

Information Literacy: Assessing Internet Sites, Blog Postings, and Other Electronic Sources

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Learning Outcomes

- Select the best literature (timely, peer reviewed and current) using efficient and complete search techniques
- Investigate ways to select 'good' internet sites, tweets and blogs for patients

Framework for Information Literacy for Higher Education

- Information literacy is used as an overarching set of abilities in which students are consumers and creators of information who can participate successfully in collaborative spaces
- Framework is based on a cluster of interconnected core concepts and include
 - Authority Is Constructed and Contextual
 - Information Creation as a Process
 - Information Has Value
 - Research as Inquiry
 - Scholarship as Conversation
 - Searching as Strategic Exploration

Topics

- Search options for Evidence
 - PUBMED
 - PLoS
 - CINAHL
 - Cochrane
 - Google Scholar
 - Internet Sites, Blogs and Tweets

Starting Your Search

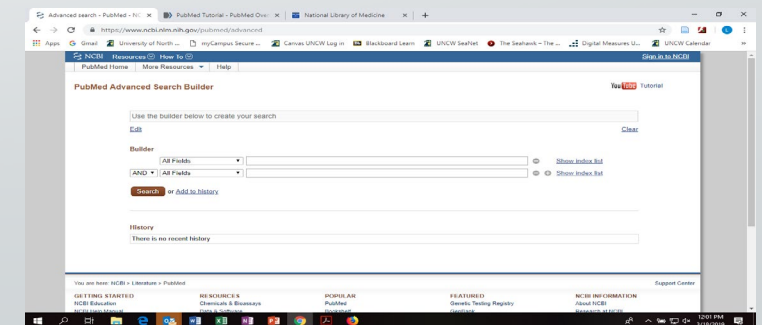
- Many of us start with Google searchers when researching a topic but for healthcare professionals, there are better options and better ways to find evidence to support your topic
- While at UNCW, you have access through the library to a these search tools. Some of these are also available through public libraries or your facility's health library. The descriptions of the databases are from the UNCW Library website.

PubMed

- PubMed is a public search engine developed by the National Library of Medicine (NLM)
- PubMed is the most comprehensive biomedical research database
- PubMed covers articles from 1966 - present (with some older content)
- Includes 29 million citations for biomedical literature from MEDLINE, life science journals, and online books
- PubMed defaults to clinical trials and review articles

Why use PubMED?

- Articles are indexed, searchable by headings, and special queries are available (such as searching for articles with topics on “electronic health records” or “cancer”)
- PubMED is publically available to healthcare providers and patients
- PubMED has a mobile app for IOA and Android
- <https://www.ncbi.nlm.nih.gov/pubmed?otool=ncuncwrlib>

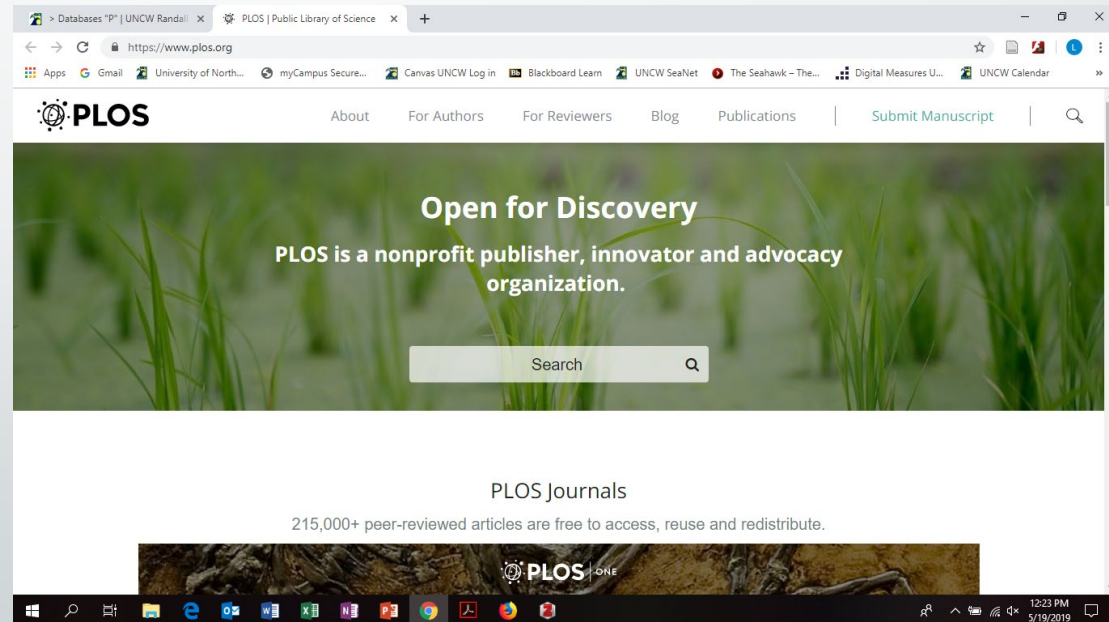


Public Library of Science

- Public Library of Science (PLOS) uses an Open Access model to publish - all journal issues are available free of charge online from the moment of publication

Why use PLoS?

- Content is freely available for you to distribute, reuse and remix with appropriate attribution (no permissions needed).
- <https://www.plos.org/>

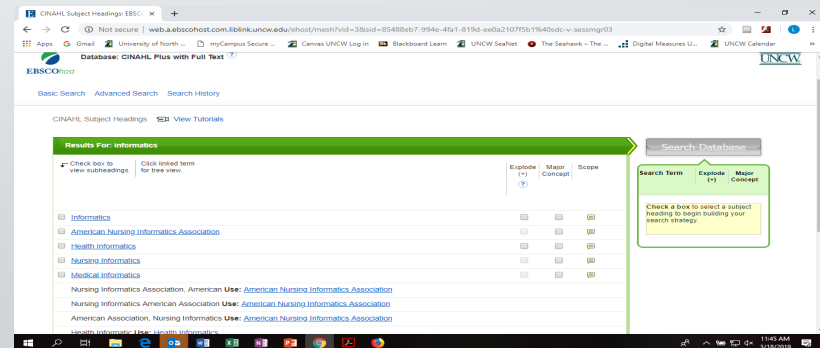


CINAHL

- CINAHL Plus with Full Text contains full text articles for nursing & allied health journals
- Provides full text for more than 770 journals indexed in CINAHL
- Full text coverage dates back to 1937

Why use CINAHL?

- Can search using database headings to focus your search
- A subscription is needed to get CINAHL searched articles. Your University credentials will work as long as you are a student, and most hospital libraries and some professional organizations also grant access.
- <https://www.ebscohost.com/nursing/products/cinahl-databases/cinahl-complete>



Cochrane

- The Cochrane Library is a collection of databases that contains high-quality, independent evidence to inform healthcare decision-making
- Each Cochrane Review is a peer-reviewed systematic review that has been prepared and supervised by a Cochrane Review Group (editorial team)
- Cochrane Clinical Answers provides a readable, digestible, clinically-focused entry point to rigorous research from Cochrane Reviews

Why use Cochrane?

- This database is a good search tool for systematic reviews and clinical trials data. The reviews are independent of vendors and are peer reviewed, so should contain the least bias.
- <https://www.cochranelibrary.com/>

Google Scholar

- Google Scholar provides a simple way to broadly search for scholarly literature across many disciplines and sources
- Google Scholar aims to rank documents the way researchers do, weighing the full text of each document, where it was published, who it was written by, as well as how often and how recently it has been cited in other scholarly literature.
- Google Scholar does not
 - provide the criteria for what makes its results "scholarly"
 - allow users to limit results to either peer reviewed or full text materials or by discipline
 - provide notice of when its materials are updated
- Google Scholar's citation tracker can be difficult to use and inaccurate
- Google Scholar defaults to adding an "AND" between terms you type into the search bar

Why use Google Scholar?

- It's a free, public access tool
- It's an easy *starting* point for literature searches
- To limit the items that return when you search, you can type extra information into the search bar
 - to limit your words to just titles of articles, type "intitle:searchterm" where "searchterm" is whatever you are searching. For example, "intitle:informatics".
 - to limit to certain web sites, type "site:searchsite" where "searchsite" is the actual ULR extension (ie .gov, etc.). For example, "site:gov".
 - to limit the type of file that returns from your search, type searchterm then "filetype:typeoffile" where "typeoffile" is the type of file you are looking for. For example, type "filetype:PDF".
- Remember, Google customizes your searches based on previous searches via your computer's cookies. Clearing these cookies regularly can help to open your searches.

Search Tool Comparison

Database	Focus	Advantages	Challenges
PubMed	Biomedical research database, and a key resource used by scientists	Articles are indexed & searchable by headings Publically available Mobile app for IOA and Android.	Extensive articles included, but without using subject headings, may get more topics than expected
PLoS	Open Access articles	Content is freely available to distribute and reuse (no permissions needed)	Authors need to pay to publish, so topics may be limited
CINAHL	Full text for nursing & allied health journals	Indexed nursing and allied health journals	Limited to nursing and allied health journals Subscription needed
Cochrane	High-quality, independent evidence to inform healthcare decision-making	Searchable systematic reviews and clinical trials	Limited topics covered
Google (Scholar)	Can broadly search for 'scholarly' literature across many disciplines and sources	Fast, search tool is familiar to many for other searches.	Does not provide the criteria for what makes its results "scholarly" Cannot limit results to either peer reviewed or full text materials or by discipline, nor does it provide notice of when its materials are updated



Evidence in Scholarly Papers – Internet Sites, Blogs and Tweets?

Evidence in Scholarly Papers

- Scholarly writing is “writing that is specialized in nursing, communicates original thought, includes support from a body of literature, contains formal language consistent with the discipline of nursing, and is formatted in a manner consistent with peer-reviewed publications” 1
- Sources should only be cited if they are “reliable, primary accounts that represent the most up-to-date information wherever possible” 2
 - A primary source is something that the authors discovered themselves
 - A secondary source reports what other authors have found. It is only acceptable to use a secondary source when you cannot access the primary source (such as out of print and not available online, etc.)

1. (Hunker, Gazza, and Shellenbarger , 2014, p341)

2. (Lee, 2014, para 3).

Using Only Reliable Sources

- References need to come from reliable sources
 - 'Expert' authors - experts have authority which is a type of influence recognized or exerted within a community.
 - Good vetting standards of the place of publication - many scientific, medical, and governmental organizations - such as the Centers for Disease Control and Prevention (CDC) and National Institutes of Health) - publish reliable information on their websites and social media sites using predefined standards for posts and site maintenance
- Not all sources/ sites listed in Google Scholar are reliable sources; some may be vendor websites, etc.

References in the Field of Informatics

- In the field of informatics, evidence is often found in blogs and other electronic sources such as the Health IT Buzz Blog, Health Information Management System Society (HIMSS), and Mobile Health IT News, rather than refereed journals Some reliable sources include:
 - <https://www.healthit.gov/buzz-blog/>
 - <https://www.himss.org/>
 - <https://www.mobihealthnews.com/>
- While the expectation is that references are from *peer reviewed, scholarly articles*, an understanding of when and how to use blog posts, social media and other forms of information may be needed

How to Evaluate Internet Site and Blogs

- Evaluating health information on the Internet
 - The National Library of Medicine (<https://medlineplus.gov/webeval/webeval.html>).
- Evaluating online resources including social media and mobile health applications
 - The National Institutes of Health <https://nccih.nih.gov/health/webresources>

Ten Questions to Ask to Evaluate Health Information on the Internet

- Who runs the Web site?
- Who pays for the Web site?
- What is the Web site's purpose?
- What is the original source of the Web site's information?
- How does the Web site document the evidence supporting its information?
- Who reviewed the information before the owner posted it on the Web site?
- How current is the information on the Web site?
- How does the Web site owner choose links to other sites?
- What information about users does the Web site collect, and why?
- How does the Web site manage interactions with users?

https://ods.od.nih.gov/Health_Information/How_To_Evaluate_Health_Information_on_the_Internet_Questions_and_Answers.aspx

Five Questions To Evaluate Online Sources of Health Information

- **Who** runs or created the site or app? Can you trust them?
- **What** is the site or app promising or offering? Do its claims seem too good to be true?
- **When** was its information written or reviewed? Is it up-to-date?
- **Where** does the information come from? Is it based on scientific research?
- **Why** does the site or app exist? Is it selling something?

Finding Health Information on Social Media

- About one-third of American adults use social networking sites, such as Facebook or Twitter, as a source of health information
- To assess social media sites
 - Check the sponsor's Web site
 - Health information on social networking sites is often very brief. For more information, go to the sponsoring organization's Web site. On Twitter, look for a link to the Web site in the header; on Facebook, look in the About section.
 - Verify that social media accounts are what they claim to be.
 - Some social networking sites have a symbol that an account has been verified. For example, Twitter uses a blue badge.
 - Use the link from the organization's official Web site to go to its social networking sites.

References

- American Library Association (ALA). (February, 2015). Framework for Information Literacy for Higher Education. Retrieved from <http://www.ala.org/acrl/standards/ilframework>. Document ID: b910a6c4-6c8a-od44-7dbc-a5dcdbd509e3f.
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