

ACADEMIC RESEARCH SKILLS - LIB101 BBCC



Carleigh Hill
Big Bend Community College

Academic Research Skills - LIB101 BBCC

This text is disseminated via the Open Education Resource (OER) LibreTexts Project (<https://LibreTexts.org>) and like the thousands of other texts available within this powerful platform, it is freely available for reading, printing, and "consuming."

The LibreTexts mission is to bring together students, faculty, and scholars in a collaborative effort to provide an accessible, and comprehensive platform that empowers our community to develop, curate, adapt, and adopt openly licensed resources and technologies; through these efforts we can reduce the financial burden born from traditional educational resource costs, ensuring education is more accessible for students and communities worldwide.

Most, but not all, pages in the library have licenses that may allow individuals to make changes, save, and print this book. Carefully consult the applicable license(s) before pursuing such effects. Instructors can adopt existing LibreTexts texts or Remix them to quickly build course-specific resources to meet the needs of their students. Unlike traditional textbooks, LibreTexts' web based origins allow powerful integration of advanced features and new technologies to support learning.



LibreTexts is the adaptable, user-friendly non-profit open education resource platform that educators trust for creating, customizing, and sharing accessible, interactive textbooks, adaptive homework, and ancillary materials. We collaborate with individuals and organizations to champion open education initiatives, support institutional publishing programs, drive curriculum development projects, and more.

The LibreTexts libraries are Powered by [NICE CXone Expert](#) and was supported by the Department of Education Open Textbook Pilot Project, the California Education Learning Lab, the UC Davis Office of the Provost, the UC Davis Library, the California State University Affordable Learning Solutions Program, and Merlot. This material is based upon work supported by the National Science Foundation under Grant No. 1246120, 1525057, and 1413739.

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation nor the US Department of Education.

Have questions or comments? For information about adoptions or adaptations contact info@LibreTexts.org or visit our main website at <https://LibreTexts.org>.

This text was compiled on 06/15/2026

TABLE OF CONTENTS

Licensing

Chapter 1: Introduction to LIB101

- 1.1: Welcome to LIB101!
- 1.2: The Syllabus
- 1.3: How to be an Online Student
- 1.4: Bonaudi Library at Big Bend Community College
- 1.5: Why is Information Literacy important?

Chapter 2: Getting started

- 2.1: The Research Process
- 2.2: How to Develop a Good Research Topic
- 2.3: Keywords
- 2.4: Translating a topic into keywords

Chapter 3: Types of Information Sources

- 3.1: Information Sources - Primary, Secondary, Tertiary
- 3.2: Information Formats
- 3.3: Popular and scholarly sources
- 3.4: Reading Academic Articles for Research
- 3.5: Information Bias

Chapter 4: Searching the Library Catalog

- 4.1: Using OneSearch - The Library's Search Tool
- 4.2: Practice searching in the Library Catalog
- 4.3: Refining your search results
- 4.4: Advanced Search Options in OneSearch
- 4.5: Keyword adjustment
- 4.6: Combining keywords
- 4.7: Iterating for more Keywords
- 4.8: Troubleshooting your search
- 4.9: Saving a Library Resource
- 4.10: Finding Your Books
- 4.11: How Libraries Organize Materials
- 4.12: Dewey Decimal Classification (DDC)
- 4.13: Library of Congress Classification (LCC)

Chapter 5: Searching Library Databases

- 5.1: Databases 101
- 5.2: Choosing a database
- 5.3: Searching for popular sources
- 5.4: Searching for scholarly sources
- 5.5: You Found Some Resources! Now What?
- 5.6: Permalinks in databases
- 5.7: Troubleshooting your search

Chapter 6: The Age of Algorithms

- 6.1: What are Algorithms?
- 6.2: The Influence of Algorithms
- 6.3: Algorithmic Bias
- 6.4: The Attention Economy
- 6.5: Algorithms and Polarization
- 6.6: Filter Bubbles
- 6.7: Conclusion

Chapter 7: Searching the Web

- 7.1: Types of (free) web resources
- 7.2: Google Scholar
- 7.3: Web Search Engines
- 7.4: Tips for Common Search Tools
- 7.5: Open Access
- 7.6: Chapter Scenario
- 7.7: Controlling Your Search
- 7.8: Searching and Privacy

Chapter 8: Ethical and Legal Use of Information

- 8.1: Copyright
- 8.2: Fair Use
- 8.3: Plagiarism
- 8.4: How to Avoid Plagiarism in the Research Process
- 8.5: Plagiarism and the Internet
- 8.6: Introduction to Citing Your Sources
- 8.7: Citing and Citations
- 8.8: Citations IRL (in real life)

Chapter 9: Citing Sources

- 9.1: Citation and Citation Styles
- 9.2: Steps for Citing
- 9.3: When to Cite
- 9.4: APA Style
- 9.5: MLA Style
- 9.6: Citation Generators
- 9.7: Writing an Annotated Bibliography

Chapter 10: Practical Evaluation of Information

- 10.1: Evaluate - CRAP
- 10.2: Expertise and authorship
- 10.3: But is it Relevant?
- 10.4: Misinformation, Disinformation, and Fake News- How to Spot Them
- 10.5: Fact Check - SIFT
- 10.6: Explore the source
- 10.7: Putting it all together
- 10.8: Last thoughts on evaluation

[Index](#)

[Glossary](#)

[Detailed Licensing](#)

[Detailed Licensing](#)

Licensing

A detailed breakdown of this resource's licensing can be found in [Back Matter/Detailed Licensing](#).

CHAPTER OVERVIEW

Chapter 1: Introduction to LIB101

[1.1: Welcome to LIB101!](#)

[1.2: The Syllabus](#)

[1.3: How to be an Online Student](#)

[1.4: Bonaudi Library at Big Bend Community College](#)

[1.5: Why is Information Literacy important?](#)

[Chapter 1: Introduction to LIB101](#) is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

1.1: Welcome to LIB101!

This is a fun, info-packed course that explores searching techniques, research tools, and hones information evaluation skills. You should expect to spend between 3-4 hours a week doing the readings and the assignments. It is recommended that you work early in the week for an hour, then come back later in the week to finish the assignments. This is especially true of weeks with discussions that require responding to another student's work. All the weeks' content and assignments are available and you may work ahead.

The learning outcomes for this class

- Analyze and select appropriate resources from a variety of information systems, including the library catalog, library databases, and internet sources.
- Identify and create search strategies using keywords, truncation, Boolean Logic on various information platforms.
- Recognize relationships with library professionals as guidance, assistance, and support for ongoing academic success.
- Critically evaluate information for currency, relevancy, accuracy, authority, and purpose in context of research inquiry.
- Demonstrate the ability to understand and formally respond to research writing with critical analysis and understanding.
- Synthesize research results from a variety of sources, formats, and viewpoints into an annotated research evaluation

Course title versus course philosophy

The title of this course is Academic Research Skills, but I hope that what you'll gain is Information Literacy. Later in this chapter we'll learn more about what information literacy means.

1.1: Welcome to LIB101! is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

1.2: The Syllabus

A syllabus is a contract between you and your instructor that lays out how the course will go: expectations, late policy, grading, getting help, etc. You'll have a syllabus for every class in college, and you should treat it like a reading assignment and read it.

Pro-tip: *Treat reading the syllabus like it's part of your grade- sometimes it is!*

You can access your LIB101 syllabus any time in the "Syllabus" link in the left-hand menu of the Canvas course.

1.2: The Syllabus is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

1.3: How to be an Online Student



Is this your first online class?

Learning online requires you to be more self-directed, autonomous, and organized than classroom learning. You're not only learning the course material, you're learning how to *be* an online student. It's a little different: it is easier to get behind, forget to check in, skip readings, or miss assignments simply because we don't meet weekly to keep you accountable. You may also have to learn how to navigate Canvas.

Deadlines

Do yourself a favor and set yourself a schedule early on. Note when assignments are due (find due dates in the syllabus or in "Assignments" section), and plan time to complete them (anticipate 3-4 hours per week for this course). Be sure to note campus closure dates throughout the quarter.

Summary

- Read all course materials and watch all videos. Assignments will be much easier and will get a better grade if you do!
- Ask for help *before* you start to panic.
- If you start to panic, ask for help.
- If you get behind, don't panic. Ask for help. I promise I won't judge you, and I can't help you if you don't talk to me.
 - **You can email me,**
 - **You can email the library,**
 - **You can email librarians,**
 - **Or, if you need help IMMEDIATELY, use the 24/7 Library Chat** (It's the 'Ask A Librarian' button on the right side of [Library Catalog pages](#)). You can chat with a librarian at any hour of the day or night and they will help you solve your issue.
- All help contacts are listed in the very first section of the course - "Welcome"

Image credit: [sarahwynne](#)([opens in new window](#))

1.3: How to be an Online Student is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

1.4: Bonaudi Library at Big Bend Community College

William C. Bonaudi Library is located in Building 1800, on the Moses Lake campus. Our library has:

- access to a huge number of [books\(opens in new window\)](#), eBooks, and magazine and journal articles (we will learn more about this later)
- [textbooks\(opens in new window\)](#) and other course materials (so you don't have to buy them!),
- quiet areas to study & study rooms,
- computers and printers for students to use.

Bonaudi Library has one main desk, with several services:

- **Circulation Services (or Check-out)**

This is where you can check out books, request Course Reserves textbooks, settle up lost fines (we do not charge late fees!), or ask general questions about the library or your account.

- **Research Help (or Reference)**

You can talk with a librarian who can help you find a specific book or article, help you interpret your homework, or help you with your research assignment.

- walk-up: [see our regular hours\(opens in new window\)](#)
- phone: (509) 793-2350
- email: librarymail@bigbend.edu
- online chat - "[Ask a Librarian](#)" blue tab on the right on any library web page to get help from librarians 24 hours a day

- **ID cards**

- **Technology Check-out**

- **eLearning office**

For more information about the Big Bend Community College Library, watch the following video:

1.4: Bonaudi Library at Big Bend Community College is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

1.5: Why is Information Literacy important?

What is Information literacy?

In short, Information Literacy is knowing how to find, evaluate, and use the information you need. Information literacy is learning how to swim rather than drown in the information sea. Learning to cope with information overload. Spending less time researching and get better results. Interpreting information for bias and credibility. You're setting yourself up to be able to solve any problem you're presented!

The skills you learn will transfer to any school or work environment you encounter in the future. The exercises and assignments will provide you with many opportunities for hands-on practice with a variety of information resources and search engines.

Some questions To consider over the term:

- What do we really need libraries for now that there's Google?
- What is academic information and how do I use a library to find it?
- How do I find information that actually answers my research question?
- When might library resources be more useful than Internet searching?
- What is a search strategy and why is it important in research?
- How do I find articles and eBooks using databases?
- Can I manipulate Google to get fewer, better results?
- Is the information I've found trustworthy and can it be used in academic papers?
- How does college research work and how can I get help during the process?

Image credit: [freemove.org](https://www.freemove.org)



1.5: Why is Information Literacy important? is shared under a [CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/) license and was authored, remixed, and/or curated by Clackamas Community College Library.

CHAPTER OVERVIEW

Chapter 2: Getting started

[2.1: The Research Process](#)

[2.2: How to Develop a Good Research Topic](#)

[2.3: Keywords](#)

[2.4: Translating a topic into keywords](#)

[Chapter 2: Getting started](#) is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

2.1: The Research Process

The Research Process

Research is frequently cited as being a frustrating process for students. We've heard that research seems to take longer than it should and that finding the exact thing you want is really difficult. And sometimes, just when you think you are getting somewhere, you realize you need to adjust your topic.

Part of the reason research can seem so frustrating is that people tend to approach it as a linear process- you might think that first you pick a topic, then you perform some searches, then you identify your resources, and then, finally, you move onto writing the paper. That process is linear because it goes from one step to another in a straight line, like this:

X choose a topic → search → identify resources → write paper

In reality, research doesn't really work like that! You'll have to go backwards, repeat some steps, and even repeat the entire process in order to do it right. Research is actually an **iterative process**, meaning that it is a circular process where you repeat steps more than once. It looks a lot more like this:



Image created and shared by CCC Library

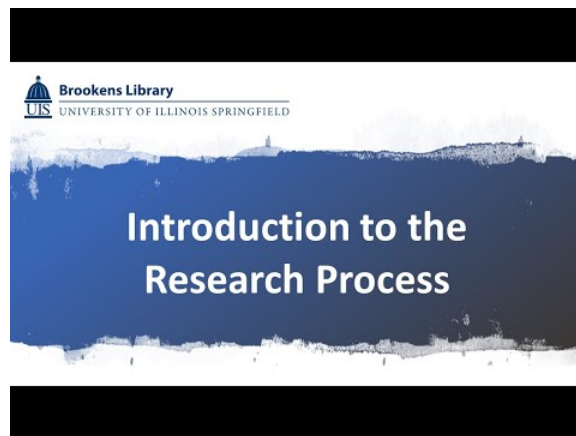
Definition: Iterative

An iterative process is one that repeats itself. Iteration is the repetition of a process in order to generate multiple outcomes. Each repetition of the process is a single iteration. When researching, each unique search is an iteration.

So why is it **iterative** (circular and repeating) and *not* linear? Because you are learning more information about your topic as you research! You figure out what isn't working, but also discover new ideas and concepts that may help you research more effectively. Basically, the information you find while you research is going to change the way you think about your topic and inspire new research strategies.

If you are searching iteratively by repeating research steps as necessary, you'll save yourself a lot of frustration. The iterative search process has more steps than the linear search process, but those extra steps actually save you time because you give yourself the opportunity to catch problems before it's too late. You'll learn plenty of tricks in LIB101 to make your research process more efficient; knowing that the research process is iterative is the first one!

Watch this short video for another explanation of the research cycle:



2.1: The Research Process is shared under a [CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/) license and was authored, remixed, and/or curated by Clackamas Community College Library.

2.2: How to Develop a Good Research Topic

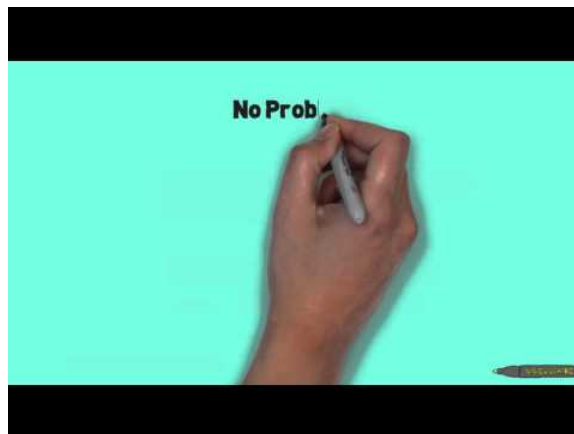
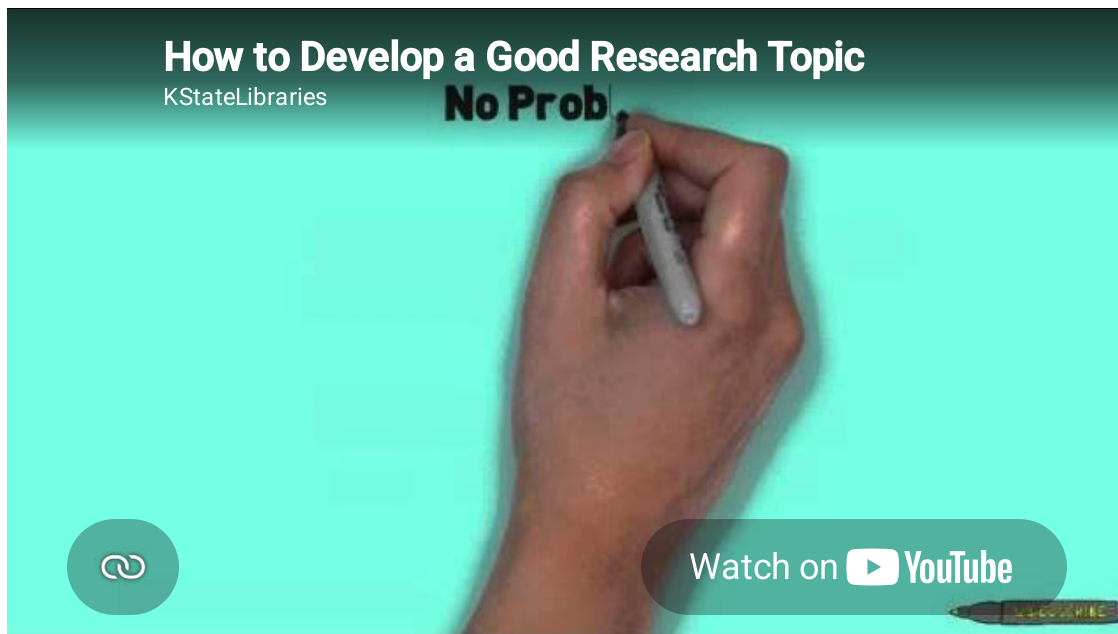
How to Develop a Good Research Topic

Because LIB101 is designed for you to learn about and practice the research process, you will **not** be developing your own research topic completely. Instead, you'll choose from a list of general topics and then develop the topic into a manageable research question. These premade topics are designed for beginner researchers and are meant to set you up for success in your research.

Even though you won't be developing a research topic for this class, it's a good idea to understand how to develop a good research topic so you are prepared for your future research assignments.

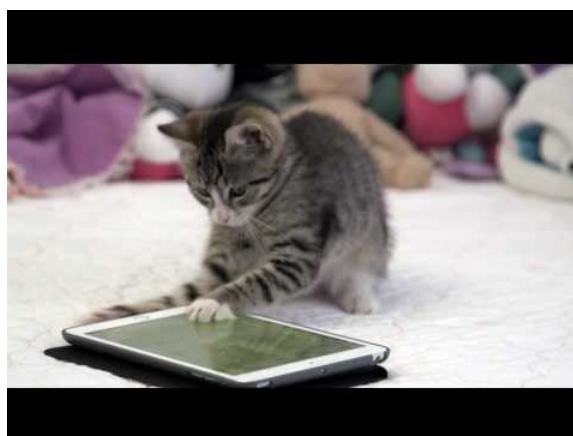
So how do you choose a topic? And, once you've chosen, how do you adjust the topic into a good one? Watch this required video for some ideas on developing a **good** research topic:

How to Develop a Good Research Topic (created and shared by [KState Libraries](#)(opens in new window))



What if you have an interest that you want to research for an assignment? How do you go from something you're interested in to a good research topic? Watch the video below to find out:

Turning an Interest into a Researchable Question (created and shared by [PCC Library](#)(opens in new window))



2.2: [How to Develop a Good Research Topic](#) is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

2.3: Keywords

Keywords

Once you have a research topic, you need to get ready to search.

Before you head to a search engine and get started, you want to come up with your search strategy. You wouldn't leave for a vacation without packing, and you shouldn't search without a plan!

Like a lot of other technology, search engines have their own rules. Knowing these rules will help you be more effective in your research. The first rule of search engines is that searching with full sentences is not as effective as searching with **keywords**. **Keywords** are usually nouns or short phrases (2 or 3 words that make up a single idea), and they are **the most important words in your topic**.

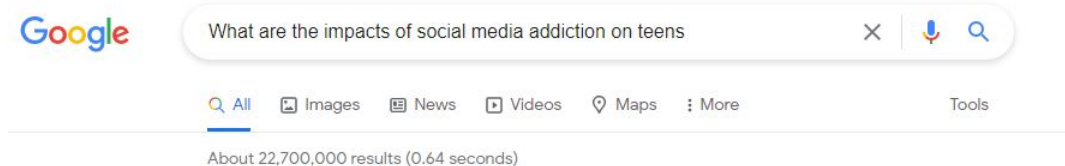
Definition: Keyword

Keywords are usually nouns or short phrases (2 or 3 words that make up a single idea), and they are the most important words in your topic. These are the words and phrases you will put in the search box when doing research in the library catalog and databases.

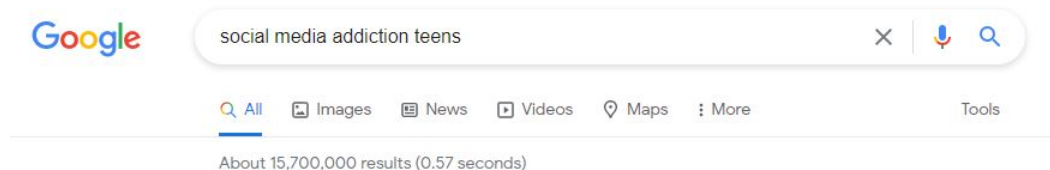
Why should you search with keywords instead of full sentences? Because search engines search for every single word you put into the search bar. This means that your search results can quickly become cluttered with useless resources if you include words that aren't relevant to your topic (think *the*, *is*, *it*, *a*, *etc.*). Searching with full sentences makes the search engine look for extra, unnecessary words and impacts your search results.

Let's look at an example.

I've decided on the following research question: *What are the impacts of social media addiction on teenagers?* So, I go to Google and put the entire question in the search bar. Here's what I get:



Over 22 million results! That's way too many. Let's try cutting out the unimportant words in that sentence and only keeping the words that are really important for my topic:



Now I see 15.7 million results. That's still a lot, but much better than before! Those extra words (*what*, *are*, *the*, *impacts*, *of*, *on*) added 7 million extra results to my search.

Remember: **keywords** will be the most important words directly related to your topic. It's important to search with keywords so your results are as relevant to your topic as possible.

2.3: Keywords is shared under a [CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/) license and was authored, remixed, and/or curated by Clackamas Community College Library.

2.4: Translating a topic into keywords

By now, we know that it's important to come up with a good list of keywords to cover your bases when researching your topic, and that searching with keywords will save you time during the research process. Figuring out what keywords to search with does take some brain power, but luckily, there are some steps you can follow to create a well-rounded set of keywords.

Step 1. Write down or type out your topic sentence or research question.

Example:

What are the impacts of social media addiction on teenagers?

These will be the most important single words or phrases (single ideas that happen to have more than one word) in the sentence.

Example:

What are the impacts of social media addiction on teenagers?

Remember: only select the **most important** words from your topic. Some words you don't need to highlight and why:

- it, to, the, of - articles and prepositions can usually be ignored because they are so common, and are not directly related to your topic.
- should, be, use, for - adjectives and words that indicate a relationship between two ideas can usually be ignored because they may eliminate otherwise relevant results from your search. These words are also not directly related to your topic.

Step 3. Brainstorm alternative keywords.

Look at your highlighted words from your topic sentence or research question. What other words could people use for those ideas? Use what you already know about your topic to come up with your alternative keywords. **Remember:** a good list of alternative keywords is **not** going to be super long, it **is** going to predict alternative words authors might use when they write about your topic.

Example:

What are the impacts of social media addiction on teenagers?



Social media: Instagram, Facebook, TikTok

Addiction: Dependency

Teenagers: Adolescents, teens, youth, young adults

Notice that my list of keywords isn't super long. It includes my original keywords from my research question, plus some alternatives that I think authors might use when writing about my topic. If I find out that I'm missing important keywords, I can always add to my keywords list as I research!

Step 4. Put quotation marks around phrases.

Look for keywords that are phrases (single ideas that happen to have more than one word) and place quotation marks around these phrases.

What are the impacts of **social media addiction** on **teenagers**?



"Social media": Instagram, Facebook, TikTok

Addiction: Dependency

Teenagers: Adolescents, teens, youth, "young adults"

Wait, what do quotation marks do?!

Quotation marks go around keywords that are **phrases**. **Phrases** are single ideas that happen to have more than one word, like "*social media*." Quotation marks tell the search engine to search for that **phrase** instead of searching for the words separately. This is important because my topic is about "*social media*" (websites or apps that allow users to share content and participate in social networking), not *social* (relating to society/community) and *media* (broadcasting, internet, journalism).

Here's how quotation marks work when searching:

1. I put *social media addiction teenagers* into the search bar without any quotation marks.
2. The search engine sees that I am searching for **four** keywords (social, media, addiction, teenagers). It will find me results that include those four keywords.
3. In some results, some of the keywords might be together ("An *addiction* to *social media* is tough for a *teenager*...").
4. In other results, those keywords will be separated ("You may have seen the *media* covering an *addiction* problem faced by *teenagers*, whose *social* habits...").
5. In both cases the search engine has done its job because all four of my keywords are found in the text. But that second result isn't really about an addiction to social media, so I can work to improve my search.

Let's improve that search with quotation marks:

1. I put "*social media*" *addiction teenagers* into the search bar with quotation marks around "*social media*."
2. The search engine sees that I am searching for **three** keywords ("*social media*," *addiction*, *teenagers*). The quotation marks around "*social media*" have told the search engine that those two words are actually a **phrase** and are to be treated as a single keyword. This means that all my results have to include the **phrase** "*social media*."
3. The search engine will now find me results that include my three keywords.
4. The first result from my example above will still show up in my results list, because the words *social* and *media* appear as a **phrase** ("An *addiction* to *social media* is tough for a *teenager*...").
5. The second result ("You may have seen the *media* covering an *addiction* problem faced by *teenagers*, whose *social* habits...") will no longer appear because the words *social* and *media* were separated in the text.
6. I successfully used quotation marks to remove an irrelevant result from my search!

Remember, you do not need to add quotation marks around single words.

Watch the video below to see Clackamas Community College Librarian Justine complete the 4 steps of translating a topic into keywords with the example topic from this reading. Watch closely, you'll be completing these steps in your Module 2 Discussion Assignment!

Translating a Topic into Keywords - LIB101

Justine Munds

What are the impacts of social media addiction on teenagers?

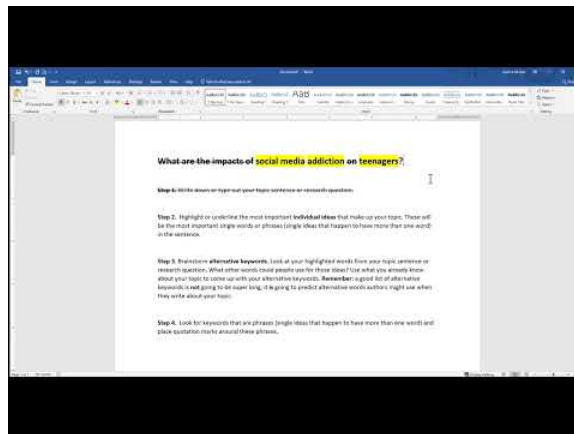
Step 1. Write down or type out your topic sentence or research question.

Step 2. Highlight or underline the most important **individual ideas** that make up your topic. These will be the most important single words or phrases (single ideas that happen to have more than one word) in the sentence.

Step 3. Brainstorm **alternative keywords**. Look at your highlighted words from your topic sentence or research question. What other words could people use for those ideas? Use what you already know about your topic to come up with your alternative keywords. **Remember:** a good list of alternative keywords is **not** going to be super long, it is going to predict alternative words authors might use when they write about your topic.

Step 4. Look for keywords that are phrases (single ideas that happen to have more than one word) and place quotation marks around these phrases.

Watch on  YouTube



2.4: Translating a topic into keywords is shared under a [CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/) license and was authored, remixed, and/or curated by Clackamas Community College Library.

CHAPTER OVERVIEW

Chapter 3: Types of Information Sources

[3.1: Information Sources - Primary, Secondary, Tertiary](#)

[3.2: Information Formats](#)

[3.3: Popular and scholarly sources](#)

[3.4: Reading Academic Articles for Research](#)

[3.5: Information Bias](#)

This page titled [Chapter 3: Types of Information Sources](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

3.1: Information Sources - Primary, Secondary, Tertiary

Information Creation & Context

We can group information sources into three basic categories: primary, secondary, and tertiary. When we make distinctions between these three categories of sources, we are relating the information itself to the **context in which it was created**. Noting this relationship between creation and context helps us understand the big picture in which information operates, and prompts us to consider whose **voices** we are including in our research, and whose voices may be left out.

Primary Sources

Primary sources are **first-hand** observations or experiences of an event. They can also be the **original** sources of information before they have been analyzed, such as statistical data sets. Examples of primary sources include:

- Eyewitness reports (interviews, photographs)
- Speeches, diaries, memoirs
- Empirical research
- Original documents, historical newspaper articles
- Literary works (novels, plays, poems), artworks
- Tweets

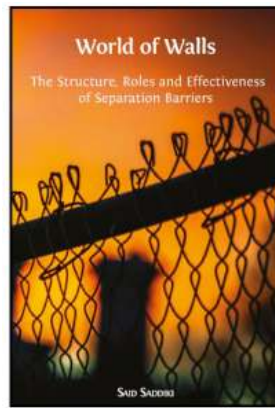


Eyewitness photograph: Protesters speak on the steps of San Francisco City Hall for a “Families Belong Together” rally.

Secondary Sources

Secondary sources are created after an event occurred and offer a **review or an analysis** of the event; they provide an **interpretation** of the primary source or data without offering new data. Examples of secondary sources would be:

- Biographies, nonfiction books
- Editorials
- Literary criticism and reviews
- Periodicals (such as scholarly journals, magazines, or newspapers)
- Retweets



Nonfiction book analyzing the consequences of the construction of physical and virtual walls.

Tertiary Sources

Tertiary sources are **compilations** of information coming from secondary and primary sources; these can be lists or collections, and are generally reference material that can help you find, or direct you to, secondary and primary sources. Examples of tertiary sources include:

- Encyclopedias, dictionaries
- Indexes
- Databases, catalogs
- Most textbooks



Wikipedia, an online encyclopedia, is an example of a reference source (tertiary)

Note: These categories may differ between subject areas. For details, see section on [Information Sources: Traditional Formats](#).

Sources

Creation & Context section adapted from “[Primary, Secondary & Tertiary Sources](#)” by Teaching & Learning, [Ohio State University Libraries](#), licensed under [CC BY 4.0](#)

Examples adapted from “Library 10” by [Cabrillo College Library](#), licensed under [CC BY 4.0](#)

Image: “[Families Belong Together SF march](#)” by [Pax Ahimsa Gethen](#) is licensed under [CC BY-SA 4.0](#)

Image: “[World of Walls: The Structure, Roles and Effectiveness of Separation Barriers](#)” by [Said Saddiki](#) is licensed under [CC BY 4.0](#)

This page titled [3.1: Information Sources - Primary, Secondary, Tertiary](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [5.2: Information Sources- Primary, Secondary, Tertiary](#) by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) is licensed [CC BY 4.0](#).
Original source: <https://introtocollegeresearch.pressbooks.com/>.

3.2: Information Formats

Information sources are often identified by formats: is the information found in a book, a scholarly journal article, or a magazine or newspaper article? Most formats can also be available as print (physical) or digital (online). **So, what makes them different or unique?**

Books

You are probably familiar with this type of information source and it might just be the first kind of resource you think of when you think of libraries. Books are different than the other resources in a few ways: They can explore and present a topic in breadth and depth much easier than a magazine or newspaper. You may find some special magazine issues or journal issues that are devoted to a theme, but the coverage will still be limited compared to a book's possibility. Books can be written by a single author or multiple authors; they can be compiled by an editor to represent different viewpoints or writings from various authors all exploring the same topic from different angles. Because of all of this, though, the information found in books may not be the most current information available.

Academic/Scholarly Journal Articles

Sometimes also called "peer-reviewed" articles, these go through a rigorous review process before they are published. They reflect research that is considered primary or secondary depending on how the research is conducted: In the humanities (such as English or History), these are considered secondary sources, but in the sciences (such as Biology) and social sciences (such as Anthropology), original research articles are considered primary sources. Unlike books, these journal articles tend to focus on specific questions about a topic; they don't explore or present a topic as broadly or deeply as a book, but the information they present can be much more current than a book.

Also, because they are so focused, they might be seen as more specialized than a book's coverage, and they will generally be written to an expert audience. This means that they are not written for the average person to read, but for those who are already familiar with the concepts surrounding the topic. Their target audience are others who have some expertise in a specific subject area—even though undergraduates are often required to use them too. Another thing to consider is that access to journal articles can be tricky. If your library doesn't have access to a particular journal, either through a database or direct subscription, getting access on your own could be expensive and complicated (though as a community college student, you're not usually expected to pursue resources beyond your college library).

Magazine Articles

These are a bit different than your academic/scholarly journal articles. Magazines tend to use a lot of colorful images designed to grab a reader's attention, while scholarly journals feature graphs, charts, and tables with very little color, designed to convey information. Magazine articles will be written so that the average person can understand what is being discussed in the article. The articles tend to be much shorter than a scholarly journal article. Magazine articles can feature interviews and will look at current events or trends, but they won't be seeking answers to research-based questions. Instead, their focus is on what might hold popular interest.

Newspaper Articles

Newspaper articles typically describe current events. In contrast to magazine and scholarly journal articles, newspaper articles tend to be very short. Newspapers are typically published daily, and therefore provide the most up-to-date information about an event. Their authors are journalists who may engage in investigative reporting, but they do not conduct original scholarly research. While these articles are often proofread and reviewed for accuracy before publication, they do not go through an extensive peer review process.

Government Documents

Government documents can share characteristics with books, journal articles, or even newspaper articles. "Government documents" is a broad term used to categorize any information disseminated by a government agency. A document could be produced by government bodies at the local, state, federal, and international level, or even government-funded agencies and organizations, and still be considered a government document. The format of government documents includes laws, reports, statistical data, and

official proceedings. Government documents serve as an official record of government actions and are disseminated broadly to the public.

Documentaries

Documentaries are films that provide us with a deep look at a specific topic. Non-fiction in nature, documentaries can advocate for a cause—which means we must be careful to notice any possible bias. They can be journalistic in nature where they report on an event, happening, people, and/or other subjects in detail. They can share an experience someone went through. Documentaries may also be entertaining, so that they are interesting to watch.

Radio Programs (Broadcasts and Interviews)

Radio programs can be a strong information source, especially if you're looking for interviews with specific people. They also report out on current events, but unlike our traditional formats where the information is printed and can be referenced later easily, radio broadcasts are usually one-time events. Fortunately, some of the programs are captured in library databases through transcripts, and other times, you might be able to find recordings of them online.

Television Programs (News and Educational Programming)

News and educational programming can be useful sources when doing research. News programs provide details about current events, and may also broadcast interviews. Educational programming might include documentary-style delivery of information, but it can also be instructive. In some cases, there may be dedicated channels that provide specialized content such as Discovery, The History Channel, and C-SPAN.

Wikis

Wikis are a type of website that typically allow a community of users to create pages about different topics. The most popular one, and one that you are probably familiar with, is Wikipedia. These websites are usually very simple in appearance and they are unique because they tend to support the idea of a community contributing to sharing information. With this idea, though, is the possibility for information to be shared without review or checked for reliability. Review the Fact-Checking chapter for further information about [how to use Wikipedia effectively](#).

Blogs

Blogs can house primary source material as they are often like online diaries for individuals. In contrast to wikis, blogs are typically written by a single person, and that individual is typically sharing their perspectives or experiences about a specific topic. These can be insightful, but they are usually very opinion driven. And just because someone has a blog about a topic does not make them an expert about that topic.

Podcasts

Podcasts continue to grow in popularity, and over half of Americans have listened to at least one podcast (Winn). If you have not experienced a podcast, they are similar to radio programs, except that you don't have to listen to them live to enjoy them—they can be downloaded or streamed at a time convenient to the listener. You can listen to them in your car or from a capable device, like a smartphone. They can be focused on a specific subject area, contain interviews, or be a fictional series show. But just like blogs, podcasts can be hosted by anyone—and can be driven by opinions and biases.

Social Media content

Social media content has expanded from simple personal statements of activity to a full range of formats (text, video, photo, audio recordings, gifs/memes). Scholarly publishers, news outlets, public figures, government agencies, and individuals can all have social media accounts and use them to post pretty much however they like. Some social media "creators" are not in fact even associated with actual humans and exist only to create false content. It is possible, and sometimes even applicable, to use social media content in college research, but you must be aware of the challenges of evaluating the content.

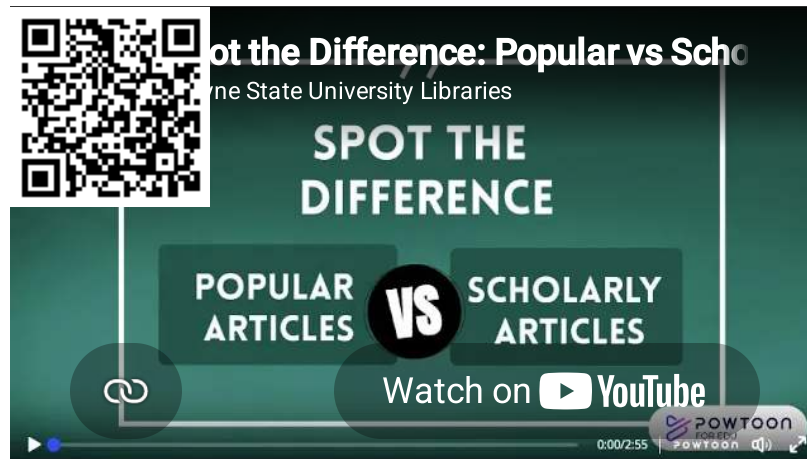
This page titled [3.2: Information Formats](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- **5.4: Information Sources- Traditional Formats** by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introcollegeresearch.pressbooks.com/>.

3.3: Popular and scholarly sources

Articles will make up the bulk of your college research, so this week's work is important! There are many types of articles, and they generally fit into two categories: **popular** and **scholarly**.

This video (4 minutes) introduces you to the primary differences of popular and scholarly articles: who writes them (authorship) and who they are written for (audience).



To recap:

Popular sources are generally written for a broad, general audience.

- No specialized knowledge is required to understand them.
- They're called "popular" because they're accessible for all readers (not necessarily because everyone *likes* them).
- The bulk of the information we interact with in the media everyday falls into the popular category.
- Authors are writers, but not necessarily content experts. Articles are typically written by journalists or magazine staff writers.
- Articles don't typically provide in-depth coverage of topics.

Scholarly sources are written for experts, researchers, and students.

- Specialized knowledge is often required to understand them. Content is complex, nuanced, and in-depth. Specialized or discipline-specific language is used.
- Scholarly sources are long and share good, meaty information.
- Authors are experts in their fields: researchers conducting primary research, practitioners, professors and scholars.
- Author credentials are either provided in the article or easy to access. Credentials could include work experience, lived experience, and education.
- Scholarly sources add value to your learning process as they often provide original research and in-depth analysis at a level popular articles cannot match.
- Scholarly sources teach you and spur your thinking.

Peer-reviewed articles are ONE type of scholarly source.

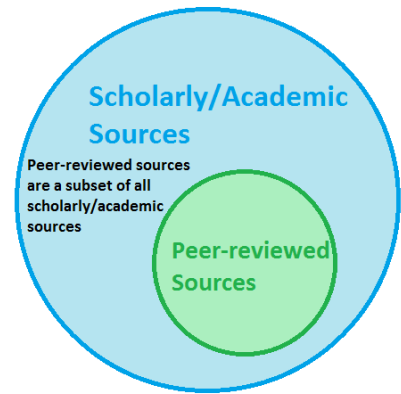
But peer-reviewed articles are definitely **not** the only type of scholarly sources for you to use. Peer-reviewed articles are just one sub-set of scholarly publishing. They happen to fall on the far end of the scholarly continuum.

Other types of scholarly sources include:

- Books and eBooks
- Documentaries and educational films
- Websites
- Government reports
- [White papers](#)(opens in new window)
- Blogs

- Dissertations
- In-depth journalism reports
- Film, book, art critiques or analyses

You will learn to determine if a source is scholarly or popular.



3.3: Popular and scholarly sources is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

3.4: Reading Academic Articles for Research

Academic and popular sources

When Lily started her research, she found many sources. Some were very short and quick to read, and others were extremely difficult. At first she felt overwhelmed trying to figure out which articles she needed to read, and which ones would be most useful for her paper. In order to answer that question for Lily's research (and yours), it's useful to think about what kinds of articles you can find in a database. Figure 3.3.1 shows a student doing research online.



Figure 3.4.1: "Working Outside" by CollegeDegrees360 is marked with CC BY-SA 2.0.

There are several kinds of sources in a database. The most common are academic sources and popular sources. Academic sources (also called scholarly sources) contain original research and are written for other academic readers. Popular sources include newspapers and magazines, and are written for a general audience.

Table 3.8.1 covers the characteristics of scholarly and popular sources

Table 3.8.1 Comparison of academic and popular sources by authors, readers, purpose, style, peer review, and citations

Feature	Academic	Popular
Content	Contains original research data such as scientific studies	Covers popular interest topics or summarizes research done by others
Authors	Expert scholars (professors or researchers with graduate degrees) with their credentials listed	Not experts, often journalists or writers
Readers	Scholars, researchers	General public
Purpose	To share research findings and expand knowledge	To inform or entertain
Style	Straightforward design with complex language	Flashy, eye catching design with accessible language
Citations	Contains citations	Few or no citations
Peer-review	Articles are peer-reviewed. This means that other scholars review the work to make sure that it is accurate.	Articles are not peer-reviewed.

Both kinds of sources can be useful in your research. Scholarly sources may have more specific and researched facts about your topic, while popular sources may contain current news and opinions or examples that you can use in your research paper. Check

with your instructor to see if there are requirements about what kinds of sources to use for your own assignment.

Reading academic articles

You have already read a lot of popular sources and you already know how to read a general article and find information in it. However, reading academic articles is different. These are long and may feel very difficult at first. This guide will help you to understand the structure of an academic article and decide if it will work for your research question.

Parts of an academic journal article

Popular sources generally have one “story” from the beginning to the end. There may be subheadings to help you organize the main points, but those subheadings will be related to the information from the article.

Academic articles are different. They have a specific structure and each section is separate. Here are the most common sections that you will find in an academic article in the sciences or social sciences (although not every article will contain each section):

- **Title:** a concise and descriptive title. This lets you know what the article is about.
- **Author Information:** All authors who contributed to the article are listed. Often their affiliated institutions are included here or as a footnote.
- **Abstract:** a short summary of the article. The abstract should share the research findings.
- **Introduction or Background:** an overview of the research area that lays the foundation for the article's research.
- **Methods or Methodology:** This describes how the research study was performed.
- **Results:** a description of the results obtained. It presents the results without providing an interpretation. This often includes figures and tables.
- **Discussion:** This section analyses and interprets the results presented in the Results section. New data is never presented.
- **Conclusion:** This is a short section that summarizes the findings and significance of the article. The conclusion is omitted in some articles.
- **References:** A list of all articles cited in the article. This section is sometimes labeled Bibliography, Works Cited, or Literature Cited.

How to read each section

Now that you know the main parts of an academic article, you may wonder if you need to read each section in the same way, and if you need to read everything slowly and carefully.

The answer to this question is no! Academic sources can be very long and technical. It is easy to get lost in reading. For that reason, you should have a plan for reading and deciding what to use in an article. Table 3.8.2 gives some ideas of how to read each section.

Table 3.8.2 How to read each section of an academic article and questions to ask while reading

Part of the article	How to read	Questions to ask yourself while you are reading
Title	Carefully	Is this topic related to my research question?
Authors	Quickly	Do they have strong credentials that make them credible authors?
Abstract	Carefully	What is the main point of their research or this article? Is this related to my research question? If you use this paper in your research, do not cite from the abstract. Instead, find the relevant part of the article.
Introduction	Somewhat carefully	Why are they doing their research? How does this connect to my topic? Can I cite this information to provide background for my own research paper?
Background or Literature Review	Carefully	What have others already said about my topic? Can I cite this information to support a point in my own research paper?
Methods or Methodology	Very quickly	This information is provided for other researchers who want to do a similar project or for people to evaluate whether or not the research study covered everything it needed to. It may be difficult to understand if you have not studied this field. That's okay. Just move on to the next section.

Part of the article	How to read	Questions to ask yourself while you are reading
Results	Very quickly	This is mostly for other researchers. Just move on to the next section.
Discussion	Carefully	Can I understand and summarize this information? What did the researchers learn? Can I cite this information to support a point in my own research paper?
Conclusion	Carefully	Is their summary of the main points of this article the same as mine? Can I cite this information to support a point in my own research paper?
References	Very quickly	Is there anything else here that I want to read?

Licenses and Attributions

Works Cited

Han, I., and A. J. Onchwari. "Development and Implementation of a Culturally Responsive Mentoring Program for Faculty and Staff of Color". *Interdisciplinary Journal of Partnership Studies*, vol. 5, no. 2, July 2018, p. Article 3, doi:10.24926/ijps.v5i2.1006.

Authored by Elizabeth Wadell, Laney College. License: CC BY NC.

CC Licensed Content: Previously Published

Table 3.8.1 was adapted from [Scholarly and Popular Sources](#) in *Library Skills for 2nd Year Biological Sciences* by Lauren Stieglitz. License: CC BY NC.

Bulleted list in "Parts of a Journal Article" was adapted from [Anatomy of a Journal Article](#) in *Library Skills for 2nd Year Biological Sciences* by Lauren Stieglitz. License: [CC BY NC](#).

Article Han and Onchwari's article "Development and Implementation of a Culturally Responsive Mentoring Program for Faculty and Staff of Color" used in the video example is licensed CC BY NC.

This page titled [3.4: Reading Academic Articles for Research](#) is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by [Gabriel Winer & Elizabeth Wadell](#) ([ASCCC Open Educational Resources Initiative \(OERI\)](#)) .

- [2.2: Anatomy of a Journal Article](#) is licensed [CC BY-NC 4.0](#).

3.5: Information Bias

Bias has been mentioned a few times in this chapter. Some sources may seem more susceptible to bias than others, but all of them carry some level of bias. So what is bias? According to the Oxford English Dictionary, bias is:

An inclination, leaning, tendency, bent; a preponderating disposition or propensity; predisposition *towards*; predilection; prejudice.

In other words, bias is a point of view that may influence how information is conveyed. This does not necessarily mean that the information in and of itself is incorrect, but the information may be presented in such a manner that it be interpreted to mean something else or be aligned to specific values. Bias is not always intentional—it can creep into resources without the creators realizing it. So, sometimes, we have to be extra careful when choosing resources and evaluate if there is a bias that is strongly influencing the trustworthiness of the resource that we use.

The image below comes from an organization that evaluates various media organizations or news-based organizations and places them on a scale of how they lean in social affairs: either to the “Right” or “Left,” where “Right-leaning” media organizations will have more conservative views about societal topics, and “Left-leaning” media organizations will have more liberal views about societal topics. You can read more about bias in the media here: [Media Bias](#).

AllSides™ Media Bias Chart

All ratings are based on online content only — not TV, print, or radio content.
Ratings do not reflect accuracy or credibility; they reflect perspective only.



AllSides Media Bias Ratings are based on multi-partisan, scientific analysis.
Visit [AllSides.com](https://www.allsides.com) to view hundreds of media bias ratings.

Version 3 | AllSides 2020

This image shows media outlets with bias leanings. On the left are resources such as CNN and MSNBC. On the right, examples include Fox News and the Daily Wire. In center, examples include the Associated Press and BBC.

[Text description of this infographic](#)

Sources

“bias, adj., n., and adv.” *OED Online*, Oxford University Press, Sept. 2020.

Image: “AllSides Media Bias Ratings” by AllSides is licensed under [CC BY-NC 4.0](#)

This page titled [3.5: Information Bias](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- 5.8: Information Sources- Bias by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introtocollegeresearch.pressbooks.com/>.

CHAPTER OVERVIEW

Chapter 4: Searching the Library Catalog

- 4.1: Using OneSearch - The Library's Search Tool
- 4.2: Practice searching in the Library Catalog
- 4.3: Refining your search results
- 4.4: Advanced Search Options in OneSearch
- 4.5: Keyword adjustment
- 4.6: Combining keywords
- 4.7: Iterating for more Keywords
- 4.8: Troubleshooting your search
- 4.9: Saving a Library Resource
- 4.10: Finding Your Books
- 4.11: How Libraries Organize Materials
- 4.12: Dewey Decimal Classification (DDC)
- 4.13: Library of Congress Classification (LCC)

Chapter 4: Searching the Library Catalog is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

4.1: Using OneSearch - The Library's Search Tool

Using OneSearch, the library catalog

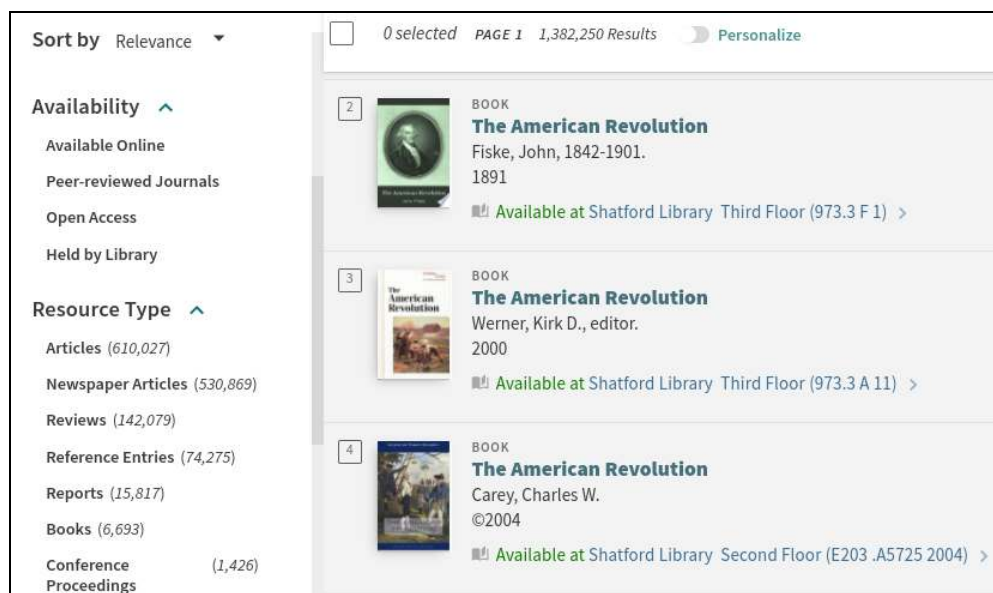
Big Bend Community College library uses what is known as OneSearch to help you find library resources.

College libraries hold a wide range of materials: books, DVDs, academic (scholarly) journals, magazines, newspapers, and more. When you use OneSearch, you will not only find what your library physically owns, but it will also search for materials that the library has access to digitally or online. This can sometimes be confusing and can lead to a lot of search results. Fortunately, OneSearch provides you with ways to limit your search results so that you can identify the specific kinds of resources that you need to find.

Example Search

Let's say you need to find resources related to the American Revolution—specifically you need to find two books and one documentary film. Let's look at how you can do this in OneSearch.

If you search for American Revolution, you will see a search result that looks very similar to the one below:



This sample search result list from OneSearch displays what you should typically see when you conduct a search.

Filtering Results: Availability & Resource Type

In your search results, you should notice some key details. Pay attention to the area to the left of your search results, where you can use filters that control your search results. The first set of filters is labeled as “Availability.” This will indicate how the resources are available. Are they available online? As peer-reviewed journals? You should notice there is an option that says “Held by Library” or something similar to indicate that your library owns those materials. This is a great filter to use to limit your search results that you can access at your library.

Another area to look at is “Resource Type.” Here, you’ll find different formats that you can limit your search results to. For our scenario, what types of resources do you need? We need two books. When you look at the image above, you’ll see that there are 6,693 books that are available in our search results. By clicking on “Books,” you will then be able to browse a list of those items.

This page titled [4.1: Using OneSearch - The Library's Search Tool](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler; Aloha Sargent; and Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

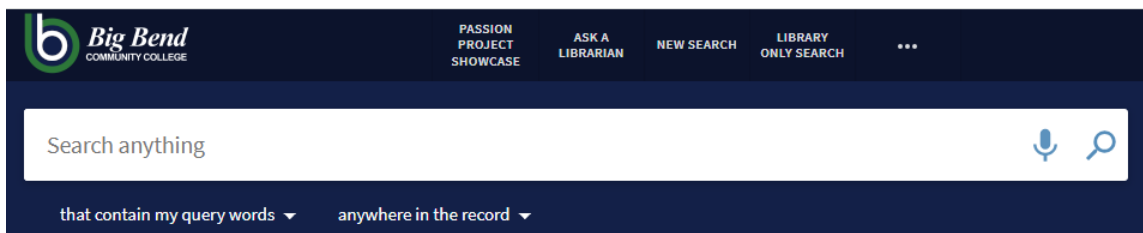
- [8.2: Using OneSearch- Your California Community College Library's Search Tool](#) by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introto.collegereasearch.pressbooks.com/>.

4.2: Practice searching in the Library Catalog

For this section, open the [Library OneSearch homepage \(opens in new window\)](#) and try each step as you learn about it.

1. Search with keywords.

Pick from your keywords list, and make sure the keywords you choose cover all of individual ideas from your topic. **Enter your keywords in the search bar and click the magnifying glass icon.**



Remember:

- The catalog can only search for what you put in the search bar. This means that spelling words correctly is very important.
- The catalog also won't know that you want to find the **phrase** "social media" and not the words *social* and *media* separately unless you use quotation marks.

2. Click **Sign in** at the top of your search results and log in using your Big Bend username and password.

Sign in to get complete results and to request items [Sign in](#)

- Because the library pays for access to some resources, you must be signed in to see some results.

3. Refine your results.

Catalogs try to rank search results by relevance, but they aren't very good at it. This means that your best resource may not be on the first page of results. You can rectify this problem by using the refining options on the left hand side of the page. **Pro Tip:** *select only one limiter at a time before hitting search. The catalog doesn't work properly if several limiters are selected at once.*

- Refine your results by **Availability**: [Availability](#) 
 - Available online - resources you can access online (such as eBooks and articles).
 - Held by library - resources in physical form at the BBCC library.
 - Peer-reviewed articles - online articles published in peer-reviewed journals.
 - Open access - online articles that are open source and therefore on the free web.
- Refine your results by **Resource Type**: [Resource Type](#) 
 - Types of resources include books, newspaper articles, magazine articles, (scholarly journal) articles, videos, (book) reviews, audio, book chapters, and more.

TIP: *If you see a refining limiter for Available online, we recommend using it - you will get access to the Full Text online materials much more quickly than print.*

4. Access the full text of a resource.

- If the resource is available online, you can access the full text by clicking on the blue link that says "**Available Online**" or "**Download PDF**" or "**Read Article**". You might also see "**View Issue Contents**", which will take you out of OneSearch to Browzine, where you will see the article within the journal issue it was published.

6



ARTICLE

Potatoes

Rusticelli, Condell

St. Lucia: Hecate Press

“ ... up. Brid spun the wedding ring on her finger, looked at her children, and felt she was somehow floating and could have floated right away-but there were seed potatoes to plant and this was not the time for hysteria...”

PEER REVIEWED

[Read Online](#)

[Available Online](#)

17



ARTICLE

Potatoes, Nutrition and Health

Beals, Katherine A.

New York: Springer US

“ Potatoes have been a dietary staple in the US and the world for centuries. Their hardiness, economy and nutrient density render them an invaluable crop...”

PEER REVIEWED OPEN ACCESS

[Download PDF](#) [Read Article](#)

[View Issue Contents](#)

BrowZine Library

Access Provided By Big Bend Community College



SJR: 0.378

American Journal of Potato Research

NEW ARTICLES

Articles in Press

JOURNAL ISSUES

2025	Vol 96 Issue 6	
2024	Vol 96 Issue 5	
2023	Vol 96 Issue 4	
2022	Vol 96 Issue 3	
2021	Vol 96 Issue 2	
2020	Vol 96 Issue 1	
2019		
2018		
2017		

No Full Text available after 2019-01-31. Please click an article to explore additional access options.

2019: Vol. 96 Issue 2

Introduction to the Special Issue on the Nutritional Value of Potato

pp. 95-97 - Jansky, Shelley; Navarre, Roy; Bamberg, John

A Chef's Perspective on Potatoes and Diet

pp. 98-99 - Benson, Leif

Potato and Food Security in China

pp. 100-101 - Su, Wang; Wang, Jian

Potatoes, Nutrition and Health

pp. 102-110 - Beals, Katherine A.

- If an item has orange or gray text reading "No Online Access" or "Check for available services" it means Bonaudi Library doesn't have it but you may be able to get it through Interlibrary Loan.

18



ARTICLE

Potatoes and human health

Camire, Mary Ellen ; Kubow, Stan ; Donnelly, Danielle J

United States

“ The potato (*Solanum tuberosum* L.) tuber follows only rice and wheat in world importance as a food crop for human consumption...”

PEER REVIEWED

No Online Access

5. Click the title of a resource to open the resource's library record.

17

ARTICLE

Potatoes, Nutrition and Health

Beals, Katherine A.
New York: Springer US

“Potatoes have been a dietary staple in the US and the world for centuries. Their hardiness, economy and nutrient density render them an invaluable crop...”

PEER REVIEWED OPEN ACCESS

Download PDF [Read Article](#) [View Issue Contents](#)

- When you click on the title, the resource's record appears. The record tells you more about the item and how to access the full text for online resources. [Example of a full record from Primo \(opens in new window\)](#).
- Sometimes there are multiple links - pick any you like, they will all bring you to the same article or eBook.

View Online

Full text availability

Academic Search Premier Available from 01/01/2000.	↗
Publicly Available Content Database Available from 01/01/2019 volume: 20 issue: 1.	↗

4.2: Practice searching in the Library Catalog is shared under a [not declared](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

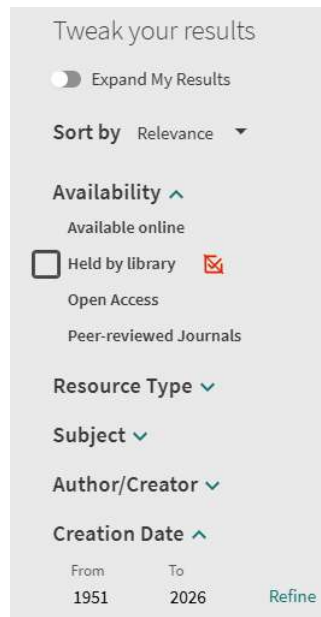
4.3: Refining your search results

Refining doesn't always mean "make smaller" - **refining actually means "make better."** Most academic databases have options that let you limit and refine your search results. Be on the lookout for:

Limiting options. You can include by checking the black box to the left of the descriptor, or exclude by checking the red box to the right of the descriptor.

Limit your search results to:

- Available online: items available in Full Text online,
- Held in library: items available for check-out in Bonaudi Library,
- Open Access: items published for free viewing,
- Peer-reviewed journals: items published in peer-reviewed journals,
- Creation date: items published before or after certain dates.



The screenshot shows a sidebar titled "Tweak your results" with several filtering options:

- Expand My Results:** A toggle switch that is currently turned off.
- Sort by:** A dropdown menu set to "Relevance".
- Availability:** A section with four options:
 - Available online
 - Held by library (with an unchecked checkbox and a red box icon)
 - Open Access
 - Peer-reviewed Journals
- Resource Type:** A dropdown menu.
- Subject:** A dropdown menu.
- Author/Creator:** A dropdown menu.
- Creation Date:** A section with two input fields labeled "From" and "To", containing the values "1951" and "2026" respectively, and a "Refine" button.

- **Refining options.** Refine your search results by:
 - Resource type - like books, articles, videos.

Resource Type ^

- ☐ Articles (13,726) 
- Newsletter Articles (1,583)
- Magazine Articles (245)
- Dissertations (221)
- Datasets (208)
- Images (89)
- Reviews (59)
- Books (43)
- Book Chapters (35)
- Web Resources (27)
- Reports (19)
- Videos (11)
- Text Resources (9)
- Conference Proceedings (7)
- Other (1)
- Reference Entries (1)

- **Subject** - the words that an article has been tagged with because the article is mostly about those subjects.

Subject ^

- Human Beings (15,901)
- Social Sciences (14,125)
- Female (12,430)
- Male (11,421)
- Teenagers (11,106)
- Psychology (10,843)
- Public Health (6,686)
- Medicine (5,459)
- Social Networks (5,188)
- ☐ Social Media (4,811) 
- Psychiatry (4,385)
- Mental Health (4,150)
- Research (4,027)
- Children (3,752)
- Youth (3,524)
- Cross-Sectional Studies (3,120)
- Older People (3,021)
- Risk Factors (3,009)
- Health Aspects (2,751)

...and more!

4.3: Refining your search results is shared under a [CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/) license and was authored, remixed, and/or curated by Clackamas Community College Library.

4.4: Advanced Search Options in OneSearch

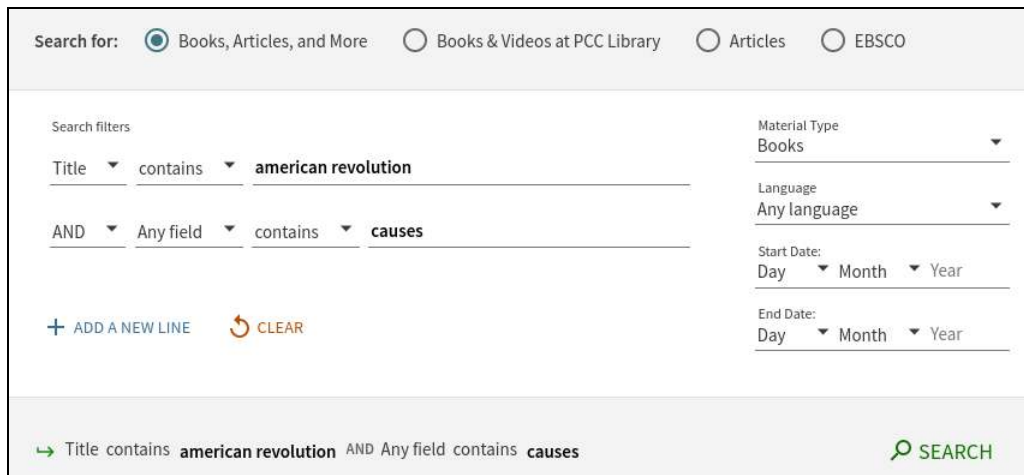
Filters

OneSearch provides you with many options to filter your results. We have already discussed “Availability” and “Resource Type.” Other filters that you might see at your library include Publication Date, Subject, Author, and Language.

Advanced Search

You can also click on an option called “Advanced Search” next to the search box at the top of your results (you might have to do a search first to see this depending on how your library has it set up). This option will allow you to be much more specific with your search. For example, let’s say you wanted to find books that have “American Revolution” in the title because you feel that those books will be most relevant to your topic. You also want to find books that address *the causes* of the American Revolution. This is hard to do in a simple search box. But in the Advanced Search option, you have much more control.

Below is an image of the Advanced Search from OneSearch. You should be able to see that in the first line, the search is set up so that the Title contains “American Revolution.” Then in the second line, there is the option that any field should contain the word “causes.” The search is also limited to a Material Type of “Books.” This Advanced Search has additional menus with other options we could use, such as language and date. You can even add additional keywords by choosing “Add a New Line.”



The screenshot shows the OneSearch Advanced Search interface. At the top, there are four radio buttons for search scope: "Books, Articles, and More" (selected), "Books & Videos at PCC Library", "Articles", and "EBSCO". Below this, the search filters are organized into two columns. The left column contains two search lines: the first line has "Title" selected from a dropdown, "contains" as the operator, and "american revolution" as the keyword; the second line has "AND" as the connector, "Any field" as the dropdown, "contains" as the operator, and "causes" as the keyword. Below these lines are links for "+ ADD A NEW LINE" and "CLEAR". The right column contains three filters: "Material Type" set to "Books", "Language" set to "Any language", and "Start Date" and "End Date" each with "Day", "Month", and "Year" dropdowns. At the bottom, a summary bar shows the constructed search: "Title contains american revolution AND Any field contains causes", followed by a green "SEARCH" button with a magnifying glass icon.

This page titled [4.4: Advanced Search Options in OneSearch](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler; Aloha Sargent; and Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [8.5: Filters and Advanced Search Options in OneSearch](#) by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introtocollegeresearch.pressbooks.com/>.

4.5: Keyword adjustment

Truncation and Wildcards

Truncation and wildcards come in handy when the words you want to search have slight variations. Perhaps just one letter could broaden your search. For example: perhaps you want to find both the singular and the plural of a word: turtle and turtles, woman and women. Or perhaps you want to find both the American English word *color* and the British English word *colour*. This can be done using truncation and wildcards which saves you an additional search and ensures you capture all relevant results. Some help screens for some databases will call truncation a type of wildcard. Check the database help screens to determine what symbols to use for truncation and wildcards and what happens when you use them. Each database is different. While truncation, as described below is generally standard, wildcard searching varies greatly from database to database. A common usage follows the truncation description below.

Truncation

To truncate means to cut off. In most databases, by adding a symbol to a word that you cut off will garner results that have all the permutations of that word the database knows that begin with the letters you typed in. For example, *pira** will find *pirate*, *pirates*, *piracy*. But this is a bad example, because it will also find the word *piranha* and *piranhas* and so on. So it is very important that you cut off your words where it makes sense or you could end up with piranhas or worse. It is **an easy way to search the singular and plural of a word at the same time**. If all you are interested in is a pirate or two, search the term *pirate**.

The asterisk (* shift 8 on your keyboard *) is the most often used symbol, but you might find the rare database that uses other symbols for truncation such as a dollar sign or a question mark. Even rarer databases allow for left hand truncation meaning you can ask the database to find variant beginnings of words instead of endings.

Wildcards

Using wildcards is a way of replacing one letter within a word or at the end of a word. When wanting to get both the singular and the plural of a words such as women and woman, the last vowel can be replaced with a wildcard symbol: *wom?n*. Both words would then be searched. Using a wildcard is also useful when searching for words that are spelled differently in British English. For example, *color* is spelled *colour*. Not all databases allow this and the symbol for this may also vary. The most commonly used symbols are a number sign (#) or a question mark (?). So if you want to include resources that may have been written by our cousins across the pond, you may choose to type *colo#r*. That would retrieve items with both *color* and *colour* in them because the # replaces one letter or is ignored by the search. What would you expect *wom?n* to find?

The bottom line to know about truncation and wildcards is that they exist, that they are defined and used differently from database to database and that they can expand your results. Check the databases' help screens and experiment to see just what results you get.

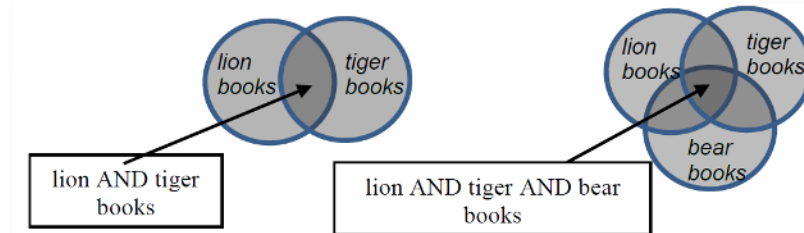
This page titled [4.5: Keyword adjustment](#) is shared under a [CC BY-NC-SA](#) license and was authored, remixed, and/or curated by [Carol M. Withers with Bruce Johnson & Nathan Martin](#).

- [6.1: Identifying key concepts and alternative terms to type in](#) by Carol M. Withers with Bruce Johnson & Nathan Martin is licensed [CC BY-NC-SA 4.0](#).

4.6: Combining keywords

Boolean: AND / OR / NOT

You walk into a library or book store and ask to see all the books about lions and tigers. You want the books with information about both lions and tigers because you are doing a study about how lions and tigers interact in the wilds of India. Some of the books are only about lions and some are only about tigers. Some, however, are about both lions and tigers. In the illustration below, the whole left circle is filled with books about lions and the whole right circle has books about tigers. The books that fall in the darkest area have information about both lions AND tigers. This is the Boolean AND. Let's say we asked for books about lions AND tigers AND bears (Oh my!). Notice that when we add another animal to our book needs, the darkest area is smaller meaning we get fewer books.



This process is **not** like addition in that you get more when you say 1 and 1 equals 2 (more than 1). Every time you add another word by combining it with an AND, you will get fewer results: you will find fewer books or articles. The other thing to note is that most databases default to an AND combination. In other words, if you do not tell the database how you want the words combined and you have typed in more than one word, the database will most likely (but not always) combine them for you using AND. A common mistake is to keep adding words to a search in anticipation that the results will grow. Now you know why that does not work. Having said that, most of the time you are going to want to use the AND search because it captures the multiple concepts of your topic.

Relating this to the grid you made, the Boolean AND is used between terms in different rows.

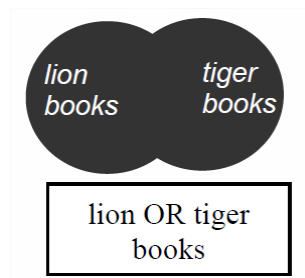
The Boolean OR and Boolean NOT are trickier than they look. The results they give you can include many resources off topic in the case of the OR and miss many in the case of the NOT. When used correctly, they can be powerful tools.

Boolean OR gets you anything and everything that has either and all the words you type in. It is often used with synonyms:

teens OR youth OR adolescents.

If, for example, your topic was the big cats of India, you would want books about lions, books about tigers and books that are about both lions and tigers. This is when you would use the Boolean OR.

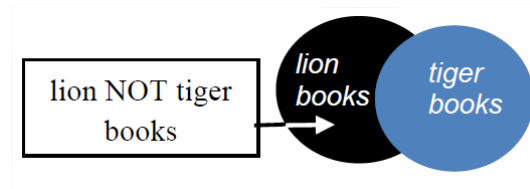
Relating this to the grid you made, the Boolean OR is used between terms in the same row.



The Boolean NOT omits terms from your search. An example of a good use of the Boolean NOT would be if you are interested in the Dolphin habitat off the coast of Miami and you were retrieving a lot of information about the Miami Dolphins football team. Since it is completely off topic, you could try NOT football.

Caution is necessary, however, because the Boolean NOT can end up omitting resources you might want unless you are careful how you use it. Let's say you are only interested in information about lions, but your results keep coming up with a bunch of tiger

books as well. To eliminate the books about tigers, you use a Boolean NOT and type in NOT tigers. What you have eliminated are any books with the word tiger even if it has some very good information about lions and that would be bad.



We have covered the Boolean AND, OR and NOT. You will find that most database help screens call them operators and require that you type them with capital letters if typing them is required. The suggestion here is that you depend on multiple AND searches and do not make using OR and NOT your “go-to” operators. If you choose to try more than one operator in a search (an AND and an OR, for example) check with your librarians. It is a bit more complex than it looks and requires a bit more finesse than we will cover in this text.

We will talk more about searching the web later, but let’s take a detour for just a moment to discuss what Google’s advanced search calls the Boolean operators.

- AND: All of these words (that you have typed in)
- OR: Any of these words (that you have typed in)
- NOT: None of the words (that you have typed in)

Searching Google is merely searching another database so most, if not all, of the database tips apply.

Another important and often used way to combine words in a search is called phrase searching.

Phrase Searching

If you have two or more words and you want to find them right next to each other and in the order that you have typed them in, put them in quotation marks. Think of a multiword phrase that captures one concept. For example *Sierra Nevada Mountains*, *storm drains*, *ice cream*, *Miami Dolphins*, *post office*, *jump rope* and so on. If we combine the words *Sierra Nevada Mountains* with an AND, we could get resources (e.g. books or articles) that discuss the *Sierra Trading Company*’s new boots they call Nevada that are great in the *mountains*. If we combine *ice cream* with an AND we would get resources that talk about an *ice* hockey team that says they will *cream* their opponent on the *ice* next week. If we combine *post office* with an AND, we would get search results with both words in it such as an article about a medical office set up in a research post in Antarctica. If we want those words found together so that they capture one concept in our search, we combine them by putting them in quotation marks e.g. “*Sierra Nevada Mountains*”, “*ice cream*”, “*post office*”. What might we get if we did not use quotes around jump rope.

Proximity Searching

It can come in handy although not all databases are set up to handle this kind of search. Check the database help screens for specifics on how to use this kind of search if you want to try it. Proximity searches will return results with two words or phrases that appear in the resource within so many words of each other. Some databases allow searching for the words within the same paragraph.

This is how it works in some databases: Perhaps an author speaks of the “mountains of the Sierra Nevada” and does not use the phrase “Sierra Nevada Mountains”. To catch information using that turn of phrase, you might type “Sierra Nevada” n/3 mountains. Between the terms or phrases use n/# for terms to be found within # of each other and w/# to find the first word # or less words before the second word or phrase. If you want football and Denver to appear within say, 3 words of each other, you would type football n/3 Denver. If you want them to be within 5 words of each other and in the same order that you type them, you would type football w/5 Denver. You can change the number to suit your search. (Where ever there is a # in this paragraph, substitute a number.) This is tricky especially since this too varies from database to database.

To recap, the three ways we discussed to combine your terms are 1) the Boolean operators, AND, OR and NOT 2) phrase searching by using quotation marks around more than one word or 3) proximity searching. To combine words to make a good search, we go back to the grid of alternative terms above: the grid about the drought in California and how it affects redwoods. You can combine any word on one line with a word on a different line with a Boolean AND. If you want to try using the Boolean OR you will combine words on the same line with an OR. Words that you want to find together you will type in quotation marks such as “Sierra

Nevada Mountains” and “water shortage.” This is how the way you choose to combine your words relates to the grid above: the grid about the drought in California. It is why you need to be very careful on making an accurate grid as you add alternative words to it. Here are two examples of what you could type into a database. Truncation is added for a more complete search.

“water shortage*” AND redwood*

Or something like this

drought AND Sequoia*

This page titled [4.6: Combining keywords](#) is shared under a [CC BY-NC-SA](#) license and was authored, remixed, and/or curated by [Carol M. Withers with Bruce Johnson & Nathan Martin](#).

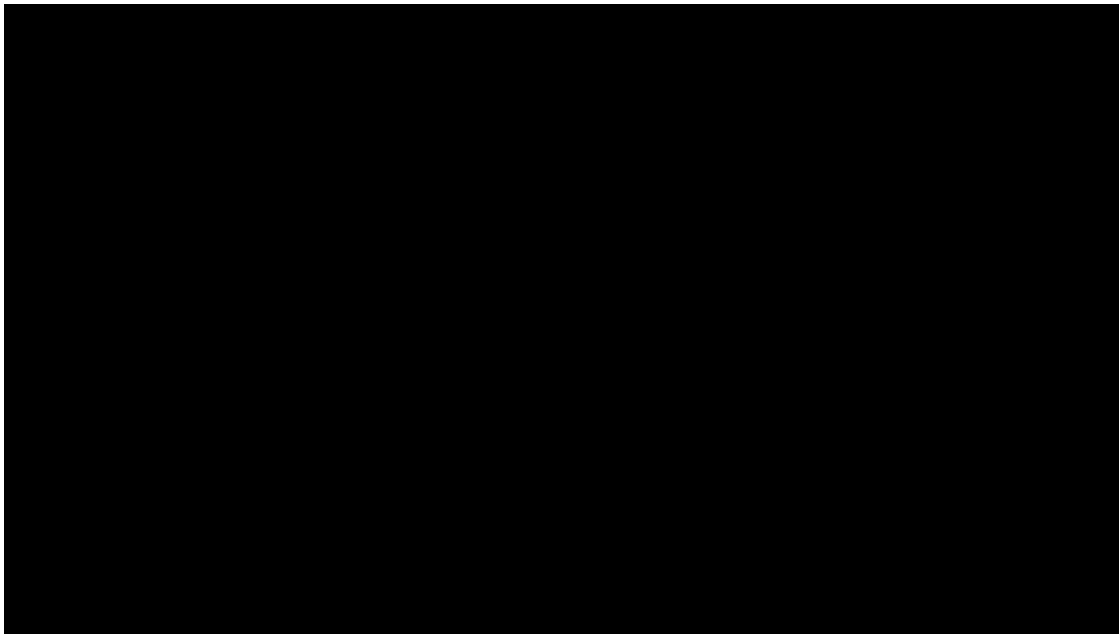
- [6.2: Combining terms effectively- Boolean, phrase searching and proximity searching](#) by Carol M. Withers with Bruce Johnson & Nathan Martin is licensed [CC BY-NC-SA 4.0](#).

4.7: Iterating for more Keywords

As you're completing your first round of searching, it's important to know that your search results can help you improve your future search strategies. Remember, the research process is **iterative**, so you're going to repeat steps a few times along the way. Revisiting your keywords list and adjusting your search strategy are two steps you'll likely repeat more than once.

Just like you can add keywords after reviewing your existing knowledge and knowledge gaps, you can improve upon your list of keywords as you search. Chances are that when you're reviewing your search results, you'll come across some keywords that you didn't know or didn't think of during your first round of brainstorming. It's important to add these new keywords to your keywords list so you can find more results with your next search. If one author is using a keyword you didn't have in your keywords list, it's likely that other authors are as well!

Watch the video below to see librarian Justine do a catalog search with our example topic, and add to the existing list of keywords based on the results.



4.7: Iterating for more Keywords is shared under a [CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/) license and was authored, remixed, and/or curated by Clackamas Community

4.8: Troubleshooting your search

If you have too many results:

- Use the second and third search boxes to add more keywords. More keywords = fewer results.
- Use limiters on the left hand side to limit what you see.
- Change your keywords to more specific terms

If you have too few results:

- Check your spelling (this is the number one issue).
- Erase unnecessary keywords from the search bar ("and, of, the" as well as unnecessary larger words). Fewer keywords = more results.
- Beware of punctuation! "Quotation marks around phrases" are great. Commas, periods, colons, and semicolons are bad - they confuse databases.
- Change your keywords to broader terms.
- Remove limiters you may have added earlier in the search.

So how many results should you find?

Well, it really depends on what you are looking for. If you are searching for a specific book, one result is fine. But if you are looking for research on your topic, results lists with fewer than 5-10 results are frequently not big enough. However, you don't want too many - again your topic will dictate how many that is. Your patience will also play a factor, as you may tire of going through unrelated resources.

4.8: Troubleshooting your search is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

4.9: Saving a Library Resource

When you find a good resource, you want to make sure you can access it later. You have a few options when it comes to saving and sharing a library resource:

Get the permalink

Permalinks are permanent, unbreakable links to library resources. Permalinks are also called persistent links, stable links, or permanent links. You must manually generate a permalink - **they are not the URL in your internet browser address bar**.

As you know, the link at the top of a browser window is called a URL, and is the web address for the page you are looking at. Bookmarking a URL is a common way of getting back to that same page in the future. However, the internet changes all the time - things are taken down, replaced, or altered. Because of these changes, URLs are not considered permanent.

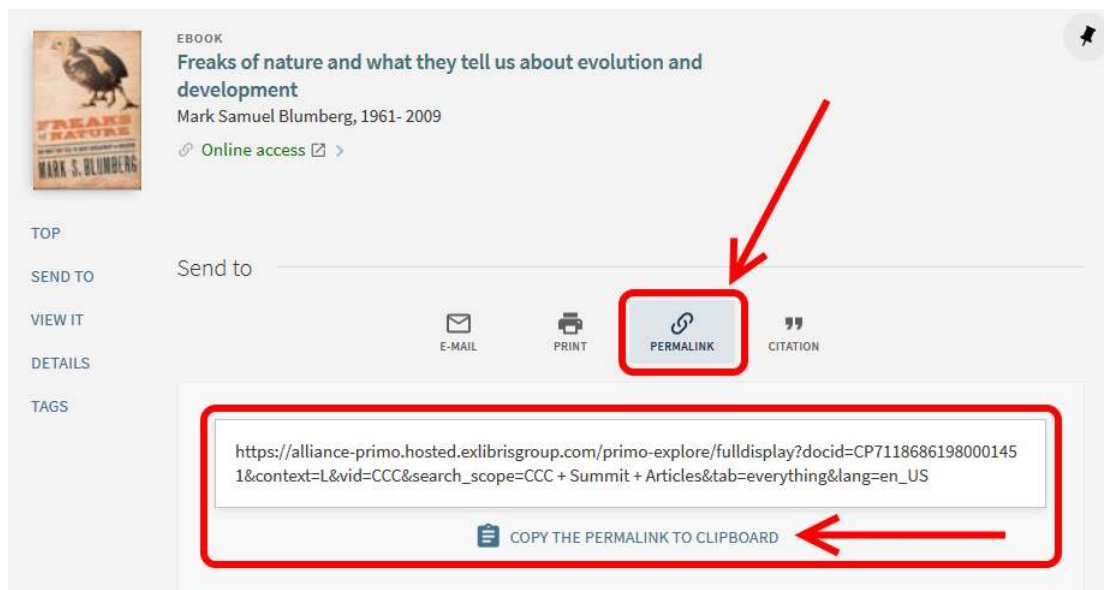
The URL in the address bar of your library catalog search is even less permanent. Remember how the library pays for you to access information that can't be found on the internet? You have to log in to Bonaudi library to access that information, and the URL in your browser's address bar includes information about your specific logged-in session. When you close the browser and end that session, the URL from the address bar breaks and disappears forever.

This means that you can't rely on the URL in your address bar to get you back to a library resource. Instead, you need to find the unbreakable permalink so that you can find your way back to the same resource, share that resource with your classmates/instructor, and cite the resource properly.

Getting permalinks

To find a Bonaudi Library catalog permalink:

1. Click on the title of the resource on your search results page.
2. Click the Permalink button  (located in the middle of the item's record under the heading *Send to*).
3. A box containing the permalink will appear.
4. Click  [COPY THE PERMALINK TO CLIPBOARD](#), and then immediately paste the URL into your assignment.



Pin the resource

Logging into the library website allows you to pin (save) resources to your favorites folder. Follow these steps to pin a resource:

1. Perform an awesome search.
2. Click *Sign in* and log in using your Big Bend username and password.

3. Find a resource you love; click on its title.

4. Click on the gray pin icon  (upper right) to add this item to your collection.



5. Access the resource easily, forever, by clicking on the pin icon (upper right) that appears next to your name whenever you are signed into the Bonaudi Library website.



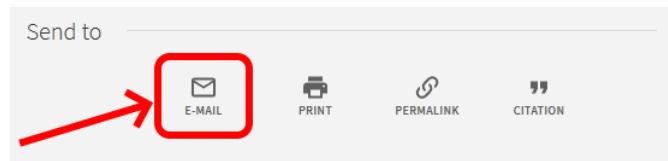
Email the resource

You can also email yourself (or someone else!) the resource's record. *Note: this option emails a link to the resource, not a PDF of the full text.*

1. Perform an awesome search.
2. Click *Sign in* and log in using your myClackamas email and password.

3. Find a resource you love; click on its title.

4. Click on "Email" from the menu of options under the heading *Send to* and put in the email address you'd like to email the resource to.

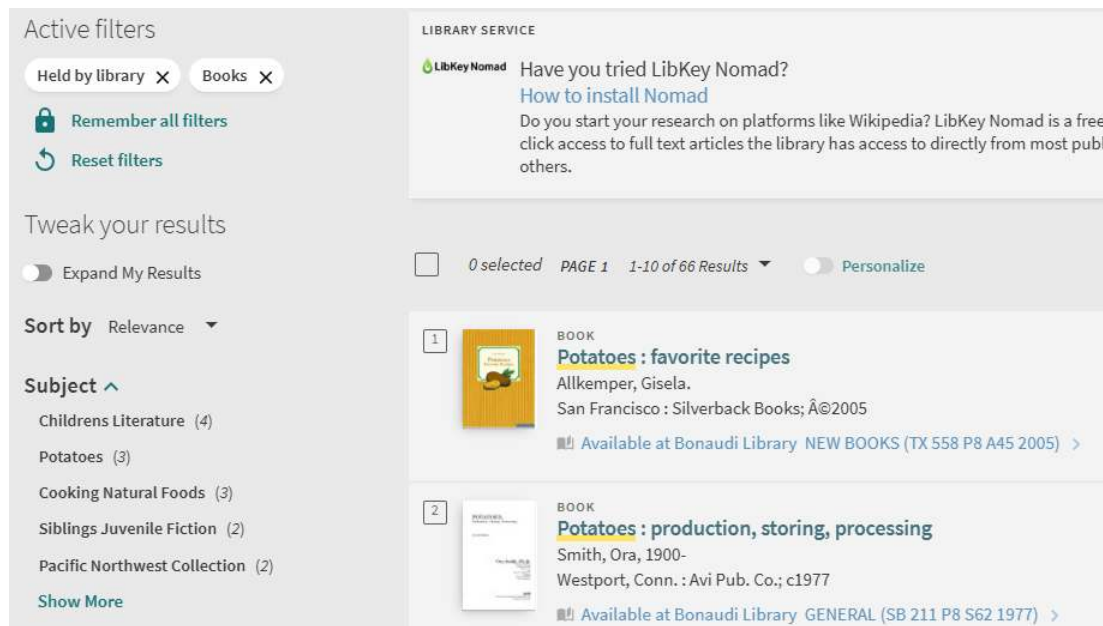


4.9: Saving a Library Resource is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

4.10: Finding Your Books

Interpreting Your Search Results

After you identify two books that you think you could use, you will need to find those books in the library. Let's take a closer look at the search results:



In the above image, we have limited our search results to “Held by Library” and to “Books” as our resource type. These active filters are on the left side of the above image. The top two results in the example are books that are available in the library. We can confirm that these are books by the “Book” label next to the image of the item in the search result. Below the book’s cover, there is another label indicating the book’s availability. Both of these books are labeled as “Available,” meaning they should be in the library. If the book is checked out, missing, or simply unavailable, OneSearch will update the status so that you will know whether or not the book is available for you.

Call Numbers

The first book is called *Potatoes: favorite recipes*. According to OneSearch, this book is available at the library in the New Books area.



After the location (NEW BOOKS), you should see a set of numbers. These numbers are known as call numbers. Call numbers allow libraries to organize their resources on their shelves in a logical manner; that is, they will be shelved either numerically or alphanumerically (using letters and numbers) according to these call numbers. In the example above, the book’s call number is TX 558 P8 A45 2005. This means the library has it shelved with other books that are in the T range. In the example below, the book’s call number is SB 211 P8 S62 1977. This means that this book will be shelved in the main collection (GENERAL) where the call numbers begin with the letter S.



But why do some call numbers begin with letters, while others start with numbers? It all depends on the system your library decides to use to organize their materials.

This page titled [4.10: Finding Your Books](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

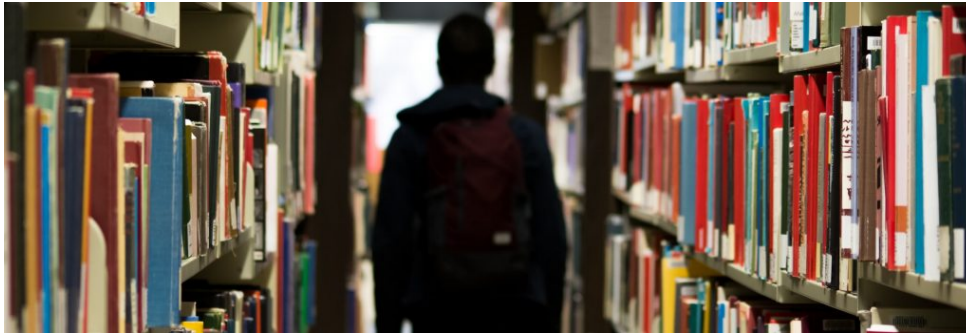
- **8.4: Finding Your Books** by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introcollegeresearch.pressbooks.com/>.

4.11: How Libraries Organize Materials

Two Systems

There are two main systems that community college libraries use to organize materials on the shelves: the Dewey Decimal Classification (DDC) and the Library of Congress Classification (LCC, sometimes also informally called LC or LOC). Both classification systems provide a systematic way for the libraries to keep their materials organized.

Which classification system a library uses depends on local preferences and practices, but in general: academic and research libraries typically use the Library of Congress Classification, while public libraries tend to use the Dewey Decimal Classification. While we will introduce you to both systems, please note that your community college library probably only uses one of these.



Sources

Image: “[Man, Backpack, Books](#)” by [bantersnaps](#) is in the [Public Domain, CC0](#)

This page titled [4.11: How Libraries Organize Materials](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [8.7: How Libraries Organize Materials](#) by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introtocollegeresearch.pressbooks.com/>.

4.12: Dewey Decimal Classification (DDC)

The Dewey Decimal Classification (DDC) was created by Melvil Dewey in 1873 and is still used by libraries today to organize their collections. The DDC strives to assign all the knowledge in the world to 10 different topical areas organized by number so that each range of numbers (starting with 000–099) is assigned a broad topic area. Below is an outline of these topics.

Dewey Decimal Classification System: Topics

000–099: Computer Science, Information and General Works

100–199: Philosophy and Psychology

200–299: Religion

300–399: Social Sciences

400–499: Languages

500–599: Science

600–699: Technology

700–799: Arts & Recreation

800–899: Literature

900–999: History & Geography

These 10 broad topics are then subdivided into 10 more specific topics. As an example, the 900s–History & Geography is divided below.

900s: History & Geography

900–909: History

910–919: Geography & Travel

920–929: Biography & Genealogy

930–939: History of the Ancient World (to ca. 499)

940–949: History of Europe

950–959: History of Asia

960–969: History of Africa

970–979: History of North America

980–989: History of South America

990–999: History of Other Areas

And then these get broken down even further! Let's look at the 970s.

970s: History of North America

970: History of North America

971: Canada

972: Mexico, Central America, West Indies

973: United States

974: Northeastern United States

975: Southeastern United States

976: South Central United States

977: North Central United States

978: Western United States

979: Great Basin & Pacific Slope region

When we look at this book that we found with OneSearch, we can see that its Dewey number is in the 900s. That means it is part of History & Geography. Specifically, it is a 973, which means it is about History of North America–United States. The .3 refers to the time period between 1775 – 1789.



This page titled [4.12: Dewey Decimal Classification \(DDC\)](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler; Aloha Sargent; and Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- **8.8: Dewey Decimal Classification (DDC)** by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introtocollegeresearch.pressbooks.com/>.

4.13: Library of Congress Classification (LCC)

How It Works

In contrast to the DDC, the Library of Congress Classification system (LCC) strives to divide all the world's knowledge into 21 topical areas and groups them alphanumerically. That is, they first assign a topic area to a letter, and then divide that topic up by numbers. Created by the U.S. Library of Congress to meet the needs of its collection, the first outline of the LCC was released in 1904 ("Library of Congress Classification").

Library of Congress Classification

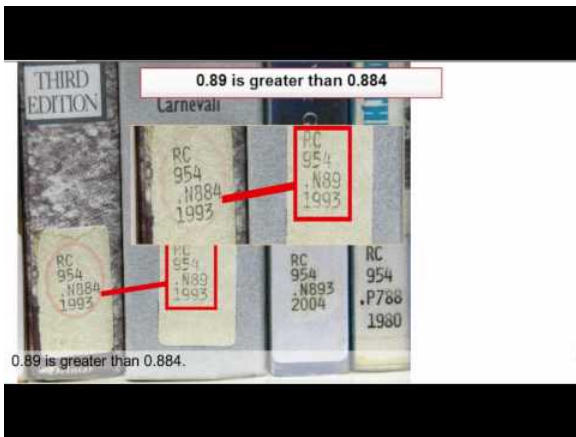
- A: General Works
- B: Philosophy, Psychology, Religion
- C: Auxiliary Sciences of History
- D: World History
- E: History of the Americas
- F: History of the Americas
- G: Geography, Anthropology, Recreation
- H: Social Sciences
- J: Political Science
- K: Law
- L: Education
- M: Music
- N: Fine Arts
- P: Language and Literature
- Q: Science
- R: Medicine
- S: Agriculture
- T: Technology
- U: Military Science
- V: Naval Science
- Z: Bibliography, Library Science, Information Resources

The LCC then adds numbers after each letter to get more specific within each topic area. Our example from before has the call number E203.A5725. This call number falls within the range E201–298, which is reserved for works about the American Revolution.



How to Find a Book on the Shelf

Please watch this video explanation [1:49], which demonstrates the different elements of LCC call numbers and how they are ordered on a library shelf:



A YouTube element has been excluded from this version of the text. You can view it online here: <http://pb.libretexts.org/collegeresearch/?p=213>

Note: This video has open captions. You may also use the [text transcript](#) if you prefer to read.

Sources

“Library of Congress Classification.” *Librarianship Studies & Information Technology*, 23 June 2020.

“Understanding Call Numbers (Research Minutes).” *YouTube*, uploaded by Ryerson University Library & Archives, 14 Jan. 2011.

This page titled [4.13: Library of Congress Classification \(LCC\)](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [8.10: Library of Congress Classification \(LCC\)](#) by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) is licensed [CC BY 4.0](#). Original source: <https://intro.collegeresearch.pressbooks.com/>.

CHAPTER OVERVIEW

Chapter 5: Searching Library Databases

- [5.1: Databases 101](#)
- [5.2: Choosing a database](#)
- [5.3: Searching for popular sources](#)
- [5.4: Searching for scholarly sources](#)
- [5.5: You Found Some Resources! Now What?](#)
- [5.6: Permalinks in databases](#)
- [5.7: Troubleshooting your search](#)

[Chapter 5: Searching Library Databases](#) is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

5.1: Databases 101

This week we delve into finding articles by using the library databases including how and why you would want to use these sources.

What is a library database?

Definition: Library database

A library database is a searchable collection of information including journal articles, eBooks, streaming videos, and newspapers. Databases include both popular and scholarly information.

How is a library database different from the BBCC Library Catalog?

Databases vs. Library Catalog

Databases	Library Catalog
1. Include resources for specialized topics and disciplines (e.g., business, nursing, or criminal justice). Can also include every topic/discipline. 2. Share specific information types (e.g., peer-reviewed articles, streaming videos, eBooks). 3. Host the full text themselves when full text is available. 4. Require you to log in with Big Bend username and password to use it. 5. Offer hundreds of thousands of resources.	1. Includes resources for every topic and discipline. 2. Shares all resource types. 3. Links you to other places to get the full text of resources. 4. Does not require you to log in with Big Bend username and password to use it. 5. Offers millions of resources.

When to use a library database

I recommend searching in a database when you are searching for:

- peer-reviewed articles
- background information on a topic
- full-text of articles and eBooks
- a specific type of resource (e.g., eBook, streaming video)
- information published from the perspective of a specific discipline (e.g., psychology, nursing)

Accessing library databases

1. Visit [BBCC's Bonaudi Library's homepage](#)(opens in new window).
2. Select *Databases A-Z* in the main navigation bar.
3. You will then find a long list of all of our databases. (There are over 100!)

Logging into a database from off-campus

Continuing from the list of databases...

1. Select a database (e.g., *Academic Search Premier*).
2. Log in using your **Big Bend username and password**.
3. Select *Submit*.
4. Success!

Trouble logging in? Call 509-793-2350 for help.

Choosing a discipline-specific database

- Open BBCC Library's [A-Z Database list](#)(opens in new window).
- Under the "BY SUBJECT" dropdown menu, choose a subject.
- Select a subject-specific database from the resulting list.

- *Pro tip:* Choose the subject of your topic, not your class.

A-Z Databases

Find the best library databases for your research.

BY SUBJECT ▼	FORMATS (Articles, Video...) ▼	VENDORS (EBSCO, ProQue) ▼	DATABASE TITLE SEARCH	Go
--------------	--------------------------------	---------------------------	-----------------------	----

Take a look to see what databases are recommended for the subject related to your topic.

5.1: Databases 101 is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

5.2: Choosing a database

Now you can go to a computer and start the research you will use for your paper/project. You have thought through your topic, identified questions to explore, terms to use and how best they will be combined. Now it is time to pick a database (or two or three or...). For good research, you will find that you will often use multiple databases. Most of the information you will use for your academic papers and projects will come from books and articles that you will find via library databases. When first using a database, be sure and move the scroll bar all the way up and down to see what searching and limiting options you have. Click on the advanced search and scroll up and down again. In some databases you will see the options change a bit once you have done a search or when you are further along in the process. Read the pages that appear so you can take advantage of all your search options.

Every Database is Different

Some have books, others have articles and some have both or other kinds of information. Some specialize in one subject field and have information only on nursing or psychology, or botany and so on. Some have information on just about everything. Some have scholarly information, some have popular information and some have both. Some allow you to limit your search to scholarly information. Some allow you to limit your search to only items that are available in full-text. Some give you access to information on the internet, others only provide information they have purchased. Be aware of these possibilities and look for them.

Every Database is the Same

Every database is searchable. Every database uses Boolean logic. Every database has fields so always check the advanced search to see what fields you can search. For now, just know that all databases have fields. Most databases will allow you to print and/or email what you find. Some will put your citations in a particular style such as APA or MLA as an option when you send via email. (Always check these automated citations for errors and refer citation styles such as MLA or APA.) Most allow truncation and phrase searching. Be aware of these possibilities and look for them.

Databases offer Books, Article, Media and More

Choose a database that will have the kind of information you will need by reading the database descriptions provided or by asking a librarian. Library databases may contain lists of articles, full text articles, a list of books, periodicals, DVDs owned by the library, the full text of books or streaming video. Some specialize in a certain topic, like history, or environmental science, business or computer science, nursing or education.

Free Databases and Access from Home

Most vendors of scholarly databases charge for articles, but your institution and the public library pay for the ones they provide and offer them to you free of charge. It is important to go through your institution's website to reach the database so you can get to them freely. If you are enrolled in a college, chances are you can access many of the databases from home or any off campus spot with web access. If you go directly to the database provider's website, such as EBSCO or ProQuest, you will not have access, unless you pay. Most often your library will have a page of databases from which you may choose. Choose the one that offers both the topic and type of resource (books, articles, etc.) you need.

Google is a Database

Google works a lot like a database so the same searching tips we have discussed also apply. Used in conjunction with library databases and applying solid evaluation criteria, Google can be a very useful tool to access information but does not replace the high quality information found in most academic library databases. Before using Google, ask yourself, "How am I going to use the information?" and "What kind of information do I need?" Is Google the best place to look for the information you need? As with other databases, look for Google's advanced search which will provide more search options. Google can link us to a wealth of information on the web. Like any information, information found through Google needs to be evaluated. Google is great at finding organizations and associations that might have information on your topic.

Wise fool

Nasrudin Sufi stories have been used to learn about both the sacred and profane since the 13th century. Here is how Shah (1964) tells one of the most well-known stories about Nasrudin:

On one occasion a neighbor found him down on his knees looking for something.

“What have you lost, Mullah?”

“My key,” said Nasrudin. After a few minutes of searching, the other man said,

“Where did you drop it?”

“At home.”

“Then why, for heaven’s sake, are you looking here?”

“There is more light here.”



Figure 5.2.1: Los Angeles County Museum of Art Source: cdn.loc.gov/service/pnp/highsm/21800/21894v.jpg

For our purposes, we can learn from the wise old fool that we should not look for the answers to our questions in the place that seems easiest, but rather where the information we need will be found. The goal is to answer your questions, not simply take the first few things that pop up on your screen and use only them. Choose a database that has the kind of information you want (book, articles...), covers the topics you need (general or subject specific information) and has information meeting any other criteria you need (peer reviewed, primary source...).

This page titled [5.2: Choosing a database](#) is shared under a [CC BY-NC-SA](#) license and was authored, remixed, and/or curated by [Carol M. Withers with Bruce Johnson & Nathan Martin](#).

- [6.3: Choosing a database](#) by Carol M. Withers with Bruce Johnson & Nathan Martin is licensed [CC BY-NC-SA 4.0](#).

5.3: Searching for popular sources

Searching in GVRL or Opposing Viewpoints

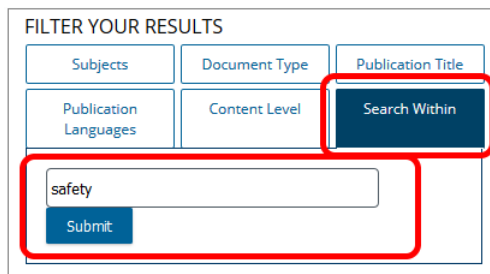
Searching is easy in these popular source databases: you can construct a search using **one or two keywords**.

No need to get fancy. Why?

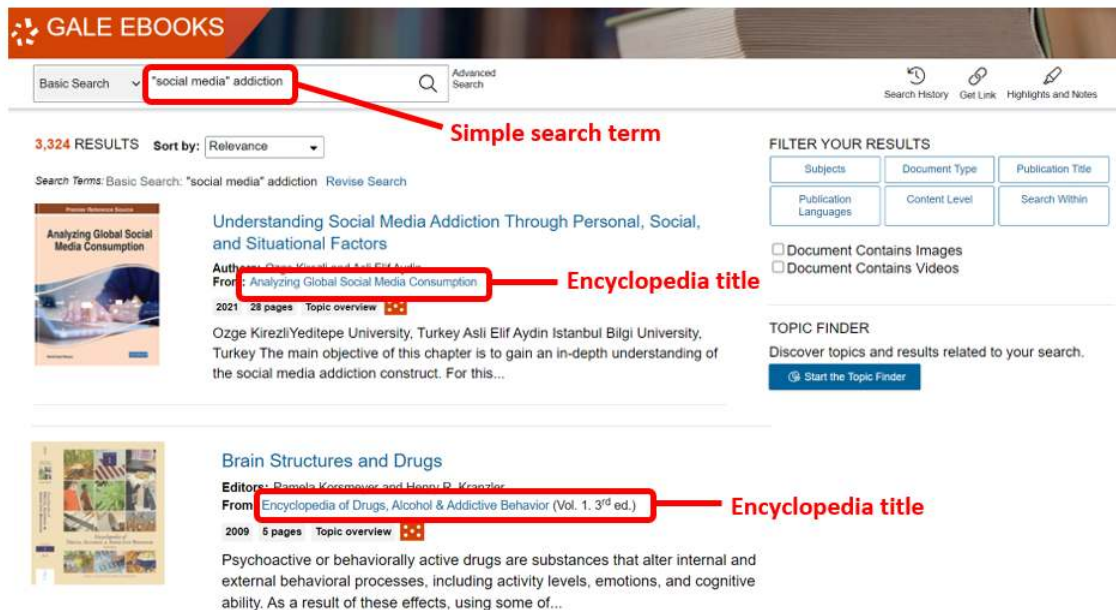
- Because you are looking for background information - not specific information.
- You want to find an article giving a broad overview of the whole topic.

Tips:

- Use one word or phrase (e.g., "bicycle commuting")
- Start BIG and BROAD (e.g., search with "bicycle commuting"; do not search with "bicycle commuting in Portland when it rains")
- Lots of results? Use the "search within" refining feature:

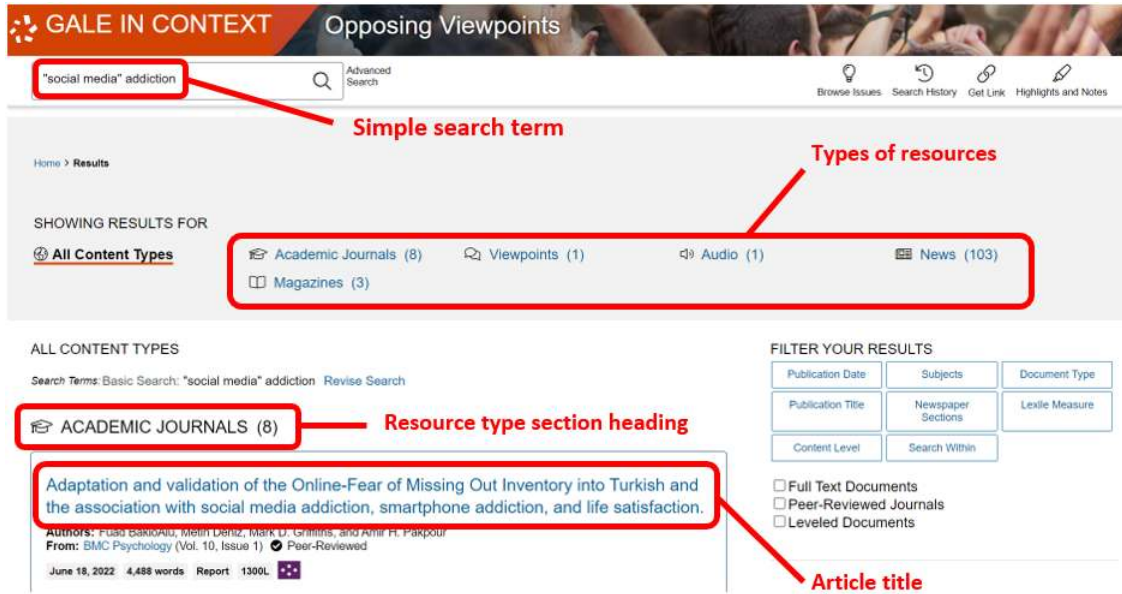


"Reading" Gale EBooks/GVRL's search interface



Notice that each Gale EBooks/GVRL encyclopedia is written from the perspective of a different discipline: one is about social media consumption; the other is about addictive behavior. The encyclopedia title is just one thing to consider when choosing which article to use. Some articles are very short, so they may not be as useful because they are lacking information you need; others are older and you may want more current information.

"Reading" *Opposing Viewpoints* search interface



The screenshot shows the Gale In Context Opposing Viewpoints search interface. The search bar at the top contains the text "social media" addiction, which is highlighted with a red box and labeled "Simple search term". Below the search bar, the results are displayed for "All Content Types". A red box highlights the "Types of resources" section, which includes links to Academic Journals (8), Viewpoints (1), Audio (1), News (103), and Magazines (3). The "Resource type section heading" is also highlighted with a red box. The "Article title" is highlighted with a red box, showing the title "Adaptation and validation of the Online-Fear of Missing Out Inventory into Turkish and the association with social media addiction, smartphone addiction, and life satisfaction." The interface also includes a "FILTER YOUR RESULTS" section with various filters like Publication Date, Subjects, Document Type, etc.

Opposing Viewpoints offers viewpoint essays, which are often fact-based opinion pieces exploring one side of a controversial topic. Authors of these essays come from a variety of backgrounds and sources are not always cited within the essays. Some essays are pure personal opinion! BUT - these essays are a great starting point for learning more about multiple perspectives of issues. Opposing Viewpoints also includes more traditional types of sources, like newspaper and academic journal articles.

5.3: Searching for popular sources is shared under a [CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/) license and was authored, remixed, and/or curated by Clackamas Community College Library.

5.4: Searching for scholarly sources

Refresher: What is iterative searching?

Definition: Iterative

An iterative process is one that repeats itself. Iteration is the repetition of a process in order to generate multiple outcomes. Each repetition of the process is a single iteration. When researching, each unique search is an iteration.

You were first introduced to the idea of iterative searching in Chapter 2.

Iterative searching is a process of continuous improvement that involves searching, reflecting, making choices and revisions, and searching again. The goal of iterative searching is to improve the relevancy of your search results in each iteration, and to learn along the way what strategies work best for you.

Why be iterative?

- Because you are learning. Working iteratively offers you opportunities to learn and reflect.
- Because doing something once doesn't necessarily mean you've done it as well as you could. With continued effort, you will make choices and changes depending on which strategies you identify as useful, and you'll do even better.
- Because the database you're using has tools to help you find better information. Without searching iteratively, you won't be able to take advantage of these tools.

Searching is complex in scholarly databases. In addition to being iterative, the most effective searches utilize keywords, quotation marks, and refining and limiting tools.

Trying and experimenting is a core part of your assignment this week - trying, revising, changing, and editing as you learn how to search iteratively and database refining and limiting tools.

Why should I search in multiple databases for scholarly articles (or any content)?

Think about buying shoes. You might choose to visit mall with multiple stores, do a general internet search, or visit a brand website directly. The same approaches can be applied to looking for scholarly articles. You can search through the library catalog (OneSearch), use Google Scholar, or go to a specific database.

If you're not sure what kind of shoe you need, or you need multiple pairs, going to a mall or doing an internet search will give you a lot of options. If you know you need soccer cleats you might limit your search to the Adidas website or a local sporting goods store.

Searching in EBSCO's *Academic Search Premier*



Consider how you will use the Academic Search Premier search interface to combine keywords, or search in specific fields. You can also choose to limit to Full Text or Peer Reviewed at the beginning or wait until you see the initial results list and filter then.

Searching: Academic Search Premier

potato* AND harvest

All Filters (2) Full Text Peer Reviewed All time Source type

1  Peer reviewed | Academic Journal

ADAPTIVE MODELS FOR DETERMINING CROPLAND SUITABILITY AND TOTAL HARVEST PREDICTION FOR *POTATO* USING IOT.

By: Yudianto, Rindra; Shidiq, Guruh Fajar; Supriyono, Herwin; +1 more • In: *Potato* journal, jan-jun2023 • Academic Search Premier

Potatoes are Indonesia's fourth largest food agro-industrial and leading horticultural commodities traded internationally. In 2021, the needs of the *potato* industry will only be met by 85.93%. This study aims to provide recommendations ... [Show more](#)

Subjects: Farms; *Potatoes*; Agriculture; Internet of things; +8 more

[Access now \(PDF\)](#)

2  Peer reviewed | Academic Journal

Papa (*Solanum tuberosum* Sw.), cosecha, beneficio, y almacenamiento. Caso cubano.

By: Hernández, Carlos M. Martínez; Pérez, Reinaldo Alemán • In: Centro Azúcar, jul-sep2005 • Academic Search Premier

The work approaches the technologies used in Cuba for the crop, the benefit and the storage of the *potato*, the particularities of these processes, their advantages and current limitations are appreciated. This work allows to show some of ... [Show more](#)

Subjects: Harvesting; *Potatoes*; Storage; Agricultural innovations; +9 more

Once the search results are returned you will see the filters applied at the top, along with the Boolean phrase for what you searched. Your searched words will be highlighted or bolded in the record. If you want to add more filters (to narrow your results), click on All filters in the top left of the screen and the full filter menu will pop-up on the right.

Searching: Academic Search Premier

potato* AND harvest

All Filters (2) Full Text Peer Reviewed All time Source type

1  Peer reviewed | Academic Journal

ADAPTIVE MODELS FOR DETERMINING CROPLAND SUITABILITY AND TOTAL HARVEST PREDICTION FOR *POTATO* USING IOT.

By: Yudianto, Rindra; Shidiq, Guruh Fajar; Supriyono, Herwin; +1 more • In: *Potato* journal, jan-jun2023 • Academic Search Premier

Potatoes are Indonesia's fourth largest food agro-industrial and leading horticultural commodities traded internationally. In 2021, the needs of the *potato* industry will only be met by 85.93%. This study aims to provide recommendations ... [Show more](#)

Subjects: Farms; *Potatoes*; Agriculture; Internet of things; +8 more

[Access now \(PDF\)](#)

2  Peer reviewed | Academic Journal

Papa (*Solanum tuberosum* Sw.), cosecha, beneficio, y almacenamiento. Caso cubano.

By: Hernández, Carlos M. Martínez; Pérez, Reinaldo Alemán • In: Centro Azúcar, jul-sep2005 • Academic Search Premier

The work approaches the technologies used in Cuba for the crop, the benefit and the storage of the *potato*, the particularities of these processes, their advantages and current limitations are appreciated. This work allows to show some of ... [Show more](#)

Subjects: Harvesting; *Potatoes*; Storage; Agricultural innovations; +9 more

All Filters

Search Mode: Proximity

Active filters

peer-reviewed X full-text X

Expanders

peer-reviewed X full-text X

Advanced search

Full Text

Peer-Reviewed

Publication Date

Databases

Source Types

Subject: Thesaurus Term

Searching in ProQuest's Research Library

Research Library is another general database covering multiple subjects. The Database A-Z link to Research Library will take you to the Advanced Search interface. If you want to go to the Basic Search, there is a link in the top left corner.

Although this page looks different from Academic Search Premier, you can see the elements are basically the same. Text boxes for your search terms, Field drop-downs (Anywhere), the option to limit to Full Text or Peer Reviewed.

Access provided by
ProQuest
BIG BEND COMMUNITY COLLEGE

Basic Search | **Advanced Search** | Publications | Browse | Change Databases

Advanced Search | Command Line | Thesaurus | Field codes | Search tips

Big Bend Community College Library

Search in: in

AND in

+ Add a row

Limit to: ☐ Full text ☐ Peer reviewed

Publication date:

Search Clear form

Person: Look up People

NAICS: Look up NAICS codes

Subject heading (all): Look up Subject headings (all)

Location: Look up Locations

Company/organization: Look up Companies/organizations

Source type: ☐ Select all

Document type: ☐ Select all

Language: ☐ Select all

The search results page has more tools visible by default. The filters are visible on the left side of the page, while the right side shows results in different formats from the ProQuest eBook and video databases Big Bend subscribes to.

Access provided by
ProQuest
BIG BEND COMMUNITY COLLEGE

potato AND harvest

187,463 results

Modify search Recent searches Save search/alert

☐ Show results outside my library's subscription

Sorted by:

Limit to: ☐ Full text ☐ Peer reviewed

Source type: ☐ Scholarly Journals ☐ Books ☐ Audio & Video Works ☐ Dissertations & Theses ☐ Newspapers ☐ More

Publication date: ☐ Last 12 Months ☐ Last 5 Years ☐ Last 10 Years

☐ Select 1-50

The Timing of Sugar Beet Harvesting Significantly Influences Root Yield and Quality Characteristics
Kowalczyk, Radosław; Wilczek, Edward; Kowalczyk, Michał. *Agronomy*. Basel Vol. 15, Iss. 3, (2025): 704.
...harvest. Using CLASIS, the technological quality of sugar beet is optimally...
...sugar beet harvest can enhance both root yield and sucrose content...
...sugar beet harvest may lead to increased concentrations of...
Abstract/Details Full text Full text - PDF (ePub) C7 Excerpts

Myrica rubra Preharvest Treatment with Melatonin Improves Antioxidant and Phenylpropanoid Pathways During Postharvest Storage
Jian-Qian, Chen; Yun-Shuang, Ma; Chao, Jingyang; Shi-Xue, Yao; Xiang, Meng, et al. *Food*. Basel Vol. 14, Iss. 1, (2025): 64.
...at a perishable commodity, has a short post-harvest life, can be stored for only...
...is susceptible to post-harvest fungal decay at room temperature (14°C)...
...post-harvest inhibitor treatments could improve the capacity of antioxidants and...
Abstract/Details Full text Full text - PDF (ePub) 78 Polymers

Do Agricultural stakeholder panels enhance post-harvest loss reduction? Evidence from Malawi
Amadu, Festus O; McNamee, Paul E. *Agriculture & Food Security*. London Vol. 13, Iss. 1, (Dec 2024): 30.
...Post-harvest...
...services to help rural households adopt critical technologies, the post-harvest...
...to assist the reduction of post-harvest loss reduction in these people and to increase...

Books that match your search

The Maya of Hologram: Work and Community in the Hologram...
Pink, Jason. Chapel Hill, US: Chapel Hill University of North Carolina Pre...
Abstract/Details

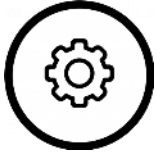
Video that match your search

Abstract/Details

5.4: Searching for scholarly sources is shared under a CC BY-NC 4.0 license and was authored, remixed, and/or curated by Clackamas Community College Library.

5.5: You Found Some Resources! Now What?

Options



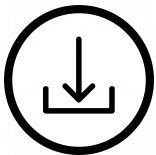
Most library databases give you the option to save, download, or email the resources that you find. You will want to get familiar with how the library databases present these options to you. For example, some library databases allow you to create your own free account within them. The advantage of creating an account (for example, with EBSCO, or ProQuest) is that you may be able to create folders to store links to resources you can easily find again later. You might also be able to save searches, so that you do not have to remember which keywords you entered. You can sometimes set up alerts attached to those searches, so if new resources are added to the library database (which can happen daily), you will be notified about those new relevant resources.

Emailing Sources



But maybe you do not want to set up an account. Not a problem! Many library databases allow you to send an email to yourself with the article or a link back to the article, without ever creating an account for the company that makes that database (You will, however, have to log in to your college library's website to access library databases from off campus, so the database knows you are a student there. If you're unsure how to do this, ask a librarian at your college.) This is where you will need to explore what options the library database offers. Sometimes, the email option is simple; sometimes you will have to fill out a form. If you see a form that needs to be filled out, review it carefully. The library database might be offering some great ways to save you time later, such as an option to include the citation of the article in the email. You can also send the article to other people: If you're working on a group project and everyone needs to look at the same resources, you might want to include your group members on the email form.

Downloading Sources



Some people prefer not to email the resource and they just want to download it. This is sometimes an option, depending on the library database and the resource. If it's available as a download, you might want to keep notes about the resource, so that you remember which library database you found it within, and any publication details you might need to build a proper citation for the resource.

Sources

Image: “[Down Arrow](#)” by [Becris](#), adapted by [Aloha Sargent](#), from [Flaticon.com](#)

Image: “[Mail](#)” by [Tomas Knop](#), adapted by [Aloha Sargent](#), from [Flaticon.com](#)

Image: “[Settings](#)” by [Freepik](#), adapted by [Aloha Sargent](#), from [Flaticon.com](#)

This page titled [5.5: You Found Some Resources! Now What?](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- **9.8: You Found Some Resources! Now What?** by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://intro.collegeresearch.pressbooks.com/>.

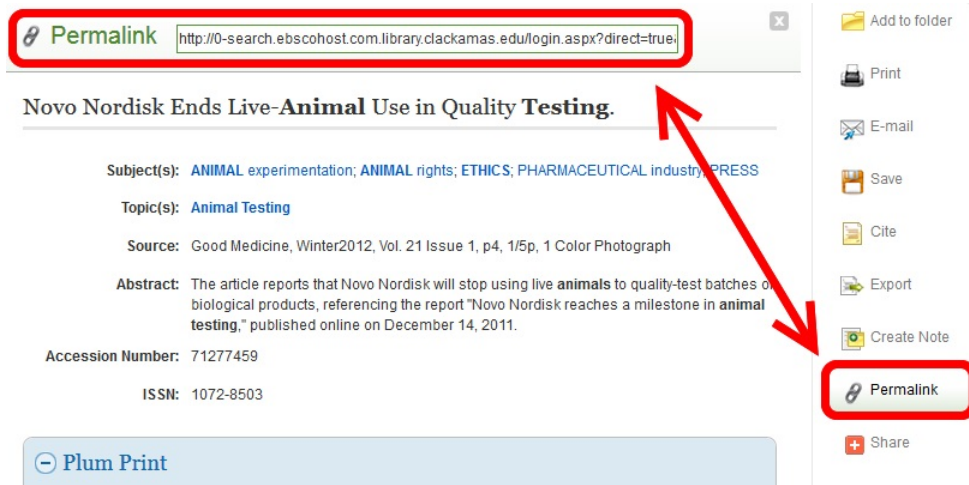
5.6: Permalinks in databases

Why care about permalinks?

Using a database permalink is important for two reasons. 1) you may need to include it in your citation, and 2) it is a great way to ensure you are able to find the same article again. Remember that the URL at the top of the page will not work for anything you need to sign into. Because you need to sign into the library system in order to search all of the databases, it's helpful to find the permalink.

Permalinks in EBSCO databases

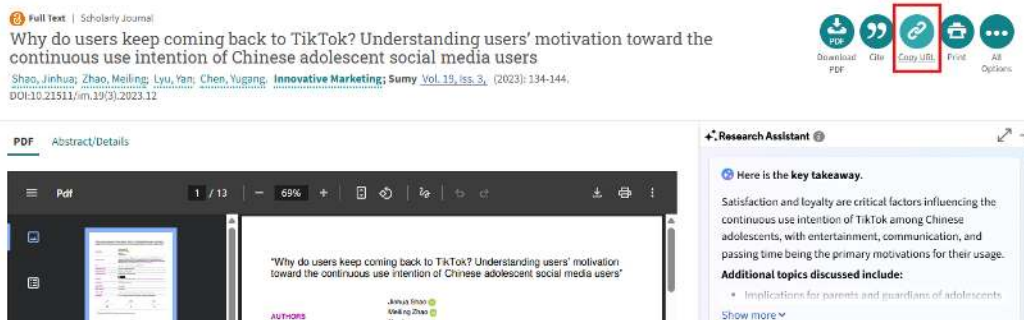
1. Select the title of an item listed on your search results page.
2. Click  Permalink (located in the item's record in the far right-hand column).
3. A box containing the permalink will appear at the top of the webpage.
4. Highlight, copy, and paste the URL into your notes.



The screenshot shows a database record for the article "Novo Nordisk Ends Live-Animal Use in Quality Testing." At the top, a box displays the permalink: <http://0-search.ebscohost.com.library.clackamas.edu/login.aspx?direct=true>. Below the title, the subject is listed as "ANIMAL experimentation; ANIMAL rights; ETHICS; PHARMACEUTICAL industry; PRESS". The topic is "Animal Testing". The source is "Good Medicine, Winter2012, Vol. 21 Issue 1, p4, 1/5p, 1 Color Photograph". The abstract states: "The article reports that Novo Nordisk will stop using live animals to quality-test batches of biological products, referencing the report 'Novo Nordisk reaches a milestone in animal testing,' published online on December 14, 2011." The accession number is 71277459 and the ISSN is 1072-8503. On the right side, a vertical toolbar contains icons for "Add to folder", "Print", "E-mail", "Save", "Cite", "Export", "Create Note", "Permalink" (highlighted with a red box), and "Share". A red arrow points from the "Permalink" icon in the toolbar to the permalink box at the top.

Permalinks in ProQuest databases

1. Once the record is open you will see the tools in the upper right hand of the screen, to the left of the title.
2. Click the Copy URL button.
3. There will not be a pop-up with the URL, just a message 'Link copied to clipboard'

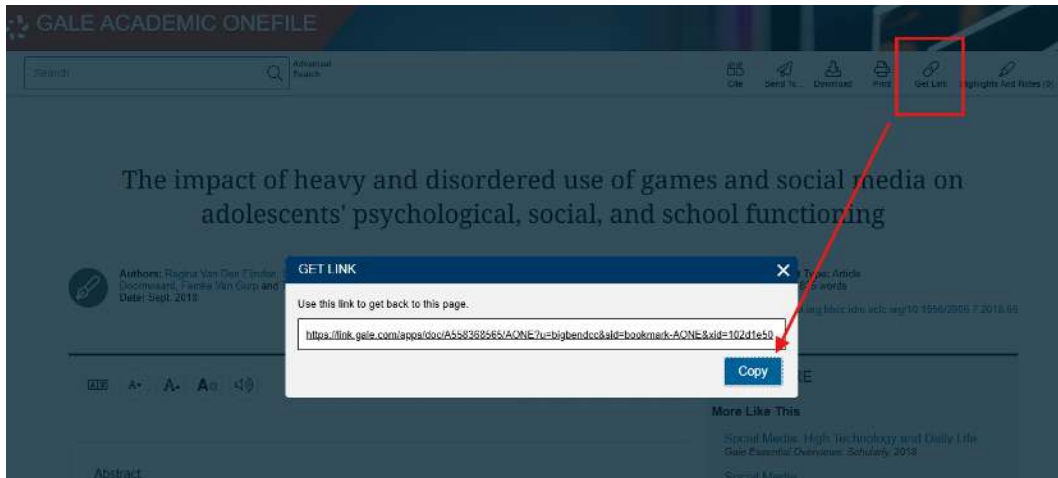


The screenshot shows a ProQuest database record for the article "Why do users keep coming back to TikTok? Understanding users' motivation toward the continuous use intention of Chinese adolescent social media users" by Shao, Jinhua; Zhao, Mailing; Lyu, Yan; Chen, Yungang. The article is from "Innovative Marketing: Summary" Vol. 19, Iss. 3, (2023): 134-144. The DOI is 10.21511/im.19(3).2023.12. In the upper right corner, a toolbar contains icons for "Download PDF", "Cite", "Copy URL" (highlighted with a red box), "Print", and "All Options". Below the article information, there is a PDF viewer showing the first page of the document. To the right of the PDF viewer, a "Research Assistant" sidebar provides a "key takeaway" and "Additional topics discussed include" a list of topics related to the article.

Permalinks in Gale databases

1. On every page of a Gale database the tool bar sits below the header.
2. Click on the Get Link button.
3. A box containing the permalink will appear at the top of the webpage.

4. You can highlight, copy, and paste the URL into your notes, or click the Copy button and paste.



5.6: Permalinks in databases is shared under a CC BY-NC 4.0 license and was authored, remixed, and/or curated by Clackamas Community College Library.

5.7: Troubleshooting your search

How to Troubleshoot Your Search

Too many results?

Try these techniques to get fewer search results.

1. Adjust your keywords.
2. Limit to peer-reviewed journals.
3. Limit by date.
4. Limit by subject.
5. Limit to items with full-text availability.
6. Change the search box dropdown menu to "Abstract" or "Subject."

Too few results?

Try these techniques to get additional search results.

1. Verify that you spelled everything correctly.
2. Erase unnecessary keywords.
3. Try different keywords.
4. Remove any limits you may have added to an earlier search.
5. Change the search box dropdown menu to "All Text" or "Entire Document."

5.7: Troubleshooting your search is shared under a [CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/) license and was authored, remixed, and/or curated by Clackamas Community College Library.

CHAPTER OVERVIEW

Chapter 6: The Age of Algorithms

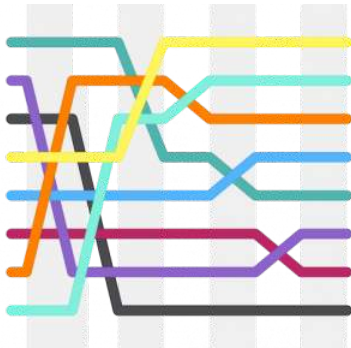
- [6.1: What are Algorithms?](#)
- [6.2: The Influence of Algorithms](#)
- [6.3: Algorithmic Bias](#)
- [6.4: The Attention Economy](#)
- [6.5: Algorithms and Polarization](#)
- [6.6: Filter Bubbles](#)
- [6.7: Conclusion](#)

This page titled [Chapter 6: The Age of Algorithms](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

6.1: What are Algorithms?

Overview

“Everyone who has accessed the internet has experienced the personalizing actions of algorithms, whether they realize it or not. These invisible lines of code can track our interactions, trying to game our consumer habits and political leanings to determine what ads, news stories and information we see....As tracking practices have become more common and advanced, it has become urgent to understand how these computer programs work and have widespread impact. How do students understand the hidden filters that influence what they see and learn, and shape what they think and who they are?” (Head et al. 13)



Algorithms are step-by-step instructions that computers follow to complete tasks, solve problems, and make automated decisions. They use data to make predictions about people, including their preferences, attributes, and behaviors. Algorithms power nearly everything we see online, including search engines, social media, video games, online dating, and smartphone apps. They are used to shape and filter content on the platforms many of us interact with daily, such as Google, YouTube, Instagram, Netflix, Facebook, Amazon, Twitter, and Spotify. For example, algorithms determine which websites you see first in your Google search results, which posts you see on Facebook, and which videos YouTube “recommends” and autoplays for you.

Data & Algorithms

The following TED Talk [9:44] with computer scientist Jennifer Golbeck provides a clear explanation of how data is collected on social media sites, and how this can be used to create algorithms that predict attributes like political affiliation, intelligence, sexual orientation, relationship strength, and even drug/alcohol usage.



A TED element has been excluded from this version of the text. You can view it online here: <http://pb.libretexts.org/collegeresearch/?p=42>

Note: Turn on closed captions with the subtitles button or use the [interactive text transcript](#) if you prefer to read.

Sources

Head, Alison J., Barbara Fister, and Margy MacMillan. “[Information Literacy in the Age of Algorithms.](#)” *Project Information Literacy*, 15 Jan. 2020. Licensed under [CC BY-NC-SA 4.0](#)

Image: “Shell Sorting Algorithm Color Bars” by [Balu Ertl](#) is licensed under [CC BY 4.0](#)

“Your Social Media ‘Likes’ Expose More Than You Think: Jennifer Golbeck” by [TED](#) is licensed under [CC BY-NC-ND 4.0](#)

This page titled [6.1: What are Algorithms?](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [2.1: What are Algorithms?](#) by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://intro.collegeresearch.pressbooks.com/>.

6.2: The Influence of Algorithms



“We live in an era of ambient information. Amidst the daily flood of digital news, memes, opinion, advertising, and propaganda, there is rising concern about how popular platforms, and the algorithms they increasingly employ, may influence our lives, deepen divisions in society, and foment polarization, extremism, and distrust” (Head et al. 1).

Positive & Negative

As companies, governments, and other organizations continue to collect and analyze massive amounts of our data, the use of algorithms has become pervasive. In fact, many are referring to this period as the “Age of Algorithms” or the “Algorithm Era,” and researchers are considering the significant impacts that these tools may have—both positive and negative.

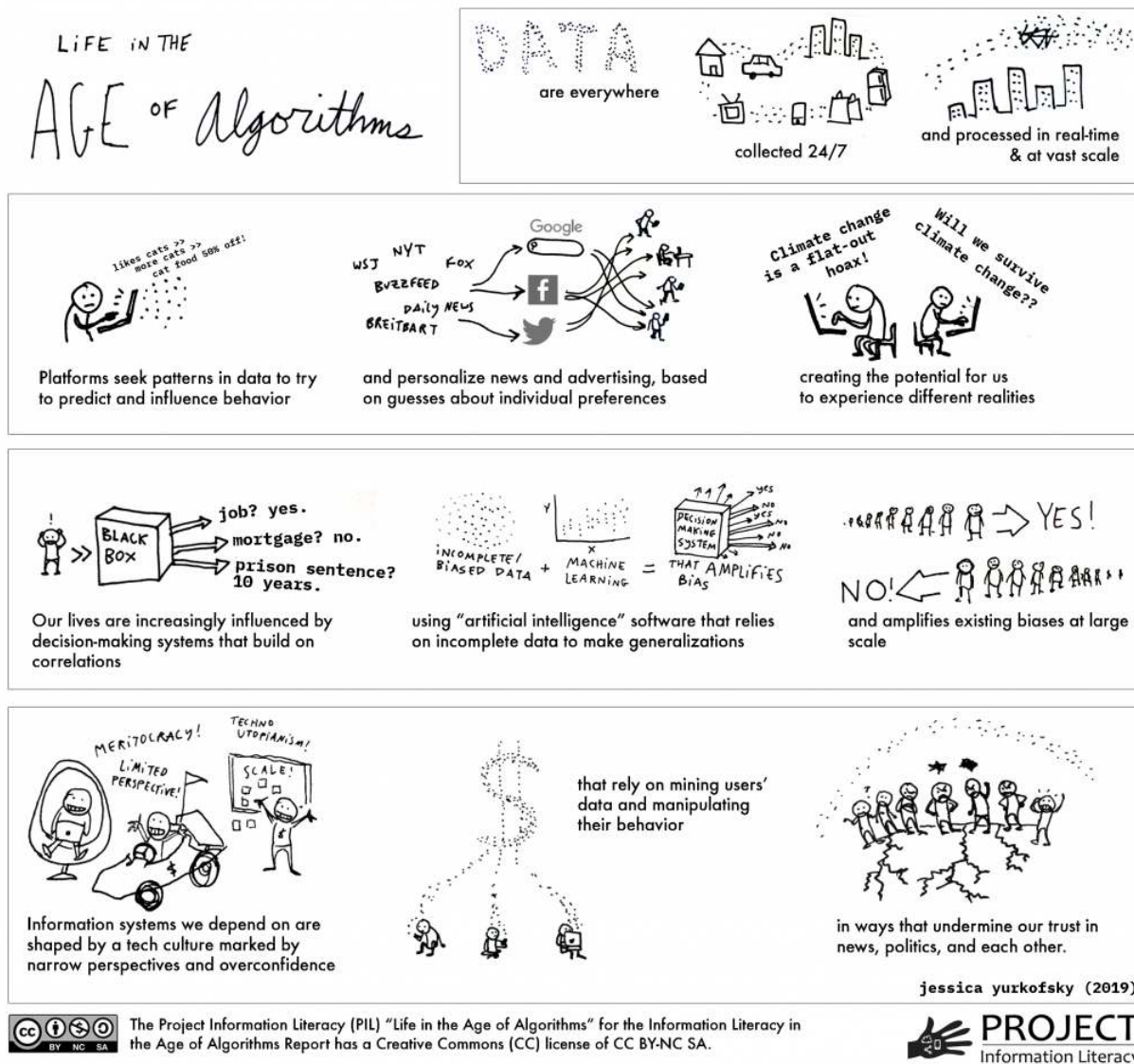
There is no doubt that algorithms can be useful and help to improve our lives. For example, it certainly saves a lot of time and frustration to be able to pull up a map on our phones and instantly determine the fastest way to reach our destination. However, as technology and social media scholar danah boyd has noted, “the same technology can be used to empower people...or harm them. It all depends on who is using the information to what ends” (qtd. in Rainie and Anderson). Eni Mustafaraj, Assistant Professor of Computer Science at Wellesley College, similarly notes that “if we want more people in the world to have access to the total human knowledge accessible on the Internet, we need algorithms. However, what we need to object against are the values driving the companies that own these algorithms” (qtd. in Head et al. 42).

Concerns

What happens when algorithms are used to predict when college students are “cheating” on a test, or to predict who should be hired for a job or who should get a loan, or to decide the type of information we see in our social media newsfeeds, or to calculate credit scores, or even to predict criminal behavior and determine prison sentences? Are Google search results really an unbiased presentation of the best available information on a research question? How do algorithms impact our perception of a research topic, or of our own realities?



One of the most prominent examples in recent history is the Facebook-Cambridge Analytica data scandal, in which the personal profile data of at least 87 million Facebook users was harvested by a political consulting firm working for the Trump campaign. In this case, Cambridge Analytica used algorithms to develop psychographic profiles in order to more effectively direct its messaging and influence voter behavior in the 2016 U.S. Presidential election.



The Project Information Literacy (PIL) "Life in the Age of Algorithms" for the Information Literacy in the Age of Algorithms Report has a Creative Commons (CC) license of CC BY-NC-SA.



PROJECT
Information Literacy

[Zoom in](#) or [read the text version of the infographic](#)

Sources

Head, Alison J., Barbara Fister, and Margy MacMillan. "Information Literacy in the Age of Algorithms." *Project Information Literacy*, 15 Jan. 2020. Licensed under [CC BY-NC-SA 4.0](#)

Image: "Big Data is Watching You" by ev is in the [Public Domain](#), [CC0](#)

Image: "Facebook Concept Binary" by [geralt](#) on [Pixabay](#)

Infographic: "Life in the Age of Algorithms" by [Jessica Yurkofsky](#) for [Project Information Literacy](#) is licensed under [CC BY-NC-SA 4.0](#)

Rainie, Lee, and Janna Anderson. "Code Dependent: Pros and Cons of the Algorithm Age." *Pew Research Center*, 8 Feb. 2017.

This page titled [6.2: The Influence of Algorithms](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [2.2: The Influence of Algorithms](#) by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) is licensed [CC BY 4.0](#). Original source: <https://intro.collegepressbooks.com/>.

6.3: Algorithmic Bias

“Although the impulse is to believe in the objectivity of the machine, we need to remember that algorithms were built by people” (Chmielinski, qtd. in Head et al. 38).

Overview & Examples

Because we often assume that algorithms are neutral and objective, they can inaccurately project *greater authority than human expertise*. Thus, the pervasiveness of algorithms—and their incredible potential to influence our society, politics, institutions, and behavior—has been a source of growing concern.

Algorithmic bias is one of those key concerns. This occurs when algorithms reflect the implicit values of the humans involved in their creation or use, systematically “replicating or even amplifying human biases, particularly those affecting protected groups” (Lee et al.). In search engines, for example, algorithmic bias can create search results that reflect racist, sexist, or other social biases, despite the presumed neutrality of the data. Here are just a few examples of algorithmic bias (Lee et al.):

- An algorithm used by judges to predict whether defendants should be imprisoned or released on bail, was found to be biased against African-Americans.
- Amazon had to discontinue using a recruiting algorithm after discovering gender bias: The algorithm was penalizing any resume that contained the word “women’s” in the text, because the data was based on resumes historically submitted to Amazon, which were predominantly from white males.
- Princeton University researchers analyzed algorithms and found that they picked up on existing racial and gender biases: European names were perceived as more pleasant than those of African-Americans, and the words “woman” and “girl” were more likely to be associated with the arts instead of science and math.
- [Numerous articles](#) have examined the role that YouTube’s recommendation algorithm might play in radicalizing viewers.

Challenging the Algorithms of Oppression

Dr. Safiya U. Noble, Associate Professor at UCLA (Departments of Information Studies and African American Studies) is the author of the book, *Algorithms of Oppression: How Search Engines Reinforce Racism*. She is also Co-Director of the UCLA Center for Critical Internet Inquiry, and co-founder of the Information Ethics & Equity Institute. In the video below [3:43], Dr. Noble discusses her findings about algorithmic bias in Google search results, particularly for women of color.





A YouTube element has been excluded from this version of the text. You can view it online here: <http://pb.libretexts.org/collegeresearch/?p=49>

Note: This video is auto-captioned. Accurate captions are available at the [Amara version](#). Use the [text transcript](#) if you prefer to read.

Fighting Bias in Algorithms

Joy Buolamwini, MIT researcher, Rhodes Scholar, Fulbright Fellow, poet of code, and founder of the [Algorithmic Justice League](#), found that the algorithms powering facial recognition software systems were failing to recognize darker-skinned complexions, because they were based on data sets that were largely white and male. Now she's committed to fighting bias in machine learning, which she calls the "coded gaze." In the following video [8:44], she explains her work with facial recognition and also asks important questions about how algorithms influence critical decisions, like: Who gets hired or fired? Do you get that loan? Do you get insurance? Are you admitted into the college you wanted to get into? Do you and I pay the same price for the same product purchased on the same platform?



A TED element has been excluded from this version of the text. You can view it online here: <http://pb.libretexts.org/collegeresearch/?p=49>

Note: Turn on closed captions with the subtitles button or use the [interactive text transcript](#) if you prefer to read.

Weapons of Math Destruction

Cathy O’Neil has written several books on data science, including *Weapons of Math Destruction*. She was the former Director of the Lede Program in Data Practices at Columbia University Graduate School of Journalism. In the following video [13:11], she explains how algorithms are not fair and objective, and may in fact “automate the status quo” and “codify” sexism and bigotry. She concludes that these secret “black box” algorithms, created by private companies, can hide ugly truths, often with destructive results.



A TED element has been excluded from this version of the text. You can view it online here: <http://pb.libretexts.org/collegeresearch/?p=49>

Note: Turn on closed captions with the subtitles button or use the [interactive text transcript](#) if you prefer to read.

Sources

“Algorithms of Oppression, Faculty Focus: Safiya Umoja Noble.” *YouTube*, uploaded by USC Annenberg, 28 Feb. 2018.

“The Era of Blind Faith in Big Data Must End: Cathy O’Neil” by TED is licensed under [CC BY-NC-ND 4.0](#)

Head, Alison J., Barbara Fister, and Margy MacMillan. “Information Literacy in the Age of Algorithms.” *Project Information Literacy*, 15 Jan. 2020. Licensed under [CC BY-NC-SA 4.0](#)

“How I’m Fighting Bias in Algorithms: Joy Buolamwini” by TED is licensed under [CC BY-NC-ND 4.0](#)

Lee, Nicole Turner, Paul Resnick, and Genie Barton. “Algorithmic Bias Detection and Mitigation: Best Practices and Policies to Reduce Consumer Harms.” *Brookings*, 22 May 2019.

Text adapted from “Digital Citizenship” by Aloha Sargent and James Glapa-Grossklag for @ONE, licensed under [CC BY 4.0](#)

This page titled [6.3: Algorithmic Bias](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [2.3: Algorithmic Bias](#) by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introtocollegeresearch.pressbooks.com/>.

6.4: The Attention Economy



“Attention is a resource—a person has only so much of it” (Crawford 11).

“How do you focus your attention? How do you protect it? How do you apply it productively and strategically, and avoid giving it to bad actors or dubious sources? And how do you do that in a world where decisions about what to engage with are made in seconds, not minutes or hours?” (Caulfield)

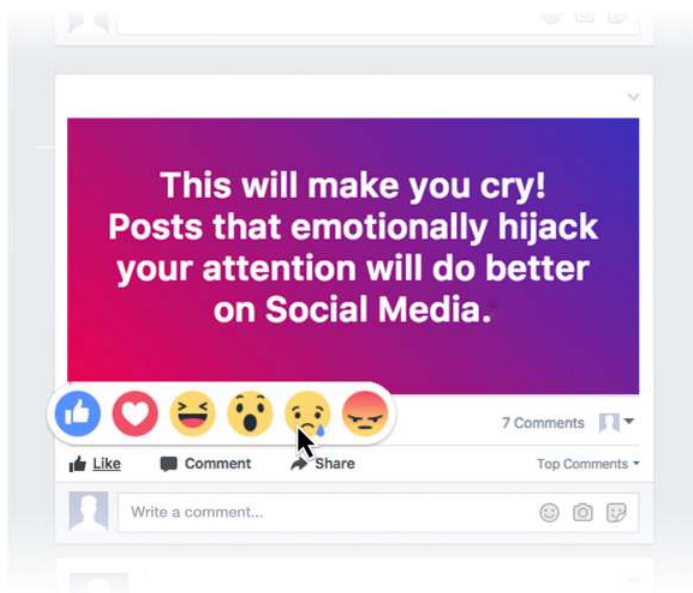
Overview

In a world where information is abundant, where we are overloaded and overwhelmed with information on a daily basis, **attention** is the scarcity (Caulfield).

Algorithms are being used by social media platforms and news organizations to keep our attention focused on their websites. These and other digital platforms have discovered that the best way to keep us engaged with their websites is to promote sensational, divisive, or outrage-inducing content. Emotional responses are what keep us clicking, liking, commenting, and sharing—when trying to capture attention, our anger, fear and disgust are a signal in the noise. “People tend to react more to inputs that land low on the brainstem. Fear and anger produce a lot more engagement and sharing than joy. The result is that the algorithms favor sensational content over substance” (McNamee).

“Engagement”

“Many of the biggest problems we face in this moment as a society result from decisions being made by the hidden creators of our digital world—the designers, developers, and editors that create and curate the media we consume....They do this by focusing on one over-simplified metric, one that supports advertising as its primary source of revenue. This metric is called engagement, and emphasizing it—above all else—has subtly and steadily changed the way we look at the news, our politics, and each other” (Rose-Stockwell, “This Is How Your Fear and Outrage Are Being Sold for Profit”).



Tobias Rose-Stockwell, a writer and technologist focused on ethical design, explains how emotional reactions are strong indicators of engagement, and how divisive content that captures our attention will be shown in our feeds first. We then share our moral judgments with our own followers, creating what he calls “outrage cascades” that dominate our conversations online.

Definition: **en-gage-ment**

noun

- 1) The metric by which companies evaluate the number of clicks, likes, shares, and comments associated with their content.
- 2) The currency of the attention economy.

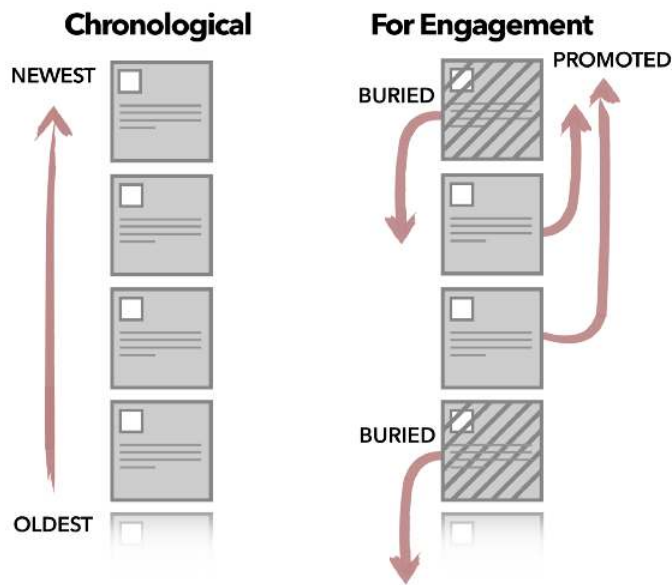
Definition: **affective engagement**

noun

- 1) An emotional reaction to content based on flashes of positive or negative feeling.

Indeed, in their report on “Information Disorder,” researchers Wardle and Derakhshan emphasize that: “Social networks are driven by the sharing of emotional content. The architecture of these sites is designed such that every time a user posts content—and it is liked, commented upon or shared further—their brain releases a tiny hit of dopamine (13).

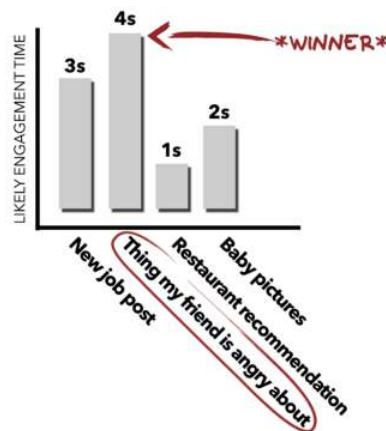
The most notable example of this idea? Most of our content feeds and timelines are no longer sorted chronologically or by relevance. Instead, the decision about which content to show us is instead based on **how likely we are to engage with it**.



Basic Sorting Algorithm

Which content should be shown first to keep people on-site longer?

1. Sort content in order of likely engagement time
2. Serve content in order of likely engagement time



Sources

Caulfield, Mike. "Attention Is the Scarcity." *Hapgood*, 4 Feb. 2019.

Crawford, Matthew. *The World Beyond Your Head: On Becoming an Individual in an Age of Distraction*. Farrar, Straus, and Giroux, 2016.

Graphics: "This Will Make You Cry," "Engagement" definitions, "Chronological vs. Engagement Feed," "Basic Sorting Algorithm" by Tobias Rose-Stockwell are licensed under CC BY-NC 4.0

Image: "Boy Mobile Phone" by Andi_Graf on Pixabay

McNamee, Roger. "How to Fix Facebook – Before It Fixes Us." *Washington Monthly*, Jan/Feb/Mar. 2018.

Rose-Stockwell, Tobias. "How to Design Better Social Media." *Medium*, 13 Apr. 2018. Licensed under CC BY-NC 4.0

Rose-Stockwell, Tobias. "This Is How Your Fear and Outrage Are Being Sold for Profit." *Medium*, 14 July 2017. Licensed under CC BY-NC 4.0.

Wardle, Claire, and Hossein Derakhshan. "Information Disorder: Toward an Interdisciplinary Framework for Research and Policy Making." *Council of Europe*, 27 Sept. 2017.

This page titled 6.4: The Attention Economy is shared under a CC BY 4.0 license and was authored, remixed, and/or curated by Walter D. Butler; Aloha Sargent; and Kelsey Smith via source content that was edited to the style and standards of the LibreTexts platform.

- **2.4: The Attention Economy** by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introcollegeresearch.pressbooks.com/>.

6.5: Algorithms and Polarization

“At its best the net gives us voices and perspectives we would have never discovered otherwise....at its worst, our net-mediated digital world becomes an endless stream of binary actions—like/don’t like, share/pass, agree/disagree, all in an architecture that slowly segments and slips us into our correct market position a click at a time, delivering us a personalized, segregated world. We can’t laud the successes of one half of this equation without making a serious attempt to deal with the other side of the story” (Caulfield).

Polarization for Profit



Leading scholars in this field have argued that digital platforms are using algorithms to promote *polarization for profit*. That is, corporations use these algorithms to engage and outrage, to knowingly cause divisiveness and polarization, ultimately for one simple purpose: to sell ads. In other words, these platforms have used “massive surveillance of our behavior, online and off, to generate increasingly accurate, automated predictions of what advertisements we are most susceptible to and what content will keep us clicking, tapping, and scrolling down a bottomless feed” (Tufekci).

For a fascinating explanation of this, watch the following TED Talk [22:47] from Zeynep Tufekci, techno-sociologist and Associate Professor at UNC School of Information and Library Science:



A TED element has been excluded from this version of the text. You can view it online here: <http://pb.libretexts.org/collegeresearch/?p=60>

Note: Turn on closed captions with the subtitles button or use the [interactive text transcript](#) if you prefer to read.

Sources

Caulfield, Mike. “Announcing the Digital Polarization Initiative, an Open Pedagogy Project.” *Hapgood*, 7 Dec. 2016.

Image: “Twemojis” by Twitter Open Source are licensed under [CC BY 4.0](#)

Tufekci, Zeynep. “It’s the (Democracy-Poisoning) Golden Age of Free Speech.” *Wired*, 16 Jan. 2018.

“We’re Building a Dystopia Just to Make People Click on Ads: Zeynep Tufekci” by TED is licensed under [CC BY-NC-ND 4.0](#)

This page titled [6.5: Algorithms and Polarization](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [2.5: Algorithms and Polarization](#) by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introto.collegeresearch.pressbooks.com/>.

6.6: Filter Bubbles



The Problem With Personalization

“I’m more concerned about, like, the larger scale trend of predicting what we want, but then also predicting what we want in ways that push a lot of people towards the same cultural and political endpoint” (Anonymous student qtd. in Head et al. 20).

One significant and widely-discussed feature of the Age of Algorithms has been the “personalization” of information we see online. Algorithms will filter, sort, and personalize information in an attempt to provide content that is relevant to our interests, based on, for example, our search histories and patterns of past online activities. This type of algorithmic personalization may actually distort, manipulate, and amplify our own worldviews by creating so-called “filter bubbles” that limit our exposure to outside perspectives.

“Using algorithms to deliver content that we are most likely to enjoy, these platforms reinforce our worldviews and allow us to stay encased in our safe, comfortable echo chambers....The fundamental problem is that “filter bubbles” worsen polarization by allowing us to live in our own online echo chambers and leaving us with only opinions that validate, rather than challenge, our own ideas” (Wardle and Derakhshan 49).

Roger McNamee, an early Facebook investor-turned-critic, considers filter bubbles to be “the most important tool used by Facebook and Google to hold user attention” because they lead to an “unending stream of posts that confirm each user’s existing beliefs.” The result is polarization: “Everyone sees a different version of the internet tailored to create the illusion that everyone else agrees with them.” Further, this “continuous reinforcement of existing beliefs tends to entrench those beliefs more deeply, while also making them more extreme and resistant to contrary facts.”

For an explanation of this problem, watch Eli Pariser’s “Filter Bubbles” TED Talk [8:49], based on his influential 2011 book of the same name:



A TED element has been excluded from this version of the text. You can view it online here: <http://pb.libretexts.org/collegeresearch/?p=64>

Note: Turn on closed captions with the subtitles button or use the [interactive text transcript](#) if you prefer to read.

New Research on Filter Bubbles

A 2018 study has called the filter bubble premise into question, finding that polarization could actually increase upon **exposure** to opposing views (Bail et al.). Most notably, this study found that “Republicans who followed a liberal Twitter bot became substantially more conservative” (Bail et al. 9216). This suggests that exposure to opposing viewpoints (which are often presented with a divisive and moralistic tone in order to capture our attention) may actually backfire, and create further polarization by causing negative or defensive reactions.

An interesting 2017 study examined polarization in the U.S. across different age ranges and surprisingly found that “growth in polarization in recent years is **largest** for the demographic groups **least likely to use the internet** and social media”—namely, those **over 75** years old (Boxell et al.; emphasis added). Indeed, in a 2020 study, students expressed concerns about the ability of older adults to navigate systems designed for algorithmic attention, with one student noting that “everyone was so focused on making sure that kids learned that they forgot they also needed to teach grandparents” (Head et al. 26).

This idea might be further understood with the results of two 2017 studies which showed that:

- Users of social media and search engines experience more diversity than non-users
- People who are involved in politics online are “more likely to double-check questionable information they find on the internet and social media, including by searching online for additional sources in ways that will pop filter bubbles” (Wardle and Derakhshan 53).



Sources

Bail, Christopher A., et al. “[Exposure to Opposing Views on Social Media Can Increase Political Polarization](#).” *PNAS*, vol. 115, no. 7, 2018, pp. 9216-21, doi.org/10.1073/pnas.1804840115. Licensed under [CC BY-NC-ND 4.0](#)

“[Beware Online ‘Filter Bubbles’: Eli Pariser](#)” by TED is licensed under [CC BY-NC-ND 4.0](#)

Boxell, Levi, et al. “[Is the Internet Causing Political Polarization? Evidence from Demographics](#).” *NBER Working Paper 23258*, Mar. 2017, doi:10.3386/w23258.

Head, Alison J., Barbara Fister, and Margy MacMillan. “[Information Literacy in the Age of Algorithms](#).” *Project Information Literacy*, 15 Jan. 2020. Licensed under [CC BY-NC-SA 4.0](#)

Image: “[Bubbles in BCN](#)” by [Marc Sendra Martorell](#) is in the [Public Domain](#), CC0

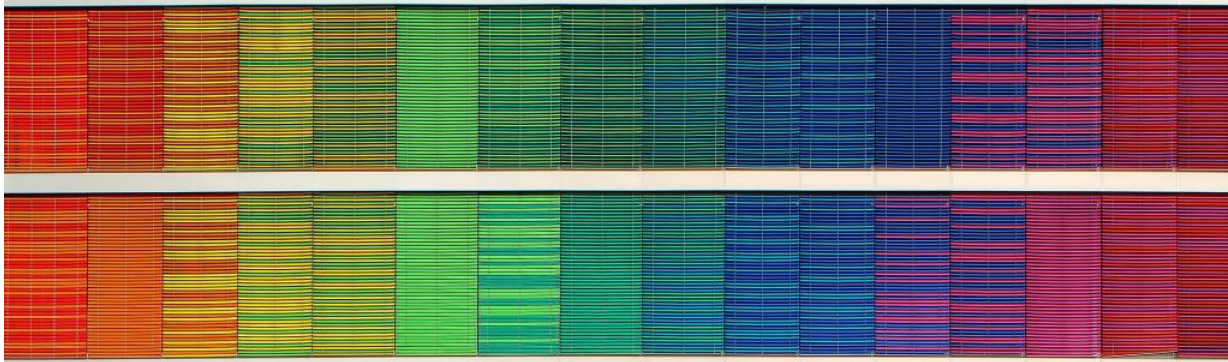
Image: “[Water Droplets](#)” by [Nariman Mesharafa](#) is in the [Public Domain](#), CC0

Wardle, Claire, and Hossein Derakhshan. “[Information Disorder: Toward an Interdisciplinary Framework for Research and Policy Making](#).” *Council of Europe*, 27 Sept. 2017.

This page titled [6.6: Filter Bubbles](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [2.6: Filter Bubbles](#) by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introtocollegeresearch.pressbooks.com/>.

6.7: Conclusion



This chapter introduced the often concerning effects of living in the Age of Algorithms, including algorithmic bias, the attention economy, and digital polarization. These overlapping and intersecting concepts will greatly shape the type of information we see online, and will influence our opinions, behaviors, decisions, and worldviews.

“Despite the emerging awareness of many of the terrible side effects of these platforms, we are dependent on them. They’ve become our local news channels, our emergency communication systems, our town squares, and the primary windows into the lives of our loved ones and governments. They are a critical part of how we rally around shared causes and engage with our politics. **How do we reconcile their toxicity with their utility?**” (Rose-Stockwell; emphasis added)

So what can we do? We are **not** suggesting that you completely abandon social media and other digital platforms like Google and YouTube. Instead, our aim is to increase awareness and understanding of the information environments that we inhabit on a daily basis, so that we can take advantage of the benefits they offer and **use them more effectively**.

Sources

Image: “Rainbow Frequency” by Ricardo Gomez Angel is in the [Public Domain](#), [CC0](#)

Rose-Stockwell, Tobias. “How to Design Better Social Media.” *Medium*, 13 Apr. 2018. Licensed under [CC BY-NC 4.0](#).

This page titled [6.7: Conclusion](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [2.7: Conclusion](#) by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introcollegeresearch.pressbooks.com/>.

CHAPTER OVERVIEW

Chapter 7: Searching the Web

- 7.1: Types of (free) web resources
- 7.2: Google Scholar
- 7.3: Web Search Engines
- 7.4: Tips for Common Search Tools
- 7.5: Open Access
- 7.6: Chapter Scenario
- 7.7: Controlling Your Search
- 7.8: Searching and Privacy

This page titled [Chapter 7: Searching the Web](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

7.1: Types of (free) web resources

One cool thing about the internet is that it has helped equalize the publishing playing field. Anyone with an internet connection can publish information - no printing press, agent, editor, or advertiser needed! The free (i.e., non-password or paywalled) internet is an accessible publishing platform for voices that previously did not have a platform to be heard.

Why might a voice not be heard? Many reasons. Lack of money, lack of "formal" education, lack of access to publishing channels, lack of perceived "legitimacy," fear, oppression, and/or disenfranchisement are a few broad reasons that come to mind. The accessibility and anonymity of the internet lessen those barriers to having a voice. Of course, the internet helps amplify already-dominant voices, too!

The internet has introduced new types of resources to the publishing [lexicon\(opens in new window\)](#). Below is a non-comprehensive list. (Help build this list - let me know what types of web resources are missing!)

Types of Web Resources

Type	Definition	Characteristics	Example
Blog	A website similar to a diary or journal . Entries, called posts, are published regularly; visitors can leave comments.	- Anyone can create one on any topic - Authors can be individuals, groups of people, and/or anonymous	- Clackamas Community College Blog(opens in new window) (CCC's blog) - Cake Wrecks(opens in new window) (time suck blog)
Government publication	Publications authored, sponsored, and/or funded by United State's federal and local governments . There are <i>tons</i> of types of government docs, including data and statistics, reports, court decisions, statutes, treaties, white papers, and historical primary sources.	- Author is somehow connected with a level of US government - Domain will end with .gov; state-level domains can include or.us (Oregon), wa.us (Washington)	- Clackamas County's website(opens in new window) - Oregon forest fire statistics(opens in new window) (Oregon Department of Forestry)
Infographic	Visual representations of information, data or knowledge. Infographics use images and graphics to make complex information easy to understand. They do not usually contain a lot of text.	- Graphics and images - Minimal text - Good ones cite their sources!	- Media Bias(opens in new window) - Behind the Internet Curtain(opens in new window) - Battle of the Bonds(opens in new window) (James Bond)
Message board / internet forum	Website where users can have online conversations and interactions , essentially. Visitors can post questions, comments, or other content about any topic under the sun. Users can reply to other users' postings.	- Authors can be anonymous - May or may not need to join the message community to post/comment	- Reddit(opens in new window) - Craigslislist(opens in new window) - Quora(opens in new window)

Type	Definition	Characteristics	Example
Online newspaper / magazine/ journal articles	Remember print newspapers and magazines? (Me neither.) It's worth noting that the "traditional" rules of publishing still mostly exist for this genre of web resource. Open access (opens in new window) online publishers are working to eliminate those traditional barriers. <3	- Authors are often staff or somehow publisher-affiliated - Not really free... you either get tons of advertising or encounter soft paywalls(opens in new window)	- Oregon City News(opens in new window) (newspaper) - Catster(opens in new window) (magazine) - Dancecult: Journal of Electric Dance Music Culture(opens in new window) (journal)
Podcast	iPod + broadcast = podcast. Basically, podcasts are online audio (and video) stories about every topic and theme imaginable. Podcasts can be one-offs or episodic; you can "subscribe" to them like you might a magazine; visitors can leave comments.	- Anyone can create one on any topic - On demand; playable anytime and downloadable	- Welcome to Night Vale(opens in new window) - Code Switch(opens in new window)
Tweet	A post made on the social media platform Twitter.	- Authors can be anonymous, celebrities, presidents, or bots! - 280 characters or less	- Thoughts of Dog(opens in new window) - Clackamas Community College(opens in new window)
Webpage	Most of us use "webpage" as a catch-all name for a lot of online content that doesn't resemble a "traditional" format of published content. Technically, a webpage is a single HTML (opens in new window) page on a website. Multiple webpages make up a website.	- Contains lots of information (text, pictures, videos, links, files) - Every page has a unique URL (web address)	- A webpage about quokkas(opens in new window) (part of a zoo's website)
Wiki	A website that allows collaborative editing of its content. Access and editing can be open or restricted.	- Contributors can be anonymous - Editing can be done without special software or programming knowledge	- Wikipedia(opens in new window) - Wikileaks(opens in new window) - Wookieepedia(opens in new window)

7.1: Types of (free) web resources is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

7.2: Google Scholar

Google Scholar is a tool for finding books and journal articles that you might normally get from a library. Where possible, it provides links to online versions and to library copies to help you locate an item.

When to Use It

Use Google Scholar to find scholarly articles and books, verify citations, and explore related resources. When books are available through Google Books, some of their content may be available online.

How to Use It

Go to Google Scholar (<http://scholar.google.com>).

MOVIE: Using Google Scholar

Watch this tutorial on the basics of Google Scholar use.



Note: Setting your school in Scholar Preferences will help you make direct connections to online sources provided by your library. If you want to locate sources in many different libraries, add WorldCat in addition to your library. (Remember to save your preferences.)

In your search results, you can connect to an online version if there is a linked option following the item's title. (If you've added Ohio State under preferences, a Find It link is shown to provide a link to full-text or to help you request the item if it's not available online. If you've added WorldCat to you preferences, the Library Search link displays the WorldCat record, which shows all of the libraries that own the item. If there are multiple references to the same item, Google Scholar groups them. You can click the versions link following a title to see a list of all versions.)

Additional Tips

- The Any Time link in the left column of results allows you to limit your search results by date.
- Find Advanced Scholar Search by clicking on the three horizontal lines icon. Advance Scholar search provides additional search fields such as author, publication, and date, as well as phrase matching and word exclusion.

7.2: Google Scholar is shared under a [not declared](#) license and was authored, remixed, and/or curated by LibreTexts.

7.3: Web Search Engines

Web search engines use special software programs (called robots, spiders, or crawlers) to find Web pages and list (or index) all words within each one to make searching large quantities of pages faster. Indexes capture the largest amount of information on the Web, but no index lists everything on the Internet.

Commonly used search engines include Google (<https://www.google.com>) and Bing (<http://www.bing.com>).

In addition to search engines, there are also:

- Specialized web search engines – A tool that has a specialty, usually either a subject or format focus. It ignores the rest of the information on the web. Examples include science.gov (<http://www.science.gov/>) and TinEye Reverse Image Search (<https://www.tineye.com>).
 - Metasearch engines – Tools that search multiple web search engines and gives you results from all of them. Some of these return the best results from the search engines they search. Examples include Dogpile (<http://www.dogpile.com>) and WebCrawler (<https://www.webcrawler.com>).
 - Web directories – Tools created by editors or trained researchers who categorize or classify web sites by subject. Directories are more selective than search engines. An example is the Directory of Open Access Journals (<https://doaj.org/>).
-

When to Use Them

Web Search Engines and related web search tools are helpful for locating background information, news (especially if it's recent), and public opinion.

However, scholarly information is often not available through a regular web search. If you do find scholarly information through a web search engine, especially if you are off campus, you may be asked for payment to access it. Ohio State Libraries can usually get you what you need without additional payment.

Remember to follow the advice in [Evaluating Sources](#) to determine whether information you locate online is suitable for your information needs.

How to Use Them

See links above. Use of each tool varies. If a search engine has an advanced search, it may include options such as specifying format, language, domain, or date range.

7.3: Web Search Engines is shared under a [not declared](#) license and was authored, remixed, and/or curated by LibreTexts.

7.4: Tips for Common Search Tools

[Academic Search Complete](#)

- **AND:** default (alternatively: term AND term)
 - **OR:** term OR term
 - **NOT:** term NOT term
 - **Exact Phrase:** “exact phrase search”
 - **Grouping:** term AND (term OR term)
-

[Bing](#)

- **AND:** default
 - **OR:** term OR term
 - **NOT:** term NOT term
 - **Exact Phrase:** “exact phrase search”
 - **Grouping:** Not available
-

[Google](#)

- **AND:** default
 - **OR:** term OR term
 - **NOT:** term -term (example: animal -cat)
 - **Exact Phrase:** “exact phrase search”
 - **Grouping:** term AND (term OR term)
-

[WorldCat](#)

- **AND:** term AND term
 - **OR:** term OR term
 - **NOT:** term NOT term
 - **Exact Phrase:** “exact phrase search”
 - **Grouping:** term AND (term OR term)
-

7.4: Tips for Common Search Tools is shared under a [not declared](#) license and was authored, remixed, and/or curated by LibreTexts.

7.5: Open Access



“Open access” refers to resources online—usually academic resources—that are freely available. When trying to find scholarly articles online, you will want to find open access journals or open access articles within more-traditional scholarly journals. Google Scholar and Microsoft Academic Search don’t do a great job of helping you limit your search results to those resources that you have access to, so it can be frustrating at times when using them to conduct research. On the other hand, PubMed and ERIC do provide ways for you to limit your search results to those resources that are freely available. Another resource to check out is [The Digital Commons Network](#), which is a directory of open access articles and resources from universities and publications that you can access freely.

Remember, for any resource that you find online that you cannot access or that has a paywall, consult with a librarian to see if there’s another way for you to access the resource freely. It might be possible for the library to get you access through interlibrary loan, which is when libraries cooperate with each other to provide access to resources that one library may not have, but another library does.

OER: A Special Kind of Open Access Resource

OER stands for Open Educational Resources. OER are materials that can be used and adopted in place of traditional course materials in order to promote equitable access to education as there is no cost for the student or faculty to use OER. That means if your professor uses an OER textbook, you can access that textbook for free online. This is an OER textbook, as an example.

OERs are not limited to textbooks. They could be articles, documents, movies, images, and more. What defines them are the permissions or license that comes with them. Though we won’t dive into all the aspects of licensing and copyright permissions, basically, if the material is licensed so that you can share, revise, and keep a copy of the resource freely, then you have an OER. OER is different than open access in this regard, because open access only allows you to access the resource.

Sources

Image: “[Open Access Logo](#)” by [PLoS](#), adapted by [Aloha Sargent](#), is in the [Public Domain](#), [CC0](#)

This page titled [7.5: Open Access](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [10.8: Open Access](#) by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introtocollegeresearch.pressbooks.com/>.

7.6: Chapter Scenario

Scenario

Your professor wants you to research antiracism. Specifically, you are to identify efforts and/or policies by government agencies and private organizations that support antiracism. Your professor explicitly states that the library databases cannot be used for this assignment, and you will need to find credible primary and secondary sources online. She wants you to submit an annotated bibliography using MLA style, that includes 10 websites and/or online documents.

This page titled [7.6: Chapter Scenario](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler; Aloha Sargent; and Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- **10.1: Chapter Scenario** by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introtocollegeresearch.pressbooks.com/>.

7.7: Controlling Your Search

Now that you have learned about tools and some of the issues surrounding searching online, you need to be able to control your search. Just like with library databases, there are strategies you can employ with online searches. Recall that in our [chapter scenario](#), you needed to find information about antiracism efforts of government and private organizations. When forming your search for this scenario, you might use the following keywords: antiracism, government, organizations, policies, and efforts. But you might want to take advantage of some more **advanced search** commands.

Limiting by Domain

One search command to make note of is `site:`. This command allows you to search for, or within, specific websites based on domain name. For our scenario, we need government and organizations, so it would be helpful to limit our search to those types of websites. You can set up your search to look something like this:

antiracism policies site:gov

This search example will look for the keywords antiracism and policies within government websites only. The `site:` command will limit results to those with `gov` in the website address (also known as the URL). The domain `gov` is reserved for U.S. government websites.

Other common domains that you could use include `.com`, `.org`, and `.edu`. The domain `.org` stands for “organization,” however, **anyone** can use the `.org` domain, not just non-profit organizations. It is **very important** to use these domain reservations as guidelines rather than definitive markers of credibility. For example, an `.edu` website (reserved for educational institutions) could host papers written by students, which might not be appropriate sources for a college-level research paper. Likewise, an `.org` website could be hosted by a commercial enterprise or even a hate group.

Limiting by File Type

The scenario also asks for online documents. The meaning of this word, “documents,” can be vague and unclear, but its use in the scenario indicates that we’re looking for something you can download, such as a PDF or maybe a Word document. You can also limit your results to file types when searching by using the `filetype` command. Your search would look something like this:

antiracism policies site:gov filetype:pdf

With the search example above, you will be limiting your search results to government websites that have PDFs related to antiracism policies.

Other Filters

In addition to those commands, there are easy-to-find tools built into search engines. You can search for images, news, maps and more when you search online. You can limit your results to the past year, the past hour, or other time periods. All of these additional limiters can be very powerful and helpful when conducting research, depending on your topic. Explore your search engine to see how much control you can have over your online searching.

- [Google Search Help](#)
- [Bing Help](#)

This page titled [7.7: Controlling Your Search](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- **10.10: Controlling Your Search** by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introtocollegeresearch.pressbooks.com/>.

7.8: Searching and Privacy



Accept?

Have you ever visited a website and seen a pop-up that says “Accept Cookies” or “Accept Privacy Terms”? These pop-up messages are everywhere! Because we want to see the information on the website, we often click “yes” and move on without giving it another thought. But what information are you giving up? Does it really matter? There are arguments on both sides of the fence here. Some people feel that websites and companies are tracking individuals too much, to the point where targeted ads are infiltrating what people see and experience. Others claim these ads are not as targeted as they seem, and that people aren’t really being tracked—rather, activity is being tracked.

Impact

We do know, however, that your online activity can impact your search results. This phenomenon is called a filter bubble and this occurs most often and strongly within social media, but also within search engines. On social media, you are fed stories based on people or organizations you follow and posts that you liked. This means that, before long, you see only those things that you “liked” or similar items that you have followed. This greatly limits what you see, and a filter bubble is created. Same with search results. Basically, the search tool you use learns about your preferences. It knows your location, for example, therefore, it will provide results relevant to your geography. Search tools can also track the things you click on and will provide similar results in the future. If you start clicking on New York Times articles frequently, you might see more results coming back from the New York Times in your searches. For more on the problematic “personalization” of information we see online, please read the section on [Filter Bubbles](#).

Protecting Privacy

There are steps you can take to combat these behaviors of online tools. One thing you can do is use a search tool that does not track your browsing history. [DuckDuckGo](#) is a popular search engine that protects your privacy as you search online. Another step you can take is to use your browser’s “incognito” or “inPrivate” mode. This will also limit what is saved on your computer and prevent or limit tracking behavior as you search.

You should always be vigilant about what you agree to online. Don’t dismiss those pop-ups that you “agree” to so quickly. If you’re on a website that you are unfamiliar with, take the time to read through to what you are agreeing to. You might be surprised, and you will have to decide for yourself if what you agree to is worth what you want to access. Some of these agreements may be harmless; but in the end, it’s your information and your privacy that might be at risk. Only you can determine if and when those values should be waived.

Sources

Image: “[Camera Wall](#)” by [Lianhao Qu](#) is in the [Public Domain](#), [CC0](#)

This page titled [7.8: Searching and Privacy](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- **10.11: Searching and Privacy** by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introtocollegeresearch.pressbooks.com/>.

CHAPTER OVERVIEW

Chapter 8: Ethical and Legal Use of Information

We are capable of original thought. But much of what we think about is based on what we have learned from others' contributions. Even Albert Einstein, a very original thinker, learned from others and then worked on problems many in the field had identified (Stachel, 2005).

"He [Einstein] had been probing the edifice erected by his predecessors in this field [theoretical physics] for its strengths and weaknesses..." (Stachel, 2005, p. 215). All our work is based on generations of work that has come before us. Our predecessors read and used the work of their predecessors. With gratitude, it is only right that we acknowledge the work of others on which our thoughts and works are grounded.

Legal protection for the creator of a work (article, book, writings, music, photograph...) is called copyright. We can use copyrighted works if permission is given by the copyright holder or if it falls under fair use. Fair use is a list of four criteria that, when met, allow for the legal use of copyrighted works.

Plagiarism is the use of any work (with or without copyright) without giving credit to the creator, the originator of the work (author of a book or article...). Plagiarism is unethical and is against the code of conduct of universities and colleges. Citing the work of others that we use is how we give credit to the creators, the originators of the works. To do this you will use both in-text citations in written works and full citations at the end of your work, or project. The latter is called References (in APA) or Works Cited (in MLA).

Let's delve into copyright, fair use, plagiarism and citing more deeply.

[8.1: Copyright](#)

[8.2: Fair Use](#)

[8.3: Plagiarism](#)

[8.4: How to Avoid Plagiarism in the Research Process](#)

[8.5: Plagiarism and the Internet](#)

[8.6: Introduction to Citing Your Sources](#)

[8.7: Citing and Citations](#)

[8.8: Citations IRL \(in real life\)](#)

This page titled [Chapter 8: Ethical and Legal Use of Information](#) is shared under a [CC BY-NC-SA](#) license and was authored, remixed, and/or curated by [Carol M. Withers with Bruce Johnson & Nathan Martin](#).

8.1: Copyright

According to Hirtle (2018), works published in the United States or countries with copyright agreements with the U.S., copyright protection extends 70 years after the death of the creator or 95 years after publication if the creator is a corporation. There are, however, numerous nuances. What about, for example, a work published in the U.S. within 30 days after being published abroad between 1923 and 1977? For this and other fun copyright facts, see the Hirtle's (2018) website at Cornell (See References Cited Section).

In *A Brief Introduction and History*, the United States Copyright Office states:

It [copyright] is a principle of American law that an author of a work may reap the fruits of his or her intellectual creativity for a limited period of time. Copyright is a form of protection provided by the laws of the United States for original works of authorship, including literary, dramatic, musical, architectural, cartographic, choreographic, pantomimic, pictorial, graphic, sculptural, and audiovisual creations. Copyright literally means the right to copy. The term has come to mean that body of exclusive rights granted by law to authors for protection of their work. The owner of copyright has the exclusive right to reproduce, distribute, and, in the case of certain works, publicly perform or display the work; to prepare derivative works; in the case of sound recordings, to perform the work publicly by means of a digital audio transmission; or to license others to engage in the same acts under specific terms and conditions. Copyright protection does not extend to any idea, procedure, process, slogan, principle, or discovery.

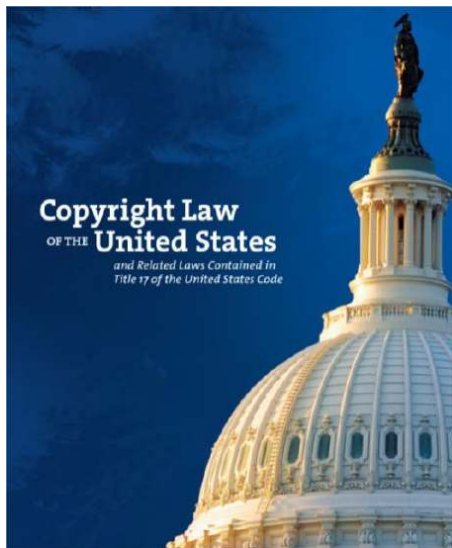


Figure 8.1.1: Source: <https://www.copyright.gov/title17/>

In *Copyright in General*, the United States Copyright Office suggests we ask these questions to understand copyright:

What is copyright? Copyright is a form of protection grounded in the U.S. Constitution and granted by law for original works of authorship fixed in a tangible medium of expression. Copyright covers both published and unpublished works.

What does copyright protect? Copyright, a form of intellectual property law, protects original works of authorship including literary, dramatic, musical, and artistic works, such as poetry, novels, movies, songs, computer software, and architecture. Copyright does not protect facts, ideas, systems, or methods of operation, although it may protect the way these things are expressed.

Do I have to register with your office to be protected? No. In general, registration is voluntary. Copyright exists from the moment the work is created. You will have to register, however, if you wish to bring a lawsuit for infringement of a U.S. work.

Why should I register my work if copyright protection is automatic?

Registration is recommended for a number of reasons. Many choose to register their works because they wish to have the facts of their copyright on the public record and have a certificate of registration. Registered works may be eligible for statutory damages and attorney's fees in successful litigation. Finally, if registration occurs within five years of publication, it is considered prima facie evidence in a court of law.

[Note: Prima facie evidence is “evidence that will establish a fact or sustain a judgment unless contradictory evidence is produced” (Garner, 1999, p. 579).]

This page titled [8.1: Copyright](#) is shared under a [CC BY-NC-SA](#) license and was authored, remixed, and/or curated by [Carol M. Withers with Bruce Johnson & Nathan Martin](#).

- [3.1: Copyright](#) by Carol M. Withers with Bruce Johnson & Nathan Martin is licensed [CC BY-NC-SA 4.0](#).

8.2: Fair Use

In *More Information on Fair Use*, the United States Copyright Office explains:

Fair use is a legal doctrine that promotes freedom of expression by permitting the unlicensed use of copyright-protected works in certain circumstances. Section 107 of the Copyright Act provides the statutory framework for determining whether something is a fair use and identifies **certain types of uses—such as criticism, comment, news reporting, teaching, scholarship, and research**—as examples of activities that may qualify as fair use. Section 107 calls for consideration of the following four factors in evaluating a question of fair use:

1. **Purpose and character of the use, including whether the use is of a commercial nature or is for nonprofit educational purposes:** Courts look at how the party claiming fair use is using the copyrighted work, and are more likely to find that nonprofit educational and noncommercial uses are fair. This does not mean, however, that all nonprofit education and noncommercial uses are fair and all commercial uses are not fair; instead, courts will balance the purpose and character of the use against the other factors below. Additionally, “transformative” uses are more likely to be considered fair. Transformative uses are those that add something new, with a further purpose or different character, and do not substitute for the original use of the work.
2. **Nature of the *copyrighted work*:** This factor analyzes the degree to which the work that was used relates to copyright’s purpose of encouraging creative expression. Thus, using a more creative or imaginative work (such as a novel, movie, or song) is less likely to support a claim of a fair use than using a factual work (such as a technical article or news item). In addition, use of an unpublished work is less likely to be considered fair.
3. **Amount and *substantiality of the portion used in relation to the copyrighted work as a whole*:** Under this factor, courts look at both the quantity and quality of the copyrighted material that was used. If the use includes a large portion of the copyrighted work, fair use is less likely to be found; if the use employs only a small amount of copyrighted material, fair use is more likely. That said, some courts have found use of an entire work to be fair under certain circumstances. And in other contexts, using even a small amount of a copyrighted work was determined not to be fair because the selection was an important part—or the “heart”—of the work.
4. **Effect of the use upon the potential market for or value of the copyrighted work:** Here, courts review whether, and to what extent, the unlicensed use harms the existing or future market for the copyright owner’s original work. In assessing this factor, courts consider whether the use is hurting the current market for the original work (for example, by displacing sales of the original) and/or whether the use could cause substantial harm if it were to become widespread.

In addition to the above, other factors may also be considered by a court in weighing a fair use question, depending upon the circumstances. Courts evaluate fair use claims on a case-by-case basis, and the outcome of any given case depends on a fact-specific inquiry. This means that there is no formula to ensure that a predetermined percentage or amount of a work—or specific number of words, lines, pages, copies—may be used without permission.

Note that government documents, including images, are not protected by copyright, so we can use them above at will. There are blurry lines and exceptions to this. For example, if the government pays for a study to be done, does the person/corporation or the government own the articles, books, products that comes from that study no matter when they were created? We must, however, cite them to avoid plagiarism.

This page titled **8.2: Fair Use** is shared under a [CC BY-NC-SA](#) license and was authored, remixed, and/or curated by [Carol M. Withers with Bruce Johnson & Nathan Martin](#).

- **3.2: Fair Use** by Carol M. Withers with Bruce Johnson & Nathan Martin is licensed [CC BY-NC-SA 4.0](#).

8.3: Plagiarism

All our work is based on generations of work that has come before us. Our predecessors read and used the work of their predecessors. It is only right that we acknowledge the work of others that we use. Plagiarism is failing to do this honest thing and is not acceptable. Plagiarism is passing off other's work as our own or not citing our sources. Here are some examples of how Washington colleges define plagiarism.

Big Bend Community College Student Handbook refers back to [WAC 132R-04-057](#) (opens in new tab)

Prohibited student conduct.

The college may impose sanctions against a student or student group who commits, attempts to commit, aids, abets, incites, encourages, or assists another person to commit an act(s) of misconduct, which includes, but is not limited to, any of the following:

- (1) Academic dishonesty. Any act of academic dishonesty including, but not limited to, cheating, plagiarism, or fabrication.
 - (a) Cheating includes, but is not limited to, any attempt to give or obtain unauthorized assistance relating to the completion of an academic assignment.
 - (b) Plagiarism includes, but is not limited to, taking and using as one's own, without proper attribution, the ideas, writings, or work of another person, or artificial intelligence in completing an academic assignment. Prohibited conduct may also include the unauthorized submission for credit of academic work that has been submitted for credit in another course.
 - (c) Fabrication includes falsifying data, information, or citations in completing an academic assignment, and also includes providing false or deceptive information in an instructional course concerning the completion of an assignment.
 - (d) This section shall not be construed as preventing an instructor from taking immediate disciplinary action as provided herein where the instructor is required to act upon such breach of academic dishonesty in order to preserve order and prevent disruptive conduct in the classroom.
 - (e) This section shall also not be construed as preventing an instructor from adjusting the student's grade on a particular project, paper, test, or class grade for academic dishonesty.

You can learn more about the Big Bend Academic Dishonesty Procedure [on the website](#) (opens in new tab).

Eastern Washington University policy refers back to [WAC 172-90-100](#) (opens in new tab).

Violations and sanctions.

- (1) Violations: Violations of academic integrity involve the use or attempted use of any method or technique enabling a student to misrepresent the quality or integrity of any of his or her work. Violations of academic integrity include, but are not limited to:
 - (a) Plagiarism: Representing the work of another as one's own work;
 - (b) Preparing work for another that is to be used as that person's own work;
 - (c) Cheating by any method or means;
 - (d) Knowingly and willfully falsifying or manufacturing scientific or educational data and representing the same to be the result of scientific or scholarly experiment or research; or
 - (e) Knowingly furnishing false information to a university official relative to academic matters.

An increasingly common form of plagiarism is copying and pasting papers or articles from the internet, or simply purchasing pre-written papers from on-line paper mills. Hundreds of these sites have been identified. **Fortunately, this sort of plagiarism is also increasingly easy to detect.**

This page titled [8.3: Plagiarism](#) is shared under a [CC BY-NC-SA](#) license and was authored, remixed, and/or curated by [Carol M. Withers with Bruce Johnson & Nathan Martin](#).

- [3.3: Plagiarism](#) by Carol M. Withers with Bruce Johnson & Nathan Martin is licensed [CC BY-NC-SA 4.0](#).

8.4: How to Avoid Plagiarism in the Research Process

Plagiarism is the unauthorized or uncredited use of the writings or ideas of another in your writing. While it might not be as tangible as auto theft or burglary, plagiarism is still a form of theft.

In the academic world, plagiarism is a serious matter because ideas in the forms of research, creative work, and original thought are highly valued. Chances are, your school has strict rules about what happens when someone is caught plagiarizing. The penalty for plagiarism is severe, everything from a failing grade for the plagiarized work, a failing grade for the class, or expulsion from the institution.

You might not be aware that plagiarism can take several different forms. The most well known, **purposeful plagiarism**, is handing in an essay written by someone else and representing it as your own, copying your essay word for word from a magazine or journal, or downloading an essay from the Internet.

A much more common and less understood phenomenon is what I call **accidental plagiarism**. Accidental plagiarism is the result of improperly paraphrasing, summarizing, quoting, or citing your evidence in your academic writing. Generally, writers accidentally plagiarize because they simply don't know or they fail to follow the rules for giving credit to the ideas of others in their writing.

Both purposeful and accidental plagiarism are wrong, against the rules, and can result in harsh punishments. Ignoring or not knowing the rules of how to not plagiarize and properly cite evidence might be an *explanation*, but it is not an *excuse*.

To exemplify what I'm getting at, consider the examples below that use quotations and paraphrases from this brief passage:

Those who denounce cyberculture today strangely resemble those who criticized rock music during the fifties and sixties. Rock started out as an Anglo-American phenomenon and has become an industry. Nonetheless, it was able to capture the hopes of young people around the world and provided enjoyment to those of us who listened to or played rock. Sixties pop was the conscience of one or two generations that helped bring the war in Vietnam to a close. Obviously, neither rock nor pop has solved global poverty or hunger. But is this a reason to be "against" them? (ix).

And just to make it clear that I'm not plagiarizing this passage, here is the citation in MLA style:

Lévy, Pierre. Cyberculture. Trans. Robert Bononno. Minneapolis: U of Minnesota P, 2001.

Here's an obvious example of plagiarism:

Example 8.4.1:

Those who denounce cyberculture today strangely resemble those who criticized rock music during the fifties and sixties.

In this case, the writer has literally taken one of Lévy's sentences and represented it as her own. That's clearly against the rules.

Here's another example of plagiarism, perhaps less obvious:

Example 8.4.2:

The same kind of people who criticize cyberculture are the same kind of people who criticized rock and roll music back in the fifties and sixties. But both cyberculture and rock music inspire and entertain young people.

While these aren't Lévy's exact words, they are certainly close enough to constitute a form of plagiarism. And again, even though you might think that this is a "lesser" form of plagiarism, it's still plagiarism.

Both of these passages can easily be corrected to make them acceptable quotations or paraphrases.

Example 8.4.3:

In the introduction of his book Cyberculture, Pierre Lévy observes that “Those who denounce cyberculture today strangely resemble those who criticized rock music during the fifties and sixties” **(ix).**

Pierre Lévy suggests that the same kind of people who criticize cyberculture are the same kind of people who criticized rock and roll music back in the fifties and sixties. But both cyberculture and rock music inspire and entertain young people **(ix).**

Note that changing these passages from examples of plagiarism to acceptable examples of a quotation and a paraphrase is extremely easy: properly cite your sources.

This leads to the “golden rule” of avoiding plagiarism:

Always cite your sources. If you are unsure as to whether you should or should not cite a particular claim or reference, you should probably cite your source.

Often, students are unclear as to whether or not they need to cite a piece of evidence because they believe it to be “common knowledge” or because they are not sure about the source of information. When in doubt about whether or not to cite evidence in order to give credit to a source (“common knowledge” or not), you should cite the evidence.

This page titled [8.4: How to Avoid Plagiarism in the Research Process](#) is shared under a [CC BY-NC-SA](#) license and was authored, remixed, and/or curated by [Steven D. Krause](#).

- [4.4: How to Avoid Plagiarism in the Research Process](#) by [Steven D. Krause](#) is licensed [CC BY-NC-SA 4.0](#).

8.5: Plagiarism and the Internet

Sometimes, I think the ease of finding and retrieving information on the World Wide Web makes readers think that this information does not need to be cited. After all, it isn't a traditional source like a book or a journal; it is available for "free." All a research writer needs to do with a web site is "cut and paste" whatever he needs into his essay, right? Wrong!

You need to cite the evidence you find from the Internet or the World Wide Web the same way you cite evidence from other sources. To not do this is plagiarism, or, more bluntly, cheating. Just because the information is "freely" available on the Internet does not mean you can use this information in your academic writing without properly citing it, much in the same way that the information from library journals and books "freely" available to you needs to be cited in order to give credit where credit is due.

It is also not acceptable to simply download graphics from the World Wide Web. Images found on the Internet are protected by copyright laws. Quite literally, taking images from the Web (particularly from commercial sources) is an offense that could lead to legal action. There are places where you can find graphics and clip art that Web publishers have made publicly available for anyone to use, but be sure that the Web site where you find the graphics makes this explicit before you take graphics as your own.

In short, you can use evidence from the Web as long as you don't plagiarize and as long as you properly cite it; don't take graphics from the Web unless you know the images are in the public domain. For more information on citing electronic sources, see Chapter 12, "Citing Your Research with MLA and APA Style."

This page titled [8.5: Plagiarism and the Internet](#) is shared under a [CC BY-NC-SA](#) license and was authored, remixed, and/or curated by [Steven D. Krause](#).

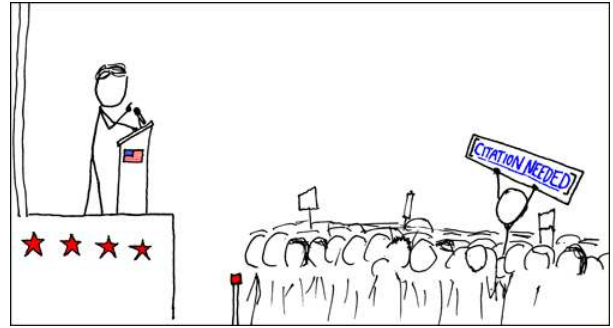
- [4.5: Plagiarism and the Internet](#) by [Steven D. Krause](#) is licensed [CC BY-NC-SA 4.0](#).

8.6: Introduction to Citing Your Sources

What is Citing?

Citing is the practice of giving credit to the information sources from which you've taken ideas, paraphrased, quoted, or otherwise used in some way in your paper or presentation.

You see writers citing *all the time* in your daily life: when you're reading an [article\(opens in new window\)](#) and it links to [another article\(opens in new window\)](#) it references, or to a [recent study\(opens in new window\)](#) or a [news article\(opens in new window\)](#) on the topic. That's citing. In college, we follow formalized conventions (called citation styles) for referencing other information, but the idea is the same: give credit where credit is due and help your readers find the information you discuss.



Why Cite?

There are five primary reasons to cite your sources. Citing your sources:

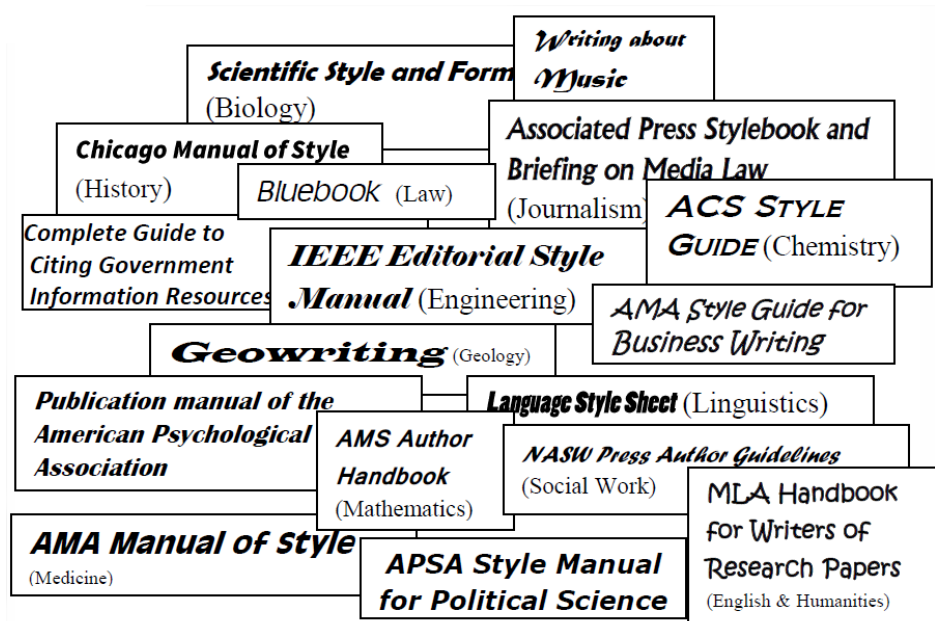
1. Allows your reader to continue learning about your topic by making it easy to follow up with your cited sources.
2. Strengthens your credibility and argument, because your readers can easily verify the claims you've made.
3. Is an opportunity for you to show how your work builds upon research and ideas that have come before it. Citing existing ideas and research allows you and your reader to recognize connections between your work and established knowledge, and understand how your ideas fit into the larger conversation about the topic.
4. Makes you a great member of society. Attributing your sources is socially-responsible use of information - you have an obligation to give credit where credit is due. It is the right thing to do. It is respectful of others' work and efforts. It sets a beautiful example!
5. Is expected of you as a member of the scholarly community (as an enrolled student expected to produce original work in classes). Citing your sources acknowledges the work of others – this acknowledgement is a foundational piece of academic inquiry, learning, and ethically joining the academic conversation. Citing your sources is one aspect of student conduct expected of you and it helps you to avoid plagiarism.

Image credit: [Wikimedia Commons\(opens in new window\)](#)

8.6: Introduction to Citing Your Sources is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

8.7: Citing and Citations

Citing or to cite your sources means to give credit to the authors whose writings you are using. Think of the references cited or the bibliography at the end of a paper you have written. Each one of these entries for a book, article or website is one citation. In addition, you will have “in-text” citations that will appear in your paper itself. For example, you might write in your paper: *According to Key and Peele (2035), the 2030 Olympics will be canceled due to rain.* (I made that up so you will not see it in the reference cited list of this document.) This is an in-text citation. Then at the end of your paper you would write the citation for this that would include the publication, publication date and so on. When you read a peer review journal or scholarly book, notice the in-text citations and how they are written. Then notice how they correlate to the citations on the references cited page at the end of the book or article.



Always remember to cite your sources. If you are on a college or university campus, there is most likely a writing center or English Center where staff can help you cite your sources. There are also numerous style guides you can consult. Each field (e.g. History, Chemistry, English, Anthropology...) has their favorite style guide. Some have a style guide specific to their fields. These style guides not only show you how to cite, but also how to set up your paper: margins, font size, title pages and so on. The two most commonly used guides are referred to as APA and MLA. Use the one required by your instructor.

- **APA (American Psychological Association)** APA's guide is called *Publication Manual of the American Psychological Association*. Many libraries will have the physical book you can use. You can also go to their website: <http://www.apastyle.org/>.
- **MLA (Modern Language Association)** MLA's guide is called *MLA Handbook*. Many libraries will have the physical book you can use. You can also go to their website: <https://www.mla.org/MLA-Style>.



Figure 8.7.1: Northern hawk owl by Lisa Hupp, USFWS. Source:

<https://www.fws.gov/news/blog/index.cfm?&startRow=326>

A very good site (website, not cite as in citation) that explains both these styles and gives wonderful help with writing is from Purdue University. See their OWL (Online Writing Lab) at <https://owl.english.purdue.edu/owl/>. There are also software programs

to help with writing citations such as Refworks, Criteria, Medeley and Endnote. Do not take this as either an endorsement or a lack of endorsement of the software, but rather as a heads up that such things exist. When sending articles and such from databases to your email, you will notice that many of the databases will ask you in which citation style you would like to receive them. The citations from databases might offer a good starting place, but you always want to check the citations for accuracy and conformation with the style format. It is not uncommon for the database generated citations to have errors or for the database not to have incorporated the latest edition of a style manual. Explaining errors in your citations by saying the database sent it to you that way will probably not put a smile on your professor's face.

This page titled [8.7: Citing and Citations](#) is shared under a [CC BY-NC-SA](#) license and was authored, remixed, and/or curated by [Carol M. Withers with Bruce Johnson & Nathan Martin](#).

- [3.4: Citing and Citations](#) by Carol M. Withers with Bruce Johnson & Nathan Martin is licensed [CC BY-NC-SA 4.0](#).

8.8: Citations IRL (in real life)

Speaking of avoiding plagiarism and attributing where you get information from, have you ever thought about how this practice happens every day around you? It does!

In real life, you're not going to include a formal citation in an email to your cousin. However, you might link to a news article backing up a claim you make in that email. We call these informal citations, or "blog style" citations.

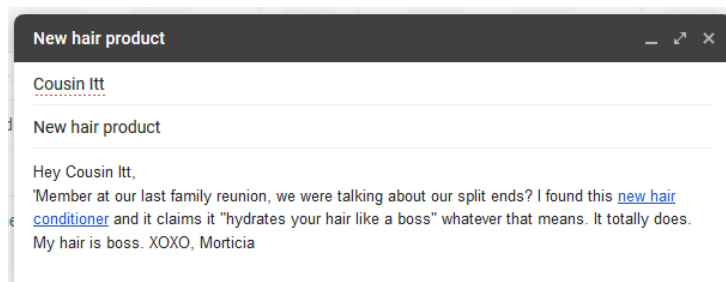


Image created and shared by CCC Library

Really, something as simple as a link to an article in an email is an informal citation.

Informal citations allow everyone to cite their sources in less formal forms of writing, like blog posts, emails, news articles, and webpages. Informal citations are how everyday creators of information acknowledge ownership, attribute quotes, check facts, and learn more. The beauty of informal citations is that they force you to think about *how* your sources fit, and actually say *why* you're sharing them. (Those are skills that you also need in order to write more formal research papers!!)

You see informal citations all the time. Some examples:

Examples of informal citations found online

News Informal Citation	Infographic informal citation	Webpage image informal citation
""Forever 21 is a powerful retail brand with incredible consumer reach and a wealth of untapped potential," Jamie Salter, CEO of ABG, said in a statement(opens in new window). Forever 21 currently has 593 stores globally." Source: NPR(opens in new window) Explanation: In the text of their news article, NPR is citing and linking readers to where CEO Salter said the quote.	 Screenshot source: Reddit(opens in new window) Explanation: Redditor matt41 cited their data-gathering methodology in the image.	 Screenshot source: LIB101 Week 4 splashpage Explanation: CCC librarians are citing the source of the image by including a link to the source.

The main takeaway - citing your sources is important no matter how or where you are sharing information.

Tips for informally citing sources

- Informal citations work well for short papers with a small number of sources and **no formal citation requirement**, reflection papers, and/or Canvas discussion posts.
 - Check with your instructor first to make sure they don't expect a Works Cited (MLA) or References (APA) page.

- Make sure you provide enough information for the source so that it can be found in a Google search.
- 2. [Google docs - How to turn text into a link without showing the URL\(opens in new window\)](#)
- 3. [Word docs - How to turn text into a link without showing the URL\(opens in new window\)](#)

Formal citations are often expected in college when you incorporate sources into your academic work. Let's begin our exploration of two formal citation styles used at community colleges - Modern Language Association (MLA) style and American Psychological Association (APA) style.

8.8: Citations IRL (in real life) is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

CHAPTER OVERVIEW

Chapter 9: Citing Sources

- [9.1: Citation and Citation Styles](#)
- [9.2: Steps for Citing](#)
- [9.3: When to Cite](#)
- [9.4: APA Style](#)
- [9.5: MLA Style](#)
- [9.6: Citation Generators](#)
- [9.7: Writing an Annotated Bibliography](#)

This page titled [Chapter 9: Citing Sources](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

9.1: Citation and Citation Styles

Citation and Citation Styles



Sources that influenced your thinking and research must be cited in academic writing.

Citing sources is an academic convention for keeping track of which sources influenced your own thinking and research. (See Ethical Use of Sources for many good reasons why you should cite others' work.)

Most citations require two parts:

- The full bibliographic citation on the Bibliography page or References page, or Works Cited page of your final product.
- An indication within your text (usually author and publication date and maybe the page number from which you are quoting) that tells your reader where you have used something that needs a citation.

With your in-text citation, your reader will be able to tell which full bibliographic citation you are referring to by paying attention to the author's name and publication date.

Let's look at an example.

Example: Citations in Academic Writing

Here's a citation in the text of an academic paper:

Studies have shown that compared to passive learning, which occurs when students observe a lecture, students will learn more and will retain that learning longer if more active methods of teaching and learning are used (Bonwell and Eison 1991; Fink 2003).

The information in parentheses coordinates with a list of full citations at the end of the paper.

At the end of the paper, these bibliographic entries appear in a reference list:

Bonwell, C. G., and Eison, J. A. 1991. "Active learning: Creating excitement in the classroom." ASHE-ERIC Higher Education Rep. No. 1, George Washington Univ., Washington, D.C.

Fink, L. D. 2003. Creating significant learning experiences, Wiley, New York.

You can see the [full article](#) [OSU login required] from which this example was taken online.

Citation Styles

Style guides set the specific rules for how to create both in-text citations and their full bibliographic citations.

There are over a dozen kinds of citation styles. While each style requires much of the same publication information to be included in a citation, the styles differ from each other in formatting details such as capitalization, punctuation, order of publication information, and whether the author's name is given in full or abbreviated.

Example: Differences in Citation Styles

The image below shows bibliographic citations in four common styles. Notice that they contain information about who the author is, article title, journal title, publication year, and information about volume, issue, and pages. Notice also the small differences in punctuation, order of the elements, and formatting that **do make a difference**.

APA:
Rosenhan, D. L. (1973). On Being Sane in Insane Places. *Science*, 179(4070), 250-258. doi:10.1126/science.179.4070.250

Chicago:
Rosenhan, D. L. "On Being Sane in Insane Places." *Science* 179, no. 4070 (1973): 250-58. doi:10.1126/science.179.4070.250.

MLA:
Rosenhan, David L. "On Being Sane in Insane Places." *Science* 179.4070 (1973): 250-258. Web. 4 May 2016.

AMA:
Rosenhan DL. On being sane in insane places. *Science*. 1973; 179(4070):250-258. doi:10.1126/science.179.4070.250

Differences between citation practices occur mainly in formatting.

Compare citation elements (including the punctuation and spacing) in the same color to see how each style handles their information.

This page titled [9.1: Citation and Citation Styles](#) is shared under a [CC BY](#) license and was authored, remixed, and/or curated by [Cheryl Lowry \(Ohio State University Libraries\)](#).

- [8.1: Citation and Citation Styles](#) by [Cheryl Lowry](#) is licensed [CC BY 4.0](#).

9.2: Steps for Citing

Steps for Citing

To write a proper citation we recommend following these steps, which will help you maintain accuracy and clarity in acknowledging sources.

Step 1: Choose Your Citation Style

Find out the name of the citation style you must use from your instructor, the directions for an assignment, or what you know your audience or publisher expects. Then search for your style at the [Purdue Online Writing Lab \(OWL\)](#) or use Google or Bing to find your style's stylebook/handbook and then purchase it or ask for it at a library.

Step 2: Create In-Text Citations

Find and read your style's rules about in-text citations, which are usually very thorough. Luckily, there are usually examples provided that make it a lot easier to learn the rules.

EXAMPLE: Style Guides Are Usually Very Thorough

For instance, your style guide may have different rules for when you are citing:

- Quotations rather than summaries rather than paraphrases
- Long, as opposed to short, quotations.
- Sources with one or multiple authors.
- Books, journal articles, interviews and email, or electronic sources.

Step 3: Determine the Kind of Source

After creating your in-text citation, now begin creating the full bibliographic citation that will appear on the References or Bibliography page by deciding what kind of source you have to cite (book, film, journal article, webpage, etc.).

EXAMPLE: Using a Style Guide to Create an In-Text Citation

Imagine that you're using APA style and have the [APA style guide rules for in-text citations open in OWL](#). In your psychogeography paper, you want to quote the authors of the book *The Experience of Nature*, Rachel Kaplan and Stephen Kaplan, which was published in 1989. What you want to quote is from page 38 of the book.

Here's what you want to quote:

"The way space is organized provides information about what one might want to do in that space. A relatively brief glance at a scene communicates whether there is room to roam, whether one's path is clear or blocked."

1. Skim the headings in the style guide to remind yourself of what its rules concern.

Since it has rules about the length of quotations, you count the number of words in what you want to quote and find that your quote has 38, which is within the range for short quotations (less than 40), according to the APA style guide. According to the rule for short quotations, you see that you're supposed to introduce the quote by attributing the quote to the author (last name only) and adding the publication date in parentheses. You write:

According to the Kaplans (1989), "The way space is organized provides information about what one might want to do in that space. A relatively brief glance at a scene communicates whether there is room to roam, whether one's path is clear or blocked."

2. Then you notice that the example in the style guide includes the page number on which you found the quotation. It appears at the end of the quote (in parentheses and outside the quote marks but before the period ending the quotation). So you add that:

According to the Kaplans (1989), "The way space is organized provides information about what one might want to do in that space. A relatively brief glance at a scene communicates whether there is room to roam, whether one's path is clear or blocked" (p.38).

3. You're feeling pretty good, but then you realize that you have overlooked the rule about having multiple authors. You have two and their last names are both Kaplan. So you change your sentence to:

According to **Kaplan and Kaplan** (1989), "The way space is organized provides information about what one might want to do in that space. A relatively brief glance at a scene communicates whether there is room to roam, whether one's path is clear or blocked" (p.38).

So you have your first in-text citation for your final product:

According to Kaplan and Kaplan (1989), "The way space is organized provides information about what one might want to do in that space. A relatively brief glance at a scene communicates whether there is room to roam, whether one's path is clear or blocked" (p.38).

Step 4: Study Your Style's Rules for Bibliographic Citations

Next, you'll need a full bibliographic citation for the same source. This citation will appear on the References page or Bibliography page or Works Cited page. (APA style, which we're using here, requires a page called References.) Bibliographic citations usually contain more publication facts than you used for your in-text citation, and the formatting for all of them is very specific.

EXAMPLE: Bibliographic Citation Rules Are Very Specific

- Rules vary for sources, depending, for instance, on whether they are books, journal articles, or online sources.
- Sometimes lines of the citation must be indented.
- Authors' names usually appear last name first.
- Authors' first names of authors may be initials instead.
- Names of sources may or may not have to be in full.
- Names of some kinds of sources may have to be italicized.
- Names of some sources may have to be in quotes.
- Dates of publication appear in different places, depending on the style.
- Some styles require Digital Object Identifiers (DOIs) in the citations for online sources.

Step 5: Identify Citation Elements

Figure out which bibliographic citation rules apply to the source you've just created an in-text citation for. Then apply them to create your first bibliographic citation.

Example: Using a Style Guide to Create a Bibliographic Citation

Imagine that you're using APA style and have the [APA style guide rules for bibliographic citations open in OWL](#). Your citation will be for the book called *The Experience of Nature*, written by Rachel Kaplan and Stephen Kaplan and published in 1989.

1. You start by trying to apply OWL's basic rules of APA style, which tell you your citation will start with the last name of your author followed by his or her first initial, and that the second line of the citation will be indented. So you write: **Kaplan, R. and Kaplan, S.** and remind yourself to indent the second line when you get there.
2. Since you have two authors, you look for a rule regarding that situation, which requires a comma between the authors and an ampersand between the names. So you write: **Kaplan, R., & Kaplan, S.**
3. Because you know your source is a book, you look for style guide rules and examples about books. For instance, the rules for APA style say that the publication date goes in parentheses, followed by a period after the last author's name. And that the title of the book is italicized. You apply the rules and examples and write the publication information you know about your source: **Kaplan, R., & Kaplan, S. (1989). *The Experience of Nature*.**
4. Next, you look at the rules and examples of book citations and notice that they show the city where the book was published and the publisher. So you find that information about your source (in a book, usually on the title page or its back) and write: **Kaplan, R., & Kaplan, S. (1989). *The Experience of Nature*. Cambridge: Cambridge University Press.**
5. Congratulations, especially about remembering to indent that line! You have created the first bibliographic citation for your final product.

Step 6: Repeat the steps for creating an in-text citation and a bibliographic citation for each of your sources.

Create your bibliographic citation by arranging publication information to match the example you chose in Step 4. Pay particular attention to what is and is not capitalized and to what punctuation and spaces separate each part that the example illustrates.

Movie: Finding the Information You Need: PDF and HTML Journal Articles

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/choosingsources/?p=1048>

[View video](#)

Movie: Finding the Information You Need: Citing Information for Web and Online Multimedia Sources

An interactive or media element has been excluded from this version of the text. You can view it online here: <https://ohiostate.pressbooks.pub/choosingsources/?p=1048>

[View video](#)

Tip: Citation Software

If you like, you can use citation generator software to arrange the information needed for your citation according to the style guide you chose. Learn more later in this section.

ACTIVITY: Deciphering Citations

[Open activity in a web browser.](#)

This page titled [9.2: Steps for Citing](#) is shared under a [CC BY](#) license and was authored, remixed, and/or curated by [Cheryl Lowry](#) ([Ohio State University Libraries](#)) .

- [8.2: Steps for Citing](#) by Cheryl Lowry is licensed [CC BY 4.0](#).

9.3: When to Cite

When to Cite

Citing sources is often described as a straightforward, rule-based practice. But in fact, there are many gray areas around citation, and learning how to apply citation guidelines takes practice and education. If you are confused by it, you are not alone – in fact you might be doing some good thinking. Here are some guidelines to help you navigate citation practices.

Cite when you are directly quoting. This is the easiest rule to understand. If you are stating word-for-word what someone else has already written, you must put quotes around those words and you must give credit to the original author. Not doing so would mean that you are letting your reader believe these words are your own and represent your own effort.

Cite when you are summarizing and paraphrasing. This is a trickier area to understand. First of all, summarizing and paraphrasing are two related practices but they are not the same. Summarizing is when you read a text, consider the main points, and provide a shorter version of what you learned. Paraphrasing is when you restate what the original author said in your own words and in your own tone. Both summarizing and paraphrasing require good writing skills and an accurate understanding of the material you are trying to convey. Summarizing and paraphrasing are difficult to do when you are a beginning academic researcher, but these skills become easier to perform over time with practice.

Cite when you are citing something that is highly debatable. For example, if you want to claim that the Patriot Act has been an important tool for national security, you should be prepared to give examples of how it has helped and how experts have claimed that it has helped. Many U.S. citizens concerned that it violates privacy rights won't agree with you, and they will be able to find commentary that the Patriot Act has been more harmful to the nation than helpful. You need to be prepared to show such skeptics that you have experts on your side, too.

Tip: Why Cite Sources?

This section covers how and when to cite sources. For a discussion of *why* to cite sources, see Ethical Use of Sources.

When Don't You Cite?

Don't cite when what you are saying is your own insight. As you learned in The Purpose of Academic Argument, research involves forming opinions and insights around what you learn. You may be citing several sources that have helped you learn, but at some point you must integrate your own opinion, conclusion, or insight into the work. The fact that you are *not* citing it helps the reader understand that this portion of the work is your unique contribution developed through your own research efforts.

Don't cite when you are stating common knowledge. What is common knowledge is sometimes difficult to discern. In general, quick facts like historical dates or events are not cited because they are common knowledge.

Examples of information that would not need to be cited include:

- The Declaration of Independence was signed in 1776.
- Barack Obama became the 44th president of the United States in January, 2009.

Some quick facts, such as statistics, are trickier. For example, the number of gun-related deaths per year probably should be cited, because there are a lot of ways this number could be determined (does the number include murder only, or suicides and accidents, as well?) and there might be different numbers provided by different organizations, each with an agenda about gun laws.

A guideline that can help with deciding whether or not to cite facts is to determine whether the same data is repeated in multiple sources. If it is not, it is best to cite.

The other thing that makes this determination difficult might be that what seems new and insightful to you might be common knowledge to an expert in the field. You have to use your best judgment, and probably err on the side of over-citing, as you are learning to do academic research. You can seek the advice of your instructor, a writing tutor, or a librarian. Knowing what is and is not common knowledge is a practiced skill that gets easier with time and with your own increased knowledge.



WIKIPEDIA

The Free Encyclopedia

Wikipedia, while good for early research and background information, shouldn't be cited as a source because it's already a summary.

Tip: Why You Can't Cite Wikipedia

You've likely been told at some point that you can't cite Wikipedia, or any encyclopedia for that matter, in your scholarly work.

The reason is that such entries are meant to *prepare* you to do research, not be evidence of your having done it. Wikipedia entries, which are tertiary sources, are already a summary of what is known about the topic. Someone else has already done the labor of synthesizing lots of information into a concise and quick way of learning about the topic.

So while Wikipedia is a great shortcut for getting context, background, and a quick lesson on topics that might not be familiar to you, don't quote, paraphrase, or summarize from it. Just use it to educate yourself.

Activity: To Cite or Not to Cite?

[Open activity in a web browser.](#)

This page titled [9.3: When to Cite](#) is shared under a [CC BY](#) license and was authored, remixed, and/or curated by [Cheryl Lowry](#) ([Ohio State University Libraries](#)).

- [8.4: When to Cite](#) by [Cheryl Lowry](#) is licensed [CC BY 4.0](#).

9.4: APA Style

Overview

The American Psychological Association (APA) is a professional association that represents those working in the field of psychology in the United States. Just like the Modern Language Association (MLA) is often used in the humanities subjects, the APA has their own citation guidelines that are often used to cite sources within the social sciences. [Publication Manual of the American Psychological Association](#) is the official reference book, or style guide, for all the details of APA style format, though you can find plenty of helpful guides for free online.

References

In APA style, the list of detailed bibliographic information at the end of the paper or assignment is called “References” and generally, your professors may use the word “references” instead of the word “citations”. The core elements of a APA style citation are as follows (be sure to pay attention to the punctuation used at the end of each element):

APA Core Elements

- Author.
- (Date).
- Title.
- Source.

Author

- List the last name first and the first and middle names as initials.
 - Example: Smith, J. M.
- If there are two authors, use the ampersand (&) instead of the word “and.”
- When there are three to 20 authors, list all of the authors by last name and initials and use an ampersand before listing the last author.
- If there are more than twenty authors, list the first 19 authors then use an ellipsis (...) before listing the last author’s name. Do not use an ampersand before the last author and do not list more than 20 authors’ names total.

Date

- Use a complete date (YYYY, Month DD), if given, otherwise use what is given.
- Use “n.d.” if there is no date given.

Title

- Capitalize only the first letter of the first word of the title and subtitle, the first word after a colon or a dash in the title, and proper nouns (except for journal articles, in which you will capitalize all major words in the title).
- Italicize titles of longer works, like books, collections, websites, or journals. Do not put smaller titles in quotation marks or underline (e.g., chapters, articles, web pages).
- For more details and clarification, [read this page on the Excelsior OWL website](#).

Source

- This is where one can retrieve the cited information, like in a book, on a website, or in a journal article. The format of this section depends on the type of information resource it is. [Check out this helpful guide for more information on formatting sources](#).

Compiling & Formatting

The rules for formatting a list of APA references is similar to MLA format, with some small but important differences:

- Center and bold the word “References” at the top of a separate page
- Alphabetize the citations by author’s last name, or by the first main word of the title if there is no author. (When alphabetizing, ignore A, An, and The at the beginning of citations.)
- If you have multiple citations by the same author(s), list the citations in chronological order, from earliest to most recent.

- Make sure all lines are double-spaced.
- Apply “hanging” indents to all citations: The first line of the citation is not indented. All subsequent lines are indented 0.5 inch.

Examples

Print Book:

Mancini, C. (2008). *Racism in Harper Lee's To kill a mockingbird*. Greenhaven Press.

Electronic Book:

Schreiber, B. (2019). *Music is power : Popular songs, social Justice, and the will to change*. Rutgers University Press.

Web page:

Hollmichel, S. (2013, April 25). *The reading brain: Differences between digital and print*. So Many Books.

<https://somanycbooksblog.com/2013/04/...tal-and-print/>

Academic Journal Article:

Grauer, J., Löwen, H., & Liebchen, B. (2020). Strategic spatiotemporal vaccine distribution increases the survival rate in an infectious disease like Covid-19. *Scientific Reports*, 10(1), 1–10. <https://doi-org.whccd.idm.oclc.org/1...98-020-78447-3>

For more examples of APA style citations, visit [Excelsior OWL](#).

Sources

Publication Manual of the American Psychological Association: The Official Guide to APA Style. 7th ed., American Psychological Association, 2021.

This page titled [9.4: APA Style](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [12.4: APA Style](#) by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introtocollegeresearch.pressbooks.com/>.

9.5: MLA Style

Overview

The Modern Language Association (MLA) is a professional association for scholars of literature and language. Among other things, the MLA publishes a style manual (sometimes called a “style guide”) for writing and citing sources, used primarily in the humanities, including most English classes. MLA is one of several types of citation styles. As an undergraduate student, some professors or courses may require you to use APA (details below), Chicago, or Turabian style.

It’s not necessary (or advisable) to memorize formatting rules for any citation style. Getting used to checking formatting examples and published guidance (for example, in books or on websites) will help you proofread citations and move more easily between citation styles. There are helpful reference books you can keep on hand (such as the [MLA Handbook](#), which is the style manual mentioned above), and many great online tools through your college library or tutoring websites, or found with a quick online search. Every so often, MLA style (or any citation style), will undergo some changes, and a new edition of the style manual will be released. All citation styles have different formats for citing various information types (e.g., websites, books, podcasts, emails), and as technology advances and information becomes available in new formats, citation styles need to be added and updated.

Works Cited

In MLA style, the list of detailed bibliographic information at the end of the paper or assignment is called “Works Cited.” The core elements of an MLA citation are as follows (be sure to pay attention to the punctuation that follows each element):

MLA Core Elements

1. Author.
2. Title of source.
3. Title of container,
4. Other contributors,
5. Version,
6. Number,
7. Publisher,
8. Publication date,
9. Location.

Author

- A single author should be written: Last name, First name Middle name
- For two authors, only invert the first author’s name. List the names in the order in which they appear on the source.
- For three or more authors, use et al. (which means, ‘and others’).
- When citing an edited book, add a descriptive label (“editor”) after the name.
Example: Smith, John M.
Example: Smith, John M., and Terence Duvall.

Title of Source

- Include both the title and subtitle separated by a colon [:].
- Capitalize the first word of the title and subtitle, plus all other important words.
- Enclose in “quotation marks.”
 - If the title is part of a larger work, such as a story in an anthology, an article in a journal, or a Web page from a Web site
- Place in italics:
 - If the title is for an entire book, journal, or Web site

Title of Container

- When a source is part of a larger work, the larger work is called the “container.”
- The container is italicized and followed by a comma.
- Containers can be:
 - Periodicals (magazines, journals, newspapers)

- Anthologies (books which contain short stories, essays, poetry, etc.)
- Entire Web sites (which contain individual web pages)
- Library or other online databases (which contain articles, books, etc.)

Other Contributors

- Contributors other than the author are named in the entry if they are important to your research or the identification of the source (i.e. editors and translators).
- When citing a source with both an author and editor, list the author first and the editor after the title of the source.

Version

If a source carries a notation that it is a work in more than one form (i.e. book edition), identify the version.

- 7th ed.
- Expanded ed.

Number

- Journals are typically numbered with volume (vol.) and issue numbers (no.).
- If you are using a multi-volume set, include the volume (vol.) number.

Publisher

- Only include the first publisher listed, unless the source was published by multiple independent organizations. Separate independent publishers with a forward slash [/].
- Abbreviate publisher names in the following cases:
 - Omit business words like Company, Corporation, Incorporated, and Limited
 - Replace University Press with UP (i.e. Oxford UP, U of California P, MIT P).
- A publisher's name may be completely omitted for the following types of sources:
 - Web page whose publisher is the same as the name of the overall website
 - Periodical (journal, magazine, newspaper)
 - Work published by the author

Publication Date

- Dates should be given as fully as they appear in your sources.
- If multiple dates are listed, cite the date most meaningful to your use of the source.
- Format as: Day Month Year. Abbreviate the names of months longer than 4 letters

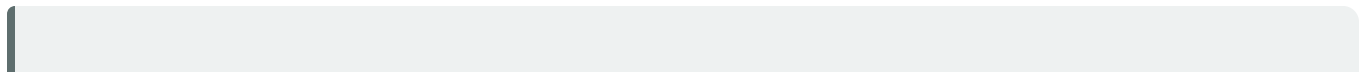
Location

- In print sources, a page number (preceded by p.) or a range of page numbers (preceded by pp.) specifies the location.
- In online sources, location is indicated by the URL, DOI, or Permalink.
 - URL: Copy in full from your Web browser, but omit http:// or https://
 - DOI: Journal articles are often assigned "Digital Object Identifiers". When possible, cite a DOI (preceded by doi:) instead of the URL.
 - Permalink: Web sources (especially Library databases) often provide stable URLs, called "permalinks". When possible, use these instead of the URL.

Compiling & Formatting

Once you have constructed your citations according to MLA rules, there are a few more steps to complete the Works Cited list.

- Center the words "Works Cited" at the top of the page.
- Alphabetize the citations by author's last name, or by the first main word of the title if there is no author. (When alphabetizing, ignore A, An, and The at the beginning of citations.)
- Make sure all lines are double-spaced.
- Apply "hanging" indents to all citations: The first line of the citation is not indented. All subsequent lines are indented 0.5 inch.



Print Book:

Mancini, Candice. *Racism in Harper Lee's To Kill a Mockingbird*. Greenhaven Press, 2008.

Electronic Book:

Schreiber, Brad. *Music Is Power: Popular Songs, Social Justice, and the Will to Change*. Rutgers UP, 2019. EBSCOhost, search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=2293722&site=ehost-live&scope=site.

Web page:

Hollmichel, Stephanie. "The Reading Brain: Differences between Digital and Print." *So Many Books*, 25 Apr. 2013, somanybooksblog.com/2013/04/25/the-reading-brain-differences-between-digital-and-print/.

Academic Journal Article:

Grauer, Jens, et al. "Strategic Spatiotemporal Vaccine Distribution Increases the Survival Rate in an Infectious Disease like Covid-19." *Scientific Reports*, vol. 10, no. 1, Dec. 2020, pp. 1–10. EBSCOhost, doi:10.1038/s41598-020-78447-3.

For more MLA style citation examples, visit [Excelsior OWL](#).

Sources

MLA Handbook. 8th ed., Modern Language Association of America, 2016.

Works Cited section adapted from "Library 10" by [Cabrillo College Library](#), licensed under [CC BY 4.0](#)

This page titled [9.5: MLA Style](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- [12.3: MLA Style](#) by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introtocollegeresearch.pressbooks.com/>.

9.6: Citation Generators

Unlike 10-15 years ago when college students had to try to memorize citation formats and create each citation by hand, there are now many online tools available that will automatically create citations for many different types of information sources. Citation generators are tools that allow users to type, paste, or import certain information (like a source's type, title, author, and date), and then create a citation in whatever format is needed (e.g., APA, MLA, Chicago).

Library Databases

Almost all of your college library's databases will have a convenient citation generator built right into them. In most cases, when you are reading an ebook, academic journal article, or another resource coming from a library database, there will be an icon somewhere on the page for a citation generator. These often offer a list of citation styles to choose from; they provide a citation for that particular source in whatever format is needed, so you can easily copy and paste the full citation into your assignment. The citation generator is not always located in the same spot, and does not always appear the same way in all library databases, but will often say "cite" or have quotation mark icons to indicate that it is a citation tool.

While these citation generators are incredibly helpful and convenient, they do sometimes make mistakes! Always be sure to double-check the citation generated for you—do not assume that all citations generated by a citation tool will be 100% correct.



OneSearch

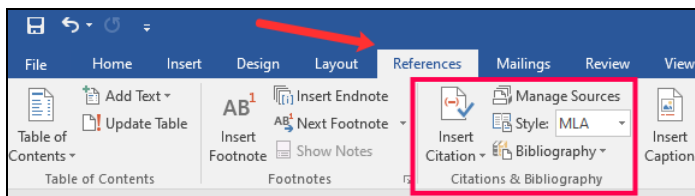
OneSearch also has its own convenient tool located within the record of every item record. The tool is located in the "Send to" section of the record and looks like one set of quotation marks with the word "CITATION" underneath. The citation style can be selected on the left-hand side (but please note, some colleges may list these formats differently from what is shown in the image below). Clicking on "COPY CITATION TO CLIPBOARD" will copy the citation so you can easily paste it into your bibliography (in Microsoft Word, Google Docs, or elsewhere). Besides checking the citation for accuracy, it is also important to check the formatting of your pasted text. Some formatting, like italics, may be lost when copying and pasting. Citation generators are fantastic tools that save a lot of time, but are not always 100% accurate!



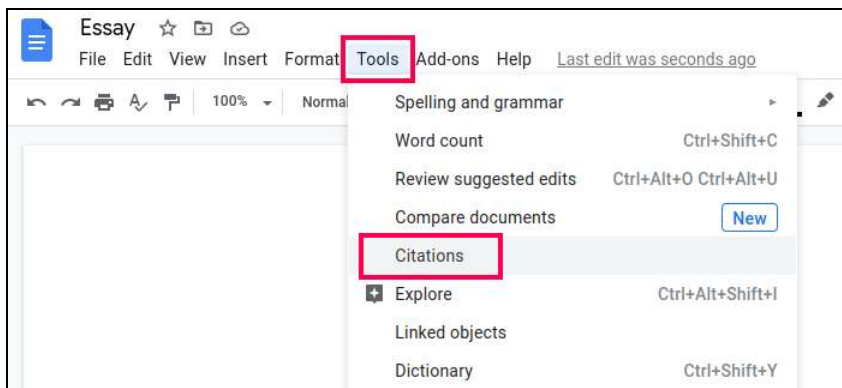
Word Processors

Two commonly used word processors—Microsoft Word and Google Docs—both have citation tools built into the software that make inserting in-text citations and compiling full citations quick and simple.

Microsoft Word’s citation generator is found under the toolbar section called “References,” and the “Insert Citation” tool allows users to plug in bibliographic information about each source used in their paper. The software will keep a running list of the sources, and allows for easy insertion of an in-text citation and a quick combination of citations into a bibliography in the appropriate citation style. An important thing to note is that Microsoft Word may not have the latest citation style format edition; for instance, it may only have the option to create citations in MLA 7th edition, but (as of the time this book was published) MLA 8th edition is the most up-to-date style.



The citation generator in Google Docs is located under the “Tools” menu item on the toolbar. Though this citation tool is much less robust than Microsoft Word’s, only having three citation styles to choose from, it still allows for quick insertion of both in-text citations and a bibliography at the end of the paper. As mentioned previously, the citation styles may not be the latest edition and it is important to always review any citation generated for you.



This page titled [9.6: Citation Generators](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Walter D. Butler](#); [Aloha Sargent](#); and [Kelsey Smith](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.

- **12.6: Citation Generators** by Walter D. Butler; Aloha Sargent; and Kelsey Smith is licensed [CC BY 4.0](#). Original source: <https://introtocollegeresearch.pressbooks.com/>.

9.7: Writing an Annotated Bibliography

Writing an annotated bibliography

Your instructor may ask you to evaluate your sources by writing an annotated bibliography. We create annotated bibliographies in order to start researching and organizing sources before actually writing a research paper. Writing an annotated bibliography helps you to think critically about which sources you are using, how reliable they are, and how they will be useful.

The annotated bibliography is a list of sources that you may decide to use in your paper along with extra notes (annotation). Each source, or entry, generally has two parts: a **complete citation** and a paragraph that includes both a **summary** and **evaluation**.

Summary

In the first sentence of your summary, include the **author's name** + **reporting verb**, **the main idea**, and the type of source (magazine, website, academic journal article, book, film, etc.).

Here are some sentence frames you can use for your summary:

- In this [type of source], [author's name] explains [main idea].
- According to [author's name] in this [type of source], [main idea].
- [Author's name] claims in this [type of source] that [main idea].

Evaluation

Here are some questions that you can think about as you write your evaluation:

- How credible is the source?
- Are there any biases?
- Why is it relevant to your topic?
- How will you use it in your paper?

Here are some sentence frames you can use for your evaluation:

- This source seems credible because....
- This source may be considered biased because....
- The research strongly supports my research question because....
- I plan to use this in the [introduction/background/cause/effect, etc.] section of my paper to show....

Reading an annotated bibliography

As you read this sample annotated bibliography, think about these questions:

- Which strategies does the writer use to evaluate the article?
- What are strengths of this? How can it be improved?
- Does the writer have enough sources to support her thesis? Why or why not?
- Which sources seem strongest for supporting her point?
- Compare this annotated bibliography to the [final research paper](#). Did the writer use all of these sources in her final draft? Why do you think this may be?

Sample Student Annotated Bibliography

Lily Liu De Li

Working thesis: Although minority faculty members play an important role on campuses, their contributions are often not recognized and colleges should find more ways to support and retain them.

Cleveland, Roger, et al. "Cultural Taxation." *Encyclopedia of Diversity and Social Justice*, edited by Sherwood Thompson, Rowman & Littlefield Publishers, 1st edition, 2014. *Credo Reference*.

Cleveland, et al. state in this encyclopedia article that minority faculty in the academic workplace face obstacles and prejudices. Diverse faculty are expected to take on extra roles to help the campus, which takes up time and increases their work pressure. This

is an article from the Encyclopedia of Diversity and Social Justice which was published by Rowman & Littlefield. I chose this article because it will be used for one of my concessions.

Han, I., and A. J. Onchwari. "Development and Implementation of a Culturally Responsive Mentoring Program for Faculty and Staff of Color". *Interdisciplinary Journal of Partnership Studies*, vol. 5, no. 2, July 2018, p. Article 3, doi:10.24926/ijps.v5i2.1006.

In their academic article, Han and Onchwari describe a mentoring program that was set up to support faculty of color at a university that is mostly white. They first explain why it is important to have faculty of color and then review the problems that faculty of color face. Then, they explain how the mentoring program provided more of a community for the people who participated in it. This is a credible article because Han and Onchwari are professors of education and have studied this problem on their own campus. In addition, the article was published in an academic journal. I can use this in my background of my paper to give evidence that faculty of color are underrepresented but serve a very important role. I can also use it in my paragraphs that look at solutions to the problem since mentoring seems very effective.

Johnson Barbara J., and Kyle J. Scafide. "Faculty Diversity." *Encyclopedia of Education*, edited by James W. Guthrie, 2nd ed., vol. 3, Macmillan Reference USA, 2002, pp. 775-779. Gale In Context: *Opposing Viewpoints*.

Johnson and Scafide claim in this encyclopedia article that to overcome the problems minority faculty face, campuses should make efforts to hire and retain them. This is an article from the Encyclopedia of Education (Vol.3. 2nd ed.) which was published by Gale. It seems unbiased and is written for an educated general audience. Barbara J. Johnson was a Professor of English and Comparative Literature and the Fredric Wertham Professor of Law and Psychiatry in Society at Harvard University. This article strongly supports my research question because it offers ideas about how the campus can deal with the problems that I discuss in my paper.

Peele, Thomas and Daniel J. Willis. "California's Failure to Diversify Community College Faculty Tied to Arcane State Law." *EdSource*, 2 Mar. 2021.

Peele and Willis report on how there are few professors of color at California community colleges and how state laws for increasing faculty diversity are weak. They cite statistics about diversity and also quote from Latino college students to show why diversity is important. It also talks about causes, including the lack of candidates and low respect that community college professors get, and possible solutions. This is from a website that provides journalism about education in California. It is recent so the statistics are probably still up to date, and it is directly relevant to my research question. I will use this as background to demonstrate there is a problem and to provide student voices in my article.

Reid, Pamela Trotman, and Sue Rosenberg Zalk. "Academic Environments: Gender and Ethnicity in U.S. Higher Education." *Encyclopedia of Women and Gender: Sex Similarities and Differences and the Impact of Society on Gender*, edited by Judith Worell, Elsevier Science & Technology, 1st edition, 2001. *Credo Reference*.

In this encyclopedia article, Pamela Reid and Sue Zalk suggest that minority faculty can overcome questioning their own abilities by building self-confidence and affirming their own capability. This is an article from the *Encyclopedia of Women and Gender: Sex Similarities and Differences and the Impact of Society on Gender*, so it mostly focuses on women but also connects their experiences with minority faculty. Pamela Reid Ph.D. is a developmental psychologist and the past President Emerita of the University of St. Joseph in Connecticut and Sue Rosenberg Zalk is a psychologist, so they have a background in this area. I choose this article because it explains "imposter syndrome," which may affect some minority members of the field. I am considering addressing this syndrome as one of the challenges facing faculty members.

Valeri, Mauro. "Ethnic Minority." *Dictionary of Race, Ethnicity & Culture*, Guido Bolaff, et al., Sage UK, 1st edition, 2003. *Credo Reference*.

According to this reference article by Mauro Valeri, minority group members have less representation and power than people of the majority group. This is an article from the dictionary of Race, Ethnicity & Culture, so it seems scholarly. Mauro Valeri is a sociologist and university professor. This article shares some issues related to minority representation that I may use to set the scene in the background part of my introduction.

Licenses and Attributions

Authored by Elizabeth Wadell, Laney College. License: CC BY NC.

Sample Annotated Biography written by Lily Liu De Li. License: CC BY.

This page titled [9.7: Writing an Annotated Bibliography](#) is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by [Gabriel Winer & Elizabeth Wadell \(ASCCC Open Educational Resources Initiative \(OERI\)\)](#).

CHAPTER OVERVIEW

Chapter 10: Practical Evaluation of Information

- 10.1: Evaluate - CRAP
- 10.2: Expertise and authorship
- 10.3: But is it Relevant?
- 10.4: Misinformation, Disinformation, and Fake News- How to Spot Them
- 10.5: Fact Check - SIFT
- 10.6: Explore the source
- 10.7: Putting it all together
- 10.8: Last thoughts on evaluation

Chapter 10: Practical Evaluation of Information is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

10.1: Evaluate - CRAP

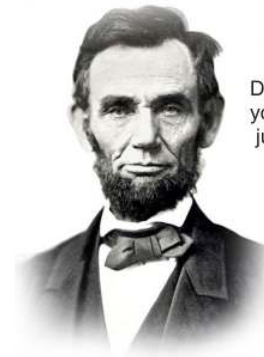
What is a "good" source?

Great question. A "good" source is both **credible** and **relevant**.

Relevancy means the source helps you answer your questions, learn widely about your topic, and think about your topic in new ways.

Credibility, when applied to an information source, means trustworthy. Trustworthiness is tricky to determine. Some evaluative questions to keep in mind include:

- Is this information deliberately biased, and is the creator transparent about that bias?
- Who created it? Are they an expert? Do they need to be?
- When was it published? What is the publication, and does that publication have a good reputation?
- Why was it published: to inform, persuade, entertain, etc.?
- Does it cite its sources? Does that matter for your intended use of the information?



Don't believe everything you read on the Internet just because there is a picture with a quote next to it.

Abraham Lincoln
CCC graduate '55

Ultimately it is up to **you** to determine — using research and your own critical judgment and The CRAP Test — whether a source is credible or not. **And "credible" can mean something and look different to everyone.** Your instructors expect you to use credible, authoritative information in your projects and papers, so be upfront and clear about why you trust the information you choose to use.

CCC Librarians are here to help you with this question, too. ♥

Evaluate information using the CRAP test

Evaluating information is especially important when completing projects and assignments in college (and at work!) because you will be evaluated on the quality of sources you use. The CRAP Test is a helpful tool to use when deciding if a source is "good." CRAP stands for **Currency**, **Reliability**, **Authority** and **Purpose**.

When you evaluate a source, consider these four concepts by asking yourself a few questions about each.

Currency

- When was the item originally written or created?
- How recently has the item been updated?
- Is the information current enough for your topic?

Reliability

- How important is it for you that this information is accurate?
- Are there Works Cited or References, [informal citations \(opens in new window\)](#), or links to outside sources? Are sources included for data, quotations, and images?
- Was the item reviewed by experts or people with relevant experience?
- Does this information have any characteristics of [misinformation](#), [disinformation](#), or [fake news](#)?
- Does the information seem accurate based on your existing knowledge of the subject?

Authority

- Who is the creator or author? What does it mean if you cannot identify the creator or author?
- What are their credentials? Can you find any information about the author's background, education, and/or experience?
- Who is the publisher, sponsor, or hosting website? Are they reputable? What is the publisher's interest (if any) in sharing this information? What is on their "About Us" page?

Purpose / Point of View

- Does the information help you answer your questions, learn widely about your topic, and / or think about your topic in new ways?

- Is the information fact or opinion?
- Can you identify bias in the article? Does the information amplify certain viewpoints or experiences? Does the information omit or misconstrue certain viewpoints or experiences?
- Is this information meant to educate you, persuade you, sell you something, and / or appeal to your emotions or values? If so, are these intentions clearly stated?
- Who is the intended audience for this information? How might the audience impact what is shared and how (e.g., does this resource require in-depth knowledge to understand)? Is this information intended for you and your information needs?

Optional: Pro-level CRAP Testing

If you want to dig deeper into The CRAP Test, choose a source and [work through this guided CRAP Test exercise](#)(opens in new window) (GDoc).

Image adapted from public domain photo: [Wikimedia Commons](#)

CRAP Test adapted from Beestrup, M., & Orenic, K. (2008). The CRAP Text. Available from <http://commons.emich.edu>

10.1: Evaluate - CRAP is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

10.2: Expertise and authorship

By now you understand that a "good" source is credible, and that one of the things that makes something credible is having a credible author. You likely also understand that a credible author is someone who is an expert in the field that they are writing about. But how do you define "expertise"?

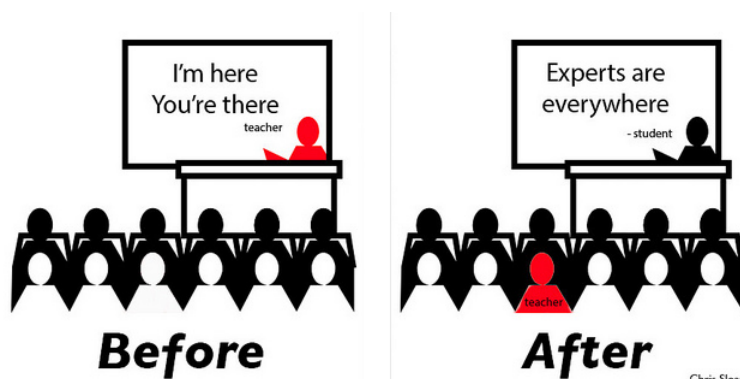
Take a moment and think of three or four people you might consider "experts." Now think about *why* you decided those people were experts.

Expertise is subjective, meaning based on personal feelings, opinions, or experiences. In short, expertise is left up to the eye of the beholder. Here are some examples:

For many people, one of the defining factors is education level. You definitely want a lawyer who went to an accredited law school and passed the bar. Similarly, you assume a doctor gives expert advice because they have a degree in medicine, passed the right exams, and are board-certified. You might even think that a doctor who has been practicing for 20 years is a better doctor, or more of an expert, than someone who just graduated. So that is an expert, right?

But what if expertise could be defined several different ways? Isn't a star athlete or prima ballerina an expert in their field? They may not have a formal degree, but are likely to be highly trained.

Skim this [article by Fernand Gobet and Morgan Ereku on defining expertise](#) (opens in new window) which challenges the idea that years of experience or education are the only ways to obtain expertise on a topic. Ultimately, it concludes that an expert is "somebody who obtains results that are vastly superior to those obtained by the majority of the population." This may be a great definition when talking about experts, but it doesn't help too much in defining who is an expert we can trust and who isn't.



Often the key is context. What it takes to be an expert or authority on a topic really depends on the topic! If you want an expert on dancing, you are likely going to seek out an experienced, professional dancer. If you want medical advice, you are likely going to seek out a doctor (or google your symptoms, freak out, then seek a doctor who will tell you that it is a sore throat, not cancer). You would likely not ask the doctor to be an expert on the latest dance moves (unless they were moonlighting as a ballroom champion). Neither would you quote a lawyer on how hot air balloons work.

I (your instructor) bring expertise about critical thinking and academic research to our classroom. You bring expertise to our classroom, too, about other topics and disciplines.

"The fool doth think he is wise, but the wise man knows himself to be a fool."

- William Shakespeare

Overconfidence isn't expertise. Sometimes, people will believe themselves to be experts when they don't actually have the expertise that the general public would want in order to think of them as an authority on the subject. They may or may not have good research, but they may not have the expertise to tell the difference. A good example might be a mother who believes that they are an expert on a medical condition that their child has, when in reality they are experts on their own child's experience. They may actually gain the knowledge and expertise of an authority through educating themselves intensely, but proximity alone does not give expertise.

Check out this video from McMaster Libraries on authority & expertise.



Different ideas/beliefs doesn't mean lack of expertise in others. Another issue is that sometimes people disagree about whether or not someone is an expert. Sometimes people dismiss the expertise of people presenting ideas that are contrary to their current beliefs, simply because it doesn't match up with what they think it should be. People also tend to accept information without question that lines up with their way of thinking. This is called [confirmation bias \(opens in new window\)](#) and is something everyone does, even when aware of the phenomenon.

Always remember that as a researcher you are looking for facts, not information that agrees with your opinion! Of course, your opinion might align with the facts, but practice removing your opinion from the equation when you research.

Take a few minutes and think about your topic. How would you define an expert in that field? What sorts of credentials, experience, ability, or education would you want your experts to have? Do you have an opinion on your topic? Can you separate your opinion from your research?

Image credit: [Chris Sloan \(opens in new window\)](#)

10.2: Expertise and authorship is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

10.3: But is it Relevant?

You have found a source that seems current enough and the information seems accurately portrayed. You may even be able to verify that the author has some expertise or authority on the subject. It is current enough to suit the topic, and it appears to be from an academic publisher.

But there is still one more thing to consider. Is it relevant to your search? Is it written at a level you can understand? Who is the target audience? And perhaps most importantly, how will you use it in your assignment?

This page titled [10.3: But is it Relevant?](#) is shared under a [not declared](#) license and was authored, remixed, and/or curated by [Celia Brinkerhoff](#).

10.4: Misinformation, Disinformation, and Fake News- How to Spot Them

Sorting through the vast amount of information created and shared online is challenging even for experts. In this section you'll learn about terms including and related to "fake news" and skills to avoid both reading and sharing it.

These are important information evaluation skills that you'll use for the rest of your life. The more aware you are of what false information is and how it spreads, the better you will be at avoiding it yourself - and helping your friends and family do the same.

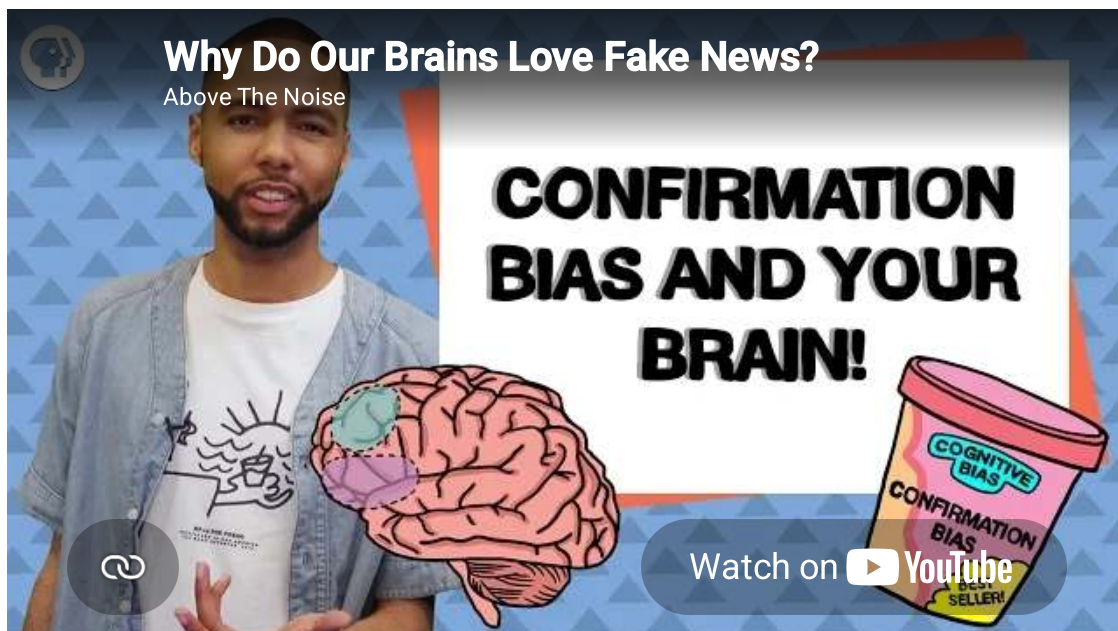
Misinformation, disinformation, and fake news: What's the difference?

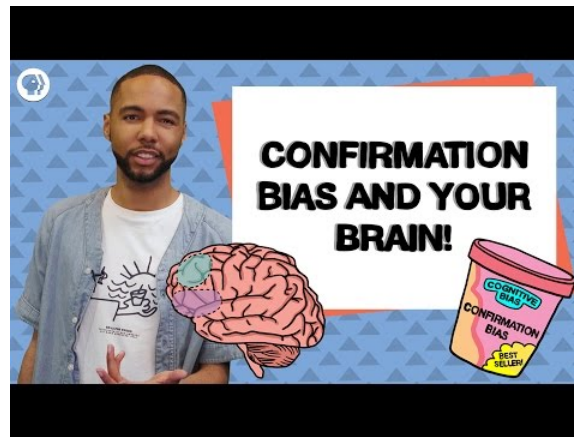
Misinformation vs. Disinformation vs. Fake News

Term	Definition	Source
misinformation	"false information that is spread, regardless of whether there is intent to mislead"	Dictionary.com(opens in new window)
disinformation	"deliberately misleading or biased information; manipulated narrative or facts; propaganda"	Dictionary.com(opens in new window)
fake news	"purposefully crafted, sensational, emotionally charged, misleading or totally fabricated information that mimics the form of mainstream news"	Fake news: understanding media and misinformation in the digital age(opens in new window) (back cover)
deepfake	"an image or recording that has been convincingly altered and manipulated to misrepresent someone as doing or saying something that was not actually done or said"	Merriam-Webster.com(opens in new window)

Why care about fake news?

Fake news is effective. Our brains can easily make us believe that fake news is real news through something called "confirmation bias." You learned a bit about confirmation bias in last week's reading. Watch this video by *Above The Noise* (5m20s) to learn more.





What makes a news story fake?

1. It can't be verified

A fake news article may or may not have links in it tracing its sources. If the article does have links, they may not lead to articles outside of the site's domain or may not contain information pertinent to the article topic.

2. Fake news appeals to emotion

Fake news plays on the reader's feelings - it makes the reader angry or happy or scared. By appealing to emotions, the authors are hoping to prevent the reader from fact-checking.

3. Authors usually aren't experts

Authors are unidentifiable or lack credentials, are paid to invoke an action and direct traffic to the story, usually through sensational or off-topic claims, or use inflammatory language.

4. It can't be found anywhere else

The main idea of the fake news article is not reported by any other news outlets. Credible information is often reported on and verified by multiple sources.

5. Fake news comes from fake sites

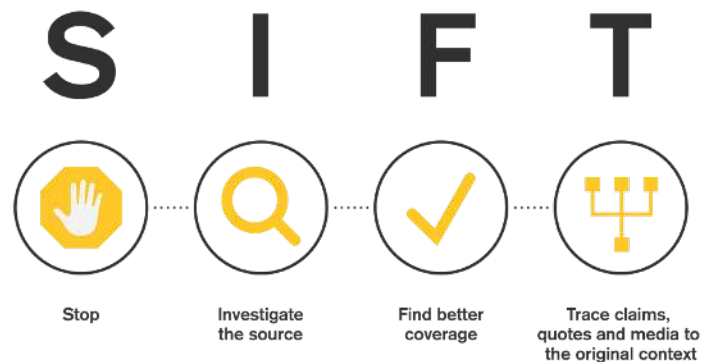
Did your article come from abcnews.com.co? Or mercola.com? Realnewsrightnow.com? These and a host of other URLs are fake news sites.

10.4: Misinformation, Disinformation, and Fake News- How to Spot Them is shared under a [CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/) license and was authored, remixed, and/or curated by Clackamas Community College Library.

10.5: Fact Check - SIFT

Can't figure out if what you've heard is true? There is a tool specifically built to help you spot misinformation: SIFT.

SIFT



S - Stop

- When you open a new resource, **stop** and ask yourself whether you know and trust the source of the information. If you don't, follow the steps in I, F, and T to get a sense of what you're reading. Don't read or share it until you know what it is.
- As you continue evaluating, if you feel yourself getting overwhelmed by your factchecking efforts, **stop!** Take a second to remind yourself what your goal is. Adjust your strategy if it isn't working.

I - Investigate the Source

- As a researcher, you need to know the context information you're about to consume, *before* you read it. Take some time to **investigate** before you read the resource. Why **investigate**? You would want to know if a resource on the dietary benefits of milk was published by the dairy industry. Just like you'd want to know if a resource about economics was written by an award-winning economist.
- Some good ways to **investigate**:
 - Google the author's name.
 - Google the publisher's name.
 - Read the "about us" section on the source's website (check for bias!).
 - Look at the URL. If it seems like it's meant to trick you, **investigate** further.

F - Find Better Coverage

- What claims does the resource make? Can you **find** other trusted sources of information that make the same claims?
- See if you can **find** more trusted, more in-depth, or more varied resources that back up the claims you see in the first resource.
- If you see something that seems sensational, too good to be true, or really scary (it's the end of the world!), be skeptical. Try to **find trusted coverage** of these sensational claims, they're probably not true.

T - Trace Claims, Quotes and Media Back to the Original Context

- Just like in a game of telephone, the more removed information is from its original source, the more it can change. See if you can **trace** claims back to their source to verify that the information hasn't changed.
- Some good ways to **trace** back to the original source:
 - Check the References/Works Cited page in the resource.
 - Click on links provided in the resource.
 - Google the claim and try to find where it originated.

Use Fact-Checking websites

- [FactCheck.org](https://factcheck.org/)(opens in new window)
A product of the Annenberg Public Policy Center, this site is terrific for checking up on political claims.

- [Politifact\(opens in new window\)](#)
The Pulitzer Prize-winning Politifact researches the claims of politicians and checks their accuracy.
- [Snopes.com\(opens in new window\)](#)
One of the oldest debunking sites on the Internet, Snopes.com focuses on urban legends, news stories and memes (and cites their sources).
- [AllSides\(opens in new window\)](#)
This site provides articles and an assessment of their bias, from left to right.
- [The Washington Post Fact-Checker\(opens in new window\)](#)
While focused primarily on political facts, it covers specific claims in-depth and with plenty of cross-referencing.

Image credit: Mike Caulfield's *Check, Please! Starter Course*([opens in new window](#))

10.5: Fact Check - SIFT is shared under a [CC BY-NC 4.0](#) license and was authored, remixed, and/or curated by Clackamas Community College Library.

10.6: Explore the source

Consider the following example.

You decide to research the topic of whether municipalities should add **fluoride** to public **drinking water**.

A Google search produces a mix of government, health, and consumer advocacy sites, including this one from a popular natural medicine website [Natural News](#)[\[New Tab\]](#). (Keep this tab open to answer some of the following questions about the site.)

1. Start by examining the URL

You might begin with a quick check of the URL (the link) and the domain; this will tell you something about the overall purpose of the site. Which of the categories below does this natural medicine site fall into?

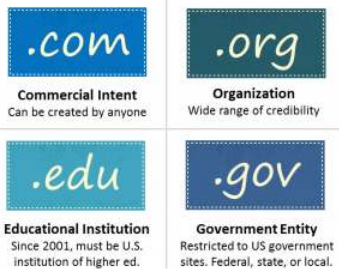


Image by [adstarkel](#).

2. Look around the site

Further evidence of a commercial purpose is clear by the striking presence of advertisements for natural health products and apps, many of which are not related to the topic. Also note the online store. What might this tell you about the intent of the site?

Is it possible to determine the accuracy of the information? The external links provided at the bottom of the article simply refer back to **other articles on the same website**. A check of the two studies referenced **do not** conclude that fluoridated water causes the purported health problems, but conclude that further investigation is needed.

3. Leave the page

Now it's time to find something out about the website and its owner.

Open a new tab or window and do a quick Google search for the website or the owner's name (find this on the [About Natural](#)[\[New Tab\]](#) News page). Scan the first few results. How is the website and its owner regarded by other sources, namely the mainstream press and Wikipedia?

Notice that the Wikipedia page for **Fluoridated Drinking Water** includes a link to the [controversy](#)[\[New Tab\]](#) surrounding this topic. Go one step further and open the [Talk](#)[\[New Tab\]](#) page for this article. What do the comments from Wikipedia editors indicate?

Want further confirmation that Natural News might be less than reliable? Try searching one of these fact-checking sites:

- [Snopes](#)[\[New Tab\]](#)
- [FactCheck.org](#)[\[New Tab\]](#)

In sum, take a few extra minutes to learn something about the source you are considering.

This page titled [10.6: Explore the source](#) is shared under a [not declared](#) license and was authored, remixed, and/or curated by [Celia Brinkerhoff](#).

10.7: Putting it all together

The following graphic illustrates the process of determining the credibility of sources you find on the internet. It is can also serve as a useful reminder of the critical questions you should be asking of all the sources you find in your research, including those you find in the library.

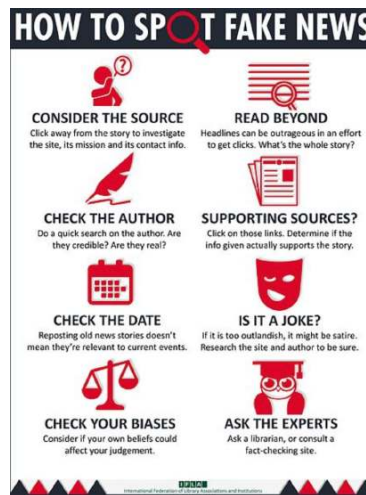


Figure 10.7.1: How to spot fake news. Image from [IFLA](#).

Source

Infographic: “[How to spot fake news](#)” by [IFLA](#) is licensed under [CC BY 4.0](#).

10.7: Putting it all together is shared under a [not declared](#) license and was authored, remixed, and/or curated by LibreTexts.

10.8: Last thoughts on evaluation

Strategies for evaluating information are both obvious and not so obvious.

Obvious: Factors that are relatively easy to identify are obvious and people often remember to look for them. The CRAP Test criteria is obvious to find: who is the author, what are their credentials, when was this published, and by whom? These are criteria that, with practice, you learn to look for quickly.

Less obvious: And you don't stop there - you evaluate each criterion. Say you know the name of the publisher, so you investigate and find out about the group that sponsored the research. You find the group's super-politically-one-sided and biased funding source, so now what? Does what you found out about the funding source make you trust the think tank's information more or less?

What *isn't* as obvious is how much importance and weight you assign to the criteria.

Not so obvious: Identifying what is missing is not obvious, and is *hard*. (Maybe impossible, because we don't know what we don't know!) Try asking yourself these questions to help with the *not so obvious*:

- Whose voices might we not be hearing and why?
- What background context is missing?
- What information was omitted and for what reasons?
- For my topic and for me, do the omissions matter?
- Are my biases getting in the way of what I decide to trust?

These are the kinds of questions you can ask yourself as you interact with information. There probably won't be a cut and dry answer to them, either. On the same topic, my answers might be different than your answers.

What is important is that you and I ask them, and appreciate the value in asking them. We all have unique experiences and lenses through which we see the world, and asking questions (like "*what's missing?*" or "*could I interpret this another way?*") is imperative to accessing a more accurate, holistic view of the world. That is critical thinking, and when applied to the world of information, it is the foundation of information literacy.

10.8: Last thoughts on evaluation is shared under a [CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/) license and was authored, remixed, and/or curated by Clackamas Community College Library.

Index

A

academic journal

9.7: Writing an Annotated Bibliography

Academic Search Complete

5.4: Searching for scholarly sources

5.6: Permalinks in databases

Advanced evaluation

10.2: Expertise and authorship

10.4: Misinformation, Disinformation, and Fake

News- How to Spot Them

10.5: Fact Check - SIFT

10.8: Last thoughts on evaluation

Alternative keywords

2.4: Translating a topic into keywords

analysis

3.4: Reading Academic Articles for Research

annotated bibliography

9.7: Writing an Annotated Bibliography

articles

3.4: Reading Academic Articles for Research

audience

3.3: Popular and scholarly sources

authority

10.1: Evaluate - CRAP

10.2: Expertise and authorship

authorship

10.2: Expertise and authorship

B

bias

9.7: Writing an Annotated Bibliography

boolean

4.6: Combining keywords

C

Catalog searching

4.2: Practice searching in the Library Catalog

CCC Library

1.4: Bonaudi Library at Big Bend Community College

4.2: Practice searching in the Library Catalog

5.1: Databases 101

Circulation Services

1.4: Bonaudi Library at Big Bend Community College

citation

3.4: Reading Academic Articles for Research

citations

8.6: Introduction to Citing Your Sources

8.8: Citations IRL (in real life)

cite

8.6: Introduction to Citing Your Sources

8.8: Citations IRL (in real life)

citing

8.6: Introduction to Citing Your Sources

8.8: Citations IRL (in real life)

copyright

8.1: Copyright

CRAP test

10.1: Evaluate - CRAP

credibility

9.7: Writing an Annotated Bibliography

10.1: Evaluate - CRAP

critical thinking

9.7: Writing an Annotated Bibliography

currency

10.1: Evaluate - CRAP

D

database

4.3: Refining your search results

5.1: Databases 101

5.3: Searching for popular sources

5.4: Searching for scholarly sources

5.6: Permalinks in databases

database searching

4.3: Refining your search results

5.1: Databases 101

5.3: Searching for popular sources

5.4: Searching for scholarly sources

5.6: Permalinks in databases

5.7: Troubleshooting your search

Develop a topic

2.2: How to Develop a Good Research Topic

disinformation

10.4: Misinformation, Disinformation, and Fake News- How to Spot Them

E

education

3.4: Reading Academic Articles for Research

9.7: Writing an Annotated Bibliography

evaluation

9.7: Writing an Annotated Bibliography

10.1: Evaluate - CRAP

10.2: Expertise and authorship

10.4: Misinformation, Disinformation, and Fake

News- How to Spot Them

10.8: Last thoughts on evaluation

expertise

10.2: Expertise and authorship

F

fact checking

10.5: Fact Check - SIFT

fair use

8.2: Fair Use

fake news

10.4: Misinformation, Disinformation, and Fake News- How to Spot Them

Filters

4.2: Practice searching in the Library Catalog

4.3: Refining your search results

4.8: Troubleshooting your search

5.7: Troubleshooting your search

full text

4.2: Practice searching in the Library Catalog

G

Gale Virtual Reference Library (GVRL)

5.3: Searching for popular sources

I

Informal citations

8.8: Citations IRL (in real life)

information literacy

1.5: Why is Information Literacy important?

interactive elements

2.4: Translating a topic into keywords

iterative searching

2.1: The Research Process

4.8: Troubleshooting your search

5.4: Searching for scholarly sources

5.7: Troubleshooting your search

K

Keyword brainstorming

2.4: Translating a topic into keywords

Keyword searching

2.3: Keywords

2.4: Translating a topic into keywords

4.2: Practice searching in the Library Catalog

4.8: Troubleshooting your search

keywords

2.3: Keywords

2.4: Translating a topic into keywords

L

LIB101

1.1: Welcome to LIB101!

1.2: The Syllabus

1.3: How to be an Online Student

library catalog

4.2: Practice searching in the Library Catalog

library database

5.1: Databases 101

Limiters

4.2: Practice searching in the Library Catalog

4.3: Refining your search results

4.8: Troubleshooting your search

5.7: Troubleshooting your search

literature review

3.4: Reading Academic Articles for Research

M

misinformation

10.4: Misinformation, Disinformation, and Fake News- How to Spot Them

O

Online class

1.3: How to be an Online Student

Opposing Viewpoints (OV)

5.3: Searching for popular sources

P

peer review

3.4: Reading Academic Articles for Research

Permalink

5.6: Permalinks in databases

plagiarism

8.3: Plagiarism

point of view

10.1: Evaluate - CRAP

purpose

10.1: Evaluate - CRAP

Q

quotation marks

2.4: Translating a topic into keywords

R

Refine results

- [4.2: Practice searching in the Library Catalog](#)
- [4.3: Refining your search results](#)
- [4.8: Troubleshooting your search](#)
- [5.7: Troubleshooting your search](#)

relevance

- [10.1: Evaluate - CRAP](#)

relevancy

- [10.1: Evaluate - CRAP](#)

reliability

- [10.1: Evaluate - CRAP](#)

research

- [3.4: Reading Academic Articles for Research](#)

research help

- [1.4: Bonaudi Library at Big Bend Community College](#)

research methods

- [3.4: Reading Academic Articles for Research](#)

research paper

- [9.7: Writing an Annotated Bibliography](#)

research process

- [2.1: The Research Process](#)

research topic

- [2.2: How to Develop a Good Research Topic](#)

S

SIFT

- [10.5: Fact Check - SIFT](#)

subject headings

- [4.3: Refining your search results](#)

syllabus

- [1.2: The Syllabus](#)

T

terms

- [4.3: Refining your search results](#)

W

writing skills

- [9.7: Writing an Annotated Bibliography](#)

Detailed Licensing

Overview

Title: Academic Research Skills - LIB101 BBCC

Webpages: 93

Applicable Restrictions: Noncommercial

All licenses found:

- [CC BY-NC 4.0](#): 37.6% (35 pages)
- [CC BY 4.0](#): 33.3% (31 pages)
- [Undeclared](#): 18.3% (17 pages)
- [CC BY-NC-SA 4.0](#): 10.8% (10 pages)

By Page

- [Academic Research Skills - LIB101 BBCC - CC BY-NC 4.0](#)
 - [Front Matter - Undeclared](#)
 - [TitlePage - Undeclared](#)
 - [InfoPage - Undeclared](#)
 - [Table of Contents - Undeclared](#)
 - [Licensing - Undeclared](#)
 - [Chapter 1: Introduction to LIB101 - CC BY-NC 4.0](#)
 - [1.1: Welcome to LIB101! - CC BY-NC 4.0](#)
 - [1.2: The Syllabus - CC BY-NC 4.0](#)
 - [1.3: How to be an Online Student - CC BY-NC 4.0](#)
 - [1.4: Bonaudi Library at Big Bend Community College - CC BY-NC 4.0](#)
 - [1.5: Why is Information Literacy important? - CC BY-NC 4.0](#)
 - [Chapter 2: Getting started - CC BY-NC 4.0](#)
 - [2.1: The Research Process - CC BY-NC 4.0](#)
 - [2.2: How to Develop a Good Research Topic - CC BY-NC 4.0](#)
 - [2.3: Keywords - CC BY-NC 4.0](#)
 - [2.4: Translating a topic into keywords - CC BY-NC 4.0](#)
 - [Chapter 3: Types of Information Sources - CC BY 4.0](#)
 - [3.1: Information Sources - Primary, Secondary, Tertiary - CC BY 4.0](#)
 - [3.2: Information Formats - CC BY 4.0](#)
 - [3.3: Popular and scholarly sources - CC BY-NC 4.0](#)
 - [3.4: Reading Academic Articles for Research - CC BY-NC 4.0](#)
 - [3.5: Information Bias - CC BY 4.0](#)
 - [Chapter 4: Searching the Library Catalog - CC BY-NC 4.0](#)
 - [4.1: Using OneSearch - The Library's Search Tool - CC BY 4.0](#)
 - [4.2: Practice searching in the Library Catalog - Undeclared](#)
 - [4.3: Refining your search results - CC BY-NC 4.0](#)
 - [4.4: Advanced Search Options in OneSearch - CC BY 4.0](#)
 - [4.5: Keyword adjustment - CC BY-NC-SA 4.0](#)
 - [4.6: Combining keywords - CC BY-NC-SA 4.0](#)
 - [4.7: Iterating for more Keywords - CC BY-NC 4.0](#)
 - [4.8: Troubleshooting your search - CC BY-NC 4.0](#)
 - [4.9: Saving a Library Resource - CC BY-NC 4.0](#)
 - [4.10: Finding Your Books - CC BY 4.0](#)
 - [4.11: How Libraries Organize Materials - CC BY 4.0](#)
 - [4.12: Dewey Decimal Classification \(DDC\) - CC BY 4.0](#)
 - [4.13: Library of Congress Classification \(LCC\) - CC BY 4.0](#)
 - [Chapter 5: Searching Library Databases - CC BY-NC 4.0](#)
 - [5.1: Databases 101 - CC BY-NC 4.0](#)
 - [5.2: Choosing a database - CC BY-NC-SA 4.0](#)
 - [5.3: Searching for popular sources - CC BY-NC 4.0](#)
 - [5.4: Searching for scholarly sources - CC BY-NC 4.0](#)
 - [5.5: You Found Some Resources! Now What? - CC BY 4.0](#)
 - [5.6: Permalinks in databases - CC BY-NC 4.0](#)
 - [5.7: Troubleshooting your search - CC BY-NC 4.0](#)
 - [Chapter 6: The Age of Algorithms - CC BY 4.0](#)
 - [6.1: What are Algorithms? - CC BY 4.0](#)
 - [6.2: The Influence of Algorithms - CC BY 4.0](#)
 - [6.3: Algorithmic Bias - CC BY 4.0](#)
 - [6.4: The Attention Economy - CC BY 4.0](#)
 - [6.5: Algorithms and Polarization - CC BY 4.0](#)
 - [6.6: Filter Bubbles - CC BY 4.0](#)
 - [6.7: Conclusion - CC BY 4.0](#)
 - [Chapter 7: Searching the Web - CC BY 4.0](#)
 - [7.1: Types of \(free\) web resources - CC BY-NC 4.0](#)

- 7.2: Google Scholar - *Undeclared*
- 7.3: Web Search Engines - *Undeclared*
- 7.4: Tips for Common Search Tools - *Undeclared*
- 7.5: Open Access - *CC BY 4.0*
- 7.6: Chapter Scenario - *CC BY 4.0*
- 7.7: Controlling Your Search - *CC BY 4.0*
- 7.8: Searching and Privacy - *CC BY 4.0*
- Chapter 8: Ethical and Legal Use of Information - *CC BY-NC-SA 4.0*
 - 8.1: Copyright - *CC BY-NC-SA 4.0*
 - 8.2: Fair Use - *CC BY-NC-SA 4.0*
 - 8.3: Plagiarism - *CC BY-NC-SA 4.0*
 - 8.4: How to Avoid Plagiarism in the Research Process - *CC BY-NC-SA 4.0*
 - 8.5: Plagiarism and the Internet - *CC BY-NC-SA 4.0*
 - 8.6: Introduction to Citing Your Sources - *CC BY-NC 4.0*
 - 8.7: Citing and Citations - *CC BY-NC-SA 4.0*
 - 8.8: Citations IRL (in real life) - *CC BY-NC 4.0*
- Chapter 9: Citing Sources - *CC BY 4.0*
 - 9.1: Citation and Citation Styles - *CC BY 4.0*
 - 9.2: Steps for Citing - *CC BY 4.0*
 - 9.3: When to Cite - *CC BY 4.0*
 - 9.4: APA Style - *CC BY 4.0*
 - 9.5: MLA Style - *CC BY 4.0*
 - 9.6: Citation Generators - *CC BY 4.0*
 - 9.7: Writing an Annotated Bibliography - *CC BY-NC 4.0*
- Chapter 10: Practical Evaluation of Information - *CC BY-NC 4.0*
 - 10.1: Evaluate - CRAP - *CC BY-NC 4.0*
 - 10.2: Expertise and authorship - *CC BY-NC 4.0*
 - 10.3: But is it Relevant? - *Undeclared*
 - 10.4: Misinformation, Disinformation, and Fake News- How to Spot Them - *CC BY-NC 4.0*
 - 10.5: Fact Check - SIFT - *CC BY-NC 4.0*
 - 10.6: Explore the source - *Undeclared*
 - 10.7: Putting it all together - *Undeclared*
 - 10.8: Last thoughts on evaluation - *CC BY-NC 4.0*
- Back Matter - *Undeclared*
 - Index - *Undeclared*
 - Glossary - *Undeclared*
 - Detailed Licensing - *Undeclared*
 - Detailed Licensing - *Undeclared*

Detailed Licensing

Overview

Title: Academic Research Skills - LIB101 BBCC

Webpages: 93

Applicable Restrictions: Noncommercial

All licenses found:

- [CC BY-NC 4.0](#): 37.6% (35 pages)
- [CC BY 4.0](#): 33.3% (31 pages)
- [Undeclared](#): 18.3% (17 pages)
- [CC BY-NC-SA 4.0](#): 10.8% (10 pages)

By Page

- [Academic Research Skills - LIB101 BBCC](#) - [CC BY-NC 4.0](#)
 - [Front Matter](#) - [Undeclared](#)
 - [TitlePage](#) - [Undeclared](#)
 - [InfoPage](#) - [Undeclared](#)
 - [Table of Contents](#) - [Undeclared](#)
 - [Licensing](#) - [Undeclared](#)
 - [Chapter 1: Introduction to LIB101](#) - [CC BY-NC 4.0](#)
 - [1.1: Welcome to LIB101!](#) - [CC BY-NC 4.0](#)
 - [1.2: The Syllabus](#) - [CC BY-NC 4.0](#)
 - [1.3: How to be an Online Student](#) - [CC BY-NC 4.0](#)
 - [1.4: Bonaudi Library at Big Bend Community College](#) - [CC BY-NC 4.0](#)
 - [1.5: Why is Information Literacy important?](#) - [CC BY-NC 4.0](#)
 - [Chapter 2: Getting started](#) - [CC BY-NC 4.0](#)
 - [2.1: The Research Process](#) - [CC BY-NC 4.0](#)
 - [2.2: How to Develop a Good Research Topic](#) - [CC BY-NC 4.0](#)
 - [2.3: Keywords](#) - [CC BY-NC 4.0](#)
 - [2.4: Translating a topic into keywords](#) - [CC BY-NC 4.0](#)
 - [Chapter 3: Types of Information Sources](#) - [CC BY 4.0](#)
 - [3.1: Information Sources - Primary, Secondary, Tertiary](#) - [CC BY 4.0](#)
 - [3.2: Information Formats](#) - [CC BY 4.0](#)
 - [3.3: Popular and scholarly sources](#) - [CC BY-NC 4.0](#)
 - [3.4: Reading Academic Articles for Research](#) - [CC BY-NC 4.0](#)
 - [3.5: Information Bias](#) - [CC BY 4.0](#)
 - [Chapter 4: Searching the Library Catalog](#) - [CC BY-NC 4.0](#)
 - [4.1: Using OneSearch - The Library's Search Tool](#) - [CC BY 4.0](#)
 - [4.2: Practice searching in the Library Catalog](#) - [Undeclared](#)
 - [4.3: Refining your search results](#) - [CC BY-NC 4.0](#)
 - [4.4: Advanced Search Options in OneSearch](#) - [CC BY 4.0](#)
 - [4.5: Keyword adjustment](#) - [CC BY-NC-SA 4.0](#)
 - [4.6: Combining keywords](#) - [CC BY-NC-SA 4.0](#)
 - [4.7: Iterating for more Keywords](#) - [CC BY-NC 4.0](#)
 - [4.8: Troubleshooting your search](#) - [CC BY-NC 4.0](#)
 - [4.9: Saving a Library Resource](#) - [CC BY-NC 4.0](#)
 - [4.10: Finding Your Books](#) - [CC BY 4.0](#)
 - [4.11: How Libraries Organize Materials](#) - [CC BY 4.0](#)
 - [4.12: Dewey Decimal Classification \(DDC\)](#) - [CC BY 4.0](#)
 - [4.13: Library of Congress Classification \(LCC\)](#) - [CC BY 4.0](#)
 - [Chapter 5: Searching Library Databases](#) - [CC BY-NC 4.0](#)
 - [5.1: Databases 101](#) - [CC BY-NC 4.0](#)
 - [5.2: Choosing a database](#) - [CC BY-NC-SA 4.0](#)
 - [5.3: Searching for popular sources](#) - [CC BY-NC 4.0](#)
 - [5.4: Searching for scholarly sources](#) - [CC BY-NC 4.0](#)
 - [5.5: You Found Some Resources! Now What?](#) - [CC BY 4.0](#)
 - [5.6: Permalinks in databases](#) - [CC BY-NC 4.0](#)
 - [5.7: Troubleshooting your search](#) - [CC BY-NC 4.0](#)
 - [Chapter 6: The Age of Algorithms](#) - [CC BY 4.0](#)
 - [6.1: What are Algorithms?](#) - [CC BY 4.0](#)
 - [6.2: The Influence of Algorithms](#) - [CC BY 4.0](#)
 - [6.3: Algorithmic Bias](#) - [CC BY 4.0](#)
 - [6.4: The Attention Economy](#) - [CC BY 4.0](#)
 - [6.5: Algorithms and Polarization](#) - [CC BY 4.0](#)
 - [6.6: Filter Bubbles](#) - [CC BY 4.0](#)
 - [6.7: Conclusion](#) - [CC BY 4.0](#)
 - [Chapter 7: Searching the Web](#) - [CC BY 4.0](#)
 - [7.1: Types of \(free\) web resources](#) - [CC BY-NC 4.0](#)

- 7.2: Google Scholar - *Undeclared*
- 7.3: Web Search Engines - *Undeclared*
- 7.4: Tips for Common Search Tools - *Undeclared*
- 7.5: Open Access - *CC BY 4.0*
- 7.6: Chapter Scenario - *CC BY 4.0*
- 7.7: Controlling Your Search - *CC BY 4.0*
- 7.8: Searching and Privacy - *CC BY 4.0*
- Chapter 8: Ethical and Legal Use of Information - *CC BY-NC-SA 4.0*
 - 8.1: Copyright - *CC BY-NC-SA 4.0*
 - 8.2: Fair Use - *CC BY-NC-SA 4.0*
 - 8.3: Plagiarism - *CC BY-NC-SA 4.0*
 - 8.4: How to Avoid Plagiarism in the Research Process - *CC BY-NC-SA 4.0*
 - 8.5: Plagiarism and the Internet - *CC BY-NC-SA 4.0*
 - 8.6: Introduction to Citing Your Sources - *CC BY-NC 4.0*
 - 8.7: Citing and Citations - *CC BY-NC-SA 4.0*
 - 8.8: Citations IRL (in real life) - *CC BY-NC 4.0*
- Chapter 9: Citing Sources - *CC BY 4.0*
 - 9.1: Citation and Citation Styles - *CC BY 4.0*
 - 9.2: Steps for Citing - *CC BY 4.0*
 - 9.3: When to Cite - *CC BY 4.0*
 - 9.4: APA Style - *CC BY 4.0*
 - 9.5: MLA Style - *CC BY 4.0*
 - 9.6: Citation Generators - *CC BY 4.0*
 - 9.7: Writing an Annotated Bibliography - *CC BY-NC 4.0*
- Chapter 10: Practical Evaluation of Information - *CC BY-NC 4.0*
 - 10.1: Evaluate - CRAP - *CC BY-NC 4.0*
 - 10.2: Expertise and authorship - *CC BY-NC 4.0*
 - 10.3: But is it Relevant? - *Undeclared*
 - 10.4: Misinformation, Disinformation, and Fake News- How to Spot Them - *CC BY-NC 4.0*
 - 10.5: Fact Check - SIFT - *CC BY-NC 4.0*
 - 10.6: Explore the source - *Undeclared*
 - 10.7: Putting it all together - *Undeclared*
 - 10.8: Last thoughts on evaluation - *CC BY-NC 4.0*
- Back Matter - *Undeclared*
 - Index - *Undeclared*
 - Glossary - *Undeclared*
 - Detailed Licensing - *Undeclared*
 - Detailed Licensing - *Undeclared*