Research 101
Evaluating Sources
In this tutorial, you will learn how to:

- Evaluate a source based on the following evaluation criteria:
  - authority
  - audience / purpose
  - accuracy
  - currency

- Distinguish between scholarly, popular, and substantive news sources

- Understand the peer review process
Authority

Questions to ask:
- Who is the author? Who is the publisher?
- What are the author's credentials?
- Is the author affiliated with an educational institution or credible organization?
- Do other books or articles cite the author?

Example:

Authors and publishers may present their ideas in formal (ex. in a peer-reviewed journal article) or informal publications (ex. in a Twitter post). This tweet is from US congressman John Lewis’ verified Twitter account. Even an authoritative source can have a point of view or bias that you will want to recognize as you evaluate the source for use in your academic work.
Audience / Purpose

Questions to ask:
- Who is the intended audience for the source? The general public? Researchers?
- Is the info too technical or too basic?
- Is this source created to inform, teach, sell, entertain, or persuade?
- Do the authors/sponsors make their intentions or purpose clear?
- Are there political, ideological, cultural, religious, institutional, or personal biases?

Example:

Dr. Phil presents his ideas to a popular audience of daytime TV viewers. The purpose of his show is to sell and entertain. Einstein published books and research articles for an audience of fellow and future scientists. The purpose of his work was to contribute new knowledge to his discipline.
Accuracy

Questions to ask:

- Does the author adequately cite sources?
- Does the author’s evidence support the claim?
- Is the source well-organized?
- Are there glaring errors in spelling or grammar?
- Was the information reviewed by editors or subject experts before it was published?

Example:

This Wikipedia article has been flagged because the content is not adequately supported with citations. A source will typically not be as transparent as this, but you should look for markers of inaccuracy with other criteria, like authority and purpose.
Currency

Currency is particularly important in fields that are rapidly changing, like science, technology, or medicine. Depending on the topic, you may consider historic sources.

Questions to ask:
- When was the information published or last updated? Has it been updated?
- Have newer articles been published on the topic?
- Does your topic require current information, or will older sources work as well?

Example:

The source shown here was published in 1966. As a source for a scientific paper, the age of this source is problematic. This screen capture is from a Google Scholar search results page where articles that are highly cited often appear first in the results. Pay attention to how results are displayed and use advanced limiters to filter to current articles.
In academic research, you will use both scholarly and popular sources. Are all popular sources bad and scholarly sources good? No! But depending on your assignment, you may be required to use certain types of sources over others.

Popular sources will help you gather general information, news, and popular opinion on a topic. These sources can also be valuable as primary texts for historical research.

Scholarly sources provide you with original research and in-depth analysis of a topic. In most of your academic work, you will be required to engage with scholarly sources in the discipline or subject area of the course.
## Scholarly Sources

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Scholarly Sources: Academic journals (Often “peer reviewed” or “refereed”)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Articles written for students and scholars; original research or analytical articles in a discipline</td>
</tr>
<tr>
<td>Look and Feel</td>
<td>Charts and graphs (sometimes); very few ads and images. Articles usually lengthy (10+ pages) and include list of cited references.</td>
</tr>
<tr>
<td>Audience</td>
<td>Scholars and students.</td>
</tr>
<tr>
<td>Authority</td>
<td>Articles usually written by researchers and scholars</td>
</tr>
<tr>
<td>Editorial Process</td>
<td>Articles evaluated by peer reviewers (scholars) for content, accuracy, originality, and style</td>
</tr>
</tbody>
</table>
# Popular Sources

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Popular Sources: Magazines and Newspapers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Articles intended for a general/popular audience; easy to understand vocabulary</td>
</tr>
<tr>
<td>Look and Feel</td>
<td>Lots of images; includes ads; short articles; no references listed</td>
</tr>
<tr>
<td>Audience</td>
<td>General readers</td>
</tr>
<tr>
<td>Authority</td>
<td>Journalists or reporters who are not usually experts on the subject</td>
</tr>
<tr>
<td>Editorial Process</td>
<td>Articles evaluated for form and content by editors</td>
</tr>
</tbody>
</table>
A hybrid of scholarly and popular, there are lots of *substantive* news articles published in magazines, newspapers, and blogs. These can be excellent sources to use in your academic research. Examples of substantive newspapers and magazines include: The Economist, The New York Times, and Scientific American.

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Substantive News Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Articles intended for an educated audience;</td>
</tr>
<tr>
<td>Look and Feel</td>
<td>Images/ads; lengthier articles; references not usually listed, but articles are well-researched</td>
</tr>
<tr>
<td>Audience</td>
<td>Educated readers</td>
</tr>
<tr>
<td>Authority</td>
<td>Written by journalists, scholars, or freelance editors</td>
</tr>
<tr>
<td>Editorial Process</td>
<td>Articles are reviewed by editors, but are not peer reviewed</td>
</tr>
</tbody>
</table>
Popular Source: Look and Feel

A popular source usually lists the author, but no credentials are listed.

The articles are typically much shorter than scholarly articles (a few paragraphs or 1-2 pages).

Authors almost never include a list of references in popular sources.
A scholarly article usually includes a list of authors with their university credentials.

The article might also include an abstract which is a short summary of the contents of the article.

An article may also include author-supplied keywords or subject headings.
A scholarly article usually includes discipline-specific or specialized vocabulary.
Scholarly Source: Look and Feel

A scholarly article includes a list of references at the end of the article. This is a goldmine for helping you to find related sources on your topic.

REFERENCES

Most **scholarly articles** undergo an editorial process called, “peer review.” This means that the article is read and reviewed by peer experts in the field prior to publication. The process is designed to ensure that publications are original, accurate, up-to-date, and relevant to the field of study.

**Popular articles** are reviewed by magazine and newspaper editors, but they do not go through the rigorous peer review process.
Takeaways

● Look for markers of authority, audience, accuracy, and currency in the sources that you choose for your research

● Recognize that there’s a lot of gray area when it comes to the “scholarliness” of sources. Depending on your assignment guidelines and the kind of research you are doing, you may consider a wide variety of source types

● Peer review is an editorial vetting process that most researchers go through when publishing journal articles
Acknowledgements

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