Evaluating Sources: Introduction

Evaluating sources means recognizing whether the information you read and include in your research is credible. Despite the large amount of information available, both in print and online, not all of it is valid, useful, or accurate. Evaluating sources of information that you might include in your writing is an important step in any research process.

Cite your source automatically in MLA or APA format

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Using citation machines responsibly (https://owl.purdue.edu/owl/research_and_citation/using_citation_machines_responsibly.html)

When writing research papers, not only will you be searching for information, but you will be evaluating the sources for credibility. You have to decide where to look, how to recognize credible sources, and how to cross-check your information. Learning how to evaluate effectively is a skill you need both for your course papers and for your life.
Evaluating Sources: Where to Begin

It's difficult to evaluate a source if you’re not sure where to begin. Before getting started, it's important to establish what genre of research you need. Below is a breakdown of how sources are often separated. Once you recognize the differences in sources, it becomes easier to locate exactly what you need and evaluate whether the sources you find seem credible.

Scholarly vs. Popular Sources

Most sources fall into two categories: scholarly and popular. Scholarly sources are written by highly-qualified researchers and have a thorough publication process, which usually involves peer-reviewing and an extensive list of references at the end of the text. Scholarly sources often have a specific audience in mind, most likely other experts in the particular field of study. Examples of scholarly sources include books and academic journals written by scholars and experts.

Popular sources, on the other hand, are written by and intended for a general audience. Popular sources are not peer-reviewed, and they do not usually include a reference list. Examples of popular sources range from some books and magazines to websites and blogs.

If you're unsure whether the source you're reading is scholarly or popular, ask yourself these questions:

- Who is the intended audience?
- Does the author have credentials?
- Is the text peer-reviewed?
- Is there a reference list or Works Cited page?

If the source you’re examining fits the above criteria, it is most likely a scholarly source.

When searching for sources, different topics might require more scholarly sources or more popular sources. For example, if you were researching the effects of a certain treatment for cancer patients, you would most likely turn to scholarly sources written by experts. However, if you wanted to examine how different news outlets and social media sites portrayed a recent presidential debate, you would instead turn to popular sources.

Understanding the difference between a scholarly and popular source is a crucial step in evaluating credible sources.
Primary vs. Secondary Sources

Just as sources can be scholarly or popular, sources are also divided into primary and secondary.

A primary source is a firsthand or eyewitness account of information by an individual close to the topic. Examples of primary sources include autobiographies, personal correspondence (e.g., diary entries, letters), government documents, works of art and literature, statistics and data, and newspaper articles written by reporters close to the source. Today, even some social media posts are considered primary sources, because they are firsthand accounts of information.

A secondary source is a source that is more removed from an event, usually written after the event has happened. Examples of secondary sources include biographies, interpretation of statistics and data, and anything written after an historical event or analyzing something that already happened (e.g., examining a work of art from 100 years ago).

Depending on your research, you may need more primary or secondary sources. For example, if you wanted to trace the history of whale sightings off the coast of Alaska, you would probably need to find some historical documents that provide firsthand information on whale sightings from a few hundred years ago. However, if you wanted to look at how boating has changed whale migration patterns, you would probably rely on some secondary sources that interpret data and statistics.

When evaluating sources, being able to determine whether it’s primary or secondary is helpful as you continue in your research.
Evaluating Sources: General Guidelines

Once you have an idea of the types of sources you need for your research, you can spend time evaluating individual sources. If a bibliographic citation seems promising, it’s a good idea to spend a bit more time with the source before you determine its credibility. Below are some questions to ask and things to consider as you read through a source.

Find Out What You Can about the Author

One of the first steps in evaluating a source is to locate more information about the author. Sometimes simply typing an author’s name into a search engine will give you an initial springboard for information. Finding the author’s educational background and areas of expertise will help determine whether the author has experience in what they’re writing about. You should also examine whether the author has other publications and if they are with well-known publishers or organizations.

Read the Introduction / Preface

Begin by reading the Introduction or the Preface—What does the author want to accomplish? Browse through the Table of Contents and the Index. This will give you an overview of the source. Is your topic covered in enough depth to be helpful? If you don't find your topic discussed, try searching for some synonyms in the Index.

If your source does not contain any of these elements, consider reading the first few paragraphs of the source and determining whether it includes enough information on your topic for it to be relevant.

Determine the Intended Audience

Consider the tone, style, vocabulary, level of information, and assumptions the author makes about the reader. Are they appropriate for your needs? Remember that scholarly sources often have a very particular audience in mind, and popular sources are written for a more general audience. However, some scholarly sources may be too dense for your particular research needs, so you may need to turn to sources with a more general audience in mind.

Determine whether the Information is Fact, Opinion, or Propaganda
Information can usually be divided into three categories: fact, opinion, and propaganda. Facts are objective, while opinions and propaganda are subjective. A fact is something that is known to be true. An opinion gives the thoughts of a particular individual or group. Propaganda is the (usually biased) spreading of information for a specific person, group, event, or cause. Propaganda often relies on slogans or emotionally-charged images to influence an audience. It can also involve the selective reporting of true information in order to deceive an audience.

Example:

- Fact: The Purdue OWL was launched in 1994.
- Opinion: The Purdue OWL is the best website for writing help.
- Propaganda: Some students have gone on to lives of crime after using sites that compete with the Purdue OWL. The Purdue OWL is clearly the only safe choice for student writers.

The last example above uses facts in a bad-faith way to take advantage of the audience's fear. Even if the individual claim is true, the way it is presented helps the author tell a much larger lie. In this case, the lie is that there is a link between the websites students visit for writing help and their later susceptibility to criminal lifestyles. Of course, there is no such link. Thus, when examining sources for possible propaganda, be aware that sometimes groups may deploy pieces of true information in deceptive ways.

Note also that the difference between an opinion and propaganda is that propaganda usually has a specific agenda attached—that is, the information in the propaganda is being spread for a certain reason or to accomplish a certain goal. If the source appears to represent an opinion, does the author offer legitimate reasons for adopting that stance? If the opinion feels one-sided, does the author acknowledge opposing viewpoints? An opinion-based source is not necessarily unreliable, but it's important to know whether the author recognizes that their opinion is not the only opinion.

Identify the Language Used

Is the language objective or emotional? Objective language sticks to the facts, but emotional language relies on garnering an emotional response from the reader. Objective language is more commonly found in fact-based sources, while emotional language is more likely to be found in opinion-based sources and propaganda.

Evaluate the Evidence Listed

If you’re just starting your research, you might look for sources that include more general information. However, the deeper you get into your topic, the more comprehensive your research will need to be.

If you’re reading an opinion-based source, ask yourself whether there’s enough evidence to back up the opinions. If you’re reading a fact-based source, be sure that it doesn’t oversimplify the topic.

The more familiar you become with your topic, the easier it will be for you to evaluate the evidence in your sources.

Cross-Check the Information

When you verify the information in one source with information you find in another source, this is called cross-referencing or cross-checking. If the author lists specific dates or facts, can you find that same information somewhere else? Having information listed in more than one place increases its credibility.

Check the Timeliness of the Source

How timely is the source? Is the source twenty years out of date? Some information becomes dated when new research is available, but other older sources of information can still be useful and reliable fifty or a hundred years later. For example, if you are researching a scientific topic, you will want to be sure you have the most up-to-date information. However, if you are examining an historical event, you may want to find primary documents from the time of the event, thus requiring older sources.

Examine the List of References

Check for a list of references or other citations that look as if they will lead you to related material that would be good sources. If a source has a list of references, it often means that the source is well-researched and thorough.
As you continue to encounter more sources, evaluating them for credibility will become easier.
Welcome to the Purdue OWL

https://owl.purdue.edu/owl/research_and_citation/conducting_research/evaluating_sources_of_information/evaluating_bibliographic_citations.html

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Evaluating Bibliographic Citations

A bibliographic citation provides relevant information about the author and publication as well as a short summary of the text, usually known as the abstract. Depending on where you find your information, the bibliographic citation will vary.

Cite your source automatically in MLA or APA format

Website

Search by URL, title, or keyword

Cite

Using citation machines responsibly (https://owl.purdue.edu/owl/research_and_citation/using_citation_machines_responsibly.html)

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Before you spend a lot of time reading a source, begin by looking at the following information in the citation to evaluate whether it's worth pursuing.

Consider the author, the title of the work, the summary, where it is (e.g., a book, an academic journal, a blog, a social media site), and the timeliness of the entry. You may also want to look at the keywords to see what other categories the work falls into. Evaluate this information to see if it is relevant and valid for your research.

Library Catalog

When searching for sources in a library catalog, the bibliographic citation will often include the author, the publisher, and the physical location of the source in the library (see image below). Using a library catalog is helpful if you are looking for print sources for your research.
Once you find the bibliographic citation, take a look at the author and the publisher. Has this author published other works? Does the publisher list other publications on their website? If you are still uncertain about the credibility, locate the physical source and read bits of it to see if it contains information that’s relevant to your research.

**Online Databases**

When searching for information in online databases such as *EbscoHost* or *ProQuest*, you will most likely find a bibliographic citation entry beneath the title of the source.
Websites

Different websites contain different levels of bibliographic citations. Sometimes it’s possible to find complete author information, while other times you may simply have a username or an author’s initials.

Most websites list the available author information directly under the title of the article or at the bottom of the article.
Sometimes a website does not list an author. If this is the case, it’s important to determine whether the website itself seems credible. If the website is associated with a print publication, or is from a well-known organization, it is probably credible. However, you should read the article to determine whether the information seems valid. On the next page you will find more strategies for determining whether a source is credible.

Understanding the differences in bibliographic citations is an important step as you search for sources to include in your research.
Evaluating Digital Sources

Because so much information is now available online, it's important to know how to navigate digital sources versus print sources. Today, almost every print source has a digital edition (e.g., ebooks, online newspapers), and some academic journals only publish digitally. However, despite the many credible digital sources available today, there are still many unreliable sources available on the internet. Below are some suggestions for evaluating digital texts and a breakdown of the different types of sources available online.

Cite your source automatically in MLA or APA format

Website
Search by URL, title, or keyword
Cite

Example of just one fallacious quotation that can be found online.

“Don’t believe everything you read on the Internet just because there’s a picture with a quote next to it.”
—Abraham Lincoln
Search Engine Optimization

Search engine optimization (often abbreviated SEO) is a strategy used to increase unpaid views on a website from search engines. By using an algorithm, SEO works by locating keywords and sorting information for relevancy and accuracy. For example, if you were to search “How to change a flat tire” in a search engine, you would most likely get how-to videos and pages, rather than someone selling their car on Craigslist, because the algorithm sorts the webpages based on the keywords you input.

Different search engines may utilize SEO differently, which also means that, depending on what search engine you use, you might have different results appear first. For example, companies that are owned by Google will most likely appear first when searching for something on Google. However, if you used a different search engine, such as Yahoo or Bing, your results may differ.

Understanding SEO is important because it dictates the initial information you’re presented with when using a search engine for your research.

Differences in Domain Extensions

Different websites have different domain extensions, that is, the final string of letters following the period on a website’s domain name. Domain extensions help differentiate the type of websites and the different purposes they serve.

Below is a breakdown of the most common domain extensions:

- .com—a commercial website
- .gov—a government owned/operated website
- .org—a website associated with an organization
- .edu—a website associated with an educational institution
- .net—a website used by network providers

While there is no universal rule for whether a website’s domain extension makes it credible, it's important to know that .com, .org, and .net domain extensions can be purchased and used by anyone. However, the .edu domain extension is reserved only for educational institutions, and the .gov domain extension is only used by governmental institutions.

Determining a website's credibility can be especially confusing for websites with a .org extension that appear to have a governmental or educational affiliation. For example, the website passportUSA.org appears to contain official instructions for applying for a passport online; however, it is simply a PDF editing site. Because of the .org domain extension, it appears more credible.

On the other hand, some well-known organizations use a .com domain extension. Both National Geographic and TED use .com domain extension, despite the fact that they're large organizations.

It’s important to not necessarily evaluate an online source simply based on its domain extension. As you navigate through different sources, you need to examine the authors and the website’s other credentials before making assumptions simply by the domain extension.

Wikipedia

Wikipedia is a free online encyclopedia, created by the Wikimedia Foundation. Like other encyclopedias, Wikipedia can provide valuable information about certain topics. However, unlike encyclopedias, Wikipedia pages can be edited by anyone, which means that sometimes the information stated is not reliable and is edited for the sake of making a joke (see example below).
An example of a Wikipedia page that has been vandalized to include a joking reference to the film *Fight Club*. Though this sort of vandalism is rare, it is not unheard of.

In fact, even Wikipedia itself encourages its users to take caution when gathering information from its site. It states: “Users should be aware that not all articles are of encyclopedic quality from the start. Indeed, many articles start out by giving one—perhaps not particularly evenhanded—view of the subject, and it is after a long process of discussion, debate, and argument that they gradually take on a consensus (https://en.wikipedia.org/wiki/Consensus) form. Others may become caught up in a heavily unbalanced viewpoint and can take some time—months perhaps—to regain a better-balanced consensus” (see “Researching with Wikipedia” (https://en.wikipedia.org/wiki/Wikipedia:Researching_with_Wikipedia)).

While it’s not encouraged to use Wikipedia as one of your main sources, Wikipedia can be used as a jumping-off point for other sources. At the bottom of most Wikipedia pages, you can find a list of sources that will take you to other pages (see image below).
Clickbait

Clickbait is a type of sensationalized advertisement that seeks to attract viewers through catchy or seemingly unbelievable headlines. Most sites that use clickbait use it to simply gain “clicks” on their site.

When looking for sources online, it’s important to recognize which article titles sound like clickbait. Most clickbait articles want to shock the reader, so be aware of words like surprising, alarming, and shocking in titles. Another form of clickbait is a page that challenges the viewer to a quiz or test. These will entice the reader by stating that the reader probably cannot answer each question correctly.

Understanding which articles are clickbait helps you evaluate your sources for credibility. Because clickbait sources exist simply to promote webpages, they are not considered credible sources.

Social Media

Social media is simply defined as any type of digital space that allows users to create content and share it with others in a social setting. A few of the most common social media platforms are Facebook, YouTube, Twitter, LinkedIn, Tumblr, and Instagram. While social media is not regularly used as a source in research, sometimes you might use a YouTube video or a tweet from a well-known individual.

When evaluating social media sites, it’s important to know more about a user beyond their username. For example, if you were interested in examining how scientists use Twitter as a platform, you might find yourself quoting a tweet by Bill Nye or the physicist Brian Cox. Both of these individuals have blue checks next to their Twitter handles, which means the accounts are verified. However, you might not want to quote a tweet by someone with an anonymous name and a Twitter handle such as @iluvsience321.

Similarly, YouTube videos can either be posted by a large organization or a single user. If you are interested in using a YouTube video in your research, look at whether the publisher is a larger organization (such as TED or National Geographic) or a single user that only publishes under a username. While not all large organizations produce unbiased information, more well-known organizations will most likely provide more credible information.
In general, while you will probably not use a lot of social media in your research, if you do, try to locate the people or groups behind the usernames. After you identify the person or organization, you can find out more about them and determine their credibility.

**Personal Websites**

Many people have personal websites, such as blogs, that are not associated with a larger group or organization. Blogs can range in subject, from seasonal fashion tips to discussing every one of Emily Dickinson’s poems. When evaluating a personal website, find out what you can about the author and their affiliations. Some personal websites exist solely to spread propaganda or other biased information.

**Podcasts**

Podcasts are becoming a much more popular digital medium today. Podcasts are essentially audio files that can be streamed on a computer or mobile device, like portable radio. They are usually part of a series or follow a theme.

Like YouTube videos, podcasts can be valuable resources if used correctly. While almost anyone can produce a podcast, and topics range from discussing tv shows or books like *The Bachelor* and *Harry Potter*, other podcasts give in-depth information about science, history, anthropology, and a wide variety of other topics. For example, podcasts like *Stuff You Missed in History Class* and *Historium Unearthia* provide information on often-overlooked historical events.

Like most sources, you should try to find out information about the author and cross-check the information in the podcast to see if you can find it elsewhere. Because anyone can produce a podcast, be aware that biased podcasts exist, and some might be used as propaganda.

**Online News Articles**

It’s possible to find many news articles online, both from digital newspapers and websites that post news articles. When examining online news articles, find out what you can about the organization behind the articles. Different news outlets may have different agendas attached to their reporting. For example, some websites are known for being more left-wing or right-wing.

**Online Databases**

Often, the most reliable information you will find on the internet will come from online databases. A database is a large collection of data, usually about one specific topic or idea. Some databases contain a broader field of information, while some are narrower. For example, Hoosier State Chronicles is a database that only houses Indiana newspapers, while JSTOR is a database that holds a wider variety of journals and books.

When looking for online sources, using a database helps you find credible information. In order for a source to be included in a database, it usually must go through a screening process that requires individuals to verify the information in the text. Because of this cross-checking process, the articles you find in databases will usually be more reliable than sources you might find simply by looking for them using a search engine.