

Choosing & Using Sources: A Guide to Academic Research

Published August 18, 2016

Teaching & Learning, Ohio State University Libraries

The Ohio State University



Choosing & Using Sources: A Guide to Academic Research by <u>Teaching & Learning</u>, <u>Ohio State University Libraries</u> is licensed under a <u>Creative Commons Attribution 4.0 International License</u>, except where otherwise noted.

— Contact Us —

If you have questions or comments about *Choosing and Using Sources*, <u>please</u> <u>send us a note</u>.

6-Evaluating Sources

– Thinking Critically About Sources –



Evaluating sources often involves piecing together clues.

Source evaluation usually takes place in two stages:

- First you try to determine which sources are credible and relevant to your assignment.
- Later, you try to decide which of those relevant and credible sources contain information that you actually want to quote, paraphrase, or summarize. This requires a closer reading, a finer examination of the source.

This lesson teaches the first kind of evaluation—how to weed out sources that are irrelevant and not credible and how to "weed in" those that are relevant enough and credible enough.

Because there often aren't clear-cut answers when you evaluate sources, **most of the time you have to make inferences-educated guesses from available clues-**about whether to use information from the website or other source.

The clues are factors you should consider when trying to decide whether a source is:

- A relevant source of information Is it truly about your topic and from the right time period?
- A credible source of information Is there sufficient reason to believe it's accurate?

Good Enough for Your Purpose?

Not every resource you turn up in your searches will be credible and relevant enough to meet your information needs. So, how will you ferret out the very best to use?

Sources should always be evaluated relative to your purpose-why you're looking for information.

Your information needs will dictate:

- What kind of information will help.
- How serious you consider the consequences of making a mistake by using
 information that turns out to be inaccurate. When the consequences aren't
 very serious, it's easier to decide a site and its information are good
 enough for your purpose. Of course, there's a lot to be said for always
 having accurate information, regardless.
- How hard you're willing to work to get the credible, timely information that suits your purpose. (What you're learning here will make it easier.)

Thus, your standards for relevance and credibility may vary, depending on whether you need, say:

- Information about a personal health problem
- An image you can use on a poster
- Evidence to win a bet with a rival in the dorm
- Dates and times a movie is showing locally
- A game to have fun with
- Evidence for your argument in a term paper

For your research assignments, the consequences may be great if you use information that is not relevant or not credible.

What Do You Already Know?

You must already be continually evaluating information sources in your personal life. Think for a minute about what information you have acted on today (where to go, what to do, what to eat, whether to read this page, etc.). What helped you decide whether the information was relevant and credible?

Which of the factors below do you consider to be criteria for evaluating sources of information?

- My instructor recommended the source
- · Other sources I like are linked to it
- I know who runs the site
- · Its information makes sense with what I already know
- I recognize the truth when I see it
- · The site fits with how I was raised
- · All my friends accept its information / A friend recommended the website
- I've used similar sources before / I've used the source before and nothing bad happened
- The website is easy to use / It has all the information I need so I don't have to go to a lot of sites
- What kind of site it is / The website looks professional

You probably chose at least several factors that we would agree with. Take a look at what we recommend on the next page.

ACTIVITY: Quick Check

Open activity in a web browser.

——Evaluating Websites——

What are the clues for inferring a source's relevancy and credibility? Let's start with evaluating websites, since we all do so much of our research online. But we'll also include where to find clues relevant to sources in other formats when they differ from what's good to use with websites. Looking at specific places in the sources will mean you don't have to read all of every resource to determine its worth to you.

Note: Since we all do so much of our research online, this lesson emphasizes how to evaluate websites as sources. But along the way, we'll interject information

about evaluating sources in other formats, too, when it differs from what's used with websites.

What Used to Help

It used to be easier to draw conclusions about an information source's credibility, depending on whether it was a print source or a web source. We knew we had to be more careful about information on the web-simply because all the filters that promoted accuracy involved in the print publishing process were absent from most web publishing. After all, it takes very little money, skill, and responsible intent to put content on the web, compared with what has to be done to convince print publishers your content is accurate and that they will make money by printing it.

However, many publishers who once provided only print materials have now turned to the web and have brought along their rigorous standards for accuracy. Among them are the publishers of government, university, and scholarly (peer-reviewed) journal websites. Sites for U.S. mainline news organizations also strive for accuracy rather than persuasion-because they know their readers have traditionally expected it. All in all, more websites now take appropriate care for accuracy than what used to be true on the web.

Nonetheless, it still remains very easy and inexpensive to publish on the web without any of the filters associated with print. So we all still need the critical thinking skills you'll learn here to determine whether websites' information is credible and relevant enough to suit your purpose.

6 Factors to Consider

Evaluating a website means considering the six factors below in relation to your purpose for the information. These factors are what you should gather clues about and use to decide whether a site is right for your purpose.

- The source's neighborhood on the web
- Author and/or publisher's background
- The degree of bias
- Recognition from others
- Thoroughness of the content
- Currency of the content

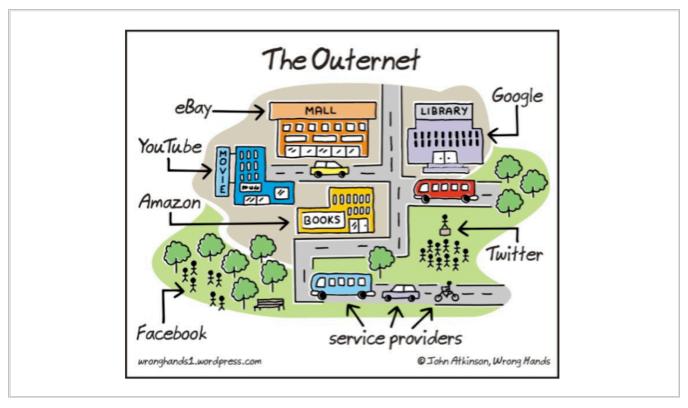
How many factors you consider at any one time depends on your purpose when seeking information. In other words, you'll consider all six factors when you're

looking for information for a research project or other high-stakes situation where making mistakes have serious consequences. But you might consider only the first three factors for many of your other information needs.

——A Source's Neighborhood ——

To understand this concept and begin to use it, imagine that all the sites on the web constitute a community. Just like in a geographical community, there are neighborhoods in which individual sites hang out.

Thinking about what neighborhood a source is in on the web can help you decide whether the site is credible, relevant, and suits your purpose.



Visualize the web as a community. (Image source: John Atkinson, Wrong Hands)

AUDIO: Neighborhoods on the Web

Listen to Audio 1 (or read the text version) to hear how intuitive this concept is. After you listen to the audio clip, the next activity will show you how to apply the concept.

<u>Listen to Audio</u> | <u>View Text Version</u>

TIP: Author's Purpose for Print

Rather than examine print sources for their web neighborhood, examine them for their author's purpose. Read the introduction and conclusion and look at the table of contents to discern the author's purpose.

For instance, did the author intend to use the book or magazine article to inform/educate, persuade, sell, or entertain?

And is the author's purpose suitable for your purpose? For instance, does the fact that a resource was intended to persuade mean it can't help you answer your research question? (As you know from <u>Sources and Information Needs</u>, yes.)

ACTIVITY: Self-Check

Why might you want to read information on an advocacy site (from the neighborhood of sites that promote particular ideas and behavior)—even when you're writing a term paper and it's not acceptable to cite that source because it persuades instead of educates and is not objective? See the bottom of the page for the answer.

Clues About a Website's Neighborhood

Watch the Understanding Google Search Results movie to better understand how you can quickly determine what kind of information you've turned up in a Google search.

MOVIE: Understanding Google Search Results (no audio)

<u>View Video</u> | <u>View Text Version</u>

On a website, check pages labeled About This Site, Mission, Site Index, and Site Map, if available. (If such pages or similarly labeled ones don't exist, it may be a sign that the site may be less trustworthy.)

Ask yourself these questions to gather clues that will help you decide what neighborhood you're in:

- Is the site selling products and/or services (even if there are articles and other useful information, too)? Perhaps it's a retail, service center, or corporate site.
- Are there membership applications and requests for contributions of money or time anywhere on the site? They're usually a sign that you're on a site that promotes particular ideas or behavior in other words, they're in the advocacy neighborhood.
- Do postings, articles, reports, and/or policy papers give a one-sided view or multiple views on issues, people, and events? If they're one-sided, the site is probably a commercial site or in the advocacy group neighborhood. If the information is even-handed and includes different sides of an issue, the site is more likely to be on the library/museum, school, or traditional U.S. news side of town. Sites there usually provide information designed to educate rather than persuade. (This does not apply to material labeled something like Opinion, of course, just as it doesn't apply to the editorial pages of print newspapers.)

ACTIVITY: Neighborhoods on the Web

Work through the three activities below to practice the concept of neighborhoods on the web.

Matching Site to Neighborhood - Open activity in a web browser.

Matching Neighborhood to Purpose - Open activity in a web browser.

Which Neighborhood? - Open activity in a web browser.

EXAMPLE: Check Them Out

Think we're making a mountain out of a molehill about being careful about web sources? Please click the web icons below to look at three websites. Is there an inference(s) you can make that applies to all three? Perhaps that whether a website looks professionally done is not enough to insure that it is credible.

- RYT Hospital: Dwayne Medical Center http://rythospital.com
- Dog Island http://www.thedogisland.com
- The Manhattan Airport Foundation http://manhattanairport.org

Making the Inference

Consider the clues. Then decide the extent that the site's neighborhood is acceptable for your purpose. It might help to grade the extent that this factor contributes to the site being suitable on a scale like this one:

- A Very Acceptable
- B Good, but could be better
- C OK in a pinch
- D Marginal
- F Unacceptable

You'll want to make a note of the resource's grade for neighborhood so you can combine it later with the grades you give the other factors.

ANSWER TO ACTIVITY: Self-Check

The answer to the "Self-Check" Activity above is:

Advocacy sites are useful to learn about a particular viewpoint. They may provide a wealth of information—you just have to keep in mind that it's just one side's view and then also seek out the other side's view.

——Author and Publisher—

You'll always want to know who's providing the information for a website or other source. Do they have the education, training, or other experience that make you think they are authorities on the subject covered? Or do they just have opinions?

The more you know about the author and/or publisher, the more confidence you can have in your decision for or against using content from that source.

Authors and publishers can be individuals or organizations, including companies. (Web masters usually put things on the site, but do not don't decide what goes on all but the smallest websites. They often just carry out others' decisions.)



The reputation of the author and publisher influences your confidence in a source.

Sites that do not identify an author or publisher are generally considered less credible for many purposes, including term papers and other high-stakes projects. The same is true for sources in other formats.

Clues About an Author's and/or Publisher's Background

If they're available, take a look at pages called such things as About This Site, About Us, or Our Team first. But you may need to browse around a site further to determine its author. Look for a link labeled with anything that seems like it would lead you to the author. Other sources, like books, usually have a few sentences about the author on the back cover or on the flap inside the back cover.

You may find the publisher's name next to the copyright symbol, ©, at the bottom of at least some pages on a site. In books the identity of the publisher is traditionally on the back of the title page.

Sometimes it helps to look for whether a site belongs to a single person or to a reputable organization. Because many colleges and universities offer blog space to their faculty, staff, and students that uses the university's web domain, this evaluation can require deeper analysis than just looking at the address.

Personal blogs may not reflect the official views of an organization or meet the standards of formal publication.

In a similar manner, a tilde symbol (~) preceding a directory name in the site address indicates that the page is in a "personal" directory on the server and is not an official publication of that organization. For example, you could tell that Jones' web page was not an official publication of XYZ University if his site's address was: http://www.XYZuniversity.edu/~jones/page.html. The tilde indicates it's just a personal web page—in the Residences, not Schools, neighborhood of the web.

Unless you find information about the author to the contrary, such blogs and sites should not automatically be considered to have as much authority as content that is officially part of the university's site. Or you may find that the author has a good academic reputation and is using their blog or website to share resources he or she authored and even published elsewhere. That would nudge him or her toward the Schools neighborhood.

Learning what they have published before can also help you decide whether that organization or individual should be considered credible on the topic. Listed below are sources to use to look for what the organization or individual may have published and what has been published about them.

TIP: Find Out What the Author (Person or Organization) Has Published

Library Catalogs – Search in a large library catalog to find books written by the author.

For example:

- OhioLINK
- WorldCat@OSU

Web Article Database – Use a free web article database to search for articles by this author. Note: While you can search for free, you may not be able to retrieve articles unless searching through a library.

For example:

- Google Scholar
- MagPortal.com

Specialized Database – Locate articles written by the author by using a specialized database that covers the same topical area as information on the website. Check your library's website to find databases that you can use for this purpose. (Such databases are also called periodical indexes.)

For example:

• Use <u>ERIC</u> (OSU users only) to locate any articles published by the author of an education website.

TIP: Find Out What Has Been Written About The Author

Web Search Engine – Use a search engine to find web pages where the author's name is mentioned. (Be sure to search for the name as a phrase, as in "Jane Doe")

For example:

- Google
- Yippy

Full-Text Article Database – Use a database that searches the full-text of articles (not just descriptive information about the article) to find those that mention people and organizations.

For example:

- Academic Search Complete (OSU only)
- <u>LexisNexis Academic</u> (OSU only)

Specialized Biographical Sources - Use directories and indexes provided by your library to find backgrounds of people.

For example:

• Biography Reference Bank (OSU only)

ACTIVITY: Identifying Authors

Open activity in a web browser.

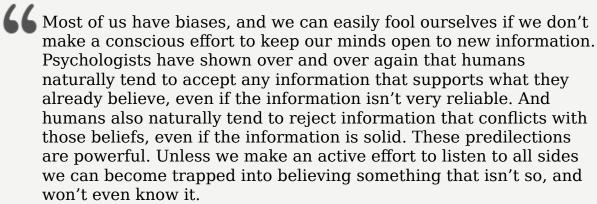
Making the Inference

Consider the clues. Then decide the extent that the source's author and/or publisher is acceptable for your purpose. It might help to grade the extent that this factor contributes to the site being suitable on a scale like this one:

- A Very Acceptable
- B Good, but could be better
- C OK in a pinch
- D Marginal
- F Unacceptable

You'll want to make a note of the source's grade for author and/or publisher so you can combine it later with the grades you give the other factors

——Degree of Bias ——



— A Process for Avoiding Deception, Annenberg Classroom

Probably all sources exhibit some bias, simply because it's impossible for their authors to avoid letting their life experience and education have an effect on their decisions about what is relevant to put on the site and what to say about it.

But that kind of unavoidable bias is very different from a wholesale effort to shape the message so the site (or other source) amounts to a persuasive advertisement for something important to the author.

Even if the effort is not as strong as a wholesale effort, authors can find many—sometimes subtle—ways to shape communication until it loses its integrity. Such communication is too persuasive, meaning the author has sacrificed its value as information in order to persuade.

While sifting through all the web messages for the ones that suit your purpose, you'll have to pay attention to both what's on the sites and in your own mind.

That's because one of the things that gets in the way of identifying evidence of bias on websites is our own biases. Sometimes the things that look most correct to us are the ones that play to our own biases.



Look for evidence of bias in your sources.

Clues About Bias

Review the website or other source and look for evidence that the site exhibits more or less bias. The factors below provide some clues.

Coverage

Unbiased: This source's information is not drastically different from coverage of the topic elsewhere. Information and opinion about the topic don't seem to come out of nowhere. It doesn't seem as though information has been shaped to fit.

Biased: Compared to what you've found in other sources covering the same topic, this content seems to omit a lot of information about the topic, emphasize vastly different aspects of it, and/or contain stereotypes or overly simplified information. Everything seems to fit the site's theme, even though you know there are various ways to look at the issue(s).

Citing Sources

Unbiased: The source links to any earlier news or documents it refers to.

Biased: The source refers to earlier news or documents, but does not link to the news report or document itself.

Evidence

Unbiased: Statements are supported by evidence and documentation.

Biased: There is little evidence and documentation presented, just assertions that seem intended to persuade by themselves.

Vested Interest

Unbiased: There is no overt evidence that the author will benefit from whichever way the topic is decided.

Biased: The author seems to have a "vested interest" in the topic. For instance, if the site asks for contributions, the author probably will benefit if contributions are made. Or, perhaps the author may get to continue his or her job if the topic that the website promotes gets decided in a particular way.

Imperative Language

Unbiased: Statements are made without strong emphasis and without provocative twists. There aren't many exclamation points.

Biased: There are many strongly worded assertions. There are a lot of exclamation points.

Multiple Viewpoints

Unbiased: Both pro and con viewpoints are provided about controversial issues.

Biased: Only one version of *the truth* is presented about controversial issues.

EXAMPLES: Bias

- <u>The Cigarette Papers</u> Sources of information are documented for each chapter.
- <u>Public Agenda Issue Guide: Immigration</u> Presents a wide range of opinion on this controversial topic.
- White Poison: The Horrors of Milk Claims are not supported by documentation.

Making the Inference

Consider the clues. Then decide the extent that the bias you detected on the source is acceptable for your purpose. It might help to grade the extent that this factor contributes to the site being suitable on a scale like this one:

- A Very Acceptable
- B Good, but could be better
- C OK in a pinch
- D Marginal
- F Unacceptable

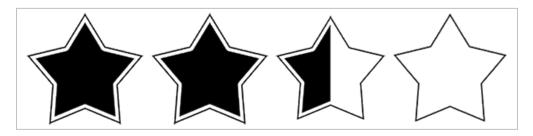
You'll want to make a note of the source's grade for bias so you can combine it later with the grades you give the other factors.

——Recognition from Others ——

Checking to see whether others have linked to a website or tagged or cited it lets you know who else on the web recognizes the value of the site's content. Reader comments and ratings can also be informative about some sites you may be evaluating, such as blogs.

If your source is a book, the blurbs on the front or back cover give you information from authors, experts, or other well-known people who were willing to praise the book and/or author. The same kind of "mini-reviews" may be available on the publisher's website. You can also look for reviews of the book or other source by using Google and Google Scholar.

Those links, tags, bookmarks, citations, and positive reader comments and ratings are evidence that other authors consider the site exemplary. Book reviews, of course, may be either positive or negative.



Ratings and positive comments and review are evidence that others find a source valuable.

Exactly which individuals and organizations are doing the linking, tagging, citing, rating and commenting may also be important to you. There may be some company you'd rather your site not keep! Or, maybe the sites that link to the one you're evaluating may help solidify your positive feelings about the site.

Don't let an absence of links, tags, citations, ratings, and comments damn the site in your evaluation. Perhaps it's just not well-known to other authors. The lack of them should just mean this factor can't add any positive or negative weight to your eventual decision to use the site—it's a neutral.

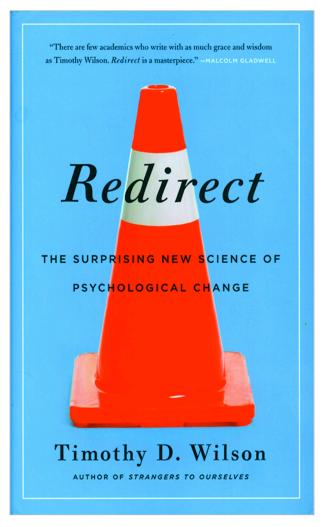
TIP: Peer Review as Recognition

The peer review most articles undergo before publication in a scholarly journal lets you know they're considered by other scholars to be worth publishing. You might also be interested to see to what extent other researchers have used an

article after it was published. (That use is what necessitates their citation.) But keep in mind that there may not be any citations for very new popular magazines, blogs, or scholarly journal articles.

ACTIVITY: Influence You

Would the blurb on the front cover of *Redirect* by psychologist Timothy Wilson influence you positively or negatively in your evaluation of the book?

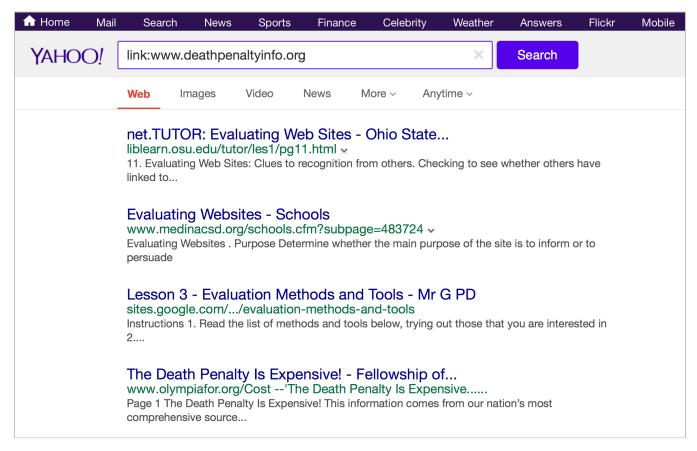


The blurb says: "There are few academics who write with as much grace and wisdom as Timothy Wilson. Redirect is a masterpiece. – Malcolm Gladwell"

Clues about Recognition

Find sites that link to a particular URL. For Google and Yahoo!, enter link:[URL of known site] in the search box

For example: link:www.deathpenaltyinfo.org



Use Yahoo! or Google to see which sites link to a particular URL. View the live example.

Find citations of an article. Although there is no simple way to find every source that cites an article in a popular magazine, a blog, or a scholarly journal, there are some ways to look for these connections.

For articles published in popular magazines or blogs, enter the title of the article in quotes in the search box of a search engine like Google. The resulting list should show you the original article you're evaluating, plus other sites that have mentioned it in some way. Click on those that you want to know more about.

EXAMPLE: Finding Mentions

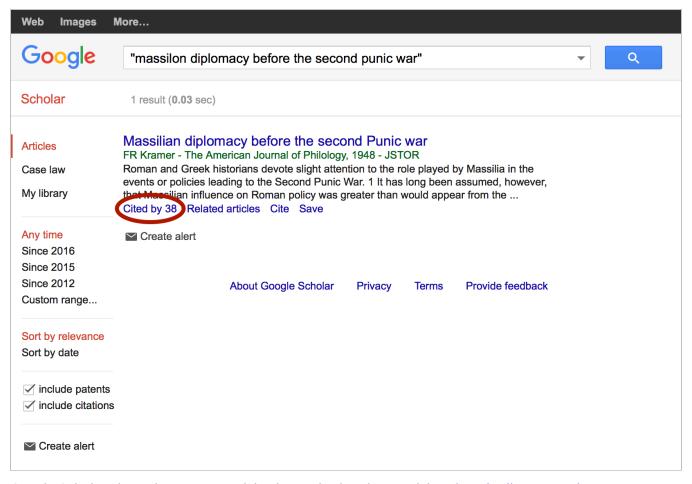
Here's an example using Google to find mentions for a blog article called <u>Help Wanted: 11 million college grads</u> by Bill Gates.

ACTIVITY: Inferences

Use Google Search to determine how many sites have made links to these sites. Click each link below to launch your web browser. Notice what is filled in the search bar to find linked sites.

- <u>www.ipl.org</u>
- www.goaskalice.columbia.edu

For articles published in scholarly journals, use Google Scholar to enter the title of the article in quotes. In the results list, find the article you're evaluating. (Many articles have similar titles.) Look for the number of citations in the lower left of the listing for your article. If you want more information on the authors who have done the citing, click on the citation number for a clickable list of articles or papers and get the names of authors to look up at the end of the articles or with a search engine. (This is a good way to discover more articles about your topic, too.)



Google Scholar shows how many articles have cited a given article. View the live example.

You can also use specialized citation databases, such as <u>Web of Science</u> and <u>Scopus</u> (both OSU only), to find where an article or author has been cited.

Making the Inference

Consider the clues. Then decide the extent that the source's recognition from others is acceptable for your purpose. It might help to grade the extent that this factor contributes to the site being suitable on a scale like this one:

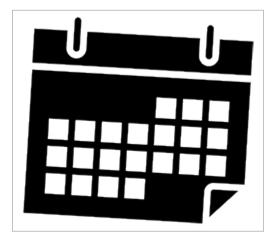
- A Very Acceptable
- B Good, but could be better
- C OK in a pinch
- D Marginal
- F Unacceptable

You'll want to make a note of the source's grade for recognition so you can combine it later with the grades you give the other factors.

——Currency of the Content —

If the topic of your research is time-sensitive, the currency of information in the source will be important to your decision about whether it fits your purpose. You'll be asking yourself whether its information is from the right time period to suit your purpose.

For some topics, that may mean you want the most up-to-date information. But for other topics, you may need primary sources—those created at the same time as the event or condition you're researching. (Secondary sources are those that cite, comment on, or build on primary sources.)



Check dates and other indicators that a source is current.

Clues About Currency

Click around a website to gather clues as to how recent the information is. Look for statements about when the information was created:

- The dateline on a newspaper article represented there, for instance, and/or when it was posted on the site
- Page creation or revision dates
- A "What's New" page that describes when content was updated
- Press releases or any other dated materials

Also test links on a website to see whether they work or are broken. If several are broken, perhaps no one is looking after the site anymore, which could indicate there is newer information that is relevant to the site that has never been posted there.

In a book, look at the back of the title page to see when it was published. Also take a look at the publication dates for sources listed in the bibliography. That will help you determine how current the information cited in the book is.

ACTIVITY: Currency

Click the image to open a web browser to the website Jewish Studies Resources, http://www.princeton.edu/~pressman/jewish.html.

Notice that tilde (\sim) in the URL. As mentioned earlier, that indicates this is not an official page of Princeton University but instead is a personal page. Find the name of the person who seems to be identified as the author of the home page at the bottom of that page. Is she an expert on history sources?

Now consider how you could determine whether the site's information is current enough for your purpose.

EXAMPLE: Currency

Check out how currency is handled on <u>TED</u>. This site provides videos of speakers talking about new ideas in technology, entertainment, and design. (That's what TED stands for.) There's a New Releases page and every video has the date on which the speaker presented. See the bottom of the page for the answer.

Making the Inference

Consider the clues. Then decide the extent that the source's currency is acceptable for your purpose. It might help to grade the extent that this factor contributes to the source being suitable on a scale like this one:

- A Very Acceptable
- B Good, but could be better
- C OK in a pinch
- D Marginal
- F Unacceptable

You'll want to make a note of the resource's grade for currency so you can combine it later with the grades you give the other factors.

ANSWER TO ACTIVITY: Currency

The answer to the "Currency" Activity above is:

Nancy Pressman Levy.

The author is Nancy Pressman Levy. Searching that name shows that, among other library positions, she's been the head of the library for public and international affairs at Princeton and has written many guides and other items about history and other subjects for Princeton University's library. It's fair to say she is an expert in history sources.

The home page of this site on web sources about Jewish Studies was last updated 11/2003. However, this page serves as an index to other pages, which may have different degrees of being up-to-date. So you could consider the currency of each.

—— Thoroughness —

Figuring out whether a website or other source is suitable for your purpose also means looking at how thoroughly it covers your topic

You can evaluate thoroughness in relation to other sources on the same topic. Compare your source to how other sources cover the material, checking for missing topics or perspectives.



Consider how well a source covers your topic.

Clues About Thoroughness

Click around a site to get some idea of how thoroughly it covers the topic. If the source you are evaluating is a print resource, read the introduction and conclusion and also the table of contents to get a glimpse of what it covers. Look at the index to see what subject is covered with the most pages. Is it thorough enough to meet your information need?

TIP: Related Sites

Use Google to find other sites on the same topic by entering related:[the URL of the site you know] in the search box.

For example: <a href="https://www.google.com/?#q=related:guides.osu.edu" target=" blank"?related:guides.osu.edu

Use this technique to browse other sites Google turns up. Do other sites cover aspects of the topic that are missing from the site you are evaluating? Or does your site stack up pretty well against the competition?

ACTIVITY: Evaluating Websites

Open activity in a web browser.

Making the Inference

Consider the clues. Then decide the extent that the source's thoroughness is acceptable for your purpose. It might help to grade the extent that this factor contributes to the source being suitable on a scale like this one:

- A Very Acceptable
- B Good, but could be better
- C OK in a pinch
- D Marginal
- F Unacceptable

You'll want to make a note of the source's grade for thoroughness so you can combine it later with the grades you give the other factors.

——Combining the Factors ——

Once you've considered each factor used in evaluating a source, it's important to take a look at the inferences you made about them. Now is the time to look at those grades all together—to average them if you've been assigning grades—and to make one more inference.

Taking the grade on each factor into account, can you infer that the source is relevant and credible enough for your purpose? If it isn't, this is one source that can't be helpful in your project. If it is relevant and credible enough, you can use information from that resource with confidence.

Making the Final Inference

Assume you're writing a term paper and are considering using information from Site XYZ. You ran through the evaluation process as you looked over the site, and you made notes about the grades you assigned.

The grades you gave individual factors are:

- Neighborhood: A
- Author/publisher's background: B
- Degree of bias: A
- Recognition from others: No Evidence
- Thoroughness: C
- Currency of the content: A

You average the grades (A=4, B=3, C=2, D=1, F=0), remembering not to include the factor on which you gave no grade. The score was 3.4, about a B, which is a "Good, but could be better" score on the scale we used in this tutorial. You decide to use information from this site in your project.

- A Very Acceptable
- B Good, but could be better
- C OK in a pinch
- D Marginal
- F Unacceptable