International College of Economics and Finance

Applied seminar «Quantitative analysis»

Moscow, 2025

Basic and AI Instruments for Paper Search and Analysis

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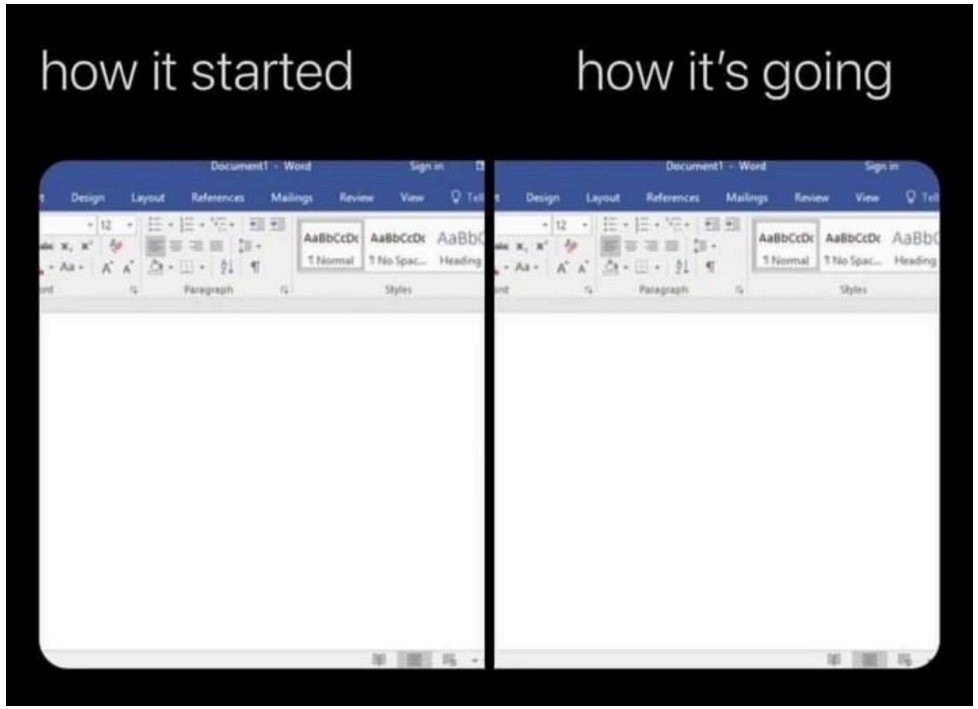
What I will mainly focus on:

- Basic and AI-powered instruments for easier paper search and analysis
- A bit of personal experience



What will not be extensively covered:

- What is a literature review and how to write it
- How to work with academic literature

Outline

Part 1. Basics

- Papers Search: Scopus and WoS, SJR
- Reference managers: Zotero and Mendeley

Part 2. AI-powered tools

- Network graphs: Litmaps/Connected papers
- Literature search: inciteful.xyz, SciSpace, unriddle, ChatGPT
- Other: Semantic Scholar, Research Rabbit, ChatPDF

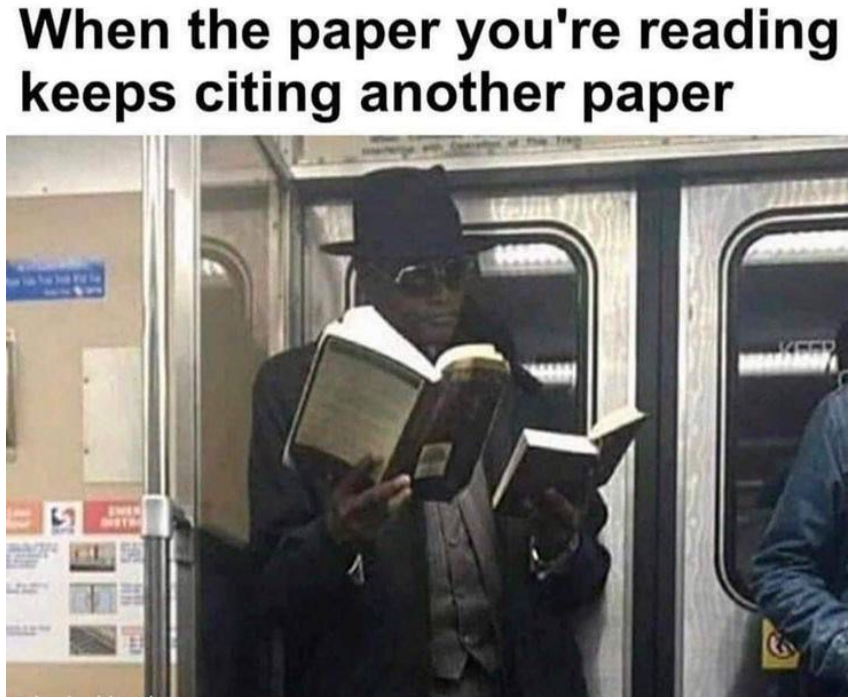
Literature Search: standard approach

1. Identify key words (to use with Boolean operators)
2. Look up papers in **Scopus** (works with UoL email!)**/WoS/Google Scholar**. Sort by field, number of citations, year, etc
   To check journal: **SJR**
3. Read abstract, then introduction and conclusion, then (if necessary) see the model
4. Repeat all over...

Literature Search: standard approach

Finding more papers

- Look through reference lists
- Look for review/meta-analysis papers
- See the Related literature/Literature review section in your papers



Where to get full texts?

1. HSE Library e-resources (https://library.hse.ru/e-resources)
2. University of London Online Library (https://onlinelibrary.london.ac.uk)
3. Sci-hub/Libgen – free access to papers

Managing your papers

- Main reference managers: Zotero and Mendeley
- Both are free, have some minor differences (comparison)

Zotero

- Allows to store, organise, and share papers, create in-text citations and bibliography
- Basic plug-ins: Zotero Connector for your browser, Office Connector, Zotfile
- More Zotero plug-ins (use VPN)
- + Many AI instruments have a plug-in for Zotero

AI-powered Literature Search

Graph-based:

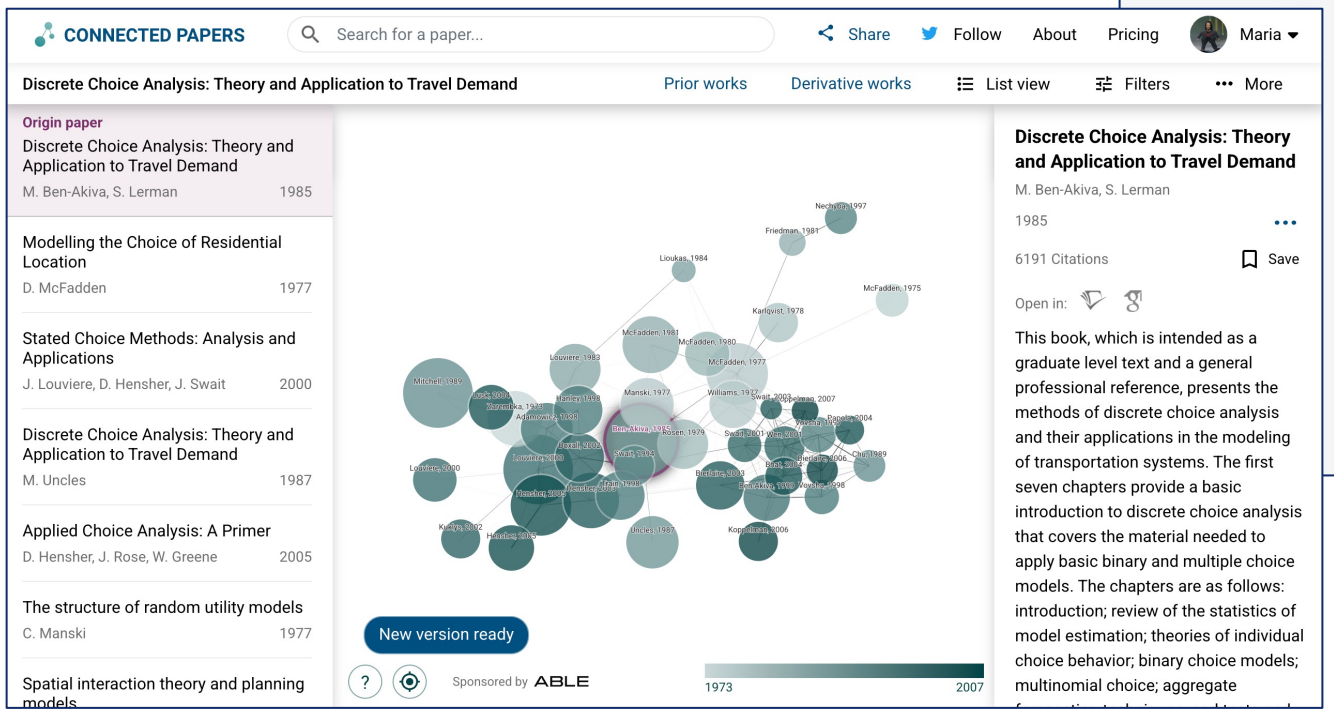
1. Select a few relevant papers
2. Draw a graph to see connected papers
3. Update your graph until you have enough relevant literature

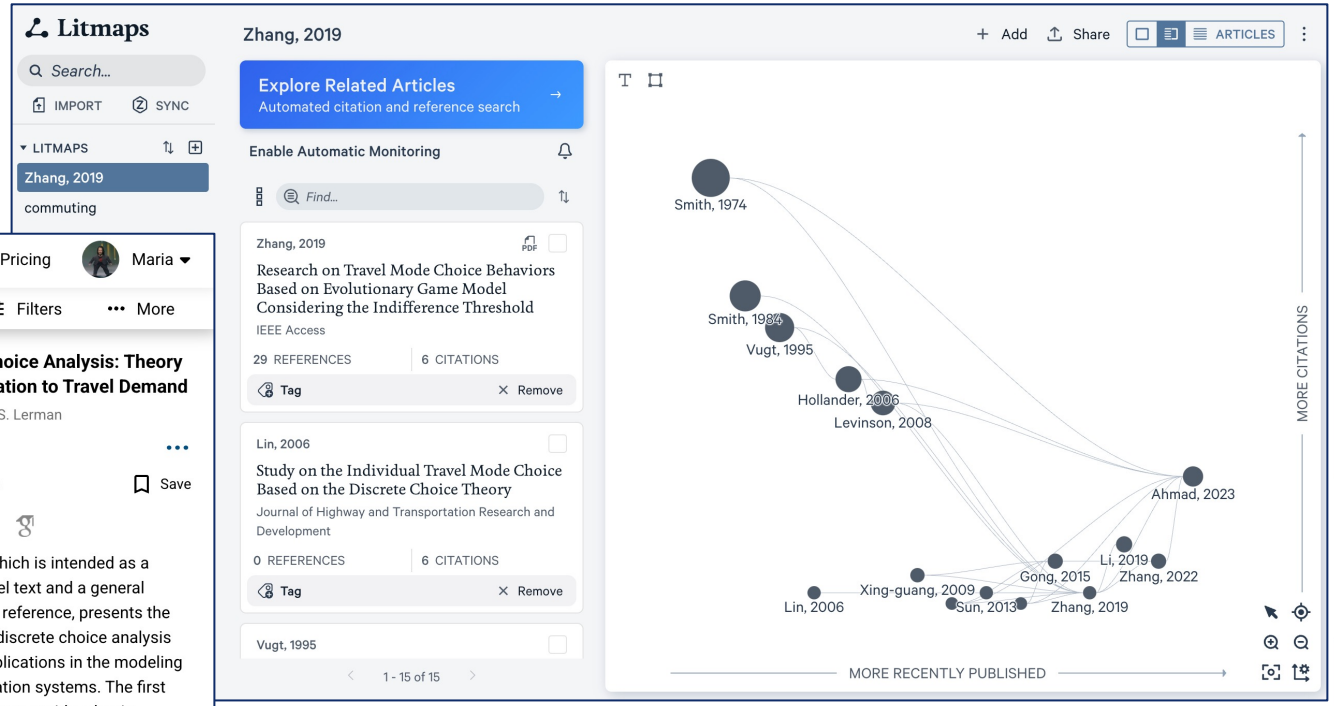
More standard:

- Chat with AI/ask questions to find relevant papers
- Use AI-tools combined with citation databases

Network graphs: Litmaps/Connected papers

Both can create a map of similar papers





Litmaps additionally allows to create a map of your papers

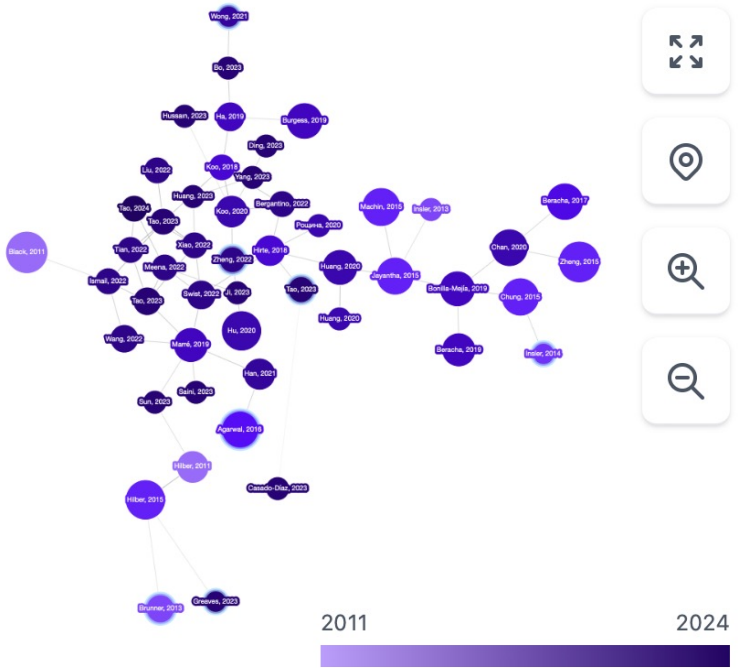
AI-powered Literature Search: inciteful.xyz

- Makes a graph with related academic papers
- Gives you similar, recent, most important, and review papers
- Has a Zotero plug-in

Similar Papers

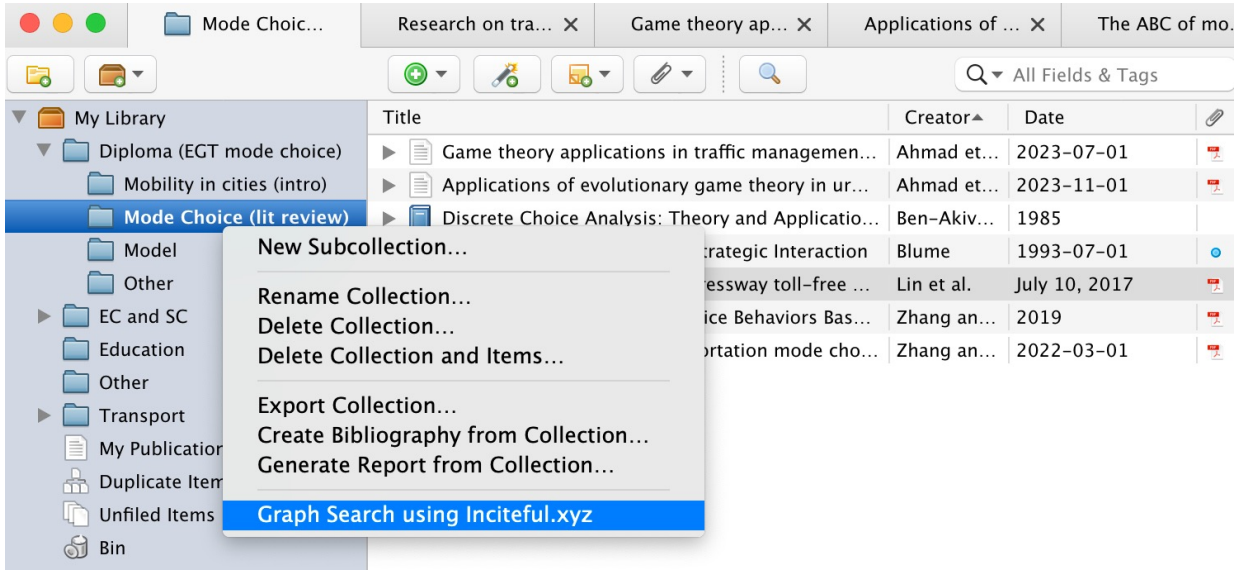
These are papers which tend to cite the papers you have selected above. They normally bias towards newer papers and can help you find the latest literature on the topic.

	published_year	similarity	num_cited_by
Pricing the value of the chance to gain admission to an elite senior high school in Beijing: The effect of the LDHSE policy on resale housing prices Jun Han, ... Huayi Yu *Cities*	2021	1.957921	4
Dynamic capitalization effects of educational facilities during different market stages: An empirical study in Hangzhou, China Yue Xiao, ... Zhou Gang-hua *Land Use Policy*	2022	1.789466	0
The Effect of School Quality on House Prices: Evidence from Shanghai, China Ziming Liu, ... Shuyi Feng *Land*	2022	1.724616	0
Factors influencing residential location choice: learnings from the Indian context P. K. Saini, Debapratim Pandit *Open House International*	2023	1.657566	0



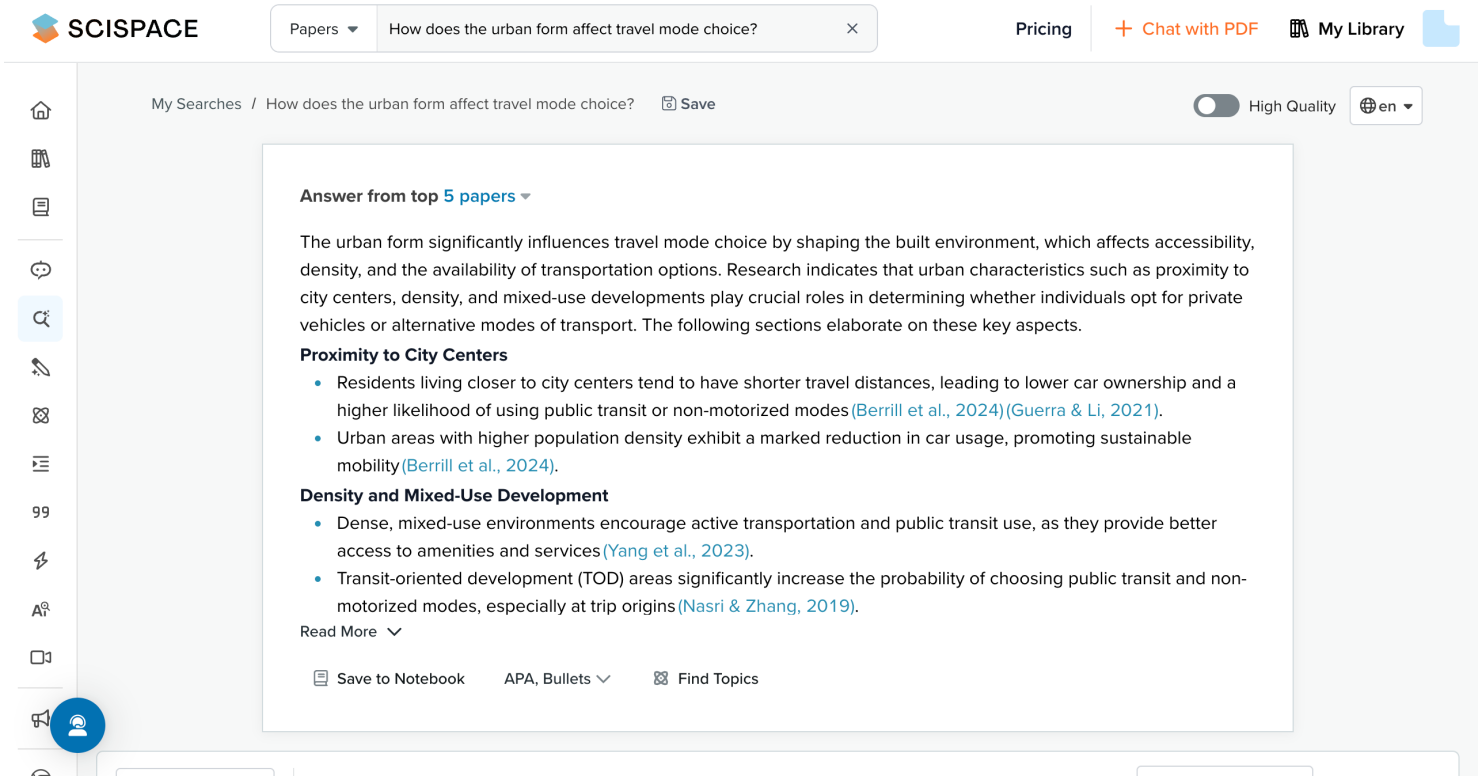
AI-powered Literature Search: inciteful.xyz

- Upload a paper to get similar papers
- Upload two papers to see how literature connects them
- Upload a bunch of papers from Zotero:



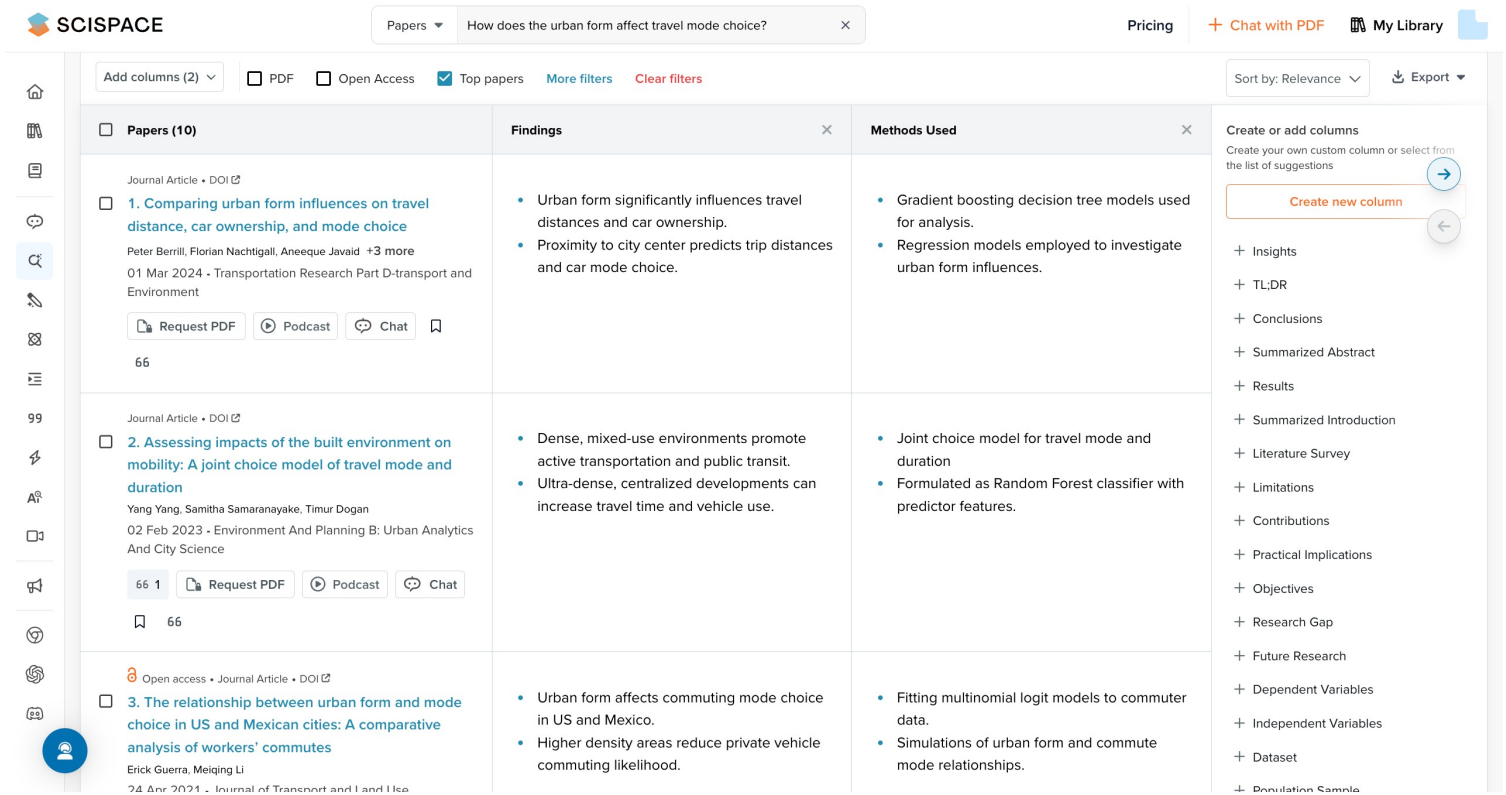
AI-powered Literature Search: SciSpace

- Ask the question / type the key words
- Get general insights from the literature (usually rater recent) + a table with papers



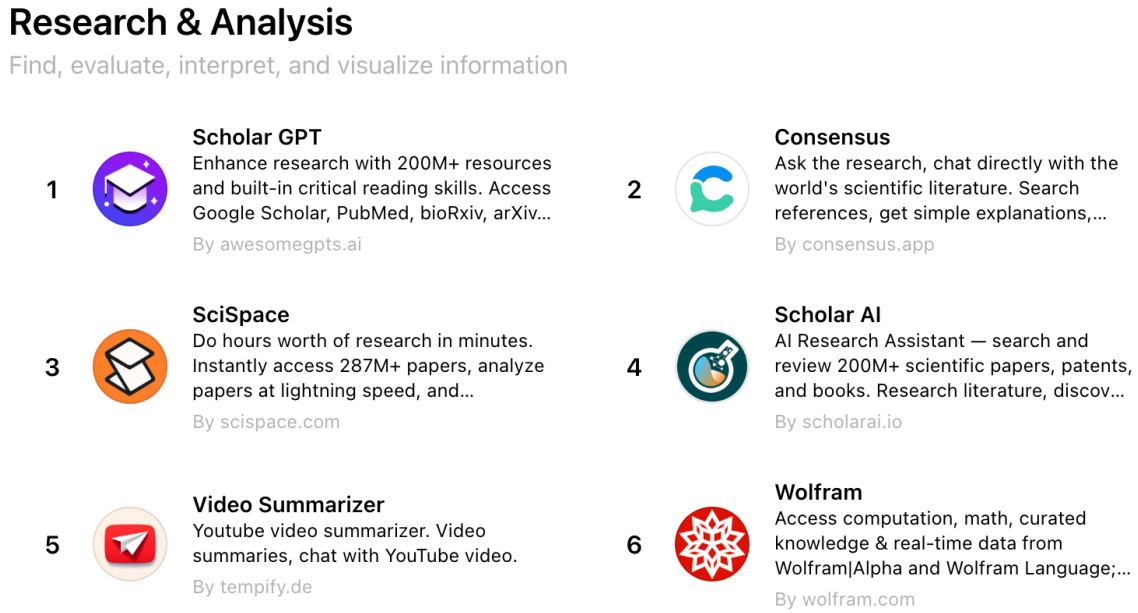
AI-powered Literature Search: SciSpace

- Extracts results, methods, conclusion, etc from the paper



AI-powered Literature Search + Analysis: ChatGPT

- Has embedded AI tools for papers search
- Can give seminal papers, stages of the development of your field
- Generate key words (for more standard search with citation databases)
- Can read papers and extract info from them



ALWAYS double check the papers GPT gives you (some of do not exist)

Other AI Instruments

Semantic Scholar – another instrument for **literature search**

- An alternative to google scholar/scopus/wos
- Vast search customisation

Research Rabbit – another instrument for **network graphs**

- Visualizes the connection between your and other papers
- Can connect to your Zotero library

Unriddle, **ChatPDF** – upload pdfs and ask questions about content

- Has limits on the number of papers per month/day
- Can tell you that something is not in the paper when in fact it is

Grammarly / Language Tool – check your spelling, grammar, style, etc

Concluding remarks

AI instruments can come in handy but use them wisely!

- Do not use AI to generate text for your thesis
- AI instruments are good for initial screening, but you should still read the papers yourself
- Double-check after AI – it is still far from perfect