

220AI Tools for Literature Search: An Overview

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Background and Disclaimer

Since the field of “Literature Search with AI” is very dynamic, the information presented here may be outdated rather quickly.

The present overview was **last revised in May 2026**. Our site on [AI for Academic Research](#) on the website of Tübingen University Library is being updated constantly. There, you will always find the newest versions of our documents.

The evaluation of the tools is based exclusively on the personal assessment of the AI team which is part of the “Information Department” of Tübingen University Library.

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Finders

Introduction

The AI-based tools that we call “Finders” are designed for academic literature search. Unlike chatbots like, for example, ChatGPT, Gemini, Claude, or MS Copilot, these exclusively source their information from academic databases.

[Google Scholar Labs](#) was launched in November 2025 – this tool searches the entire database of Google Scholar. For this reason, it is also suited for searching publications that are not well-covered by other AI search tools, i.e non-English literature, monographs, paywalled publications or generally publications from the humanities, social sciences, theology or law.

With all other “Finder” tools named here, the following limitations still apply:

- At the moment, these tools are most suited for finding, analyzing and summarizing **English Open Access papers** in the field of the **Life Sciences or Natural Sciences**.
- Currently, these tools still run into problems when trying to find, analyze or summarize **non-English monographs** that are **behind a paywall** and/or that belong to **the Humanities, Social Sciences, Divinity or Law**.

If you want to learn more about the current features and limitations of AI tools for literature search, we invite you to take a look at our slides:

http://hdl.handle.net/10900.3/OER_KSFOSNXI.

Overview: Underlying Database(s) – Privacy – Cost

Tool	Database(s)	Comment on the Database(s)	Privacy	Requires login?	Comment on Privacy	Cost	Comment on the Cost
AbsClust	Semantic Scholar	Can also be connected to users’ own databases	No focus on privacy	No	Privacy policy	Free and premium versions	Still useful with a free account
Asta	“8M+ full text papers and 108M+ abstracts” source).	The full texts are mainly drawn from arXiv, which has a focus on the natural sciences.	No focus on privacy	No	Privacy policy	Free	
Consensus	Semantic Scholar		No focus on privacy	Yes	Privacy policy	Free and premium versions	Still useful with a free account

Tool	Database(s)	Comment on the Database(s)	Privacy	Requires login?	Comment on Privacy	Cost	Comment on the Cost
Elicit	Semantic Scholar		No focus on privacy	Yes	Privacy policy	Free and premium versions	Still useful with a free account
Evidence Hunt	PubMed	Only for medicine	No focus on privacy	Search: no; Chat: yes	Privacy policy	Free and premium versions	Still useful with a free account
Google Scholar Labs	Google Scholar	Roughly twice as large as Semantic Scholar (cf. Gusenbauer 2018).	No focus on privacy	Yes (Google account)	Privacy policy	Free	
Keenious	OpenAlex	In theory more suited for finding monographs than other tools, but it still mostly finds journal articles.	No focus on privacy	No	Privacy policy	Free and premium versions	Still useful with a free account
ORKGAsk	CORE	Only finds Open Access publications Indexes many university repositories	Privacy-friendly	No	Developed by TIB Hannover; focus on data protection (source)	Free	
R Discovery	PubMed , Crossref , Unpaywall , OpenAlex ; various publishers	Due to its large database, this tool is better at also finding monographs.	No focus on privacy	No	Privacy policy	Free and premium versions	Still useful with a free account
ScholarInbox	arXiv, bioRxiv, medRxiv, ChemRxiv		No focus on privacy	Yes	Privacy Policy	Free	
ScienceOS	Semantic Scholar		No focus on privacy	Yes	Privacy policy	Free and premium versions	Still useful with a free account
Scinapse	Microsoft Academic Graph , OpenAlex , Semantic Scholar , Springer Nature		No focus on privacy	No	Privacy policy	Free and premium versions	Practically useless with a free account

Tool	Database(s)	Comment on the Database(s)	Privacy	Requires login?	Comment on Privacy	Cost	Comment on the Cost
	SciGraph , proprietary crawler						
SciSpace	„ OpenAlex , Semantic Scholar , Google Scholar and other trusted repositories” (Source)	Better suited for finding (Open Access) monographs than most other tools. Users can choose from a variety of databases.	No focus on privacy	Yes	Privacy policy	Free and premium versions	Practically useless with a free account
Semantic Scholar	See data sources here	Focus on journal articles	No focus on privacy	No	Privacy policy	Free	
Undermind	Semantic Scholar		No focus on privacy	Yes	Privacy policy	Free and premium versions	Still useful with a free account

Individual Tools

AbsClust

<https://absclust.com/>

Description	During the literature search, the results are visualized in thematic clusters. Users can also search their own data sets.
Database	Semantic Scholar; can also be connected to one's own data sets (Source)
Suited for	Mainly for the natural sciences and medicine
Limitations	See above; also: few filters
Filters	Year, citations
Cost	Free and premium versions (more information)
Other features	Analyzer tool for pdfs uploaded by users; statistics on search results
Comments	Some features (e.g. „Find by Similarity“) are not yet available.

Asta

<https://asta.allen.ai/>

Description	Finds research literature using with a multi-stage search process designed to mimic human research behavior (source). Summarizes publications and generates a detailed response to the research question (source).
Database	“108M+ abstracts and 12M+ full-text papers” – the full texts are mainly drawn from arXiv (source). The criteria that determine which publications are included in the corpus are based on the Semantic Scholar Open Research Corpus . The abstracts are drawn from Semantic Scholar.
Suited for	Subject fields that are well-covered in arXiv (source)
Limitations	Rather small database that has a focus on the natural sciences
Filters	Relevance, year, journal, author
Cost	Free
Other features	While the tool generates the answer, users can observe its “thought process.”
Comments	The tool is open source – you can find the code here . The tool was developed by the same foundation as Semantic Scholar (Ai2). Asta combines two formerly separate tools (“Ai2 Scholar QA” und “Ai2 Paper Finder”). For more information, see here and here .

Consensus

<https://consensus.app/>

Description	Search engine that uses a fine-tuned language model to extract “ <u>key takeaways</u> ” from papers. The takeaways are tailored to the individual user request and influence the ranking of the papers.
Database	Semantic Scholar
Suited for	All academic inquiries, also works relatively well for the humanities and similar subjects.
Limitations	general limitations of Semantic Scholar; some special features more suited for natural and life sciences.
Filters	year, Open Access, minimum citations, methods used in paper, journal rank, subject area, country
Cost	Free and premium versions (more information here).
Other features	GPT4 summaries of papers, Consensus Meters for yes/no questions, Study Snapshots (population, sample size, methods, outcomes), Consensus Copilot , export in CSV or RIS, can be integrated with Zotero .
Comments	Better avoid keywords but rather type in full questions. Tips for searching .

Elicit

<https://elicit.com>

Description	Search tool that uses the abstract of a paper (or the full paper, if OA) for ranking and summarising results.
Database	Semantic Scholar; want to add more sources soon; more info here .
Suited for	Best works for papers that have a detailed abstract or for Open Access papers; also works relatively well for the humanities and similar subjects.
Limitations	Finding closed-access papers without an abstract; general limitations of Semantic Scholar; languages other than English.
Filters	pdf available, year, study type, keywords (not) in the abstracts, different ranking methods.
Cost	Free and premium versions (more information here).
Other features	Upload pdfs and analyze them. "List of Concepts" (helpful for searching methods, datasets and the same concept across different subjects), „Search Citation Trails“; „Deep Research“; browser extension for connecting Elicit to users' licensed databases and full-texts
Comments	Better avoid keywords but rather type in full questions. FAQ here .

Description	AI research tool for medicine
Database	PubMed
Suited for	medicine and related subjects
Limitations	not suited for other subjects
Filters	study type; discipline; only last week's publications; also: search boxes for PICO analysis (Population, Intervention, Comparison, and Outcome)
Cost	Free and premium versions (more information here).
Other features	Summaries and answers based on all results
Comments	

Description	Allows users to search Google Scholar using natural-language queries. Briefly summarizes the found publications.
Database	Google Scholar
Suited for	research in *all* subject areas
Limitations	has fewer specialised features than many other AI research tools
Filters	can be included in the natural-language query.
Cost	free
Other features	-
Comments	In order to be able to use the tool, you have to be signed in to your Google account.

Keenious

<https://keenious.com/>

Description	Upload your current document or a pdf from your field to see papers that are related to the topic. (But also works with (longer) typed-in questions.) More information here .
Database	OpenAlex (for its sources, see here).
Suited for	Researchers who already have started writing their paper. Works best for papers in English.
Limitations	Finding papers without abstracts (since the keenious search relies on titles and abstracts). [Information on the website is a bit vague overall, so it's hard to evaluate.]
Filters	Year, citation count, Open Access.
Cost	Free and premium versions (more information here).
Other features	Can be linked to Word or GoogleDoc file. Highlight text in your file to only search for this specific concept/topic.
Comments	Works best if you already have a longer document → The more input the better.

Description	“ORKG Ask is a scholarly search and exploration system powered by Vector Search, Large Language Models and Knowledge Graphs” (Source)
Database	CORE → only Open Access publications; many university repositories
Suited for	All subject areas, but works better for STEM fields.
Limitations	May not find paywalled publications
Filters	Year; language; impact; citation count; title; abstract; publisher; author; topic
Cost	Free
Other features	Presents results in a table to give users an overview on methods, results, key insights, etc.
Comments	Better avoid keywords but rather type in full questions. For the FAQ, see here . ORKAsk is Open Source and privacy-friendly.

Description	Search tool/chatbot with a large database and unusual additional features
Database	“PubMed, PubMed Central, CrossRef, Unpaywall, Open Alex and top academic research publications, including Wiley, Elsevier, Springer Nature, IOP, SAGE, Taylor & Francis, NEJM, Emerald Publishing, BMJ, Karger, Underline.io and more”. “250M+ research papers, including 40M+ open access articles, across 32,000 journals as well as 2M+ preprints and 7.5M+ patents” (Source)
Suited for	All subjects – due to its large database, it also finds monographs, for example.
Limitations	Still often yields better results for the natural and life sciences, but other fields are also covered adequately.
Filters	Year, type of publication, journal ranking, subject field, number of citations
Cost	Free and premium versions (more information here).
Other features	Publications are translated into 30+ languages; audio versions of papers; connecting with Zotero & Mendeley; tool tries to identify and exclude predatory publishers from its database.
Comments	Users can search both for bibliographic data and with a full question.

Description	The tool automatically recommends thematically relevant new publications.
Database	„daily indexes all of arXiv, bioRxiv, medRxiv and ChemRxiv including physics, math, computer science, biology, chemistry, health sciences, finance, statistics, electrical engineering and economic. Additionally, we index many open access proceedings in computer science” (Source)
Suited for	Life and Natural Sciences
Limitations	Due to its database, the tool is less suited for the Humanities, Social Sciences and Law
Filters	Users can train the recommendation feature by rating publications; various options for customizing the recommendation feature
Cost	Free
Other features	„Semantic Search“ („you may add parts of a paper, to find similar papers, or an unfinished related work section to show references that you may have missed”), „Scholar Maps” (thematic overview over fields of research), planning tool for selected Computer Science conferences
Comments	More information here , here and here .

Description	Offers „AI Science Chat“ and „AI PDF Chat“ . The Science Chat generates a summaries based on the publications it finds. The PDF Chat summarises uploaded pdfs.
Database	Semantic Scholar (Source)
Suited for	Overviews on topics and citation networks (→ also Connector Tool); more suited for the natural and life sciences.
Limitations	General limitations of Semantic Scholar; has problems with finding publications that don't have an identifier
Filters	-
Cost	Free and premium versions (more information here).
Other features	„Network“ feature: show citations; save pdfs found by the tool; export from Mendeley, Zotero and Endnote; AI Actions – workflow for prompts that help analyze pdfs (translate, summarize, create tables and figures → Analyzer)
Comments	Pdfs uploaded by a user are only visible in this user's account and are not used for training the tool.

Scinapse

<https://www.scinapse.io/>

Description	Identifies research trends; find subject experts; compares the research output of different countries, institutions, and individuals
Database	Microsoft Academic Graph (till 2021), Pubmed, OpenAlex, Semantic Scholar, Springer Nature SciGraph, Pluto Lab's Crawler (Source)
Suited for	Focus on the natural and life sciences.
Limitations	Other subjects aren't covered very well.
Filters	Many (e.g. h-Index, Country, Affiliation, Subject Field, Number of Citations)
Cost	Free and premium versions (more information here).
Other features	See above
Comments	It's rather a benchmarking and trend analysis tool than a research tool. Planned: data on patents, research financing, companies (Source).

Description	All-in-one platform (searching, analyzing, publishing papers, AI detection, plagiarism check, host journals).
Database	„OpenAlex, Semantic Scholar, Google Scholar and other trusted repositories” (Source). Users can choose the database (e.g. PubMed, arXiv, or Google Patents).
Suited for	All academic inquiries; also works relatively well for the humanities and similar subjects; also works well for OA books.
Limitations	Free version has very limited features.
Filters	Open Access, Source, Year, Publication Type
Cost	Free and premium versions (more information here).
Other features	See above: all-in-one platform.
Comments	Better avoid keywords but rather type in full questions.

Semantic Scholar

<https://www.semanticscholar.org/>

Description	Helps researchers quickly find and analyze papers.
Database	More than 230 million papers
Suited for	Papers in English; all fields of research but especially STEM.
Limitations	No focus on books, datasets, or patents; also no focus on languages other than English.
Filters	Field of study, year, pdf available, author, journal/conference, different rankings.
Cost	Free
Other features	Personal library, alerts, AI-generated summaries (currently only for computer science and biomedicine).
Comments	Very helpful FAQ page ; much more honest about its limitations than other AI tools.

Undermind

<https://www.undermind.ai>

Description	Uses a complex, four-stage search algorithm: 1. find potentially relevant papers, 2. relevance classification, 3. based on these results: adjust search and search again, 4. calculate when (almost) all relevant papers have been found and the search can conclude. More information here .
Database	Semantic Scholar
Suited for	all subjects (despite the reliance on Semantic Scholar, it generally yielded good results when we tried queries from the humanities and similar subjects)
Limitations	general limitations of Semantic Scholar
Filters	Results of the last few years, minimum citations → few filters at the moment
Cost	Free and premium versions (more information here).
Other features	Summaries of results; narrowing down the results according to their topic; expanding the results
Comments	You can type in quite detailed questions (also: what do I <i>*not*</i> want to find).

Connectors

Introduction

The AI search tools that we call “Connectors” create interactive visual networks based on bibliographic and thematic relationships between publications. To use these tools, you feed in a “seed paper” – this seed paper is a relevant publication on your research topic that you have already found. We recommend entering a [Persistent Identifier](#) of your seed paper (e.g. its DOI or PubMedID) into the tool. In many cases, however, the tools also allow you to search for other metadata belonging to your seed paper (e.g. its author or title). The Connector will then show you publications that are in some way related to the seed paper (citing, cited by, thematically similar).

Overview: Underlying Database(s) – Privacy – Cost

Tool	Database(s)	Comment on the Database(s)	Privacy	Requires login?	Comment on privacy	Cost	Comment
Connected Papers	Semantic Scholar		No focus on privacy	No	Privacy policy	Free and premium versions	Still useful with a free account
Inciteful	OpenAlex , Semantic Scholar , Crossref , Open Citations	(Here , however, other sources are listed.)	No focus on privacy	No	No further information is offered on the website	Free	
LitMaps	Crossref Semantic Scholar OpenAlex		No focus on privacy	No, but most features are only available to registered users.	Privacy policy	Free and premium versions	Still useful with a free account
Local Citation Network	OpenAlex , Semantic Scholar , Crossref	It’s possible to manually switch between databases.	Focus on privacy	No	More information when you click on the ? in the top right corner.	Free	
Open Knowledge Maps	PubMed BASE OpenAIRE		Focus on privacy	No	Privacy policy	Free	
ResearchRabbit	Crossref Semantic Scholar OpenAlex		No focus on privacy	Yes	Privacy policy	Free and premium versions	Still useful with a free account

Tool	Database(s)	Comment on the Database(s)	Privacy	Requires login?	Comment on privacy	Cost	Comment
Scite	Various publishers , PubMed , Unpaywall , ArXiv	Tool has an indexing agreement with many publishers.	No focus on privacy	For most features: yes.	Privacy policy	Free and premium versions	Practically useless with a free account

Individual Tools

Connected Papers

<https://www.connectedpapers.com/>

Description	„Connected Papers is a [...] visual tool to help researchers and applied scientists find and explore papers relevant to their field of work” (Source). Search by keyword or provide a 'seed paper' by entering the DOI, and the tool will provide a visual map of other related papers (by topic or reference).
Database	Semantic Scholar
Suited for	Literature search
Limitations	Less suited for finding older literature that doesn't have an identifier (e.g. a DOI) and for literature that doesn't have a lot of metadata.
Filters	PDF available, Open access, year, derivative works, prior works.
Cost	Free and premium versions (more information here).
Other features	View the results as a graph or as a list. Citation count available.
Comments	Search by keywords, paper, title, DOI or another identifier. Better results when searching with articles (seed papers that have a DOI) than with keywords.

Description	Includes two tools: “Paper Discovery” (more information), with which you can find publications that are related to a seed paper, and “Literature Connector” (more information), with which you can see how two publications are connected to one another (e.g. not by having a direct bibliographic relation but by citing the same paper)
Database	OpenAlex, Semantic Scholar, Crossref, Open Citations (source) (here , however, other databases are named)
Suited for	Literature search; detecting „hidden“ connections between publications
Limitations	Less suited for finding older literature that doesn't have an identifier (e.g. a DOI) and for literature that doesn't have a lot of metadata.
Filters	Keyword in title, distance to seed paper, year (more information)
Cost	Free
Other features	The search results and information about the network and topic are also displayed in various lists: Similar Papers, Most Important Papers, Review Papers, Recent Papers by the Top 100 Authors, The Most Important Recent Papers, Top Authors, Upcoming Authors, Institutions, Top Journals, Similar Journals.
Comments	It's possible to search for title, DOI, PubMed ID and arXiv ID.

Litmaps

<https://www.litmaps.com/>

Description	Litmaps recommends papers based on an initial starting article. Search for your topic, select an article, and Litmaps will find relevant articles based on thematic or bibliographic connections.
Database	260+ million papers from Crossref, Semantic Scholar, and OpenAlex. (Source)
Suited for	Literature search, literature management, staying up-to-date on the latest research, collaborating.
Limitations	Less suited for finding older literature that doesn't have an identifier (e.g. a DOI) and for literature that doesn't have a lot of metadata.
Filters	Year, author, keywords, data range, timeline.
Cost	Free and premium versions (more information here).
Other features	Organize articles into collections. Find more related articles with "Discover search". Save searches, export and share findings, sign up for email alerts to be notified when new articles on your topic are published. Citation count available.
Comments	Search by keyword, author, DOI, Pubmed ID or arXiv ID. Better results when searching with articles (seed papers that have a DOI) than with keywords.

Local Citation Network
<https://localcitationnetwork.github.io/>

Description	“This web app aims to help scientists with their literature review [...] Academic papers cite one another, thus creating a citation network (= graph)”. (Source)
Database	OpenAlex; Semantic Scholar; Crossref – it’s possible to manually switch between databases
Suited for	Literature search; showing collaborations between authors
Limitations	Less suited for finding older literature that doesn't have an identifier (e.g. a DOI) and for literature that doesn't have a lot of metadata.
Filters	Title, abstract, ID, author, year, journal; ranking the results depending on their number of cited or citing publications; “Citation Network” and “Co-Authorship Network”
Cost	Free
Other features	Possibility to automatically search imported .ris or .bib files (e.g. from Zotero) for DOIs and add them to the tool.
Comments	Open Source (Github); focus on data privacy.

Description	"[K]nowledge maps provide an instant overview of a topic by showing the main areas at a glance, and documents related to each area" (Source).
Database	PubMed (life sciences) or BASE (all disciplines), OpenAIRE.
Suited for	Literature search.
Limitations	Less suited for finding older literature that doesn't have an identifier (e.g. a DOI) and for literature that doesn't have a lot of metadata.
Filters	Open Access, relevance, author, title, Year, document type, metadata quality.
Cost	Free.
Other features	Provides full text PDF for Open access articles. Export with BibTeX.
Comments	Uses the top 100 documents related to a topic to create a map. Find FAQs here . Find training materials here .

Description	ResearchRabbit is a citation-based literature mapping tool.
Database	SemanticScholar, Crossref, OpenAlex (Source)
Suited for	Literature search, staying up to date on the latest research
Limitations	Less suited for finding older literature that doesn't have an identifier (e.g. a DOI) and for literature that doesn't have a lot of metadata.
Filters	Author (discover author networks), recency, year, timeline.
Cost	Free and premium versions (more information here).
Other features	Export papers with BibTex, RIS, CSV. Citation count. Connect to Zotero.
Comments	Search papers by title, DOI, PMID, or keywords, or upload a file (BibTeX, RIS).

Scite

<https://scite.ai/>

Description	Indicates how many publications cited a publication or an individual statement positively, negatively or neutrally.
Database	Publishers (e.g. Wiley, Karger, Thieme, Sage, BMJ, CUP, Frontiers); PubMed; Unpaywall; ArXiv (source)
Suited for	Research on the reception of individual claims and arguments. Overview on which subject areas are covered best: Link
Limitations	More focussed on the natural and life sciences. If a full text isn't Open Access and if Scite doesn't have an indexing agreement with this text's publisher, the publication isn't analyzed (source).
Filters	Type of citation (supporting, contrasting), metadata (has corrections, was retracted, preprint, etc.) and other filters like year, journal title, etc.; Bool'ean operators
Cost	Almost all features are premium features (more information here).
Other features	Zotero plugin; alerts for new publications; alerts when users' own publications are cited; dashboard for statistics.
Comments	Also allows searches like "I need sources that contradict Claim X".