

Reliability Analysis

Pathogen Project
Micr-22, revised Fall 2016

Objectives

- This assignment is intended to motivate some discussion of the reliability of information sources.
- Premise: You are a microbiologist, and these pathogen charts are a tool you are considering using to diagnose various infections.

Instructions

1) Introduction:

- a) Look over Deb Distant's list of questions, found at the end of this document.
- b) As practice, compare the two websites below to determine which is more useful and credible:
 - Website # 1: "Climate Change Myths." <http://renew.com/general88/climchn.htm>
 - Website # 2: "Climate Change." <http://www.epa.gov/climatechange/>

2) Work with pathogen charts:

- a) Obtain a set of five pathogen charts from a classmate.
- b) Evaluate the charts in three ways:
 - i) Your classmate's charts, overall
 - ii) One trustworthy source from your classmate's charts
 - iii) One questionable source from your classmate's charts

Your classmate's charts, overall:

Note your observations of the overall reliability of charts themselves:

- Completeness
- Clarity of language and terminology
- Neatness
- Citations present or absent

One trustworthy source, and one questionable source:

- Choose just one source that seems generally credible, and one about which you have some doubt.
 - If the charts are devoid of citations, look back at your own charts at this point.
 - If the charts are impeccable, consider an unreliable source you encountered in your own research.
- Examine both sources carefully. Consider starting with and building from Distant's questions.
- Be sure to address the elements below for each of the two sources you evaluate:
 - Date published
 - Author named
 - Author contact info
 - Peer review
 - Conflict of interest: for author, for website, for author's organization
 - Influence of advertisers

3) Summarize your findings:

- a) Write up your findings in 1-2 pages of double-spaced type. Include the name of the person who wrote the original charts. An excellent analysis will find a way to address all of the elements from step 2(b).

- Rubric for full credit:
- Part (i) complete
 - Part (ii) complete
 - Part (iii) complete
 - On time
 - Typed
 - Spelling, grammar, punctuation

Evaluating Sources

Adapted from Deb Distant, Mt. SAC Library

To evaluate any source of information, consider the following:

Are there clues that this is "good" information?

- Date: Is the date the information was written and/or last updated clearly marked?
- Author: Who is responsible for the information? Does the source list professional credentials or experiences which qualify that person/organization as an expert on the topic?
- Affiliations: Is the author identified with any group or organization which might influence their viewpoint?
- Contact Information: Is there a way to contact the author (email, phone number, or postal address)?
- Background: Is the information presented verifiable, in outside sources?

Who is responsible for the information being presented?

- Is it from an individual or an organization?
- What are the goals of the author in presenting this information? Potential for "conflicts of interest."
- Are the qualifications that allow the author to speak authoritatively on the topic listed?
- Are the background and expertise of the individual/organization given?
- If you have questions about any of these, contact the author and ask.

Where is the information coming from?

- For websites, domain names give general information on where the data is originating. The domain name is the first piece of information after the http:// of an Internet address. For example, the domain name for Mt. SAC is www.mtsac.edu.
- Web address extensions such as .edu or .com can indicate the type of organization that is responsible for the information, but these are **not** good indicators of reliability.

Did someone else consider this information to be acceptable?

- Was it reviewed or recommended in a professional journal?
- For websites, was it linked from another site whose authority and reliability you trust?
- Note: Most search engines do not screen or evaluate the sites that they index. Directories and pathfinders are based on the selectivity of their creators.

One way to check your judgment: Can you write a 1 – 2 sentence explanation of why the source is authoritative enough to include in a list of works cited?