



University of Sydney Library

Life Sciences Libraries

How to critically evaluate information sources

Introduction

As you can see from the 'Research Process' handout, evaluating the information you find is an essential part of the research process. As a University student you need to be able to identify high quality, relevant, useful and appropriate information. You will develop your critical thinking/analysis skills throughout your time at University. The assignment that you have is a first step and an opportunity for you to further develop your skills. The quality of your references (the information you cite in your assignment) is directly proportional to the final mark for your assignment – i.e. if you find and use high quality information (references) in your assignment you will receive a higher mark. This handout will help you to critically evaluate and identify **scholarly** information.

Things to consider when evaluating information?

There are two parts to the evaluation process:

1. Evaluate the source (reference) – identify whether you want to spend time finding and reading the information.
2. Evaluate the content – is the content appropriate for your assignment?

1. Evaluate the source

Author

What are the author's credentials? What qualifications do they have? Are the qualifications relevant to the topic being discussed? What institutions are they affiliated with, eg are they working at a University or Government department? Is the organisation likely to have an interest in the topic? If so, be aware of bias in the information.

Has your lecturer recommended/mentioned this author? Are there any items by this author on your reading list? Have you seen the author's name cited in other sources/bibliographies? Respected authors (authors who are experts in their field) are cited frequently by other authors/scholars. You need to identify experts for your areas of study.

Date of publication

When was the source/information published? If you can not find it, look for the copyright date on the reverse of the title page. On web pages, the date of the last revision is usually at the bottom of the home page, sometimes every page.

Is the source current or out of date for your topic? Remember this will vary depending on your topic. There will be some topics where the information/knowledge about the topic changes rapidly and therefore you need to use the most up-to-date information, i.e. information published in the last 2 or 3 years. As a general rule start with the most current information, you can find, first.

Is this a first edition of this publication? You will find many books in the Library and on your reading lists that are new editions,

eg Hafez, B and Hafez, E.S.E. eds. (2000) *Reproduction in farm animals*, 7th edn, Philadelphia; London: Lippincott Williams & Wilkins

New editions of a text indicate that the information has been revised and updated to reflect the latest information/knowledge on the topic of the book. Many editions of a text, as in the Hafez and Hafez example indicate that the text has become a standard source in the area and is reliable. If you are using a Web source, do the pages indicate a revision date?

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Publisher

Who has published the item? If the source is published by a University press (e.g. Oxford University Press), it is more likely to be scholarly. However, be aware that being published by a reputable publisher is not a *guarantee* of quality.

Evaluating Journal Titles

There are 3 main types of journals: **scholarly**, **trade** and **popular**. The distinction is important because it indicates different levels of complexity and depth in conveying ideas. When doing research at University you should focus on scholarly journals.

Note: Most research databases will index a variety of different types of journals. It is up to you to determine which category a journal title belongs to.

Characteristics of different types of journals

Scholarly journals:

- always cite their sources in the form of bibliographies or footnotes
- are peer-reviewed – articles are evaluated by experts before being published
- long articles reporting research findings and discussing theoretical issues, written by scholars in the field or by someone who has done research in the field. Author affiliation is always given
- the language reflects that used in the discipline covered. As a result the language can be complex and some prior knowledge of the topic is assumed. (If you do not have this find an introductory textbook on the topic)
- usually look serious – i.e. lots of charts and graphs and few glossy pages or exciting images.
- Examples of scholarly journals include:
 - Australian journal of agricultural research
 - Australian journal of soil research
 - Poultry Science
 - Australian journal of agricultural and resource economics
 - Acta horticulturae.

Note: Not all scholarly journals are considered 'equal'. Scholars in the field and your lecturers will have their own personal preferences and rate some scholarly journals more highly than others. Journals are also rated by the 'impact' they have – i.e. how often articles in a journal will be cited by other authors. Make sure you find out from your lecturers which journal titles they consider the most important.

Trade journals:

- Usually focus on a single industry or profession
- Report on industry issues, technical developments and applications
- Shorter articles written by experts on topics of practical concern
- Use colourful graphics
- Have advertisements aimed at people in the industry
- Examples of Trade journals include:
 - The Land
 - The Veterinarian

Popular magazines:

- Aimed at the general public. No prior knowledge is assumed and simple language is used.
- Give broad overviews of issues
- Give brief articles with no references
- Contain lots of photos and graphics
- Main purpose is to entertain the reader, to sell products and/or to promote a viewpoint.
- Examples of Popular magazines include:
 - Readers Digest
 - Vogue

2. Evaluate the content

Intended audience

- Who is the intended audience? Is this source aimed at a general or specialised audience?
- Is this source too simple, too technical, too advanced or just right for your needs?

Think critically about the information provided

- Does the author clearly identify the purpose of the piece of writing? Consider: all information is written for a purpose. You need to consider the author's purpose: is it to inform, entertain, persuade or otherwise promote certain points of view. Some authors make their purpose clear, other do not. Sometimes the purpose is explicit, however it is often implicit. Is the author trying to convince you of a particular point of view? If the purpose is not explicit consider why this might be the case.
- Is it objective? Is the information fact, opinion or propaganda. It is not always easy to separate fact from opinion. Facts can usually be verified; opinions evolve from the interpretation of the facts.
- Does the information appear to be valid and well researched? Is there a bibliography? Is the information supported by evidence? Assumptions should be reasonable.
- Are the ideas and arguments advanced in a similar way to other works that you have read on the same topic, or discussed in class by your lecturer? The more radically an author departs from the views of others in the same field, the more carefully and critically you should scrutinise their ideas.
- Is the author's point of view objective and impartial? Does the author use emotional language? Is the information free of bias?

Bias

- Every source of information, including books, journal articles, web sites, government publications, incorporates the perspective or bias of its authors. The key to using information effectively is identifying the biases in the information you find. To do this you need to consider the context, purpose and intended audience. Context can reflect points of view characteristic of particular times, places, nations, cultures or interest groups. Purpose and intended audience are discussed above.
- Bias can show itself in information in various ways:
 - Word choice
 - Omitted information
 - Framing – is about context and how the information is presented.
 - Sources – where is the author getting their information from? Are they using a range of sources and have they cited them in a bibliography?
 - Spin – does the information favour one point of view without adequate discussion of alternate views?

Coverage

- Does the information update other sources, substantiate other material you have read, or add new information? How comprehensively does it cover your topic? You should aim to obtain a variety of viewpoints.

Writing style

- Is the publication logically organised? Are the main points clearly presented? Is the author's argument repetitive?

Evaluating Web sites/pages

When evaluating web sites/pages you can use the same criteria as outlined above in this handout. You can also use the checklist available at:

<<http://www.library.usyd.edu.au/subjects/agriculture/webtutorial/evaluation/evaluationchecklist.html>>

Evaluation checklists

Critically evaluating information sources: a checklist

- Author
- Date of publication
- Publisher
- Journal type: scholarly, trade or popular?
- Intended audience
- Coverage
- Writing style

Critically evaluating web sites: a checklist

- Reliability
- Scope
- Currency
- Accuracy
- Commercialism
- Design