

Evaluating Information

Evaluating information is necessary to determine the quality, accuracy, and relevancy of the information. This process entails examining the content and the source.

In this tutorial, you will learn how to evaluate:

- content,
- books,
- periodicals, and
- web pages.

To navigate, use the buttons in the lower right corner. They will take you to the next slide, back to the previous slide, or back to the tutorial.

Click on hyperlinked text for additional information.



Created by V. McAssey 2006
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Evaluate Content

The content or information is the most important feature to evaluate. When doing this, keep in mind the following 3 points (click on the hyperlinks for more explanation):

1. [Compare](#) the information between sources by examining the similarities and differences.
2. [Corroborate](#) the information between sources by verifying information with other sources.
 - The more sources that you can find that corroborates the information the higher the chance it is reliable.
3. [Reviewed sources](#)

[Questions to consider when evaluating content](#)



Compare

This is particularly valuable when evaluating web pages.

Examining the similarities and differences between sources reveals:

- incorrect, biased, controversial, prejudicial information;
- cultural, physical, or other contexts that impacts the presentation of the information;
- contradictions or verifications between sources; and
- the depth of information available on the topic.

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Reviewed Sources

Reviewed sources are books, articles, and websites that have gone through a reviewing process before being published.

For scholarly works such as journal articles, this means being peer-reviewed, the process of being evaluated by one or more experts before being published. This means that a peer-reviewed work is held as being more reliable than a non-reviewed source.

However, peer-reviewed has its problems. Experts and scholars can be conservative about new ideas that challenge "established" beliefs. Also personal feelings could influence one's objectivity about a peer's work.

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Content Questions

Consider the following questions while you read and scan the information:

1. What is the main idea?
2. Does the information relate to your topic?
3. Who is the intended audience? Is the information too basic or too technical for your research?
4. Is the information fact, opinion, or propaganda?
5. Is the information researched and valid?
6. Are there any errors or omissions?
7. Does the information correspond with other sources?
8. Is it a primary or secondary source?
 - Primary sources are original research or writings on a subject (for example - diaries, letters, and newspapers for historical subjects; journal articles for the sciences).
 - Secondary sources are analysis of primary sources (for example - books, journal articles).

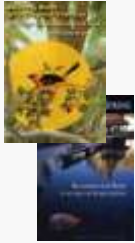
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Evaluate Sources

Besides the content, you may also want to evaluate features of the source.



Evaluating books



When evaluating books, begin by looking at the:

- Author
- Publisher
- Currency of the information
- Revisions



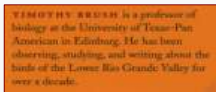
Book - Author

While evaluating an author, you need to consider the author's:

1. Authority and Expertise
 - Author's education
 - Past writings
 - Experience
2. Affiliation with Reputable Institutions



Book – Author (cont.)



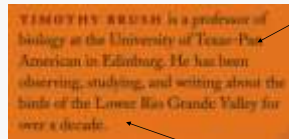
Read the two provided blurbs.

What parts in the blurbs give the authors credibility that their information may be valid?

Click on the blurb for the answers.



Book – Author – Blurb 1



1. Mr. Brush is associated with an academic institution.

2. He has more than 10 years of experience with the topic of "Nesting Birds of a Tropical Frontier" in Texas.

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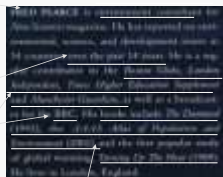
Book – Author – Blurb 2

1. Although Mr. Pearce is not associated with an academic institution, he is reliable as an "environment consultant" for a reputable magazine.

2. He has more than 14 years of experience.

3. He is also associated with other reputable institutions.

4. His past writings give him additional credibility.



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Books - Publisher



The publisher is normally listed on the book's title page.

Knowing who the publisher is indicates the book's level of scholarship.



For example, a book published by a university press is considered more scholarly than one published for the mass market.

However, a reputable publisher does not always indicate high quality information - just that the publisher supports the source!



Books - Currency

The currency of the information relates to your topic.

Look at the copyright date found on the backside of the title page.

Does your topic need current information or historical information? Is the information too current or out-of-date for your topic?



Books - Revisions

Another item to consider is if the book has been revised.

Is the source a first edition or have there been additional editions?

Further editions indicate that the information has been updated and has included previous omissions. It also reveals that the source has become a standard in the subject and has become reliable.



Evaluating periodicals



The first step in evaluating periodicals is deciding what type of periodical you are using. Remember a periodical is a magazine, journal, newspaper, or trade publication. Since deciding between a magazine and a journal can be difficult, we will only explore the evaluation of magazine and journal articles.



Journal vs. Magazine

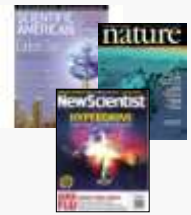
Evaluating between a journal and a magazine involves reviewing the content of the article and, if possible, the entire source.

What are some characteristics of a magazine such as *Sports Illustrated* or *Time*? What features would a journal have?

Keep in mind the audience of each type of periodical.

Magazine = general public

Journal = scholar or expert in the field



Journal vs. Magazine (cont.)

The biggest difference is citations in the article. A journal article would have citations in a bibliography or in footnotes that support information in the article. A magazine article does not.

Other characteristics to consider while comparing are:

Journal	Magazine
1. Citations - bibliography or footnotes	1. No bibliography, footnotes, or citations
2. Author - scholar or expert in the subject	2. Author - journalist or generalist covering a range of topics
3. Language - associated with the field and assumes reader has some scholarly experience	3. Audience is the general public.
4. Charts and tables	4. Glossy and colorful pictures and a cover that attracts attention
5. Many are sponsored by professional organizations or academic institutions	5. Prominent advertisements
6. Reports on original research	

The characteristics apply to print and electronic/online articles.



Journal vs. Magazine (cont.)

Click on a periodical to learn more. I recommend selecting at least the "Scientific American" periodical.



Periodical 1 - Citations

1. Check for citations.

The last page of the article has citations, which means the article comes from a journal. But let's continue evaluating the article for further proof.



- 1. Peto, T., Morrison, S. J., Levine, M. T. & Rowan, A. J. Stem cells control hematopoietic stem cells. *Nature* **418**, 918-921 (2011).
- 2. Pevsny, R., Clarke, H. F. & Morrison, S. J. Adopting the principles of stem-cell biology to cancer. *Nature Reviews Cancer* **8**, 905-916 (2008).
- 3. An, H., Wang, H., Li, S., Bando, Y., Morrison, S. J. & Clarke, H. F. Functional identification of multipotent haematopoietic stem cells. *Nature* **434**, 610-614 (2006).
- 4. Singh, S. K. et al. Identification of a unique stem cell in human brain tumours. *Current Biology* **16**, 1023-1033 (2006).
- 5. Lippman, Y. et al. A cell entering human adult myeloid haematopoiesis after hematopoietic stem cell transplantation. *Journal of Cell Biology* **174**, 1011-1021 (2006).
- 6. Bunnell, D. J. & Choi, J. E. Human adult myeloid haematopoiesis is regulated by a

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Periodical 1 – Author



Pten dependence distinguishes haematopoietic stem cells from leukaemia-initiating cells

John A. Trnka¹, Alexander Hogg¹, Alan H. Thomas¹, Michael David G. Hoggan¹, Ming Wu¹ & John A. Trnka¹

2. Author - scholar or expert in the subject

The authors are associated with either the University of Michigan or the UCLA School of Medicine.

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Periodical 1 – Language

3. Language - associated with the field and assumes reader has some scholarly experience



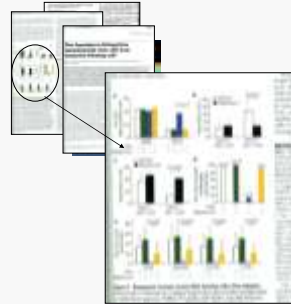
These studies have highlighted various phenotypic and functional properties between normal stem cells and cancer stem cells. This raises the question of whether these properties can be disrupted and whether cancer stem cells without stemness are still viable. We now address this issue by conditionally knocking the Pten tumor suppressor gene in adult haematopoietic cells. This led to a multipotent haematopoietic stem cell (MSC) and a multipotent haematopoietic stem cell (MSC) that is functionally distinct from the stem cell (MSC) and the multipotent haematopoietic stem cell (MSC). Pten deletion also affected haematopoietic stem cell (MSC) proliferation. However, similar to Pten deletion via a cell autonomous mechanism, knocking down Pten from adult nonstemming haematopoietic stem cells in haematopoietic cells (MSC) was similar to a genetic knockout without Pten. These effects were mostly mediated by aPten in this case, as indicated by sequencing. Although not only disrupted haematopoietic stem cells but also reduced adult MSC function. Mechanistic differences between normal stem cells and cancer stem cells can thus be located by studying cancer stem cells without stemness-related stem cells.

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Periodical 1 – Charts/Tables

4. Charts and tables

In the text, there are tables representing the research findings.



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Periodical 2 - Citations

1. No bibliography, footnotes, or citations

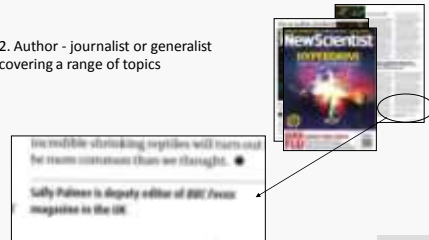
No citations appear in the article. *New Scientist* is a magazine.



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Periodical 2 - Author

2. Author - journalist or generalist covering a range of topics



Incredible striking articles will turn out to be more common than we thought. **Sally Palmer is deputy editor of BBC News magazine in the UK.**

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Evaluating Web Pages

Evaluating web pages is extremely important to verify the information.

Begin by having some background knowledge about your topic before searching the Internet.

Do some preliminary research and reading in reliable sources such as reference books to have a basic understanding of your topic. Then go to your search engine.

This practice is also helpful with determining terms to use in your Internet searches.



Evaluating Web Pages (cont.)

When evaluating web pages, consider the following:

- URL,
- authority,
- currency, and
- the content.



Web Pages - URL

When evaluating the URL, you need to look at:

1. URL extension or type of domain (.com, .net, .gov, .edu, .org)
Remember that .com, .net, .edu, .org, .gov, and .mil are primarily domain names used in the United States. There are additional domain names used by other countries.

For a list of other domain names and what they represent :
<http://www.computeruser.com/resources/dictionary/domains.html>
(Use the "Back" button to return to the tutorial.)

2. Symbols (~, %) that represent personal web pages
Personal pages are not "bad" but you need to investigate the author very carefully. Personal pages have no publisher or domain owner vouching for the information in the page.



Web Pages - Authority

A web page loses reliability if it has no individual(s) taking responsibility for it.

Looking for the author(s) means more than finding a name on the web page. Like evaluating a book's author, you need to find out:

1. who is making the statement,
2. what authority or experience does she/he have, and
3. why she/he is making the statement.

Let's evaluate this web page's authority:
<http://martinlutherking.org/>
(Use the "Back" button to return to the tutorial.)



Web Pages – Authority (cont.)

<http://martinlutherking.org/>

This example shows the importance of not just evaluating one part of a web page. The .org in the URL should mean that it is reliable. But what did you discover by learning more about its authors?

At the bottom of the web page, you discovered that it was authored by Stormfront. Clicking on that link you found out more about the group. Mainly, that the authoring organization is a White Nationalist Community for white supremacy.

Do you think the information is reliable?



Web Pages – Currency

A date or the date of the last update indicates the author's level of dedication to maintaining the web page and its information. It also can reveal how current the information is.

However, it is easy to simply change the date to the current year without doing any further editing.

Thus the content of a web page should always be evaluated critically.



Web Pages – Content

When evaluating a web page's content, it is helpful to know something about the topic other than what is provided by the web page. This allows you to draw connections and to isolate any erroneous, biased, or misleading information.

Remember Compare, Corroborate, and Reviewed Sources.

Click to practice evaluating a Web Page.



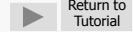
Website – Example

Let's evaluate the website for Dihydrogen Monoxide.
<http://www.dhmo.org/>
(Use the "Back" button to return to the tutorial.)

Look at:

1. URL
2. Author(s)
3. Currency
4. Content

Is this a reliable and accurate website?



Website – URL

Before giving you the answer, let's go over the evaluation.

<http://www.dhmo.org/>

1. URL

The URL is straightforward. No special symbols to indicate personal website. And, the extension is a .org.

Seems pretty reliable, but what about the authority?



Website – Authority

2. Authority

At the bottom of the page, Tom Way is accredited with copyrighting the website. A Google search for "Tom Way" retrieves a result with the DHMO.org listed in the links for a Dr. Thomas Way at Villanova University. Of course we don't know if the two individuals are the same person.

So let's consider the supporting organization "United States Environmental Assessment Center." After performing a search in various search engines, the organization has no website online. This absence provides some doubt about DHMO.org since a government organization should be on the Web.



Website – Currency

3. Currency

According to the website, it appears that the information is kept updated ... at least the homepage. How many of the supporting web pages have a date? Not many.

But what about the content?



Website – Content

4. Content

The supporting evidence from other websites does nothing to support the information since the links go to the main source rather than a specific article addressing the same issue.

Do a Google search for the website? What type of results do you retrieve?

Finally, look at the information under the link "[MSDS for DHMO.](#)"



Website – Content (cont.)

"MSDS for DHMO"

The information looks respectable with product codes and case no. But really look at the information!

What material boils at 100 C, has a melting point of 0 C, is a odorless, clear, colorless liquid, and has two hydrogens and one oxygen or H₂O?

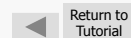


Website – Content (cont.)

The accuracy and reliability of the website changes when you read the information knowing it is talking about ... Water!

If you thought the website was a good source, don't feel bad.

Read the quick news story on MSNBC about a local government and their reaction to the same website.
<http://www.msnbc.msn.com/id/4534017/>
(Use the "Back" button to return to the tutorial.)



Conclusion

You have now completed the tutorial on evaluating information.

If you have any questions, please ask a librarian.

[Library Contact Directory](#)

