: is this article logical, does it make sense, is it accurate and is it “new knowledge.” Many article submissions are rejected during this process, especially by prestigious journals. Those articles accepted by the peer review process are then available for the next researcher to read and learn from and then develop their own new idea. As for college professors, many of them are required to publish peer-reviewed articles to maintain their positions and often they must also earn grants to fund their research.

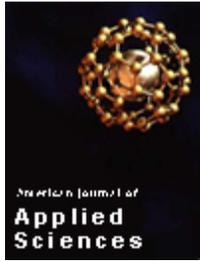
Information Sources

Reference Books



These are sources that give you helpful information and allow you to answer specific questions or to determine a fact. One would seldom read a reference book entirely, but would consult it for the fact that helps you define your research. Reference books are often housed in a specific area of your library.

Scholarly Journals



These contain articles on a very specific topic. At the beginning of each chapter is an abstract. This abstract will tell you about the general topic covered in that article. Journal articles are meant to be read in their entirety. Journals are another information source that might be more current. Journals are usually written around specific subjects and often have a scholarly focus. They are usually published by a university, professional or scholarly group. In most college research, a peer-reviewed article is what you are looking for. Popular magazines (such as People) have articles about current topics and may in fact be accurate, but are not peer-reviewed nor do they have reference sources to back up the written work. Often a popular magazine may be biased as well because the focus is on specific areas and there might be a point of view the editors are trying to communicate to readers.

Books



Until now, books might be the first source one would consider for research. These give you the context for what your topic is, with reference sources at the end. These can be read cover to cover or used for the content in specific chapters. Books are edited and therefore considered reliable sources, especially when selected by your library. On the other hand, books are printed at a specific time and if it was published a long time ago it might not be as up to date as you'd like. Books are good sources for getting the whole picture about a subject because authors have had the time to see how their subject fits into a large scheme over time. By the time a book has been written, an author has had the time to see a particular subject in better context than a newspaper or journal author. Time adds perspective to the content of a book.

Databases



Databases contain large volumes of articles grouped together by subject. The larger databases cover a range of subjects. Databases are also offered by specific subjects such as social sciences, history or business. This makes it easy to search for an article targeted by subject. Using these databases, one may search current articles on a variety of subjects by using one source. This is also a great way to identify scholarly articles on a topic by narrowing your search within the database. Like most library catalogues, databases have an Advanced Search tab that allows targeted searching over a range of aspects for journal articles within the database using Boolean operators (and, not, or).

Web Sites



Web sites are often the most current and most popular information sources we use. On the other hand, a web site might not be as trustworthy as a peer-reviewed journal because essentially anyone can say almost anything on the web (and they do). This fact means one should evaluate each web site. Even Google does a sort of ranking of their content using an algorithm that takes into account several factors, but favors sites that have the most links to them. There are also sites that have paid for a higher ranking. For an individual who is evaluating a web site, you might consider some of these factors:

- WHO (owns the website and why should I believe them?)
- WHAT (does the site say and is it in agreement with other sources?)
- WHEN (was the information published and does this matter or affect what the site is saying?)
- WHY (was the information on the site placed there?)

Some of this might be self-evident when you look at the site, while other sites are more, shall we say, subversive. It might surprise you to know that the site martinlutherking.org is operated by a white supremacist group or that malepregnancy.org is a site created by a performance artist. Using the site name alone or even viewing the site, might not tip you off what the true nature of the site is. It is easy to see that all web sites are not just there to help you find information, and

many are actually there to spread inaccurate information to support a belief or cause. Each individual has the responsibility to evaluate these sites so that any information they use from a site is valid, unbiased and verifiable.

Narrowing a Topic

When doing your research, selecting a topic is an important step in a successful project. Topics that are too broad or general can lead to a paper that is not as meaningful and useful as you might like. It helps to narrow your topic by date, time or by asking a specific research question. By forming your research process into a question, it will help you narrow down your research process to manageable sources and in the end, a better paper. These are a few examples of this technique. You can narrow a topic by:

- Time:
 - Sports.....
 - Cycling.....
 - Tour de France.....
 - Doping and the Tour de France since 2000
- Area of Study:
 - Medicine....
 - The development of steroids....
 - Internal use of steroids...
 - Use of steroids for stomach disorders
- Place:
 - Plants.....
 - North American plants.....
 - N. A. Wildflowers.....
 - Wildflowers of N.C. Mountains

These are only a few ideas to get you started. You might start by phrasing your topic as a question, such as “When and why did coffee become such a popular drink?” You might also try the 5“W’s” – Who (person), What (limit by a particular aspect), When (time), Where (place), and Why (why is your topic important) to limit the background information you have found on your topic. A good way to come up with a topic is to separate the individual terms. So if you were writing a paper on the topic “Wildflowers in the North Carolina Mountains”, you might use separate search terms in a database search for: wildflowers, North Carolina and mountains. This might reveal multiple synonyms to use as search terms. Using synonyms is an excellent strategy for finding ‘search strings’ within a database. Often, in a database, the terms used may not be ones we suspect. Therefore, using a strategy of using synonyms could unlock information we can use in our research.

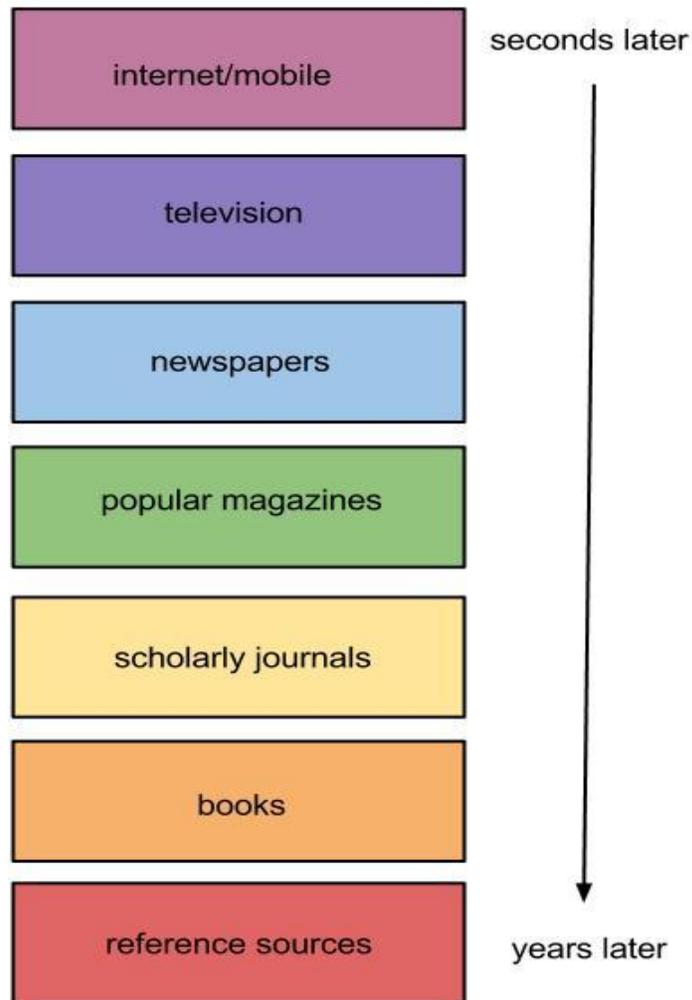
Information Timeline

When looking at kinds of research sources, it is good to understand how information comes to us. We often do this by using an “information timeline.” Using the information timeline helps us understand how we get our information and how long it takes to get scholarly information. Because scholarly information takes a longer time to research and produce, it might not be

available on very current topics. Publication cycles for many journals are a year, and books are a much longer time period, so this means it also takes longer for us to get this information.

A timeline helps you understand the order events happen. In an information timeline, you can understand how sources of information will be available to you on your research topic. Scholarly work takes a considerable amount of time to develop, research, verify, write and get published. If you think of the information timeline in terms of speed, the fastest information you get (say on TV or the internet) may also be the least accurate. It takes time to investigate any event or topic and therefore, by definition, the fastest information you get cannot be thoroughly researched. In addition, the fastest information you get cannot be put into perspective and fit into a larger framework: this takes time.

The information timeline is a chronological concept about how information gets to the users of that information. When an event happens (for example, the fall of the Berlin Wall), the first way we learn about the event is word of mouth, the web, television and radio. These sources can track and report news quickly. In 1-3 days, this information will be available in most newspapers as well. In a week, the information will be available in popular and mass market magazines (such as Time). It will take several months before the information makes its way into a scholarly journal article (such as Nature); two years, on average for a book, and possibly longer for some print forms, like encyclopedias. Publication times for journals vary, but most are around a year or longer. The more research that goes into it, the longer it will take to write. Some of the first books on Hurricane Katrina came out a few months after the storm hit in 2006. These early books, however, were only able to examine the impact of Katrina in a very narrow way because so little time had passed and the effects of the hurricane were still being discovered and understood. The last information forms on the information timeline are the most reliable because there has been enough time for scholars to verify and analyze the event. This analysis is really important since it puts each event into context. Scholarly journals and books are superior sources of information because they have been able to spend the time to conduct research, analyze, discuss topics in detail and reflect on the meaning of a particular event or topic.



Knowledge Organization

The advent of the internet has changed dramatically the way we access information. Physical materials (books, manuscripts, etc.) only exist and are accessible in one place. The classification system used by most academic libraries, The [Library of Congress Classification](#) helps libraries to organize all these physical items so they become searchable and findable to users. Libraries organize materials using a system which places them in the stacks by categories and subject. This would make it easy to find books on zoology for instance, in the same basic location without running into books on English literature mixed in. To add a different wrinkle to searching today, by using the internet you might be able to find multiple items by using one simple search. This gives you access to a larger section of sources opens up research in a way that searching for one book on one shelf does not.

Libraries organize their materials in ways that make it possible to easily retrieve them. There are several systems to do this, but most academic libraries (in colleges and universities) use the Library of Congress system (known as “LC”). This system essentially assigns numbers to books with similar subjects so they are grouped together. From a patron’s point of view, this system is usually experienced through the Call Numbers placed on the spines of books. This organized system of letters and numbers arranges materials together in a way that makes it easy for both patrons and librarians to find them. Books, journals, videos and many other library materials are arranged by call number. Call numbers are a group of numbers and letters on two, three or more lines. It is a hierarchical list. Once you find the numbers corresponding to the first line of the call number, you proceed to the next line, then the next line and so on. These numbers are essentially location numbers that help us find the materials we need.

Call numbers are also directly tied to another way libraries organize their materials: subject terms. Call numbers are based on subject terms assigned to each book, DVD, journal article or other library material. These subject terms are assigned by the Library of Congress (known as [Library of Congress Subject Headings](#) or LCSH) and help libraries nationwide to organize their materials in a similar way. By using a call number and understanding where the materials you need are stored, it is easy to find whatever you may need in all the libraries using this system.

This organization of knowledge is important for the role of research in society. The organization of materials physically and intellectually is one part of the research process. This organization makes it possible for scholars to do their work.

Chapter 4

Developing a Research Strategy

By Kaeley McMahan

Defining your Topic

A research topic may come to you in several different ways. You may have a topic assigned to you by a professor, suggested on a topic list, or you might have to come up with a topic on your own. Frequently, your topic will change based on the information that you find as you are doing your research, but that is a normal part of the research process! (is this covered in another chapter?)

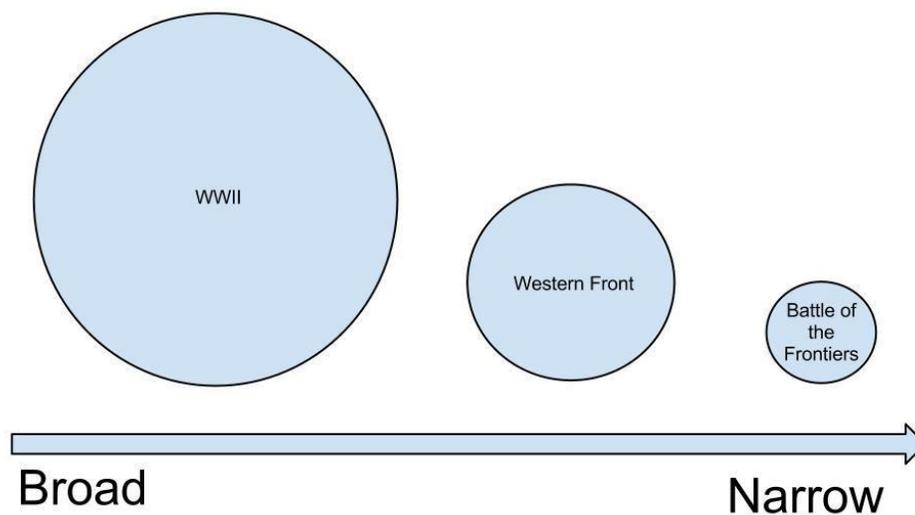
As you work on possible topic ideas, rather than writing your topic as a statement, it can be helpful to think of it as an open-ended question that needs to be answered, and not with a simple “yes” or “no”. This method can help focus both your writing and your selection of resources, as you can choose books and articles based on their ability to answer your research question. As an example, rather than stating your topic broadly as, “The Roles of Women in the Civil War,” you might phrase it as a question, making it more specific at the same time: “In what ways did the roles of Virginia plantation women change during the Civil War?” This question will then be introduced in the beginning section of your research paper.

By rephrasing your broad topic statement as a specific question, you have given yourself several ways of getting to information on the vast subject that is the Civil War. In the example given above, “In what ways did the roles of Virginia plantation women change during the Civil War?”, several categories were used to narrow or limit the original topic of “The Roles of Women in the Civil War.”

- **Geography:** the focus of the question is on Virginia, and even more specifically on the plantations of that state
- **Time:** the majority of your research would focus on the years of 1861-1865, but would also need to consider the years immediately before and after the War in order to make comparisons
- **People group:** the question focuses on plantation women, which would include both white and black (enslaved and freed) women. If the question needed to be narrowed further, you could focus on one or the other of these groups.
 - There are many other people group categories to consider, depending on your topic, including:
 - **age** (infant, toddler, school age, adolescent, teenager, college age, working adult, Generation X, Millennials, etc...)
 - **marital/familial status** (single, never married, married, divorced, widowed, remarried, step-parent/child, sibling, grandparent, etc...)

- **social/economic status** (lower-, middle-, upper-class, college educated, working poor, etc...)
- **national/cultural/racial affiliation** (second-generation immigrant, France/French, North African, European, etc...)
- **religious affiliation** (Evangelical, Catholic, Methodist, Buddhist, Muslim, non-religious, etc...)
- **political affiliation** (liberal, conservative, moderate, progressive, Democrat, Republican, Green, etc...)

Moving your topic from the general statement of “The Roles of Women in the Civil War” to anything more specific using the categories outlined above will likely involve some basic research. You may not start out knowing enough about your broad topic to be able to narrow it down by an appropriate category such as geography or age. This is where reference sources and introductory book resources can be of great help to you. Reference sources are written in order to give the researcher an overview of a topic, including the most important dates, people and events. Reference sources also include helpful things such as bibliographies, which will give you a selected list of books and articles to take you on to the next step of your research and help you refine your topic even further.



This chart shows how more general topics are broader, while more specific topics are narrower.

No matter how you decided upon a topic, because of the amount of time you will spend immersed in researching and writing, it is important to select a topic that you find interesting. Working on a topic you are curious about will help keep you going if your research hits a rough patch and you will be more willing to follow leads and make connections!

Defining your Research Strategy

Even if your professor doesn't give you a specific topic for your paper or project, they will likely give you some basic parameters or criteria that you will need to frame your research. These parameters will usually include items like page length, type of project, number of sources, type of sources and citation style to use. Let's look at each of these and how they will impact your choice of topic and research methods.

- **Page length:** The length of your paper will help to determine how narrow or broad your research topic can be. The shorter your paper, the more narrow and focused your research question will need to be. Generally, the length of your paper will fall in these general ranges: 8-10 pages, 12-15 pages, and 18-20 pages, and as you move into more advanced and complex courses, the number of pages you will be expected to write will be more likely to be in the 20 page range. Clearly, the type of question that can be covered in an 8-10 page paper will be much more focused and specific than what could be covered in a 20 page paper.
- **Type of project:** While most of the techniques in this book will refer to the standard research paper, there are other types of papers or projects that you might be assigned. You could be asked to write an opinion paper, for which you will need to find an issue that has (at least) two sides that can be compared to each other, or you could be assigned to write a company report, where you will need to consult statistical information and analyses. You might also be assigned creative writing assignments, where reflection or free writing is the goal, and resources might not be needed at all.
- **Number and type of sources:** Your professor will frequently indicate the minimum number of sources that must be cited for your paper. Generally speaking, the longer your paper, the more sources you will be required to consult. The number of sources required may also be combined with the type of sources required. One example for a 12-15 page paper could be: "You will need to cite at least 15 sources for this paper, 3 of which must be primary sources, 5 of which must be scholarly books and 5 of which must be scholarly articles. The remainder can be any combination of books, articles and primary sources." It is also important to note whether or not your professor might allow websites as resources. The types of sources required by your professor may impact the types of historical events you can study, or how recent an event you can research. If you are required to use 5 scholarly books, you probably wouldn't be able to select a recent topic, as there may not have been time for 5 scholarly books to have been written. Similarly, if you need to use primary sources, selecting an historical topic may be the best, as you may have the option of using newspaper articles from the time period, or diaries and letters written by those involved in the event. (See Chapter 3, on the Information Timeline.)
- **Citation style:** There are many different citations styles used in academic writing. The two most popular are from scholarly associations: the American Psychological Association (APA) and the Modern Language Association (MLA). APA is used primarily in the social and hard sciences. Citations in this style place the publication date immediately following the author, reflecting the importance of current research to these fields. The MLA style is used primarily in the arts and humanities. Your professor will usually indicate which citation style they prefer for you to use for your papers. Some professors are more strict than others regarding the following of citation rules, so if you

have questions about how to cite a particular source, make sure you ask your professor or a librarian before you turn your paper in! There are also online guides that can give you examples to follow, as well as software that can help you organize and format citations (Zotero, RefWorks, EasyBib, etc...) as you do your research. Whenever you use this type of software, it is important to double-check the citations, to make sure that the output actually follows the rules of your style!

Starting your Searching: Catalogs and Databases

Before you begin to search for resources on your topic, it is a good idea to think about where you are searching and the search terms you are going to use. While it would be great if you could confidently use the same search terms and strategies in every library catalog or database, the reality is that they are usually designed differently from each other, though often for good reasons, and knowing a little bit about what is actually in library catalogs and databases will help you get the most useful information out of them as you do your research.

Library Catalogs: Library catalogs include a wide variety of items that have been collected by a library over many decades, such as books, government documents, microfilm, films (dvd, vhs), rare books and archival collections. These items will have varying amounts of information included in their catalog records. Many older items may only have the basic information that you would need for a citation, such as author, title and publisher. Newer items, published in the last ten years, may also include the table of contents for the book, reviews, or summaries from the publisher.

Citation-only databases: As can be inferred by their name, these types of databases only include the information included in citations: author, title, journal, volume, etc... They may also include subject headings (see Controlled Vocabulary section below).

Abstract databases: These databases include a little more information, in that they have a summary of the article, either written by the author or the database company. These articles usually are 250-500 words in length, and should include the main points of the article and important keywords that would help someone searching for the article in the database to locate it.

Full-text databases: Full-text databases include the complete article within the database, which could be 50,000-100,000 words (I have no idea if that is right!!). Any search you do in one of these databases will be searching through the full length of all the articles it contains.

Think for a minute about how you might need to change the search terms you use, or how many terms you use, based on what type of catalog or database you are using for your research. The smaller the amount of information you are searching (i.e. a citation-only database), the more broad your search terms should probably be. Your search terms might include the name of a country, rather than the specific city you are interested in, or a war rather than a specific battle. In a full-text database, on the other hand, you can be very specific, searching for a particular person or location, which might not be possible in a citation-only database.

Brainstorming Search Terms

As you do your research, it is a good practice to keep a running list of search terms you have used, and in what combination (see below). You can start with a list of terms you have brainstormed based on your initial research topic or question. Think of synonyms or variations of your terms, as an author could use a variety of terminology in their book or article. If you are looking at studies on girls aged 13-18, terms such as “high-schooler,” “teenager,” “adolescent,” “female,” “young woman” or “pubescent” could all be possible descriptors of that age range and gender. As you read the sources you find, continue to add new terms to your list. You may find that researchers in the area you are looking at all use the same term, or they may use variations of a term. Also brainstorm narrow and broad variations of your terms that you can use in the various types of databases and catalogs. If you are looking for information on an event that happened in Paris, you could also use the broader term of “France” or the more narrow name of the specific arrondissement in Paris where the event took place.

Controlled Vocabulary

What did you call a Coca-Cola or Pepsi when you were growing up? Did you use those brand names, or did you use other slang terms, such as “soda” or “pop” instead? You probably didn’t use other terms such as “carbonated beverage” or “caffeinated drink”, but authors writing from a business analysis or scientific perspective might.

Controlled vocabularies, such as those created by the Library of Congress or the editors of online databases, are a way to bring these various terms underneath one standardized heading so that it is easier for researchers to find the relevant books and articles that they need.

Academic libraries use Library of Congress Subject Headings to describe the contents of books, films, journals, and other items that they collect. When you search for a book in a library catalog, you will see at least one subject heading, and frequently four or five, which give information about the most important aspects of that book. Similarly, databases will include subject headings to describe journal articles, either the same Library of Congress Subject Headings used in library catalogs, or specialized subject headings for a specific discipline.

These subject headings can be very helpful in expanding your search results. If you find a book or journal article that is particularly good for your topic, take a look at the subject headings. These will usually be links, and clicking on one of the links will lead you to other books or journal articles that share that subject heading. While you may have already located some of the titles that share that subject heading, there may be others, which for one reason or another, did not come up in one of your previous searches.

Boolean, Truncation, and Advanced Searching

Boolean searching is an incredibly powerful research tool, and you may already be using it without even knowing it! When you Google something using more than one search term, you are using what is called “Boolean logic”. Google assumes that what you are looking for will

include all of the search terms that you have entered, and automatically inserts an invisible “AND” in between each of your terms.

And, Or and Not

“AND,” “OR,” and “NOT” are Boolean operators. You may see these operators in the advanced search section of your library’s catalog or in article databases, usually as drop-down options that allow a researcher to combine search terms or phrases. While Google uses the “AND” operator automatically, the “OR” operator must be manually inserted, and the “NOT” cannot be used at all.

“AND” will combine your search terms so that any item in your list of results will include all of the search terms you entered : “world war I” and “nurses”. This type of search will narrow your list of results, as any result must include both search terms. Adding any additional search terms will narrow your list of results even more. Using the above example, you could add another search term to limit by geography (France, Belgium) or a specific organization (Red Cross, Army Nurse Corps).

“OR” will expand your list of results. This is especially useful when parts of your topic can be described using multiple or synonymous terms. Any of the search terms you enter will be included in your results list: “world war I” OR “great war” AND “nurses”. In this example, both “world war I” and “great war” are terms that are used for the same event or time period. Authors writing about that time could use both terms, so it would be appropriate to include both as search terms, inserting the “OR” to indicate that either of the terms are acceptable in your list of results.

“NOT” excludes certain terms from your results list. There may be times when you get a large number of results that you are not interested in and you would like to exclude them from your search. An example of this might be: “world war I” OR “great war” AND “nurses” NOT “france”. In this case, you actively want to eliminate sources that highlight France in their coverage of nurses in World War I.

It may help to think of Boolean searching mathematically. If you think back to how you did algebraic equations, these search strategies are processed in the same manner. Using the “OR” example from above, your search would be represented this way: (“world war I” OR “great war”) AND “nurses”. This construction makes it clear that the two terms “world war I” and “great war” should be searched and the results merged, and then combined with all results for “nurses.”

Quotation Marks

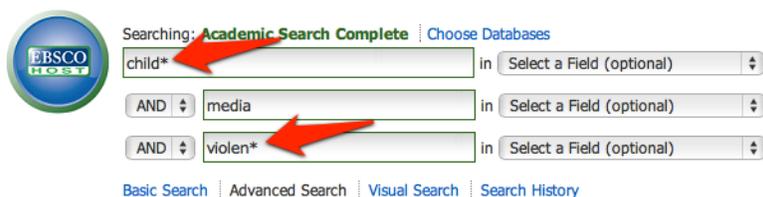
In the examples above, quotation marks have also been incorporated into the search strategy. Quotation marks are extremely useful when one of your search terms is actually a phrase. In the examples above, using quotation marks around “world war I” specifies that the searcher wants those words to appear together in the results list. Because the words in that phrase are very common, and are very close to another related phrase (“world war II”), you will want to use the quotation marks to verify that those specific words, in that specific order, are the ones you are

looking for. Using quotation marks can also be useful when you are looking for information on a specific person. Searching for “martha washington” will ensure that you don’t get sources that include Martha Stewart and Washington Irving, if such a source existed!

Truncation and Wild Cards

Truncation and wild card techniques are some of the most useful search strategies when searching in online databases and library catalogs. When using truncation or wild card searching, a letter, or multiple letters, in a word are replaced by a symbol, which allows for more flexibility in your searching. In the majority of databases and library catalogs, that symbol is an asterisk (*), but you may need to check to make sure of the symbol when you use an unfamiliar system. The reason truncation is so powerful is because you can replace multiple searches with a single search by placing the truncation symbol in the correct spot. Using our previous example “world war I” AND “nurse” we would change the search terms to “world war I” AND “nurs*”. By changing “nurse” to “nurs*” you will get results that include the following terms: nurse, nurses, nursed, and nursing. Note that the “e” was taken away from the end of “nurse” and replaced with the asterisk. This allowed for changes in endings, such as “-ing”, to be included in the search results. You can see how powerful this type of search can be when we construct a full search query: (“world war I” OR “great war”) AND (wom* OR fem* OR gender* OR nurs*). This search query gets both names for the time period/event we are interested in, as well as a number of synonymous terms that describe our interest in the roles that women played during that time period.

A wild card search is similar to truncation, in that it usually uses the asterisk as its symbol, and it also replaces individual or multiple letters in a search term. The difference comes in the location of the asterisk in your search term. The asterisk will always be placed at the end of a word if you want to truncate it. When you use a wildcard, the asterisk can be placed at any location in the search term. This can be useful for words such as “wom*n”, where the asterisk stands in for either “a” or “e”.



Notice the use of "*" truncates a root word.

Advanced Searching

The search techniques discussed so far have applied to basic keyword searching, using keywords related to your subject or topic to find books and journal articles. Most library catalogs and databases include other more advanced features that can be used in conjunction with, or instead of, basic keyword searching.

The default settings for most library catalogs and databases are for keyword searching, with no limits. By using the advanced search page, you can include special limits in your search, such as publication, publication date, location, or type of article. This can be particularly useful in full-text databases when you frequently have thousands of results to a search.

- **Publication:** Most databases allow you to select a specific journal that is covered in the database, and then complete your search within that journal.
- **Publication date:** If you are interested in the discussion of a particular topic during a specific range of time, you can limit to articles or books published during that time (i.e. The Cold War, 1945-1990), or if you want to look at the discussion of a topic before a certain event happened, you can limit to publication before that date (i.e., al-Qaeda before September 11, 2001).
- **Location:** When searching for items in a library catalog, you may want to limit by location, and thus be able to search for items located in the Rare Books collection, or in Government Documents.
- **Type of item:** Both library catalogs and databases include a variety of different types of items. Library catalogs can include books, films, manuscripts, dissertations and government documents, while databases can include newspaper articles, scholarly articles, performance or book reviews, book chapters, or white papers. By limiting to one or more of these types, you can exclude items that you are not interested in or don't meet the requirements of your project (i.e., newspaper articles or book reviews).

In an EbscoHost database, you can often limit searches ahead of time using these fields.

Non Electronic Search Strategies

One type of searching we haven't discussed yet is serendipity! Serendipity during research refers to finding a resource when you weren't expecting to, or while you were looking for something else. This is a perfectly legitimate way to find information, and often results in the most interesting parts of your research. There are a few ways of helping serendipity along, however.

- **Browse the stacks:** When you find a call number area where many books on your topic are located, leave the computer behind and go browse the shelves. Seeing the books on the shelf will change how you read the titles and what you pay attention to. You may see other books nearby that also relate to your topic.
- **Look at a journal issue or volume:** You may find one article on your topic, and find out that it is part of a theme issue on a particular topic or in honor of a particular researcher in the field. These issues can be really useful and look at your topic from a variety of angles.
- **Follow footnotes:** Footnotes aren't just for citing your sources! In scholarly books and journal articles they can be a great way to find additional sources, or get a glimpse of the scholarly debates that surround a topic. There may also be bits of information in the footnotes that weren't able to be expanded upon in the main discussion of the article or book.
- **Time:** Give yourself a little time as you start your research. Follow a few leads and see which one interests you the most, and then focus your time on that area. Don't wait until you are too far along in the process to find what you would really like to research!

Chapter 5

Reference Resources

By Lauren Pressley and Audra Eagle Yun

You have probably noticed that most libraries have a separate section of the building devoted to reference sources and services. But have you ever been told what makes those books special or causes them to be treated differently? Reference sources are authoritative works that help you locate information about people, facts, and ideas. These sources can help you find the date of an important event, major achievements of an individual or organization, or a definition of a term or concept. These books are often used to find specific facts, rather than written to be read cover-to-cover, so they are often held in a special part of the library to be used for a short period of time rather than checked out to a user over a period of days.

This section of the library often also has a desk that is staffed by a reference librarian. Reference librarians can help you with a number of steps of the research process from coming up with a good question to ask, to finding useful sources, to evaluating websites. Further, as libraries add electronic versions of reference sources, a librarian can help you navigate both the print and online reference collections to find just the piece of information you need.

Reference sources are typically used in two different ways. One use is to get background information on a topic that you are researching. For example, if you use Wikipedia to find out the general history of an event you will be writing about, you are using Wikipedia as a reference source to find out the context of the topic you are researching. This is not information that you'll paraphrase, quote, or need to cite in your work, as the research you are doing at this point in the process is more to help you learn what information you'll need to find along the way. Library-owned reference sources often provide this same type of information, but often in academic sources and with a higher level of reliability.

The other way references sources tend to be used is to find specific facts to support a point being made in a paper. For example, if you needed to find the percentage of mothers age 20-25 who have a college degree, you would need a reliable source, and a reference librarian could help you locate it and cite it. If you were to look on the open web, you might find a number you would consider using, but you would probably still need to check with a reference librarian to verify the source is reputable and trustworthy.

With these two approaches to reference sources you will often find yourself in the reference department as you start a paper, looking for the general context for your topic, and at the very end of writing your paper, as you look for specific details to bolster your argument. This chapter will explain the types of sources you are likely to find.

Why Reference Sources?



Reference sources can be a great place to start your research because they provide quick, authoritative introductions to a topic. They offer summarized, factual information in a clear and organized way. Common reference sources that provide this type of information are encyclopedias and dictionaries. Reference sources, such as encyclopedias or literary criticisms, will often cite additional sources such as periodical articles and books. Further, they often provide a good bibliography for you to explore in your research.

What makes them different from other sources?

One unique feature of reference sources is that they are not meant to be read from cover to cover; in fact, they are written for easy discovery of exactly the facts and figures you want to know! Reference sources often include an index by topic and online reference sources are easy to search using keywords.

What are some examples?

There are many types of reference sources, including dictionaries, encyclopedias, thesauri, directories, and almanacs. More broadly, reference sources can also include bibliographies, manuals, handbooks, atlases, and gazetteers. You can find these resources in print and online.

Encyclopedias

Encyclopedias are more varied than you might think. You might have used a general one in elementary school or high school. You might have heard people refer to Encyclopedia Britannica as the “gold standard” for encyclopedias. However, you might not have come across a subject-specific encyclopedia before. You can find encyclopedias on nearly any discipline from philosophy to American pop culture. The thing that all encyclopedias have in common is that they include brief, factual information about topics or concepts. They often provide images and references to additional works. Most are several volumes long, though sometimes a very

specific one might have just enough content for one or two volumes. Another option, Wikipedia, which is a web encyclopedia with user-contributed entries, is a good starting place for your research because it points to other reference sources.

Dictionaries

Dictionaries are like encyclopedias, but instead of providing a contextual background to a subject, a dictionary lists terms in alphabetical order and gives each word's meaning. Some dictionaries include equivalent words in another language, such as an English to Spanish dictionary. Others are subject specific, diving into the minutiae of discipline-specific language. Most dictionaries are just one volume long, but some begin to look more like encyclopedias. The Oxford English Dictionary, for example, contains 20 volumes, but is really a dictionary. In addition to the definition of each word, the OED contains all the definitions a word has had over time as well as references to the first few times any word has been documented as used.

Thesauri

Thesauri provide synonyms for words with related meanings. You might choose to use a thesaurus when you are looking for alternative definitions to words you find yourself using frequently. Thesauri often include antonyms, or words with the opposite meaning of the one you look up, which can also be helpful when trying to determine alternative ways to say the same message.

Bibliographies

Bibliographies help provide information about various ideas by providing references to books, films, or recordings that deal with the topic. Bibliographies typically include citations that reference the work, author, publisher, and place of publication. Sometimes they include annotations, or brief summaries of the works they cite as well. This information is not something you would cite in your own research, but is rather more like a roadmap that points you to the sources that will be useful in your research.

Handbooks and Manuals

Handbooks and Manuals contain practical information on a topic. You might think of this very book to be a type of handbook or manual on how to do research. Handbooks on academic disciplines are gateways into the thinking of the field. Manuals are similar in that they contain practical information, but they are more instructional in nature. Manuals come with most electronic devices that you purchase, but you might also find manuals explaining how to use specific resources or how to approach skill-based work in various fields.

Almanacs

Almanacs include calendars, basic facts, and statistical information about people, places, and events. These sources contain specific, detailed information you might need to have to cite in a paper. For example, if you were writing a paper on Tibetan culture and wanted to find a list of the holidays celebrated there and when they occur, you might look for a Tibetan almanac. If you

wanted to find how many women live above poverty for a sociology paper, you might want to look for an almanac of the United States.

Biographical sources

Biographies and other biographical sources contain biographical information about individuals such as birth and death dates and major accomplishments in a certain field. If you have a paper to write on a theory or a point in history, you could use biographical sources to find background information for a subargument or point in your paper. If you are writing an entire paper on an individual, you will likely need more information than you'd find in a biography in the reference section. However, a biography in the reference section will contain references to other sources that you would find useful in your research process.

Atlases and Gazetteers

Atlases and Gazetteers are two sources that you can primarily think about as related to geography. Both provide a variety of maps and historical geographic information. These are useful if you need to understand where something is situated in the world, but can also be useful to see how lines have been redrawn over time. For example, if you were writing a paper about a specific county over time, using atlases from the past or atlases that show shifting lines over time would help you understand if you also need to be researching surrounding counties because at one point in time the county you are interested in covered that land area. Gazetteers also include geographical dictionaries to define places and locations.

Directories

Due to the internet, directories are less common than they used to be, but sometimes still answer questions you can't answer on the web. Directories include information about people or organizations such as addresses, contact information, company services and products, and sometimes biographical information, or company histories. This can be helpful if you are trying to understand what organizations exist that deal with the issue you are researching or if you know you will need to find specialized information and you need to determine what groups exist that might be able to provide it.

How do I find reference sources?

Your library has reference materials online and in print. Print reference collections are typically made available near the reference desk. Some reference sources are shelved near the desk, where you can find them yourself if you'd like, and others may be behind the reference desk. Although most printed reference sources do not circulate (they cannot be checked out), you can easily photocopy or digitally scan and save the information you need.

You will also notice that there are some reference books shelved in the main library bookshelves, or stacks. These can often be checked out. These are shelved with the main library books because the librarians have determined that those specific books are not critical to most of the reference questions that people ask, because they will be more useful if people are

able to check them out, or because there is a newer version of the source that is kept in the reference department.

You can find reference sources by doing a search in the library catalog for a specific title or type of reference work. You can also limit your catalog search so that your search location is “reference.” For a refresher on how to search, check out [Chapter 4](#). The main thing to keep in mind when searching for a reference source is to start with a much broader search than you would if you were looking for a regular book. This is because the set of books in the reference department is much smaller than the total collection. If you were to search with a specific search string that returned, say, 10 books from a collection of over a library’s collection of million books, using that same search string to search the much smaller reference collection of, say, 50,000 books might not find any that fit the search string.

Another reason to search for a broad term is that many reference books are very general, but contain specific information. These books can’t be listed in the catalog under every specific thing that they cover in detail, so they’re just listed generally. If I were interested in learning more about a feminist approach to social epistemology in philosophy, I can guarantee I won’t find a reference source on that topic using the search string feminist AND “social epistemology” AND philosophy. However, if I search for philosophy, or maybe even “social epistemology,” I’ll find an encyclopedia on the general topic that includes a section on exactly my topic.

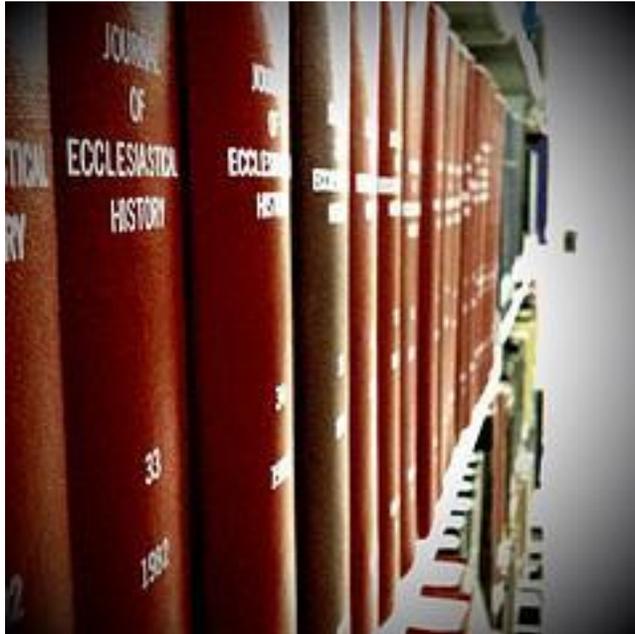
Further, many reference sources are going online. Online reference sources are usually listed on the database page of your library’s website. These aren’t databases in the typical sense of a database of scholarly, peer-reviewed articles. These are in databases of reference sources. For example, you can use the Encyclopedia Britannica in paper in the reference department, or you can use the online version of Encyclopedia Britannica. The online version will actually have different information. It can be updated more regularly to be more current, include newer topics, and can go into more detail because there is no space constraint.

Some online reference databases will search across multiple resources. For example, you can search for “Maya Angelou” quickly and easily across multiple biographical reference sources online, instead of browsing one printed biographical reference source at a time. For more information on using databases, check out [Chapter 7](#).

Chapter 6

Finding and Evaluating Books

By Lauren Pressley



When working on a college level paper, you might hear from professors that you need a certain number of resources. Many times you will be told that you need a certain number of different types of resources. Often, you will be told to find books. Luckily, the library is here to help!

Books can be very useful for research and for finding out more about your topic. It is worth noting that today you have the option to use paper or electronic books (commonly referred to as ebooks). Sometimes the library will have a book in both paper and electronic formats. Sometimes it will have it in one format or the other. If your professor requires a specific number of books for an assignment, it is worth verifying with them if the books need to be paper or can also be electronic. Sometimes the professor assigns you to find books because they want you to learn how to navigate the physical library. Other times they want you to be able to use the catalog to find a book no matter the format.

Why books?

Books are a really important type of publication. They are long forms of writing that convey a lot of information on a topic. They generally have a larger scope than other forms of academic writing. You can often use the introduction of a book to get a good summary of the topic, and specific chapters will often have in-depth content related to your paper.

Because books are broader than other forms of writing, when you are seeking them out you might need to think more broadly about the content. For example, if you are writing a paper on the last years of the Atlantis shuttle, you would probably need to find a book on the shuttle program, on NASA, or on space exploration, and then see if there is a chapter on Atlantis. In this case you would not use the entire book for your paper, just the relevant chapter, but the entire book gives context to the Atlantis shuttle in case you need it.

In fact, many academic books are never read cover-to-cover. You might choose to do so for a topic that you particularly care about. In most cases, though, people read the relevant chapter for their topic, or perhaps just a relevant subsection in a chapter. You can generally trust these small units, though, because for an author to publish a book, they are knowledgeable on the entire subject, and have been vetted by a publisher, and if it made it into a library, by a librarian as well.

Types of Books

There are many types of books. For example, you are likely already familiar with the difference between popular titles, like those you find in bookstores, and scholarly titles, like the ones that make up a majority of the library collection.

Another difference in types of books is between a monograph and an edited book. A monograph is a book written by one author on one topic. These books are focused and maintain one voice. Edited books have an editor or editors who pull together chapters by a variety of authors. These books sometimes address various topics as well, with each chapter focusing on a specific one. In addition, there are many other categories of books you might come across in the library. For example, academic libraries often include rare books. These books are often kept in a special section of the library and are not circulated, or checked out of the library. In addition to being held in a separate section or room, rare books tend to have more limited hours for access. Because of the special regulations on use, planning ahead to use rare books is recommended. Books are considered rare for a number of reasons including: date of publication, small print runs, unusual materials included in the binding, or other aspects that make the book uncommon or valuable.

Reference resources are typically located in the reference department and are shelved using the classification system of the rest of the library. Like rare books, these books do not circulate so they'll be available to anyone with a research need whenever the library is open. Reference books are useful resources especially as you begin your research, as they provide both background information and detailed factual data. These books are rarely read cover-to-cover. You can learn more about these resources in the chapter on reference resources.

Finally, sometimes books will be on course reserve. Your professor might reserve a book for your class on course reserve. If they choose to do this, it is because they want the book to be available to the class throughout the semester, and not checked out of the library by one person. You can access the course reserves for your class through the library website and the circulation desk.

Using the Catalog

All libraries have catalogs to help you find materials. At this point, most of them act a lot like a Google for physical objects. You can type in a few words to find relevant materials in the building. Catalogs also include online materials that the library has paid money for you to be able to access them.

Each library has their own catalog, but once you learn to use one, the skills are applicable to any future academic or public library you might use. Generally you can search by a known piece of information (like title or author) or by a keyword. A keyword is just a term that summarizes what it is that you are looking up.

If you need a refresher in searching, see [Chapter 4](#).

What is WorldCat and How Do You Use It?

In addition to a catalog for your own library, you can choose to use WorldCat. You can [access it](#) on the free web or a more high-powered version through the library website.

WorldCat is a catalog that includes library records from all the major libraries. If you search for a book in WorldCat, but your own library does not have it, it can tell you the nearest library that does. This is really helpful if you have procrastinated for a paper and really need a book that your library does not have. If another library in the area has it, you can see it there. (If you have a little more time, you can use something called InterLibrary Loan, but we will talk about that a little later.)

Getting the Most Out of Google Books

Google Books is another way to search books from all over. You can access it here: <http://books.google.com/books> Google Books allows you to search for content similarly to how you would in a library catalog. Once you find a book that is interesting you can sometimes actually read the text in the browser. Depending on the agreement with the publisher, Google Books can let you read the entire book, a few pages, a section, see the sentence where you search terms shows up, or just give you general information about the book.

The general information can be very useful, too. Again, depending on the agreement with the publisher, you can find various levels of information that can help you determine how useful the book is. You will be able to find out the author, publisher, date of publication and other data about the book. But you will often also be able to find a summary, and perhaps a way to search the full text, see images included in the book, read reviews, or see other books that cite the work you are considering.

Google Books is also paired up with WorldCat. So straight from Google Books you can click “Find in a library” and you will be presented with a list of libraries that have the book. You can also use this to find out if your own library has it.

A really good strategy for using Google Books for research is to use it to search for books, create a list that might be relevant, use the full-text features to read as much as you can, then check out the ones that are most relevant so that you can have them to flip through as needed when you are working on your paper.

Physically Locating Books

- [A -- GENERAL WORKS - WP version - Word version](#)
- [B -- PHILOSOPHY, PSYCHOLOGY, RELIGION - WP version - Word version](#)
- [C -- AUXILIARY SCIENCES OF HISTORY - WP version - Word version](#)
- [D -- WORLD HISTORY AND HISTORY OF EUROPE, ASIA, AFRICA, AUSTRALIA, NEW ZEALAND, ETC. - WP version - Word version](#)
- [E -- HISTORY OF THE AMERICAS - WP version - Word version](#)
- [F -- HISTORY OF THE AMERICAS - WP version - Word version](#)
- [G -- GEOGRAPHY, ANTHROPOLOGY, RECREATION - WP version - Word version](#)
- [H -- SOCIAL SCIENCES - WP version - Word version](#)
- [J -- POLITICAL SCIENCE - WP version - Word version](#)
- [K -- LAW - WP version - Word version](#)
- [L -- EDUCATION - WP version - Word version](#)
- [M -- MUSIC AND BOOKS ON MUSIC - WP version - Word version](#)
- [N -- FINE ARTS - WP version - Word version](#)
- [P -- LANGUAGE AND LITERATURE - WP version - Word version](#)
- [Q -- SCIENCE - WP version - Word version](#)
- [R -- MEDICINE - WP version - Word version](#)
- [S -- AGRICULTURE - WP version - Word version](#)
- [T -- TECHNOLOGY - WP version - Word version](#)
- [U -- MILITARY SCIENCE - WP version - Word version](#)
- [V -- NAVAL SCIENCE - WP version - Word version](#)
- [Z -- BIBLIOGRAPHY, LIBRARY SCIENCE, INFORMATION RESOURCES \(GENERAL\) - WP version - Word version](#)

For more detailed information, see <http://www.loc.gov/catdir/cpsolcco/>.

Physically locating books can sometimes be a challenge. Your college library is probably bigger than any other library you have ever used. Luckily, with a little practice, it can become very easy to navigate the system.

Most college and university libraries use Library of Congress classification. This is a little different from the Dewey Decimal System you might have used in school and public libraries before college. One thing to note, though, is that both of these systems put similar subject books together. For example, if you are a philosophy student, you will find yourself in the B section a lot of the time. If you are interested in the sciences, you will often find yourself in the Q section. Interdisciplinary studies, like Women's and Gender Studies or Environmental Sciences will often find themselves all over the library as relevant titles might be in different sections like business, science, or history. All of this is to say that once you have determined a major, you will find yourself in the part of the library that supports that subject most of the time.

The Library of Congress System uses letters and numbers to help you find your book, to help librarians understand what is in the book without reading it, and to help people put books away.

The first letters identify the subject and are arranged alphabetically. The numbers immediately following the letters help refine the subject more specifically, and are read as whole numbers. The third row often leads with a decimal and sometimes a letter. This row is ordered alphabetically and then as decimal numbers. So in this row, “.E55” would go before “.E557.” The last row is the date published, and is arranged by whole number again.

If you ever have a problem finding a book, please ask someone who works in the library. Sometimes a second set of eyes can help. Other times the book has been mishelved or is missing and the library needs to know so they can look for it.

Using Electronic Books

Ebooks are really useful, but can also sometimes be a bit of a pain. We are still in the early days of ebooks. Since we are in the early days people are still figuring out how to publish them, how to provide access to them online, and how to read them, among other things. Yet, at the same time, there are a lot of really relevant ebooks out there that libraries need to provide access to. So at this point we are doing the best that we can do for the users.

What do you think of when you hear the phrase ebook? A Kindle? A Barnes & Noble Nook? Do you think of a website? Do you think of a regular book? At this point any given person might have a different idea of what an ebook is based on their own background.

In most libraries, ebooks can be accessed through the catalog. If you are doing a search, ebooks might pop up in the results alongside physical books. However, with ebooks, if you click a link you will have the option to open the book in the browser. Now, at this point in time, different companies have different ways of letting you access the content. Some have you read it right there. Some have you “check out” the book to your account. Some will let you download them and put them on devices like the Kindle or Nook. Some are strictly for using on your computer. If you are just doing a quick spot of research, you do not need to worry too much about the details. If you know this particular book will be relevant for you for the rest of the semester you might want to look into the extra features you get with the publisher. A librarian can help you figure it out. In fact, we know this is really complicated, so we are ready and waiting for any ebook questions you might have!

InterLibrary Loan

InterLibrary Loan is an awesome service that the library provides for your research. No library can have all books and articles available. Not only would the cost be astronomical, but no one has that much space! Librarians have special training to help them identify the primary needs of an institution and find the best resources for those needs. In some cases, though, you might have an interest that is just out of scope for the general needs of the college, or you might want a specific title that has not been purchased at that point in time. In these cases you can make use of InterLibrary Loan, or ILL.

ILL is a system libraries use to share materials with other libraries. You can fill out a request, send it, and the library will do its best to get the item for you. If the item is short, like a book chapter, it will often be emailed to you. If you are requesting an entire book, it will come to the library by mail and you will be able to pick it up. As you might guess, you can get the electronic chapter by email more quickly than the mailed book. However, there still might be a short delay in getting the electronic material as in many cases a library staff member at the other library has to take the time to scan in the chapter before emailing it off. It is worth keeping the short wait in mind when using ILL. If your paper is due in three days, your best bet is to rethink your search strategy and find something in your library.

Using a Book

At some point you will have an actual book to use. In fact, you might have whole stack of them. This can be intimidating when you have a limited amount of time to write your paper and you definitely do not have the time to read all the books. Luckily, no one expects you to read that stack of books cover-to-cover for your paper. Here are a few things that will help you make use of them:

Table of Contents

Use the Table of Contents to understand which chapters you might want to read more fully. The table of contents also tells you how the author arranged the book and gives you a sense of the context for the chapters you care most about. The table of contents might also help you refine your paper topic. For example, in the case of the Atlantis shuttle above, you might find that the table of contents shows a chapter for each shuttle in chronological order. This can help you find that the first shuttle was Columbia and give you something to compare and contrast in your paper.

Index

The index is a goldmine for helping you find information quickly. Think of all the keywords related to your search topic and check the index to see if they're mentioned. You might find that related keywords all are listed on pages close together, which would lead you to find entire sections of the book that are on your topic that might not be easily identifiable within the table of contents.

Appendices

Appendices are typically extra content at the end of the book. If your book has an appendix you might find interviews, primary source documents, additional charts, or other gems that can provide support to your research. Often appendices are filled with interesting information that can make a significant difference in your research.

Bibliography

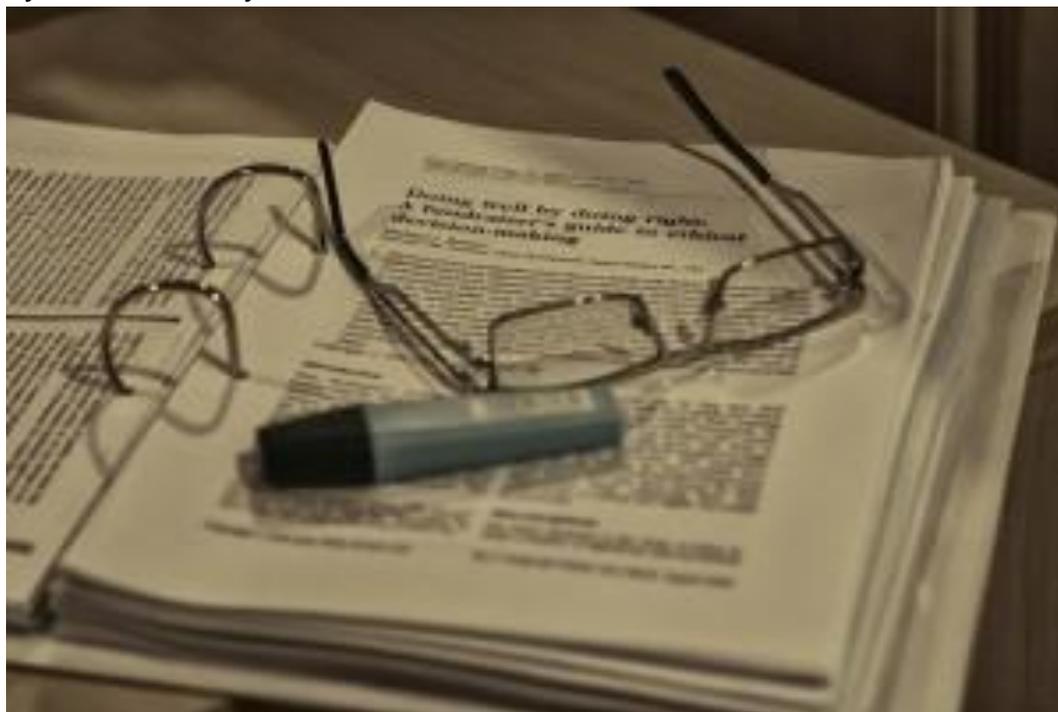
Newton is famously quoted for saying, "If I have seen further it is only by standing on the shoulders of giants." This saying means that new findings and discoveries are made only because of the intellectual work done by earlier scholars. Bibliographies help you further your research by building on others' research.

If you find a source that is completely relevant to your topic, take a look at the bibliography. It will include a list of perfectly relevant books, articles, and websites for your topic. Of course, you can't just use that bibliography for your paper. That would be a form of cheating. However you can use the bibliography to create a list of other sources you should look into. Best of all, you will have all the necessary information for how to find those sources. If you need any help, you can always stop by the reference desk and they can help you determine how to find any books you are most interested in as well as help you request them through ILL.

Chapter 7

Finding and Evaluating Articles

By Lauren Pressley



When working on a college level paper, you will inevitably be told to find articles. Articles are much different from books, but can be even more useful for research than books for some subjects. Luckily, the library is here to help!

Articles can be very useful for research and for finding specific facts to support your research. As with books, you have the option to use paper or electronic articles. Sometimes the library will have an article in both paper and electronically. Sometimes you'll have options for different types of electronic files. Sometimes it will have it in one format or the other. In fact, electronic articles have been around and mainstream far longer than electronic books, so it will be more common to find articles only in electronic format.

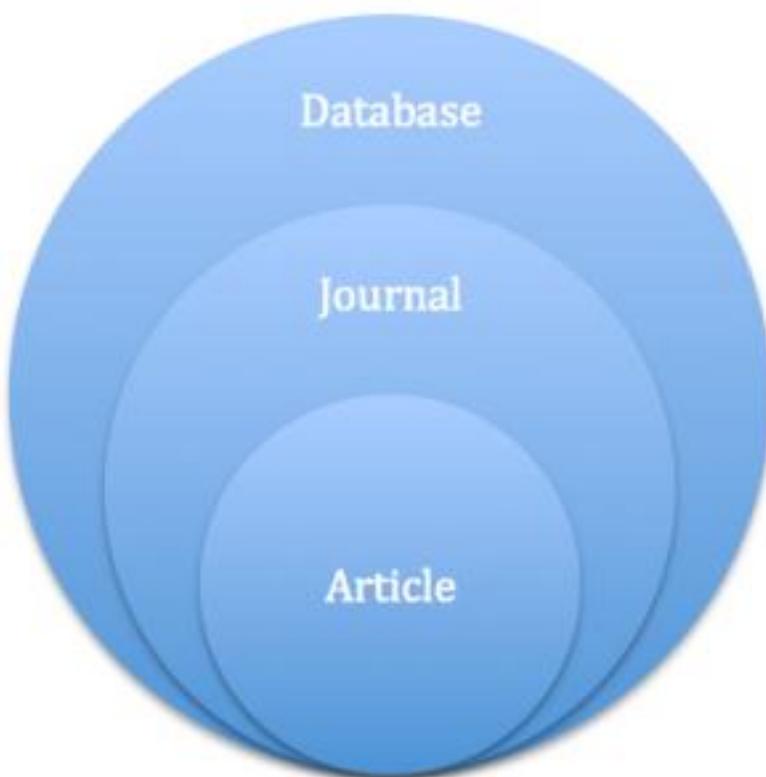
Why articles? What are they?

Articles are the embodiment of scholarly communication. They are shorter forms of writing with a narrower scope that convey a focused amount of information on a topic. Scholarly articles (or peer-reviewed, depending on the terminology your professor prefers) are written to share new knowledge as it is discovered. Once an idea becomes more established or a broader base of knowledge is found about it, people might consider writing an entire book on the topic.

Articles are fairly narrow and can be very current. Because of this, when you search for them you might need to think more specifically about what you're looking for. For example, if you are writing about a specific civil war battle you might need to narrow your search further to be about the officers in charge at that battle, the demographics of the fighters, or terms relating to the outcome.

You might choose not to read every article you find from front to back. Articles are fairly dense, and although they're not books, they can be quite long. Poorly constructed searches can return thousands of results, and you won't have time to read all of them. Whenever you find an article that looks like a good candidate, it would behoove you to read the abstract. Do not go by the title alone. It can be misleading. Once you read the abstract, and know it's a good article, reading the introduction and conclusion will give you a good sense of what the author is trying to say. If the article remains a good candidate for your project at that point, you can read it with a close eye for details that will support your research.

Databases vs. Journals vs. Articles



It can be confusing to know where to start when looking for articles. You can easily find links to journals and databases on library websites, but it's not always clear how these links might help you find articles. This section will help clarify what these resources are so you will know how to use them to find the articles you need.

Article

Articles are the discrete piece of content that you are looking to use in your scholarly paper. These tend to be written by an individual or a group of individuals. Good scholarly articles tend to be fairly long, often in the neighborhood of fifteen pages or more. They also have thorough bibliographies that can help lead to you other resources

Journal

Journals are collections of articles. Scholarly journals come out periodically which is why you'll sometimes hear them referred to as "periodicals." Journals tend to be published on a given subject area and sometimes have more specific issues focused on a narrower topic within a given subject.

Most libraries integrate journal searching into their catalog. You might find this helpful as you become more familiar with your major. Once you know more about what journals useful articles are published in, you might find yourself looking at current issues for inspiration on research topics. If so, you could search the catalog for them. Another reason you might search for journals is if you're starting with a citation. An article citation will include the journal title and the date of publication. This is all you need to track down the article!

Though most journals are electronic, you can find many of them in paper. Current ones are shelved together, first by volume and then by issue. For example, all of "volume 1" would be shelved at the beginning of the title on the shelves, and "volume 23" would be shelved together much later. Within each volume there will be several issues, ordered numerically. Older journals are bound together into books. For example, all the issues of a journal in a given year might be bound together into one book. That book will look like a regular book on the shelves in the library. So, if you're looking for an older journal and find yourself looking at shelves of books, there is a good chance your journal is contained in one of the books in front of you.

Database

Databases are online collections of journal citations or articles on the internet. This can be extremely helpful, especially when you're not sure where to start and want to search across a broad number of journals. When you are told that you need a specific number of articles on a topic for your paper, database searching will be your best bet.

General vs. Specific Databases

When you are starting research in databases, you will need to determine if you want to start with a general database or a subject specific one. General databases, like EbscoHost's Academic Search Premier or ProQuest, are really useful when you are totally new to a subject and are not familiar with subject specific databases. These databases can also be especially helpful when you are doing interdisciplinary research as they span many different subjects. The drawback of general databases is that because they span many subjects, if your search is not very precise, you might get search results that include articles completely irrelevant to your search.

Subject specific databases tend to include articles from journals relating to a specific discipline. This is really helpful because they are focused, giving results that are focused as well. They sometimes have journals that are not part of the larger general databases. They also can be more focused in the additional information they provide about each article, allowing you to search on more variables.

Why is there an encyclopedia in my Databases?

Some library websites include other resources along with their databases. In this case, they are providing one place to find many of their electronic resources. If your library website does this, you will likely find encyclopedias, dictionaries, and other reference resources listed alongside your databases. You'll want to read the information about your specific database if you are unclear if it's a database or other resource. Databases will say that they include scholarly articles and maybe even list the journals the database collects.

Locating Your Articles

Once you have found a database or journal and used that to find an article, you will need to get the article. Luckily, many databases include the full text of the article so that you don't have to track down the paper version. If it is included you will be able to click on the "full text" link and use that to access the text.

Sometimes, you'll have options for the full text. Most of the time these are described as PDF or HTML. PDF documents are files that you can download and save to your computer. These documents tend to maintain the formatting of the journal, so reading from PDFs allows you to see the original version of the article, with page numbers, and the images located in the text as the author and editors intended. HTML is another type of format for scholarly articles. These are really quick to load, but harder to save to your computer. The benefit of HTML articles is that they frequently have links in the document that point to relevant sections in the article, the citations, or sometimes even link to the article the citation points to.

If the article is not available online, you might have access to a paper version of the article in the library. As mentioned above, journals are bound together into books after a period of time. If you're looking for a journal on the shelves of the library, you'll need to know the call number. You can get this by searching for the journal title in the catalog. Using the call number, you can look for the journal in the stacks, just as you would a book. (Insert link to LC section in the previous chapter)

Sometimes the library does not provide access to an electronic version of the article and does not have a paper version of the journal. In these cases you can use Interlibrary Loan to request the article as you would a book (insert link to ILL section from last chapter). Most of the time, you will receive an electronic version of the article instead of waiting to have the physical journal shipped to you. This means you will often get articles more quickly than you would a book,

though you still need to plan ahead if you think you might need to use Interlibrary Loan to get an article.

Using an Article

Once you have articles to read, you will want to make use of them. Luckily, there are some [general trends](#) that apply to many articles and you can use these trends to help you in understanding what you are looking at and interpreting how to use it in your own work. Each section might not exist in every article, and they would likely be named different terms depending on the field and author.

Abstract

As discussed above, the abstract gives an overview of the article and lets you know what to expect in it. This information can help you determine if the article will be worth reading and might provide information that is relevant to your topic.

Author Information

Most articles include the authors' names, titles, and institutions. Sometimes articles include additional information. This information lets you know more about the authority of the authors and gives you a sense of their background. If an article is particularly relevant, you can use this information to find additional works by the same author.

Introduction

The introduction provides a thorough overview of what to expect in the article. It might layout what to expect. If there are funding agencies that supported the research, they might be mentioned in this section, giving the reader a sense of if there is any potential bias in the work.

Literature Review

Literature reviews are goldmines for research. These sections provide an overview of what has been said on the topic and might provide summaries of the most important articles on the topic. You can use literature reviews to find additional resources, knowing how useful they're likely to be since you've been able to read the summary.

Methodology

For scientific articles, the methodology article explains the experiment or approach to the research. This is helpful in critiquing the research as well as for giving you a sense of if there are specific other aspects you'd like to research on your own.

Findings

The findings section explains the results of the research. The information contained in this section is the primary reason the article is published.

Conclusion

The conclusion contextualizes the findings and helps the reader understand their importance. This section can be another one that is worth reading first as it gives you a sense of how the author thought the research project went and what was found. Sometimes authors will include a section on future ideas for research based on their findings.

Charts and Graphs

Many articles have very useful charts, graphs, or illustrations meant to clarify their findings in a visual way. These can help you quickly identify what the authors found as well as give you a graphic that might be useful in your own paper—with attribution, of course!

Bibliography

As with books, if you find a source that is completely relevant to your topic, take a look at the bibliography. It will include a list of perfectly relevant books, articles, and websites for your topic. You might use the information you find there to help you in finding additional sources as well.

Chapter 8

Understanding the Web and Evaluating Web resources

By Kevin Gilbertson and Rebecca Caudle

Evolution of the Web

Once upon a time, the Internet did not exist and there was no World Wide Web.

It is difficult, perhaps, to imagine now that the Web is so ubiquitous, so central to our lives, but there was a time before smart phones, before laptops, before personal computers, before computers, before the Web.

So, how did the Web become the Web?

The idea dates to 1945, when Vannevar Bush envisioned an electromechanical machine called the Memex, a combination of “memory” and “index”, which could make and follow links between documents. This hypothetical system, built on a compressed library collection (which at the time meant microfilm), would provide access to the records of the world.

The next step in the evolution of the Web came in 1989 when Tim Berners-Lee proposed an information management system that would be used to share research among university scholars. At the end of 1990, the system became a reality as Berners-Lee sent the first message via HTTP (Hypertext Transfer Protocol). HTTP would become the foundation of the Web.

In the years following 1990, the Web and related technology exploded. The first text-based Web browsers came online. These first browsers, the first interfaces to the Web, did not support multimedia – no images, no videos, only text. The introduction of multimedia Web browsers was a significant step in the advance of the Web. These browsers featured embedded images, buttons, and more visual interactions and encouraged access to the new information network. In 1996, with reliable multimedia browsers and growing Internet connections, the commercialization of the Web began.

During this time, in 1994, the W3C, [the World Wide Web Consortium](#), was formed. The W3C, comprised of business, university, and international members, convened to develop standards for the Web and to ensure compatibility among the different vendor browser platforms.

Innovations in technology continued to advance the Web. In the early 2000s, the popularity of Web 2.0 technologies brought new dimensions to the Web. Moving from the ‘read only’ nature

of Web 1.0, where an average reader could only read what was on a website, to the ‘read-write’ platform of Web 2.0, the Web shifted radically to encourage user-generated content in the form of blogs, social networks, and product reviews. From the introduction of social networks and sophisticated Web browsers to high speed Internet access and mobile smartphones, the Web came to play an increasingly central role in our daily activities.

Looking to the next stages in the evolution of the Web, we see increasingly sophisticated data formats and the increasing importance of metadata – structural and descriptive information about included content – in the development of the Semantic Web. The main idea behind the Semantic Web is to provide more meaning to the information of the Web to enable machines to play a greater role in finding, sharing, and digesting this information.

Over the years, the Web has become a powerful and sophisticated medium to share ideas and information, and it continues to evolve with the creation of new technologies.

Search Engines

In the early days of the Web, there were no search engines. Initially, there was a central directory listing of Web sites that were online. Other directories soon came online. At some point, however, maintaining such lists became unsustainable and a better solution was needed. Enter search engines.

It is important to note at the outset that, while search engines appear to search everything on the Web, large pockets of un-indexed content – for example, library databases where content is available only to subscribers – remain hidden and cannot be found using a general search engine. Specialized search engines – Google Scholar, for instance – can, in some cases, offer better access to this restricted content.

A search engine works by crawling the Web, indexing the content, and providing an interface to this index via a search algorithm. An algorithm is simply a set of rules governing how data is processed and how relevance is calculated. First, an automated program – a Web spider, Web crawler, or, more generally, Web robot – will follow links in sites, retrieving and storing the content of these pages. Next, this content is indexed. Indexing analyzes the content, extracting various elements from the data, like titles and names. Finally, this index, which allows more efficient access to the stored data, is searched and results are returned. A search engine, in its simplest form, performs basic text retrieval. A full text search will attempt to match the words given by the user to the words stored in the database index. These results are organized by various ranking parameters.

Most search engines rank results based on popularity and relevance. How a search engine determines these rankings – its search algorithm – is often proprietary and can be quite complicated. Popularity is typically gauged by evaluating link relationships among sites. For example, a result may be determined to be more popular by a search engine based on the number of incoming links, links pointing to that page. Link analysis of this sort also depends on authority and hub values where links from certain sites, judged to be of high importance, are

given greater values. More advanced algorithms, which are increasing in complexity with the expansion of data on the Web, involve hundreds of other factors, including speed and trustworthiness, and attempt to refine a particular page's importance within a particular result. With these advances in search algorithms and the increasing role of social networks, search analysis and ranking are often performed within the context of the current user (including that user's past behavior and search history among other things). It has been argued that such results form a bubble with the user at the center, where different viewpoints and challenging information are excluded. Called a [filter bubble](#), it is this effective isolation of a search user inside his or her existing ideological frames that may result in significant variances between shared information environments. Some search engines – Duck Duck Go, for example – do not collect this user profile data and/or exclude this user profile data from their algorithms.

In this way, relying on search engines to deliver the best results becomes problematic and, while the semantic Web holds promise, the current state of machine intelligence limits how search engines search. The human mind excels at matching concepts on a level beyond simple full text searching while computers struggle with this kind of abstraction.

In addition to filter bubbles and the inherent limitations of full text indexing, the various practices of search engine optimization (SEO) can affect the quality of search results. SEO is basically the process of trying to increase the visibility of a site or page within a search result set. In its most legitimate form, SEO is a set of guidelines for writing relevant content and following best practices of document coding to encourage keyword relevance and indexing activity. In its nefarious forms, often called spamdexing (see also Google bomb or Googlewashing), SEO employs a number of different tactics, including keyword stuffing, link spam, and cloaking, to manipulate a site's ranking.

As the Web continues to develop, our ability to evaluate websites and the information they present will only become more important.

How to Evaluate Websites

There is a lot of useful information on the Web, but since it is a public place and anyone with Internet access can create and publish information, it is important to critically evaluate information found on the Web. The Web is largely unregulated and unchecked which places a burden on you to evaluate websites for quality. When you are researching on the Web, question the information you are viewing and treat everything with uncertainty. Be a skeptic!

Using reliable and accurate websites will strengthen the argument of your research, but using information that is inaccurate or biased will weaken your paper.

Look at the following guidelines to help you evaluate websites:

Accuracy

The accuracy or verifiability of details is an important part of the evaluation process, especially when you are unfamiliar with the topic. The credibility of most research is proven through the documentation of other sources. This is how the author proves that the information is credible and not just their opinion or point of view.

- Is the author mentioning other sources of information?
- What type of other sites does the website link to? Are they reputable sites?
- Can the background information used be verified?
- Is the site a parody or satire of a real event? (For example, news stories found on The Onion).
- Is the site advertising, persuading, or stating information objectively?
- Does the page have a lot of grammar errors?
- What evidence is the author using to support their ideas? Does the site list citations or links to other resources?

Authority/Authorship

Look for the author or group who is responsible for creating the page, and try to find information about their background. This information allows you to judge whether the author's credentials make them qualified to write on the topic. When the author of a website is an expert in the field it is a better source for your research because the author has more knowledge and authority with the subject.

It's also important to keep in mind that some websites may have an agenda or motivation for creating the page. They may be trying to sell a product or persuade you on a social or political issue.

- Who created the page? What are their credentials/background? Are they an expert on the topic?
- Has the author listed a contact email or phone number?
- Why did the author create the page? Is the purpose to inform, sell, entertain, or persuade?
- What domain is the website published under? (For example, edu, gov, or com.)
- Does the author stand to gain anything by convincing others of their point?
- Are there a lot of advertisements on the site?

Date/Currency

Look to see when the page was last updated or created. This will give you an idea if the author has maintained an interest in the page, or has abandoned it.

- How current is the information? When was the page created or last updated?
- Are there any dead links on the page that no longer work?

Reliable Websites

Since there is so much information on the Internet with a wide range of quality, it is necessary to develop skills to evaluate what you find online. One way you can judge a reliable website is to

look at the domain where the website is hosted. For example, websites that have .edu in the URL address are hosted by educational institutions.

Often, websites ending with .edu and .gov are more authoritative because certain qualifications have to be met in order to use those domains, whereas anyone can use the others. However, care still needs to be given in evaluating the content on these domains. A governmental or educational domain increases only the likelihood that the content is reliable; the domain alone is not proof of reliability.

When you are viewing information on a page it is important to think about the potential motivations or biases associated with the site. Some websites are motivated to make money, so they may present information as a sales pitch, instead of presenting their information objectively. You may come across other websites that are biased for political reasons. The authors of the website may emphasize certain information to influence your opinion about the topic.

Finding Really Current Information

In some fields, knowledge and research are constantly being changed and updated. So it is important to make sure that the site you are viewing is either up-to-date or published at a time that is relevant to the topic of your research. Having current information is important depending on your topic. For example, getting information about a healthcare or technology topic from a website that is more than 10 years old is likely to be out of date because of advances and changes in the field. But getting information on a history or literature topic from a website that is 10 years old will likely still be accurate today.

When you need current information on a topic you can easily limit your search by going into the advance search feature. In Google you can limit the date to: anytime, past 24 hours, past week, past month, or past year.

Google Alerts is a great tool to use to stay current on particular topics. You create a Google Alert with your search terms. Google monitors the Web for you and sends you an email when there are new search results for your Google search terms. You can manage your alerts by deciding how often you would like to receive Google Alerts; as-it happens, once a day, or once a week.

RSS (Really Simple Syndication) feeds are another way to remain current on topics. You use it by first subscribing to a RSS aggregator, like Google Reader. Then click on the RSS icon or link on Web pages to add that page to your aggregator. Your aggregator automatically looks for new information on the pages you have added, and downloads the new content onto your aggregator or reader. This allows you to see new content on Web pages without having to go to each individual site.

Chapter 9

Primary Sources

By Mary Scanlon and Ellen Daugman

Primary sources can enrich and inform a research paper or project; they offer a unique perspective on an event, situation or person. These sources created during or very near in time to an event, provide unfiltered, first-hand descriptions that are absent from purely secondary and other sources. These resources may be found in archives, newspapers, diaries, photographs, letters and diaries to name a few.

Learning Objectives

Upon completion of this chapter, the student will be able to:

- 1 Define and describe a primary source
- 2 Name and describe the benefits and limitations of primary sources
- 3 Compare and contrast primary and secondary sources
- 4 Identify different creators of primary sources
- 5 Identify and create effective search strategies for primary sources in several different resource types

Definitions of Primary Sources vs. Secondary Sources

Primary sources are commonly defined as first-hand accounts, contemporary records, or original documents that offer records of events or phenomena without retrospective interpretation, evaluation, or analysis. They are usually written or created close in time to the events themselves and consequently reflect the perspectives of participants or observers.

By contrast, secondary sources analyze, explain, interpret, review, describe, or summarize primary and other secondary sources. Secondary sources offer a retrospective vantage point, removed to some degree from the original event or phenomenon. They are frequently written with an analytical or argumentative purpose, contributing to the scholarly debate or conversation about a research topic. And they are usually published in the form of journal articles, books, or other formats, thereby appearing second in the publication cycle.

The types of materials that may be regarded as primary or secondary sources will vary by subject disciplines or the contexts in which they are used.

Characteristics

Primary sources are first-hand accounts that have been created very near in time to the situation or events they describe. When created by individuals, they can be emotional, biased and unfiltered. They are in the moment; this is their strength. They lack the rational, analytic perspective of secondary sources: resources written after the fact by individuals who have no emotional connection to the event. For example, consider a soldier's letter recounting the events of a long and bloody battle; contrast this with a textbook description of that same battle. The former might include descriptions of the soldier's fear, the sounds of cannon fire and wounded men's screams, and the smell of gun powder. The textbook version might, instead, talk about troop strength and location, types of equipment used, number of casualties, and the outcome in terms of which side won the battle. The former lets the viewer see, hear and feel what it was like to be in the situation and suffer terrible loss afterwards; the latter example is more objective and emotionally removed from the situation.

Timing is an important parameter to consider when deciding if a source is primary. To be primary, it should have been created in the moment or very near to the actual event.

Benefits and Limitations of Using Primary Sources

As a consequence of proximity in time when primary sources are created, they permit researchers to come as close as possible to historical time periods and events, or to objective data, without intervening layers or filters of subsequent scholarly interpretation and analysis. However, due to the subjective aspects of some types of primary sources (particularly personal writings such as letters, diaries, or autobiographies), these sources may reflect bias, limited range of awareness, revised perspectives, and fading memory and recollections.

Discipline-Based Rationales for Utilizing Primary Sources

Humanities

Primary sources constitute an important research tool for historians, but other disciplines utilize these resources as well. In the humanities, the impetus for research into historical context and the subsequent utilization of primary sources derives from a critical approach known as New Historicism. Articulated by Early Modern (Renaissance) scholar Stephen Greenblatt in a seminal essay published in 1982, "The Forms of Power and the Power of Forms in the Renaissance" (Greenblatt, 1982, pp. 1-2), this approach argues that creative works should be regarded not as self-contained and isolated artifacts, but rather as the products of various social, cultural, and political forces that form a historical horizon against which a literary or other artistic work should be considered. Scholarly work in various fields, such as literary studies, or visual and performing arts, often involves research into historical context.

Primary source databases facilitate this avenue of historical research, but frequently are unique and challenging in their diversity of content, structure, and features. Some of these include

EEBO/Early Books Online, ECCO/Eighteenth Century Collections Online, ProQuest Historical Newspapers, Times Digital Archive, and African American Newspapers

Social Sciences

In the social sciences, primary sources are equally valuable, but their sources may be even more scattered than those used by the humanities. The use of demographic and economic data can strengthen or defend an assertion or thesis; document a situation; demonstrate a trend; illustrate an event; and add interest to a paper. For example: opinion polls can reveal a society's state of mind; the use of photographs and maps can illustrate an event or biography in ways text cannot; and company and industry statistics are invaluable when evaluating either. Many data documenting the economy, industry, education, health care, and populations are gathered and reported by executive branch agencies of the Federal Government; most of these data are freely accessible at these agencies' web sites. Examples include: data on high school graduation rates from the Department of Education; incarceration rates by race at the Department of Justice. The Smithsonian Institute, the Library of Congress and executive branch agencies provide photographs, maps and other graphical elements. Other data that are freely available are the annual reports and financial statements of publicly-traded companies; these can be found on the company's website or the financial statements can be found at the Securities and Exchange Commission (sec.gov). Some primary sources are available by subscription; *LexisNexis Congressional* provides access to the transcripts of expert testimony gathered at Congressional committee hearings as well as reports, maps, treaties and other documents.

Examples of Primary Sources Across the Disciplines

Primary sources encompass a broad range of materials. These include letters or correspondence, diaries or journals, creative and artistic works (literature, music, art), speeches or interviews, and autobiographies or memoirs. In addition, they may include research data sets, surveys or polls, statistics, photographs or images, newspaper accounts, records of organizations or agencies (including governmental and international bodies), relics or artifacts, and audio or video recordings.

As an example, the following letter written by President Lincoln advocates that the dependents of both black and white soldiers should receive equal treatment; it is available from the online [American Memory](#) project of the Library of Congress. If a student were writing a paper in a class on American history, or the history of race relations in America, and was researching Lincoln's attitudes toward African Americans, this letter would offer direct, first-hand evidence of his feelings on the matter.

Executive Mansion,
Washington, May 19, 1864.
Hon. Charles Sumner,
My dear Sir,
The bearer of this
is the widow of Major Booth,
who fell at Fort Pillow—
She makes a point, which I
think very worthy of consideration
how white is, ^{white} ~~white~~ and children
are in fact, of colour like
ours who fall in our hands,
his plan is to buy the same
as if this marriage were type,
so that they can have the same
fit of the provisions made for
white & of colour of white sol-
diers. Please ^{to} hear Mr
Booth
Sincerely,
Abraham Lincoln

Figure 1. Letter from President Lincoln to Charles Sumner, May 19, 1864. Source: Library of Congress, American Memory Project. <http://memory.loc.gov> <http://memory.loc.gov/cgi-bin/query/D?mcc:1:./temp/~ammem::>

Format Issues

Format, whether physical or digital, has become less important as a defining characteristic of primary source materials. Primary sources such as letters or diaries do not necessarily exist exclusively as handwritten manuscripts: such documents may be digitized and available as online resources, or they may be compiled and published as books or as briefer journal articles. Similarly, early print materials, whether books or historical newspapers and magazines, may be reprinted in book or journal form, filmed in microform collections, or, increasingly, digitized for Internet access. Context is an important clue, and place in time is an important factor. For instance, 16th century books written as definitive texts in their time on such topics as theology, virtuous conduct, regicide, or witchcraft are now considered primary sources because of their remote placement in time, and are examined by researchers for the contextual perspectives they provide for artistic works created in the same time period.

Primary sources may include a broad range of formats, and are created close in time to the events they record, despite the fact that their publication might come much later. They may include newspaper and magazine articles written shortly after the fact, recounting events and phenomena, but not providing retrospective analysis. Thus, a scholarly article about the American Civil War, published in an academic journal such as the *Journal of Southern History*,

would be a secondary source, but a diary written by a soldier during the Civil War, whether in its original manuscript form or published subsequently in book form, would be a primary source.

Creators of Primary Sources

Most frequently, individuals are the expected creators or authors of primary sources and they do indeed create many types of them: journals, letters, diaries, photographs, works of art, music and literature. They are, however, not the only source; companies, organizations and institutions also create primary documents. Any item generated by one of these organizations can be considered primary. A company's annual report is an example of a primary source, as is the transcript of a Congressional committee hearing or a report from an executive branch agency, such as the Department of Labor. When no individual author is identified, the organization is considered the author. The population or manufacturing census from 1860 would be considered a primary document for a paper on the economic or demographic situation immediately preceding the Civil War. When determining whether a source is primary, context and timing are as important as the author in making a decision.

Search Strategies

There are multiple research strategies and resources by which primary sources can be located and accessed.

- Bibliographies and research guides may list primary as well as secondary materials; check the table of contents to locate these portions of such research guides.
- Books and journal articles often cite primary sources consulted by the author in the course of carrying out research and supporting or illustrating an argument.
- Newspaper and other periodical databases may cover a specific time period or a particular publication format. Such specialized subscription databases (available through libraries) may exclusively provide access to primary source texts or resources, including diaries or early books. These databases often provide page images so that the original format, font, illustrations, etc., are available for viewing; some databases also include transcribed texts in order to facilitate reading, sparing the user the challenges of deciphering antique fonts and deteriorated texts. A library's website will list databases, often by categories, in some type of "Find a Database" web page. Databases covering primary source materials may be listed under a "History" category, since they are integral to historical research, or they may be listed as their own category:

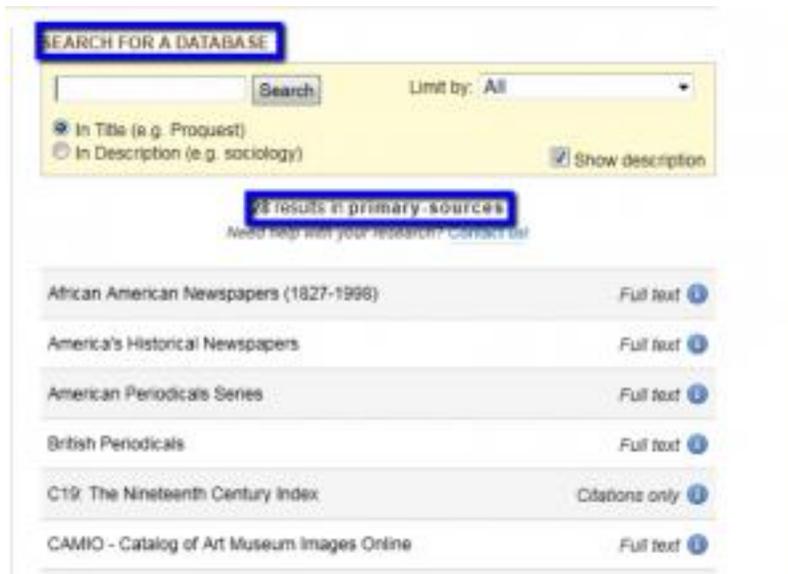


Figure 2. Screen shot of a list of primary source databases on a library

One such primary source database, *ProQuest Historical Newspapers*, covers *The New York Times* 1851-2007, *The Chicago Tribune* 1849-1987, and *The Wall Street Journal* 1889-1993. If one wished to research *The New York Times'* coverage of the battle of Gettysburg (occasionally spelled "Gettysburgh," hence an asterisk in the search terms to cover the spelling variations), one can create a search on that event, from July 1 to July 5, as shown below:

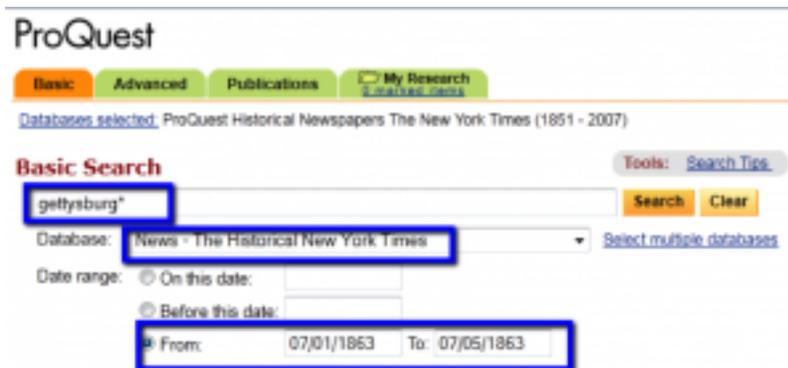


Figure 3. Sample search from ProQuest Historical Newspapers.

There are 13 results from *The New York Times*, with viewable page images of the articles.

The screenshot shows a search interface with the following elements:

- Results** header in red.
- A search bar containing the query: `13 documents found for: (gettysburg*) AND PDN(>7/1/1863) AND PDN(<7/5/1863)`. A **Refine Search** button is to the right.
- A yellow bar with the text **Newspapers**.
- A yellow bar with the text **Mark all** and **0 marked items: Email / Cite / Export**.
- A list of four search results, each with a checkbox, a title, a source, a date, and a page count. Each result has links for **Abstract**, **Page map**, and **Article image - PDF**.

1. OSIR HARRISBURG CORRESPONDENCE: The Report of a Spy--His Adventures in Carlele the Enemy--The Rebel Intentions, &c.
New York Times (1857-1922). Jul 1, 1863. p. 1 (1 page)
[Abstract](#) | [Page map](#) | [Article image - PDF \(208 K\)](#)

2. THE REBELLION.
New York Times (1857-1922). Jul 1, 1863. p. 4 (1 page)
[Abstract](#) | [Page map](#) | [Article image - PDF \(96 K\)](#)

3. THE REBEL INVASION.; Important Intelligence Regarding the Movements of Lee, Sudden Y the Rebel Army at Shippensburgh, The Army of the Potomac Pressing it Closely, A Genat B the Rebels at McConnellsburgh. MARTIAL LAW IN BALTIMORE, SPECIAL DISPATCHES FRO TELEGRAMS FROM PHILADELPHIA, TELEGRAMS FROM BALTIMORE, EYCITENENT AT O
New York Times (1857-1922). Jul 1, 1863. p. 1 (1 page)
[Abstract](#) | [Page map](#) | [Article image - PDF \(223 K\)](#)

4. POSTSCRIPT: HIGHLY IMPORTANT, A HEAVY BATTLE IN PENNSYLVANIA, The First and E Result at Last Accounts, OSIR TROOPS BEING REINFORCED, DEATH OF GEN. REYNOLDS
New York Times (1857-1922). Jul 2, 1863. p. 8 (1 page)
[Abstract](#) | [Page map](#) | [Article image - PDF \(27 K\)](#)

Figure 4. Results from the above search.

In addition, reference books (e.g. encyclopedias, dictionaries, bibliographies, biographical sources) will identify names, dates, and publications that can be utilized in further research. And finally, there are pertinent subheadings for library catalog searching.

When library records are created for books and other materials in a library's online catalog, authorized or controlled terminology is used to designate a resource as primary in nature. These official terms include the following: correspondence, diaries, interviews, personal narratives, sources, manuscripts, speeches, documents, photographs, pictorial works, maps, and statistics.

In order to retrieve such primary source materials from a library's online catalog, do a keyword search using a word or words that convey your topic, and then add a term that specifies one of these types of primary sources:

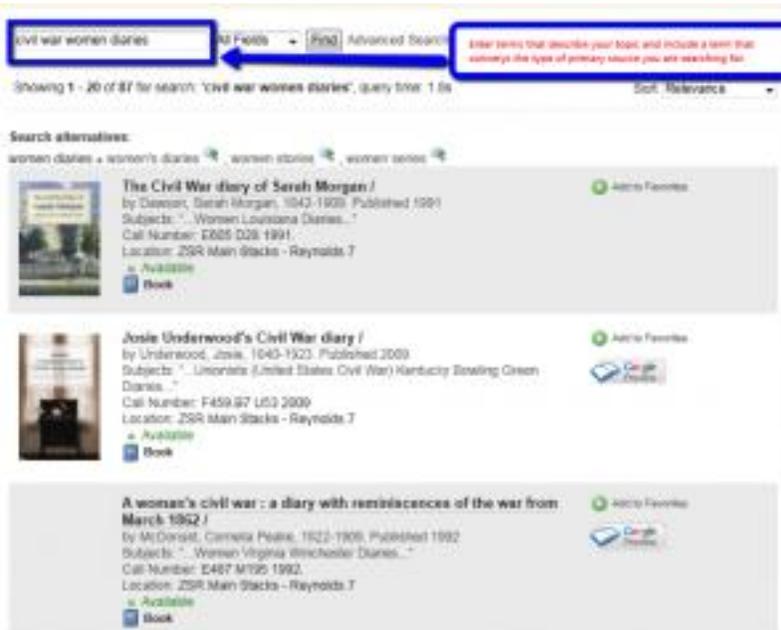


Figure 5. Example of a search for women

If you wish to be more inclusive and to obtain a variety of primary source categories, you may use an “advanced search” option in an online catalog as follows: enter a term or terms that describe the topic you are investigating, then in a separate text bar enter multiple terms that convey the types of primary sources you wish to retrieve, linking those words with “OR.”



Figure 6. An example of an advanced search involving multiple concepts: Civil War AND Maine AND diaries or correspondence or personal narratives. Note the use of multiple primary source formats as search terms, and the use of the connecting word OR, in the third search box.



Figure 7. Partial results list from the above search strategy.

Internet Searching

Primary sources are increasingly available online, either via subscription-based databases accessible through libraries, or as free websites affiliated with libraries, archives, associations, organizations, government agencies, and other bodies. Archives are found in libraries, institutions, organizations, and agencies; they may comprise unique collections of original, unpublished documents but may also include rare, published materials. These may include handwritten manuscripts, comprising the papers of an individual or multiple generations of a family; other archival collections may include the records of an organization or agency, reflecting its activities and transactions. These unpublished historical or contemporary materials are unique to the organizations that have created them and may be used in person, although archival collections nowadays are increasingly digitized for Internet access. Published research (books or scholarly articles) may refer to such collections in the cited sources used by scholars; alternatively, an Internet search that includes the word archives and the topic itself may disclose links to useful websites:

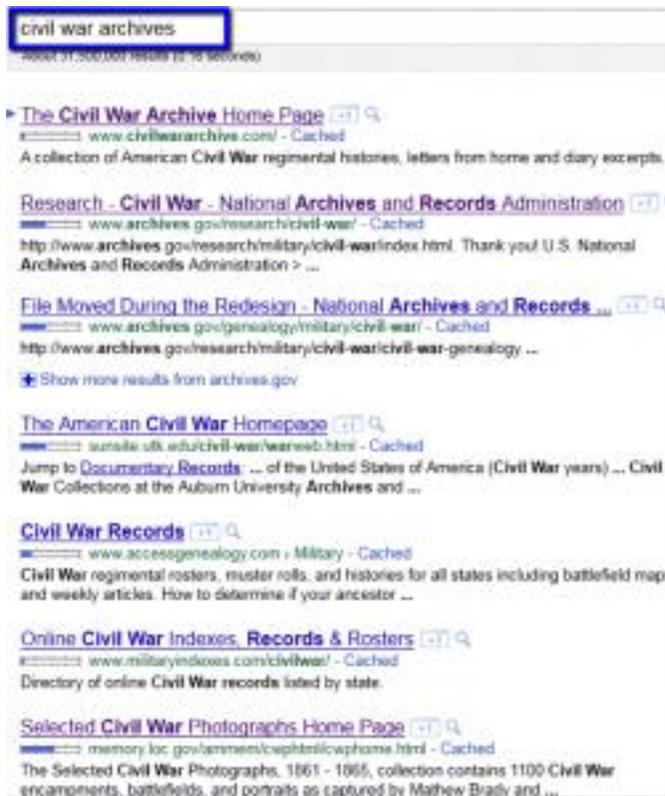


Figure 8. Example of an Internet search for Civil War archives with partial results.

Historic maps can also be primary sources; they can display the cartographer's perspective on geography, topography, roads, and more. Here is an example of an historic map from the *American Memory* project which displays the relative positions of Union and Confederate troops at the Battle of Gettysburg.



Figure 9. Field of Gettysburg, July 1st, 2nd & 3rd, 1863. Prepared by T. Ditterline Source: Library of Congress, American Memory Project. http://memory.loc.gov/cgi-bin/query/D?gmd:2:./temp/~ammem_cCVx::

In addition, photographs can serve as primary sources; they serve as visible, immediate records of people, places and events at a moment in time. This one shows Union soldiers on the eve of battle. Note how the image below enhances one's perception of the situation.



Figure 10. Photograph of six officers of the 17th New York Battery Gettysburg, Pa. June 1863.
Source: Library of Congress, American Memory Project.
<http://memory.loc.gov/ammem/cwphtml/tl1863.html>

Statistical Primary Sources

Some primary sources remain in print, although there is a trend toward digitization. For example, the decennial census is still available in print. The 8th census, taken in 1860, reveals interesting data about the population and economies of the regions and states on the eve of war. Table No. 33. – “Approximate statistics of the Products of Industry for the year ending June 1, 1860” shows the total number of manufacturing establishments in the U.S. as 128,300; of those, only 18,026 (14%) were located in Southern states. Of all the boots and shoes manufactured that year, only 8% were produced in the South. Likewise, only 0.7% of the value of all iron founding and 8.5% of steam engines and machinery in the U. S. produced in 1860 were made in the South. This type of data helps explain, in part, the outcome of the war.

The *Census of the United States* is a valuable primary source for statistics about the U.S. These may include data about population and household income; industry, employment and the economy; infrastructure such as roads, railroads, and canals; educational attainment; the justice system and the number of incarcerated persons. In addition, historical data document social conditions; below is a copy of the 1860 census documenting the number of “Slaves and Free Colored Persons” in North Carolina, reported by county.

TABLE No. 2.—POPULATION BY COLOR AND CONDITION.

COUNTY.	WHITE.			FREE COLORED.						Total free colored.	Total free.	SLAVE.						Total slave.	Total pop.	Increase.
	M.	F.	Total.	MALE.			FEMALE.					BLACK.			MULATTO.					
				M.	F.	Total.	M.	F.	Total.			M.	F.	Total.	M.	F.	Total.			
Albemarle	3,691	4,119	7,810	8	9	17	229	202	431	400	6,407	3,292	3,441	6,733	119	289	408	2,432	10,224	
Alfonso	3,098	2,707	5,805	11	13	24	1	1	2	16	5,811	919	969	1,888	21	13	34	424	6,694	
Ashe	1,712	1,628	3,340	1	1	2	11	14	25	30	3,370	69	70	139	21	11	32	600	3,970	
Avery	2,621	2,698	5,319	10	10	20	81	81	162	152	5,471	3,033	3,238	6,271	247	105	352	5,919	10,000	
Beaufort	2,120	2,090	4,210	4	2	6	71	62	133	141	4,351	346	349	695	89	30	119	888	5,239	
Bladen	4,206	4,651	8,857	22	22	44	154	139	293	289	9,146	8,557	9,275	17,832	169	152	321	9,467	18,603	
Boone	3,222	3,661	6,883	12	14	26	114	109	223	212	7,095	3,275	3,465	6,740	114	106	220	6,960	13,705	
Burke	4,100	4,467	8,567	19	19	38	119	119	238	232	8,800	4,513	4,832	9,345	198	198	396	9,741	18,136	
Catawba	4,664	5,115	9,779	16	16	32	119	120	239	263	10,042	4,533	4,831	9,364	198	198	396	10,760	20,154	
Cass	3,940	3,980	7,920	2	1	3	20	18	38	36	7,956	196	191	387	207	222	429	8,383	16,339	
Chatham	3,207	3,326	6,533	48	41	89	114	104	218	207	6,740	3,129	3,344	6,473	11	11	22	6,495	13,237	
Cherokee	3,706	4,441	8,147	16	16	32	114	114	228	222	8,375	4,243	4,567	8,840	114	114	228	9,068	18,113	

Figure 11. Population of North Carolina by county by race. Source: Eighth Census of the United States, Table No. 2.

Evaluating Primary Sources

Criteria for evaluating primary source material are similar to those used to assess secondary resources.

- Authority of the author: what is known about the creator of the document, whether gleaned from the document itself or from external sources? What role did the creator play relative to the events or phenomena described in the source (e.g. an active participant or a passive witness)? When did the author record the experiences, i.e. has an extended passage of time affected the accuracy of the document?
- Intended audience and purpose of the document: why was the document created and for whom? How might these factors have affected the nature of the contents and the manner in which they are presented in the source? (For example, how might a diary created simply as personal expression—a woman residing on a Southern plantation—differ from a diary written by a public figure—a Civil War general—mindful of his legacy and the prospect of eventual publication of such writings?)
- Bias: are there discernible biases or points of view that affect the contents and the manner of presentation? How might these subjective perspectives affect the way in which a scholar might approach the document?
- Accuracy and reliability: can the accounts or evidence be verified by external sources (whether other primary sources or secondary resources)? Are there significant gaps or omissions, and for what reason (i.e. is intention involved)? How does this source stand in comparison to other sources that deal with the same events or phenomena?

Evaluating Primary Source Web Sites

When looking at web sites containing digitized primary source materials, it is important to determine whether the primary source material has been altered, distorted, or selectively chosen in order to convey a predetermined meaning or to advance a particular argument. Websites created by educational, governmental, and non-profit institutions or organizations offer greater reliability than personal websites.

- Who is responsible for the website? Look for credentials or qualifications of the creator or responsible organization, the contact address, and an “About” link to provide information about the website creator(s)
 - Trustworthy domains include: .edu, .gov, .org. Less reliable are .com or .net because they may be driven by commercial objectives.
- What is the purpose of the website? To support objective research and teaching, to provide factual information, to give access to an organization’s collections, or to advance a limited or biased argument (therefore selecting slanted documents accordingly)?
- Determine the origin of the document. Websites should indicate the sources of the original materials. Documents may be available as scanned images so the researcher can see what the material looks like (sometimes in very high digitized resolution), or the document contents may be transcribed (re-keyed), thereby eliminating difficulties involved in deciphering handwritten manuscripts such as letters or diaries, or early type fonts that may have deteriorated or may be otherwise challenging to read. There may be links to other external web sites and documents in order to facilitate assessment of the material’s reliability, significance, and authenticity, or to provide corroboration or contextual background.
- Consider the clarity of the presentation of the material, whether it is well organized and is accompanied by clear explanations of the sources’ background, origins, significance, etc.

Citing Data and Graphical Images

Both APA and MLA provide direction on how to cite your sources.

MLA

- General review section 4.7
- Citing a print source: section 5.8
- Citing an electronic source: section 5.9.9

APA

- Sections 3.75 – 3.86
- Be sure to include them in your bibliography.

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Chapter 10

Ethical Uses of Information: The Good, the Bad, the Confusing

By Molly Keener, Mary Beth Lock, and Ellen Makaravage

Introduction to Intellectual Property

Photographs. Music. Books. Plays. Architecture. Paintings. Logos. Choreography. Articles. Sculpture. Movies. Slogans. Prescriptions. Machines. All examples of intellectual property. But what about blog posts? YouTube videos? Your term paper? Those too are examples. Intellectual property is encountered daily, usually outside the classroom or library. In fact, almost everyone owns some. And although you usually are not aware of when you are interacting with intellectual property, or what laws govern that interaction, it's happening.

Intellectual property, in Merriam-Webster's online dictionary is [defined as](#) law something (such as an idea, invention, or process) that comes from a person's mind ". Intellectual property is more broadly identified as any work of the mind: an idea, a musical composition, a discovery, a symbol. Intellectual Property is sometimes subject to protection of the law and is manifested as copyright (for fixed works), patents (for inventions) and trademarks (for slogans and logos). PepsiCo's formula for making Pepsi is intellectual property, as is the Nike swoosh. Not EVERY original thought is considered "intellectual property." This chapter will explain the basics of intellectual property, how it is protected, and how you can ethically interact with it to advance your academic and creative endeavors.

Intellectual Property: The Good

Intellectual property is protected:

- To acknowledge that the process of creation is important;
- To allow the creator to benefit professionally or financially;
- To allow the creator to control his or her reputation;
- To encourage others to continue to create; and,
- To give owners the right to decide how their intellectual property is used, copied or distributed FOR A LIMITED TIME.

It is protected either by copyright, trademark or patent law.

Copyright

Copyright gives legal protection to new works of writing, choreography, music, visual art, film, and architectural works. Copyright does NOT protect ideas, facts, titles, data, or useful articles (this last is covered by patent). Copyright happens automatically – no registration required – and has few requirements:

- Original work of authorship;
- Dash of creativity; and,
- Fixed in a tangible medium of expression.

This means that once a photograph is taken, blueprints are drawn, or a student saves a term paper, the creator of that work is the fully-vested copyright owner, with all the rights therein. Rights granted in copyright are actually a bundle of rights, not a singular right. Rights cover reproduction, derivative creation, distribution, public performance, public display, and the right to limit or restrict reuse. This means that to use a copyrighted work, permission from the copyright owner is usually required. Exceptions to this are noted later in this chapter, but it is generally safe to assume that reuse rights are NOT automatically given. Copyright, either in full or in part, can only be given away in writing.

Copyright law was originally conceived to ensure that those who create are given sufficient protection of and compensation for their works. Compensation does not necessarily mean monetary gain, especially in academic scholarship, although that is certainly a possibility. It also was created to clarify registration and acknowledgment of a work and its creator. By granting protection for creation of a work and extending legally-defined benefits to the creator, copyright ideally exists to ensure the continued creation of new works.

American copyright law was first set in the United States Constitution in order “to promote the progress of science and the useful arts” (#), granting protection to copyright owners *for a limited time*. In the intervening centuries, copyright law has morphed and expanded to the point where the current term of protection far exceeds what most people would define as “limited.” Current U.S. copyright law states that new works are subject to the following terms:

- Single author works are life of the author + 70 years – published or not, registered or not;
- Joint author works are life of all authors + 70 years after death of the last author – published or not, registered or not;
- Works for hire or anonymous works are 95 years from publication or 120 years from creation, whichever expires first.

Works for hire are created in the course of one’s regular employment – i.e., you write a technical report for your company – when the employer has a policy that clearly stipulates copyright ownership. Most colleges and universities do not claim copyright ownership in articles and books written by faculty or students in the course of scholarship. And simply being paid to write something, such as when independent consultants are contracted to draft reports, does not automatically make the work a “works for hire” in the legal sense.

Using Copyrighted Works: What, When and How

Copyright law is designed to protect the rights of the copyright holder. As mentioned earlier, there are exceptions permitted in the law. We’ll explore those as well as noting works that do not have copyright protection at all.

The [Copyright Law of the United States](#) does provide “limitations on exclusive rights.” Under certain circumstances these limitations allow for the use of copyrighted works without the

copyright holder's permission. The limitation that is most relevant to academic use is found in Section 107, [Limitations on exclusive rights: Fair use](#). This section protects against "infringement of copyright" for "purposes such as criticism, comment, news reporting, teaching, scholarship, or research." There are four factors to be considered when determining whether the use of a work qualifies as "[fair use](#)".

- The purpose – This factor involves consideration of how you intend to use the work. Non-profit, educational and personal uses are more likely considered fair use than those intended to generate a profit.
- The nature – What type of work are you wanting to use? Nonfiction works are more likely to be considered fair use than fiction. Other considerations are the format of the work and whether the item has been published. Fair use would most likely favor published, printed works.
- The amount – Using as small a portion of the original work as possible bolsters a fair use defense. However, it is possible that even a small, vital portion of a work can be considered too much. In the case [Campbell v. Acuff-Rose Music, 510 U.S. 569 \(1994\)](#), the Supreme Court found that taking the "heart" of the original work had violated copyright law.
- The effect on the potential market – This factor protects the economic interests of the copyright holder. Since the copyright holder has the right to distribute their work as they choose, a use that affects the current or future profitability would most likely not be considered fair use. (Butler, 2001)

Each time you use a work that has a copyright holder, whether the work is in print, on a website, on a music CD, in a television broadcast or in a movie, you need to consider these four factors. If the principle of fair use seems subjective and vague, you are not alone in that perception. Fair use and copyright law can be intimidating but it is important to [exercise your rights](#).

If fair use does not apply to your use of materials you can try to obtain copyright permission directly from the copyright holder. This can be done by sending a [letter](#) or email. If you are not certain who holds the copyright, you can send the request to the last known copyright holder and ask that it be sent to the proper person(s).

If you are working under the auspices of a business or academic institution, they can seek permission from the [Copyright Clearance Center](#) (CCC) to use works that are under copyright protection. The CCC represents publishers and authors and collects fees in exchange for granting permission for excerpts to be used in articles and websites.

A more recent model for granting permissions can be found at Creative Commons. Creative Commons (CC) is a non-profit organization that provides permissions for digital content at no cost to the copyright holder. Various levels of permission are available. One license allows anyone to change a licensed work in any way. The author only requests attribution. The most restrictive license requires not only attribution but forbids all changes or derivative works. The different levels can be explored on the [CC website](#). Creative Commons permissions can be found on websites such as [Flickr](#).

For use of material on an academic database remember that license agreements take precedence over copyright laws. The license agreement can vary depending upon the terms established between the educational institution and the database vendor. Most online databases require you to agree to their license terms before you can view an article. Often there is a notice on a database webpage that states that simply opening the document is considered your acceptance of the license terms. Be sure to check the “Terms and Conditions of Use” for an online database before you share an article.

On a rare occasion, permission to use a book, journal or website can be found in the source itself. Check the copyright page at the front of a book or journal to see if any permission for academic purposes has been granted by the publisher. A website may have a disclaimer also granting permission for academic use.

Some works are not subject to copyright law and are therefore available to be used without those protections. These include items in the public domain, orphan works, and government publications.

Public domain refers to works that can be used outside the provisions of copyright law. This includes works whose copyright has expired. All works published prior to 1923 are now in the public domain. Those published between 1923 and 1963 are also; if there was no copyright notice and no copyright renewal. A copyright holder can choose to deliberately surrender their legal rights and allow their work to be in the public domain. Publications created by the [United States government](#) are also not covered by copyright law. State and local government works can vary so the publisher should be contacted. Works that have no copyright date should not be assumed to be in the public domain. (Butler, 2001)

[Orphan works](#) are those which are still covered under copyright law but the owner of the copyright cannot be located or in some cases, cannot be determined. In light of this, it is not possible to obtain permission to use the work. The issue of orphan works has gained a lot of publicity due to [litigation](#) involving Google’s attempt to digitize these works and include them in their Google Books database. Until legislation settles this issue, uses of these works may be best limited to those clearly allowable under the principles of fair use as defined in copyright law.

Trademarks

Trademark protection is granted to intellectual property that identifies a particular item. Trademark covers slogans, logos and brand names. Protection must be applied for, and subsequently renewed; it does not happen automatically when a slogan or logo is created, unlike works covered by copyright law. However, trademark protection can be renewed or maintained indefinitely.

To understand a bit more about how trademark does and does not apply, watch this talk on fashion design:

http://www.ted.com/talks/johanna_blakley_lessons_from_fashion_s_free_culture.html.

Hence why you find knock-off designs of expensive clothes at big box stores. Also, while trademark covers a chain restaurant's name and logo when used together, the recipes prepared in the kitchen are not protected. Other items that cannot be covered by trademark (nor copyright or patent) law are magic tricks, cars, jokes, and furniture – all are considered utilitarian designs.

Patents

Patent protection is granted to intellectual property that is deemed a useful article. This covers a wide range of products, from bottle design to machines (whole or independent parts) to prescription drugs to asexually derived plants (think Genetically Modified Organisms). Patents cannot be renewed, and protection is set for a limited time. This is good and bad. It is good because it means that the inventor, sometimes individuals but often corporations, get exclusive financial benefit during the life of the patent. It is also good because it means that eventually others can replicate the articles and offer less-expensive versions.

However, there are bad sides to patent protection. Agriculture companies that sell seed for GMO products, such as corn, not only control the cost of the seed, but also which fertilizers and pesticides can be used, as the plants are bred to work only with company-provided products. Additionally, GMO seeds produce plants with seeds that cannot be replanted; they are asexual plants. In the case of prescription drugs, it often means that new drugs that offer better results are quite expensive, as only the name brand is initially available.

Another negative aspect of patent protection in prescription drugs is that in order to protect revenue, pharmaceutical companies will sometimes only slightly alter the chemical compound of a soon-to-expire patented drug, file a new patent, and continue to reap the financial benefits of patent protection. This happened in the early 2000s when AstraZenica was set to lose protection for the highly successful Prilosec (used to treat ulcers and gastroesophageal reflux disease), and the company released Nexium, the new “little purple pill” that was almost an exact chemical mirror of Prilosec. Read more at http://www.msnbc.msn.com/id/20249591/ns/health-second_opinion/t/costly-side-effects-nexiums-ad-blitz/.

Nevertheless, despite its flaws, patent law serves to stimulate innovation and reward inventors, including those working in labs on college and university campuses, and is an important area of intellectual property protection.

Plagiarism & Violation: The Bad

Plagiarism is defined in [Merriam-Websters online dictionary](#) as: “the act of using another person's words or ideas without giving credit to that person : the act of plagiarizing something”. Had I not mentioned where I found that information and just passed that definition off to you as though the words were my own, I would have been committing plagiarism! But because I appropriately attributed my source, I am not.

Generally, intellectual property, in order to be protected, must have some sort of commercial value: a design, a unique concept, a formula for a new drug, a written work. The legal protections afforded an individual or a corporation who have a patent, trademark or copyright

are only for a limited time. Once that period of time has passed, the item falls into the public domain. The length of time afforded for legal protection for copyrighted, trademarked and patented works differs from country to country. The [Digital Copyright Slider](#) can be used to determine if a work you are interested in quoting from is still covered by copyright protection. But even that will only tell you if you need to worry about *paying for or requesting permission from* a copyright holder for the use of their work. Attribution should be given regardless of the age of the work.

Plagiarism and Copyright Violation are related but are not the same thing. If a student copies an entire section or even a sentence from an existing work, the student has plagiarized that work, even if the book it was lifted from is in the public domain. (Written works published in the United States fall into the public domain after they have been in publication for over 70 years beyond the life of the author.) In this case, the student is guilty of plagiarism, but not a copyright violation. However, this act is still a theft of intellectual property.

When books fall into the public domain and the original author no longer holds copyright, others are allowed to utilize the text without paying copyright fees. This is why there are so many publications, by so many different publishers, of well-known older works. It is also why the entire text of a work can be made available for free in a download from the Kindle store, or through the [Project Gutenberg](#) website.

Examples of Common Violations

Taking a sentence or two from a book without attribution to provide just the right turn of phrase to a paper because you can't think of a way to say it better is a violation of the copyright of the author of the original work.

Taking a unique idea that you've read in a journal article, even if you don't copy the content word for word, and passing the idea off as your own by not providing attribution to the original author is a violation of intellectual property and copyright.

Including a photograph of a work of art meant to illustrate a particular artist's work, or a particular period without attributing the book it came from or the website it appeared on is also a violation of copyright.

Including the artwork from an album by your favorite rapper you found on Amazon.com's website and including it on the cover of your paper on misogynistic lyrics in rap songs is a violation of copyright too.

Students might want to use an image of the Nike swoosh, and the phrase "Just do it" on a t-shirt or sign encouraging people to rush a fraternity or sorority. This is a violation of the Nike trademark.

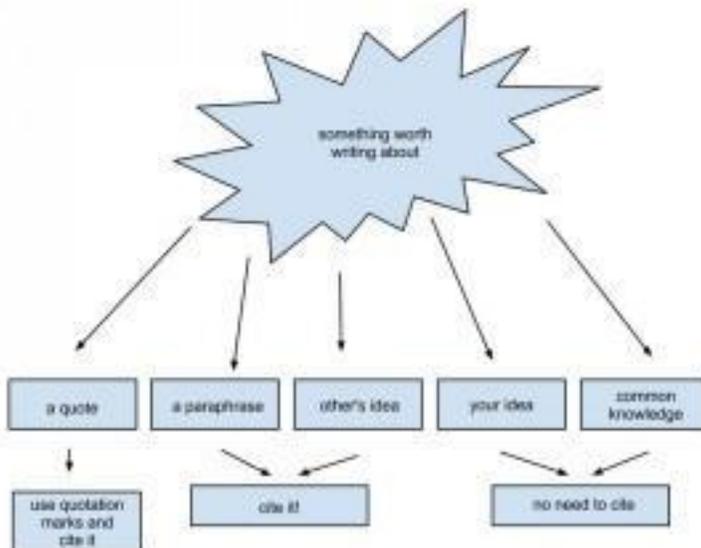
Creating a mix CD from all of your favorite songs to give out to guests at your party is a violation of copyright. (But, making a mix CD of music that you own for yourself is OK!)

Citations: The Confusing

Why Cite?

Citing your sources does a few very valuable things to your paper. It not only increases the credibility of your claims and impresses your reader with the depth and breadth of your research skills, but it also prevents you from plagiarizing and violating copyright law. Citing sources and providing attribution to scholarly works is the only way to provide the necessary evidence that the work you are providing in written form is your unique collection of thoughts that has been brought forth from your unique collection of resources. Citing should not be considered “cheating” because you are stealing ideas from another individuals work. Instead, it is an opportunity to show that you are standing on the shoulders of giants. You have read and understood their work, and you are ready to forward that thought. Embrace the citation.

What needs a Citation?



Citing your sources in a paper will enable your reader to identify where you got a particular piece of information. Things that are just understood to be true do not need a citation, but anything that might be questioned should be. For example, consider the following paragraph: (1) Summer time in North Carolina brings with it elevated temperatures, including high temperatures that daily rise into the 90s, or even above 100 degrees Fahrenheit. (2) Meteorologists and climatologists who track the temperature fluctuations over time have noted that, of the 10 hottest years on record in North Carolina, six of them have been posted since the year 2001. (3) Global warming is surely to account for this change.

In the above example, the first sentence does not need a citation. It is obviously true. The second sentence needs a citation since it is a factual piece of information that your reader may want assurance that it is true. It is something that requires a reference to an authoritative source. That authoritative source might be the NOAA (National Oceanographic and Atmospheric

Administration) website or it might be something that was read in an article in *Time*. But to be authoritative, you should not reference that you heard it around the dinner table, even if that is where you first heard it. Hopefully, you've done some fact checking to find out that it's true. That's called research! (By the way, the author did not do any fact checking on that paragraph above so don't cite ME as an authoritative source. I'm just using this as illustration.)

The third sentence "Global warming is surely to account for this change." may not need a citation, especially if the reason for the paper is a persuasive paper meant to convince your readers that global warming is real. Presumably, you'll be giving many more citations throughout the paper that will explain your position in detail and will back up your claims with many more authoritative sources. Alternatively, if this is a quote, from Al Gore then you should include that sentence in quotes, and include the source for THAT quote.

With citations, it would look something like this:

Summer time in North Carolina brings with it elevated temperatures, including high temperatures that daily rise into the 90s, or even above 100 degrees Fahrenheit. Meteorologists and climatologists who track the temperature fluctuations over time have noted that, of the 10 hottest years on record in North Carolina, six of them have been posted since the year 2001. ("NOAA Study"). "Global warming is surely to account for this change" notes Al Gore in his book *Earth in the Balance*. (44)

In the example above, the parenthetical 44 is the page number in the book *Earth in the Balance* where that quote can be found. If you don't mention the name of the book in the text of the paragraph, you will need to have the author and the page number in your citation. The third sentence then looks like this.

"Global warming is surely to account for this change" notes Al Gore. (Gore 44).

Vetting your Sources

In the above example, I suggested using two reliable sources: a government source (NOAA) and a renowned author and former Vice President. (Al Gore) But what if you don't have such obviously esteemed sources to choose from? What your Uncle Joe heard on NPR and then reported at dinner isn't a good source. But if you took that lead and found an article on NPR's website that reports the information he heard, that IS a good source. If you are finding only unsubstantiated claims on websites that are not from authoritative sources, try to find additional scholarly sources that say the same thing and utilize those sources in your bibliography and citations. Use the databases available for you on the databases page of your library website. Your librarians subscribe to databases for your use and we have vetted them for you. You can be assured that any articles you find there are going to be recognized and valued by your professor. You can also make use of the Bibliographies and Works Cited of articles you find helpful. They will allow you to find still MORE sources that will be valuable. If you still need help ask a librarian. We will help to steer you in the right direction.

Works Cited

In either case, the Works Cited from the example above would include both of these authoritative sources. Using Modern Language Association, 7th edition format, they would look like this:

Gore, Al. *Earth in the Balance: Ecology and the Human Spirit*. New York: Rodale, 1992. Print.
"NOAA Study: Increase in Particles High in Earth's Atmosphere Has Offset Some Recent Climate Warming." *NOAA: National Oceanic and Atmospheric Administration* 21 July 2011. Web. 25 July 2011.

Works Cited or Bibliography?

The *Works Cited*, *References* or *Bibliography* section of your paper is where you really show the hard work you've put in in your research, even before you wrote the first sentence. *Works Cited* and *References* mean the same thing: it is an alphabetic list of all of the sources you cited in your paper. But it includes ONLY those things that you've cited. You may have looked at some sources and kept notes on ideas that didn't actually make it into the paper. If you want to include all of the authoritative works you reviewed, you can put them all into a *Bibliography*. Which you include in your paper is largely a matter of the preference of the preference of your professor or instructor. He or she will give you guidelines on what is needed.

Citation Styles

Below is a sample *Works Cited* with many different citation styles, for illustration.

Works Cited

M. Bracke, "Evolution of Reference: A New Service Model for Science and Engineering Libraries," *Issues in Science and Technology Librarianship*, vol. 28, pp.56-99, Jan. 2008. (IEEE)

Gayton, Jeffrey T. "Academic Libraries: 'Social' or 'Communal?'" *The Nature and Future of Academic Libraries.* *The Journal of Academic Librarianship* 34.1 (2008) : 60-66. Web. 19 Nov 2008. (MLA)

Katz, B. (2001). Long live old reference services and new technologies. *Library Trends*, 50(2), 263. (APA 6th ed)

1. Joshua I. Weinstein, "The Market in Plato's *Republic*," *Classical Philology* 104 (2009): 440. (Chicago Manual of Style)

Looking at this list of citations, you can see that all of the citation styles will allow a researcher to get back to your original research. You can further see that it is really important to utilize only one format and be consistent when writing up your works cited lists. Imagine a faculty member trying to figure out the volume number of each of these citations if they all were put into a single Works Cited list. Here's a tip: It's a good practice, generally, to not try to get a faculty member angry as he or she is finishing reading your paper!

Below is exactly the same article cited in three different citation style formats that are frequently required in undergraduate classes; Chicago Manual of Style, MLA and APA.

Susan Collins, Linda Dujmic, and Terry Hurlbert. "Going Off Site: Implementing a Plan for a Library Storage Facility." *Technical Services Quarterly* 23, no. 3 (2006): 39-49.
(Chicago Manual of Style)

Collins, Susan, Linda Dujmic, and Terry Hurlbert. "Going Off Site: Implementing a Plan for a Library Storage Facility." *Technical Services Quarterly* 23.3 (2006) : 39-49. Web. 4 Nov 2009.
(MLA)

Susan Collins, Dujmic, L., & Hurlbert, T. (2006). Going Off Site: Implementing a Plan for a Library Storage Facility. *Technical Services Quarterly*, 23(3), 39-49.
doi:10.1300/J124v23n03_03
(APA)

In comparing them, one can see that they do contain the same information. The article came from the journal entitled *Technical Services Quarterly*. The volume it was in is numbered 23, and it was published in 2006. The authors are obvious as, is the title. But the format is significantly different. The MLA and APA citation is double spaced to the single spaced Chicago Manual of Style format. The MLA format identifies the article as having come from web content, while the Chicago Manual of Style and APA format is silent on that issue. While the order of the name in Chicago Manual of Style and APA is firstname, lastname (Susan Collins), and in MLA it is reversed, (Collins, Susan) they would both fall in the same place in a list of works cited: alphabetically by the first author's last name. Which format is used is really one of personal preference, or the personal preference of your instructor. Different professions require the use of different citation styles that fit the specific needs of researchers in that profession. As a writer, your job is to ensure that you are consistently adhering to the required format style of your paper. If your professor is unconcerned about choosing a particular style, choose the one that is most comfortable for you.

Conclusion

Using intellectual property in an ethical manner requires the author (you) to be conscientious and informed. Respecting the rights of copyright, trademark and patent owners, through proper attribution and obtaining permission (when needed), spurs future creative endeavors. Use the works of others, but cite them properly.

Additional Resources

For more help on formatting a citation, look for citation help” link on your library’s home page and review the [Citation Guides and Style Help](#) page. Additional help for writing style and citing sources can be found at [Purdue’s OWL page](#). And don’t forget to take advantage of resources like your university’s Writing_Center.

- 1 Copyright Website
- 2 [A Fair\(y\) Use Tale](#): An interesting mashup on copyright using Disney videos.
- 3 [Copyright on Campus from the Copyright Clearance Center](#)

Works Cited

Butler, Rebecca P. 2001. “Copyright as a Social Responsibility-Fair Use: I Need It Now!” Knowledge Quest 29, no. 3 (January/February): 35-36.