# Digital Literacy & Databases

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HEALTH SCIENCES CENTER

TEXAS TECH UNIVERSITY

#### Goals

- Enhance students' awareness of web resources and content.
- Improve students' ability to perform effective research on the web.
- Increase students' knowledge of five databases offered through TTUHSC Libraries.



# Objectives

After viewing this presentation, students will be able to:

- Locate different information sources on the web.
- Learn how to critically evaluate websites for quality.
- Identify the subjects covered by each included database and which are most useful to your information needs.
- Understand and use database features.
- Recognize the difference between licensed library resources and information found on the web.



# Search Engines

- Search engines allow for natural language searches.
- The search results are often extremely large in number.
- Algorithms used by search engines do not necessarily return accurate and relevant results.
- Search engines provide advanced search techniques, such as Boolean operators.
- Search engines can be a good starting point and background knowledge builder.
- Examples are Google, Bing, Edge, etc.



# Searching Google Scholar

Google Scholar provides free access to a vast array of academic literature. It can be a useful tool to start the research process, to get a sense of the information available. Two drawbacks are the lack of access to full text articles and the unknown algorithm Google uses; therefore, the information needs to be evaluated critically.

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	Find articles   with all of the words   with the exact phrase   with at least one of the words   without the words	Google Scholar
	where my words occur	٩
	Return articles published in e.g., J Biol Chem or Nature Return articles dated between e.g., 1996	Articles Case law

scholar google com

# Internet Searching

Search directly on websites of trusted organizations to be sure the information you retrieve is valuable and reliable:

Government	Agency for Healthcare Research and Quality, Center for Disease Control
Federations	World Health Organization, World Federation of Public Health
Companies	GSK, Janssen Global
Educational Institutions	TTU
Associations	American Medical Association, American Public Health Association
NGO's	Kaiser Family Foundation, Robert Wood Johnson Foundation, Think Tanks



# **Evaluating Search Results**

Anyone can have a website online; therefore, it is important to evaluate the contents to verify that the information is reliable. Evaluate the website critically based on the following:

- **Currency:** When was it published? When was the website created/updated?
- **Relevance:** Who is the intended audience?
- Authority & Authorship: Who is author/publisher/source and is there contact info?

CRAAP

- ACCURACY: Is the information supported by evidence or biased and emotional?
- **Purpose:** Is the information to teach, sell, persuade?

Use the following button to understand each term and to apply to your evaluation.



#### **Research Databases**

Library research databases are digital collections of indexed, easily searchable, scholarly journal articles and other formats of information. Databases can be general or subject orientated with bibliographic citations, abstracts, and/or full text.

- Databases are proprietary products that the library pays for.
- The content has been checked for accuracy, reliability, and is updated regularly.



# Why use databases?

#### Authoritative information

Specialized databases often have guidelines on the types of articles and journals contained within; therefore, the articles you find will more likely be reliable and accurate.

#### Subject specific

Different databases specialize in specific subjects; therefore, when you search a particular database related to your field, you will find more relevant articles.

#### Full text access

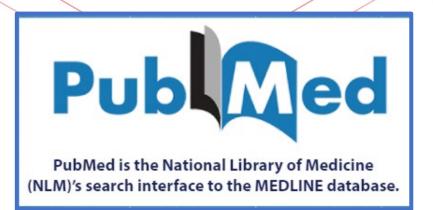
Accessing databases through the libraries' website will provide links to full text articles.



### Internet vs. Library Research Database

Internet	Database
A good starting place to find background information.	Screened for quality and value to faculty and students.
No quality control exists for information on the Internet.	Scholarly in nature.
Individual is responsible for judging value and reliability.	Relevant to the knowledge domains of the institution.
Many full-text journal articles and eBooks are not accessible free-of-charge.	Licensing fees paid by the library give patrons access to thousands of full-text resources.





- PubMed has over 36 million references, with coverage dating back to 1946.
- In addition, it includes sources from:
  - MEDLINE, the National Library of Medicine's journal citation database.
  - PubMed Central (PMC), a free archive of biomedical and life sciences articles. It is a repository for journal literature deposited by participating publishers, as well as for author manuscripts that have been submitted in compliance with the NIH Public Access Policy and similar policies of other research funding agencies.
- All parts of PubMed are automatically searched at the same time.
- MeSH (Medical Subject Headings) is the NLM controlled vocabulary thesaurus used for indexing articles for PubMed.
- PubMed's subject coverage includes biomedical and life sciences.



#### PubMed

Access PubMed from TTUHSC library website at https://ttuhsc.libguides .com/new for links to full text articles.



PubMed® comprises more than 36 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full text content from PubMed Central and publisher web sites. Log in to save and export searches and citations.

Find Advanced Search Clinical Queries Single Citation Matcher

Search options include advanced features and clinical queries specific searching.



MeSH is Medical Subject Headings From the National Library of Medicine. It indexes subjects for better results.



#### PubMed

This database is ideal for (in order):

- 1. School of Medicine
- 2. School of Health Professions
- 3. Graduate School of Biomedical Sciences
- 4. School of Nursing
- 5. School of Pharmacy





# **CINAHL** Ultimate

- Stands for: Cumulative Index to Nursing and Allied Health Literature (pronounced "sin-all").
- 6+ million records, from over 5,500 indexed journals.
- Subject coverage: Nursing and 14 Allied Health specialties.
- Evidence-based Care Sheets, Research Instruments, Quick Lessons and CE modules available.
- Can limit results to "peer-reviewed" or "research" articles.



# **CINAHL** Ultimate

CINAHL(Cumulative Indexing to Nursing and Allied Health Literature) is an authoritative indexed source for nursing and allied health specialties.

- CINAHL Ultimate is the largest full text companion to CINAHL.
- The database contains 3,461 peer-reviewed, indexed, and abstracted journals from nursing and allied health literature.

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TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER				se advanced sea find "peer-review esearch, CE mod	/ed",

## **CINAHL** Ultimate

This database is ideal for (in order):

- 1. School of Nursing
- 2. School of Health Professions



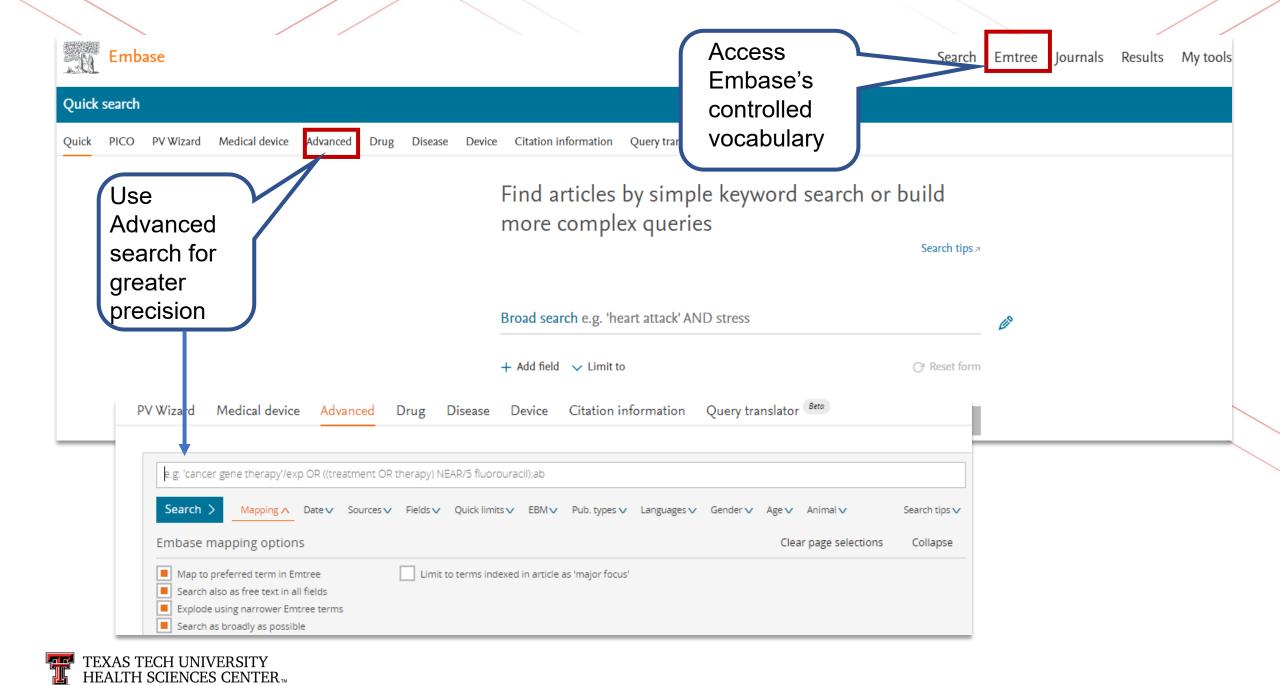


#### Embase

An authoritative source for high quality, comprehensive research for medical literature.

- Millions of records are updated daily.
- Source for international as well as English-speaking biomedical literature.
- Emtree thesaurus, or controlled vocabulary, groups similar terms for more effective searching.
- Embase and MEDLINE searches are required for a comprehensive search.





#### Embase

This database is ideal for (in order):

- 1. Graduate School of Biomedical Sciences
- 2. School of Pharmacy
- 3. School of Medicine





#### Scopus

Scopus is a comprehensive multidisciplinary database of citations and abstracts from authoritative sources.

- 94+ million records from over 27,000+ peer-reviewed journals, 6,000+ open access journals.
- U.S. and International patent information available.
- Author and Institution search features, aids networking.
- Results can be sorted by times cited ("Cited by").



Publications per major subject area\*:

#### Social Sciences

12.7+ thousand titles in arts & humanities; business, management & accounting; decision sciences; economics, econometrics & finance; psychology; social sciences

#### **Physical Sciences**

9.6+ thousand titles in chemical engineering; chemistry; computer science; earth & planetary sciences; energy; engineering; environmental science; materials science; mathematics; physics & astronomy

#### Health Sciences

7.5+ thousand titles in medicine; nursing; dentistry; health professions; veterinary

#### Life Sciences

5.4+ thousand titles in agriculture & biological sciences; biochemistry, genetics & molecular biology; immunology & microbiology; neuroscience; pharmacology, toxicology & pharmaceutics

#### Click button for search tips:

Search Guide



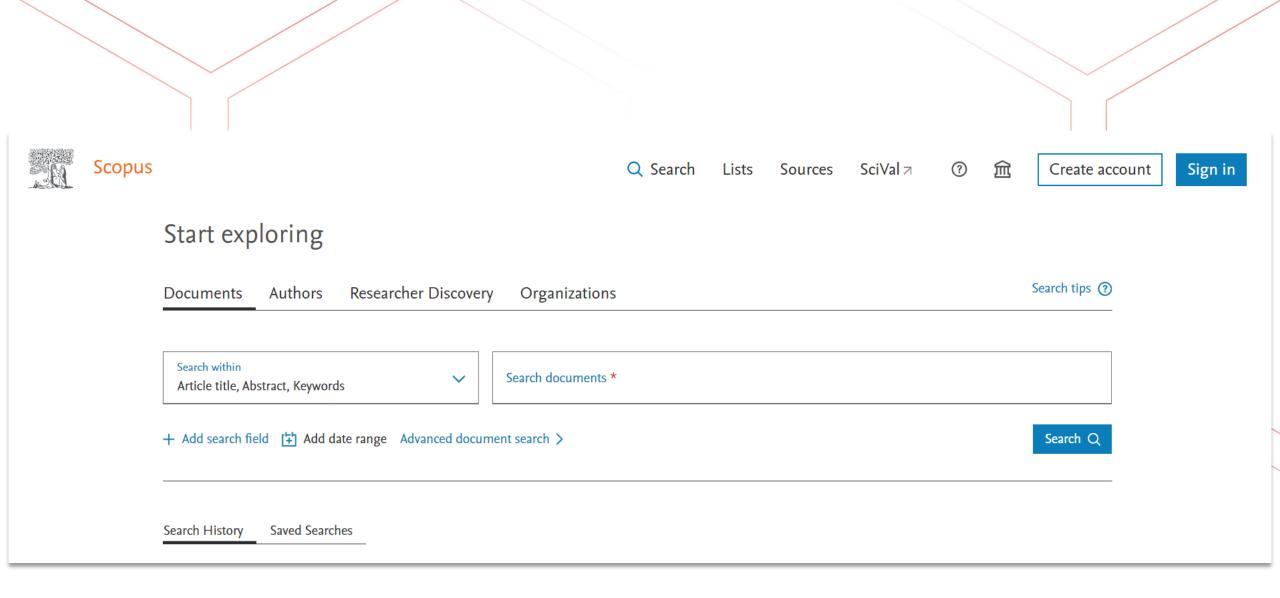
\*Counts include only active titles. Titles may fall into more than one major subject area. Scopus is updated daily, so numbers are subject to change. Figures are rounded to the nearest decimal point. Source: Scopus title list, December 2023.

44%

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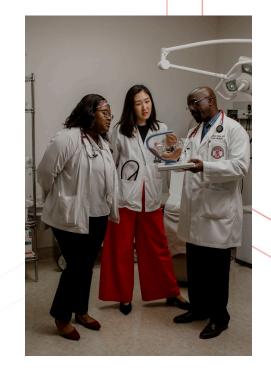




#### Scopus

This database is ideal for (in order):

- 1. Graduate School of Biomedical Science
- 2. School of Medicine
- 3. School of Health Professions
- 4. School of Nursing
- 5. School of Pharmacy



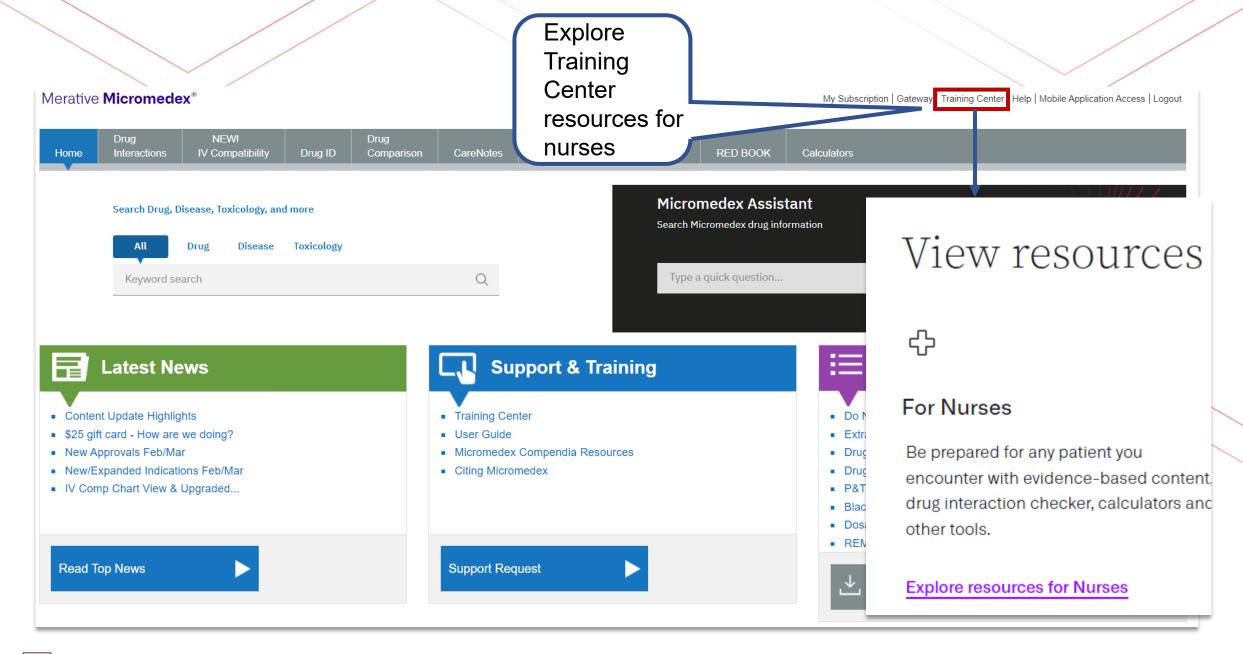


#### Micromedex

Micromedex is a reference database for evidence-based drug, disease, and toxicology information.

- Key features include:
  - Drug and IV interaction tools
  - Drug allergy checker
  - Drug identification tool (identify drugs by imprint or shape/color)
  - Red Book for manufacturer and pricing information







#### Micromedex

This database is ideal for (in order):

- 1. School of Pharmacy
- 2. School of Nursing
- 3. School of Medicine





#### **Question #1**

When searching the internet, the most accurate, relevant information will be the first results.

True or False



#### **Question #1**

When searching the internet, the most accurate, relevant information will be the first results.

#### **False**

Search engines do not curate their results page based on the most accurate, reliable information. Their algorithms are complex and are based on page clicks. You may need to go beyond the first page to find a relevant result.



#### **Question #2**

The Internet is NOT:

- 1. A good place to start research
- 2. Regulated for quality information
- 3. A place to share ideas
- 4. All the above



**Question #2** The Internet is NOT:

- 1. A good place to start research
- 2. Regulated for quality information
- 3. A place to share ideas
- 4. All the above

Anyone can post information online. The individual user is responsible for determining reliability and usefulness.



#### **Question #3**

Websites need to be evaluated for:

- 1. Currency
- 2. Relevance
- 3. Accuracy
- 4. Authority
- 5. Purpose
- 6. All the above



**Question #3** 

Websites need to be evaluated for:

- 1. Currency
- 2. Relevance
- 3. Accuracy
- 4. Authority
- 5. Purpose
- 6. All the above

Be sure to apply these evaluation tools.



#### **Question #4**

Why use a research database?

- 1. Any entity can add information to a research database.
- 2. There are ads for shopping while you do your research.
- 3. A database is a collection of indexed and curated searchable authoritative research.



**Question #4** Why use a research database?

- 1. Any entity can add information to a research database.
- 2. There are ads for shopping while you do your research.
- 3. A database is a collection of indexed and curated searchable authoritative research.

An internet search does not always provide reliable results that are focused on your topic.



**Question #5** Which database is best for nursing research?

- 1. CINAHL
- 2. Embase
- 3. Micromedex



#### **Question #5**

Which database is best for nursing research?

1. CINAHL

2. Embase

This database is both the ideal first choice for nursing students, and has the option to limit results to peer-reviewed articles.

3. Micromedex



#### **Question #6**

Which database would be the first choice to find articles on the impact of the Affordable Health Care Act on previously uninsured populations?

- 1. CINAHL
- 2. Embase
- 3. Micromedex
- 4. Scopus



#### **Question #6**

Which database would be the first choice to find articles on the impact of the Affordable Health Care Act on previously uninsured populations?

- 1. CINAHL
- 2. Embase
- 3. Micromedex

4. Scopus

Because its scope includes social sciences, Scopus is the ideal choice for this topic.



#### **Question #7**

Which of these database(s) does not index for meta-analysis or systematic review articles on various subjects?

- 1. CINAHL
- 2. Embase
- 3. Micromedex
- 4. Scopus
- 5. PubMed



#### **Question #7**

Which of these database(s) does not index for meta-analysis or systematic review articles on various subjects?

1. CINAHL

- 2. Embase
- 3. Micromedex
- 4. Scopus

5. PubMed

Searches in Micromedex cannot be limited to locating systematic reviews or meta-analysis. It is the database of choice when searching for drug information.



#### Summary

- Search engines can be a good starting point and background knowledge builder, but the information needs to be evaluated for accuracy and reliability.
- Research databases provide authoritative information that has been checked for accuracy, reliability, and are updated regularly.
- Research databases can be subject specific.
- More full text access to the research databases can be found by accessing the databases through TTUHSC Libraries' website.



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