USING WEB OF SCIENCE*

WHAT IT IS

Web of Science (WoS) is a bibliographical database of scholarly articles from 22,000 peer-reviewed journals worldwide. This paid platform, to which the Library subscribes, provides tools for advanced search, citation analysis and bibliometrics. WoS also supplies tools for advanced search, citation analysis, rankings' reports and bibliometrics.

In this guide, you will learn to access WoS through the <u>Library's database listings</u>, how to find documents in Web of Science using basic and advanced queries and techniques, how to manage research alerts and how to view bibliometric data.

WHAT TO CONSIDER

DOCUMENT SEARCH

- Start a simple search from the Documents search in the Documents tab.
  - You can use the Editions dropdown to select the specific editions of the database you wish to search.
  - Use the Collections dropdown to select databases to include in an All Databases search.
- Choose your search field.
  - All Fields is the default and searches all sections in each article record. You can include your keywords, author names, or any other information about an article you want to find, all in one search.
  - Or choose other fields from the list to target exactly what you need.
- Add a date range to narrow your search.

TIPS

Searching is a discovery process! Do not be afraid to experiment, explore, and ask your <u>Liaison Librarian</u> for help if you need it. If your search returns few or no results, try using synonyms in various combinations.

ORGANISATION
To keep your research alerts organised, it is a good idea to create a folder in your email account to divert alerts to one location. This way it is easy to find alerts, further organise them by topic or author, and keep your inbox orderly.

WHAT TO CONSIDER

There are multiple ways to improve document searches in WoS.

- Phrasal Searching

If you need to find an exact phrase, enclose it in "-" (quotation marks). The search engine will look for the exact phrase, e.g., "Artificial Intelligence"

- Wildcards

Wildcards, also known as truncation, help you find different spellings or forms of words. WoS uses 3 wildcards. They can be used anywhere in a word.

- * - Zero to many characters, e.g., robot* = robotics, robots, robot
- ? - One character, e.g., wom?n = woman, women, womyn
- \$ - Zero or one character, e.g., colo\$r = color, colour

- Boolean Searching

Boolean and proximity operators tell the search engine how to combine terms in a search.

- AND lets you combine multiple keywords/phrases in a single search. Use AND to find records having all your terms
  - e.g., Robot* AND Wom?n
- OR lets you add keyword synonyms to your search. Use OR to find records having any of your terms
  - e.g., "Artificial Intelligence" OR AI robotics OR robots
- Are you seeing results that mention a different, unrelated topic from what you are interested in? Use NOT to exclude records having certain terms
  - e.g., "Artificial Intelligence" OR AI NOT insemination
- Use NEAR/n to find records having all terms within a number of each other
  - e.g., wom?n NEAR/3 feminism
- Use SAME in an Address search to find terms in the same line of an address
  - e.g., AI SAME robotics

- Refining Search Results

Once your search has returned results, you can further refine using filters.

- The column on your left allows you to refine results by Quick Filters, Publication Years, Document Types, WoS Categories, Authors, Affiliations, Publication Titles, and more.

- Other Ways to Search

WoS offers the possibility to search for individual researchers in the Researchers tab.

- Input the Surname, First Name, and Initial(s) in the boxes.
- This tool allows you to view the researcher's list of publications, number of citations, research impact scores, and other research-related data.
- You can get your own verified author record. Enter your name in the Researchers search, then click Claim My Record on your author record page.

WHAT TO CONSIDER

ADVANCED SEARCH QUERY BUILDER

You can return more relevant search results using the Advanced Search Query Builder. To open it, click Advanced Search from the Documents search page.

- Building a Query

Select a field to search, type a keyword, and click Add to Query.

- ○ After adding your first keyword, you can select a Boolean operator (see above) from the drop-down menu or type one in the Query Preview text box before adding more search terms.

- Exact Search

Clicking More Options opens Exact search. It is turned off by default.

- ○ When Exact search is turned on, your search is limited to the exact term you type in the search field. So, if you search robot, the search only returns records that include the word robot.
  - ▪ Note: To perform an exact search on a phrase, place the phrase between quotation marks

- Combining Search Sets

Each search query you build is saved as a set under Session Queries on the advanced search page. Sets are identified by numbers, and the most recent sets appear at the top of the list.

- ○ To combine queries using the AND or OR operators:
  - ▪ Select which queries you wish to combine using the check boxes next to the queries you wish to combine first.
- ○ Click Add to Query next to the queries you want to combine. You will need to select the Boolean operators from the available list before adding the query.
  - ▪ Note: If you wish to add a query using the NOT operator, click Add to Query and use the drop down to select Add with not.

- Editing a Search Query
  - ○ You can edit a saved search query by clicking Pencil Icon to the right of the Query box.
  - ○ From the edit window, you can save the updated query or save it as a new set by clicking the links at the bottom of the page.

- Sharing an Advanced Query
  - ○ You can share an advanced search colleague by copying the link and then sending it via email. To copy the link, click on the Chain Icon to the right of the Query box.

- Requesting an Alert for an Advanced Search Query
  - ○ You can request to receive an email alert when new content is added that matches this query. To request this service, click on the Bell Icon to the right of the Query box.

WHAT TO CONSIDER

ADVANCED SEARCH QUERY BUILDER

- Deleting Queries
  - You can use the checkboxes to select individual queries to be deleted or you can remove your entire history. Once the queries are selected, click Clear History in the top right corner of the screen.

ADVANCED RESEARCH TOOLS

BIBLIOMETRIC DATA

Web of Science records and shares bibliometric data. This data allows researchers to see how often an article has been cited, how the article and/or journal is ranked, and the author(s)'s research reputation. These data are important for researchers who are managing their personal research reputation and for those who want to select and cite highly reputable research.

MANAGING ALERTS

Web of Science offers the possibility of using alerts for research on your topic which will deliver results to your email inbox. You must first register for an account. Once logged in, you can manage alerts.
- For any saved search, you can activate an alert, and at any time you can turn off alerts by changing the status to Inactive.
- Change how often you receive alerts by selecting from the Frequency drop-down box. If you want, select Receive emails when there are no new results. Otherwise, you will only receive emails when there are new results for your search.
- Saved searches do not expire but you can remove them at any time by clicking Remove alert.

Citation Alerts
When you add citation alerts, you receive emails when someone cites articles you selected. You can also use this feature to keep a list of your favorite articles.

To add an article:
1. Search Web of Science Core Collection
2. When viewing a full record, click Create Citation Alert in the left column under citation data.
3. Click the Citation Alerts link from the top of any Web of Science page to view your alerts list.

WHAT TO CONSIDER

ADVANCED RESEARCH TOOLS

JOURNAL CITATION REPORTS

Journal Citation Reports (JCR) allow you to determine which journals are important and "hot" in your research area.

The Journal Impact Factor (JIF) is defined as citations to the journal in the JCR year to items published in the previous two years, divided by the total number of scholarly items, also known as citable items, (these comprise articles and reviews) published in the journal in the previous two years.

Ranking of JIF is dependent on the research area, publication type, and year – what is high in one area/publication type/year may not be in another – so it important to be aware of what is considered high and low.

Once you are logged into your account, you can:
- Browse journals & categories, saving preferences for future browsing
- Compare up to 4 journals using metrics to filter
- Browse categories, using metrics to filter what you see
- Search for OG = EUI Organisation-enhanced material in WoS Core Collection
- Read Journal Profiles
- Save searches and lists, as well as download lists

Using the JCR and its bibliometric filters, you can assess whether a journal is a good fit for your research. For detailed information on how to use these tools, Clarivate has provided a presentation, training materials and videos.

INCITES BENCHMARKING & ANALYTICS

InCites allows you to analyse data related to institutions, researchers, locations, research areas, publication sources and funding agencies. This information is useful in determining where and whom is most active in a particular research category.

For example, using EUI as the organisation, this tool indicates that Political Science is the most active publication category at EUI, followed by International Relations, while Economics holds the most collaborations.

It is also possible to see which journals are the most cited by the organisation, in which journals the organisation is most active (published), and which documents from the EUI are most highly cited.

Clarivate has provide a user guide, training information and videos to help you use these tools.

WHAT TO CONSIDER

ADVANCED RESEARCH TOOLS

ESSENTIAL SCIENCE INDICATOR (ESI)

ESI is a feature of InCites that allows researchers to discover Top Papers, Highly Cited Papers and Hot Papers by Research Fields, Authors, Institutions, Journals, Countries/Regions and Research Fronts. It offers visualisations alongside ranking lists.

Clarviate offers a ESI Help Guide   for more detailed information on how to use this tool.

The possibilities for manipulating, parsing and filtering bibliometric data are quite extensive in Web of Science. Do not be afraid to experiment, explore, and ask your Liaison Librarian for help if you need it. If your search returns few or no results, try using synonyms in various combinations.

OTHER RESOURCES

Bernnard, D., Bobish, G., Hecker, J., Holden, I., Hosier, A., Jacobson, T., Loney, T., & Bullis, D. (2014). Gather: Finding what you need. In The information literacy user's guide: An open, online textbook.

Research Tracker

Web of Science Author Search beta quick reference guide, by Clarivate

Web of Science Personalisation quick reference guide, by Web of Science Core Collection quick reference guide, by Clarivate

Web of Science Personalisation quick reference guide, by Web of Science Core Collection quick reference guide 2, by Clarivate

Web of Science with Google Scholar cross-indexed search, EUI Library guide
Web of Science video tutorials, by Clarviate

DEFINITIONS**

Article: a piece of writing on a particular subject in a newspaper, journal, or magasine; in academic writing, it is an essay or research writing.

Bibliometrics: a set of numbers or statistics that give information about academic publications by analysing the frequency and location of citations.

Boolean: used to describe a method of searching on a computer using terms such as "AND", "NOT", and "OR", which are known as Boolean operators.

Cite: to mention something as proof for a theory or as a reason why something has happened, or to write words or ideas taken from another's written work. In academic writing, citing is essential to supporting your research statements.

Cross-index: to index a document or resource across more than one database.
Document: a paper, essay, research article, journal, book, or other written matter stored in the library in physical or digital form.

h-index: refers to an index of the number of important, highly cited papers an individual or journal has published and the number of citations the papers have received where the h indicates that the author/journal has published h number of papers that have been cited h number of times.

Journal Impact Factor (JIF): a measure of the frequency with which the average article in a journal has been cited in the past two-year period, as indexed by Web of Science. It is important to note that both the h-index and the JIF are controversial measures and are also discipline dependent where a high number in one area might be low in another.

Phrasal searching: to look for information on a computer, the internet, a database, etc., using a group of words that is part of, rather than the whole of, a sentence.

Query: a question formulated in language that is compatible with the database you are searching; also referred to as a search.

NEXT STEPS
Types of Resources OR Searching Google Scholar