Guide to Literature Search

www.mmi.rwth-aachen.de

For a quick and successful literature search, it is first important to be aware of the terms that are characteristic of the field being investigated. A search term should be as specific as possible and narrow down the topic of interest as much as possible. This is often only achievable by combining multiple terms using (AND) conjunctions. The scope of the results also depends significantly on the type of information being searched in. The titles of articles usually contain only the most essential keywords, whereas abstracts are much more detailed.

Google

A simple yet highly efficient search method is the use of the Google or Google Scholar search engine. Using these has the advantage that not only the homepages of authors can be found and .pdf files searched, but publications from journals and databases like CiteSeer (see below) can be displayed as well. The well-known downside of these general search engines is the large number of results for a query. On the other hand, the articles found are usually available for download.

CiteSeer

The CiteSeer literature database can be a very helpful resource for starting a scientific literature search. Firstly, many articles are available as .pdf files, and secondly, the references of each article are displayed. Vice versa, it is also possible to search for articles in which a specific article has been cited.

Electronic Journals

Most journals are only accessible for certain volumes and only from within the RWTH network. Here is a list:

- ScienceDirect
- IEEE Publications
- ACM Publications

Search in the University Library

The KatalogPlus library catalogue allows to centrally review the collections of all RWTH library locations as well as some other decentralized libraries. Using the advanced search, different media types (books, journals, articles, e-media, etc.) can be searched by keywords and time span.

For an interregional search, the Digibib can be used, which allows simultaneous searches in multiple library catalogs and databases. Available titles can be ordered via interlibrary loan.

Furthermore, the Regensburg Electronic Journals Library provides access to journals from many libraries across Germany within the RWTH network. Additionally, the journal collections of numerous German and Austrian libraries can be viewed in the German Union Catalogue of Serials (ZDB) and depending on the journal, some can be borrowed via interlibrary loan.

Artificial Intelligence

Even though it is widely known that artificial intelligence models generally do not provide reliable results and that transparency and reproducibility are often lacking, AI-based tools can be a useful addition to classical methods of literature search.

Besides the correct application, the choice of tool is particularly relevant. Below are some examples of AI-based tools with scientific databases:

Finders – Literature search by keywords, authors, research questions, etc.:

- ORKG Ask
- ScopusAI
- Semantic Scholar
- Elicit

Connectors – Finding additional papers related to a given paper:

- Research Rabbit
- Connected Papers

More information about these tools can be found here.

Additional Links

Some additional links to books, journals, and databases that might be helpful are compiled here:

https://www.gut.rwth-aachen.de/cms/geotechnik/das-institut/fachlinks/~lojnt/literatursuche/?lidx=1

https://www.informatik.rwth-aachen.de/cms/informatik/fachgruppe/einrichtungen/fachbibliothek-informatik/~gtexj/recherche/?lidx=1

Moreover, RWTH members have access to the Database Information System (DBIS) through which categorized by subject area, further databases can be found.