AI-Powered Research: Tools for a Modern Researcher

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Typical research process

- Formulation of a precise question
- Develop a detailed understanding of the field
- Gathering of evidence that relates to the question
- Linking of the question and evidence with an argument
- Publication of results

Semantic Scholar

- AI-powered search engine
- A better version of Google Scholar

Literature review with Scispace

- Provides an easy way to find, understand, and learn any research paper
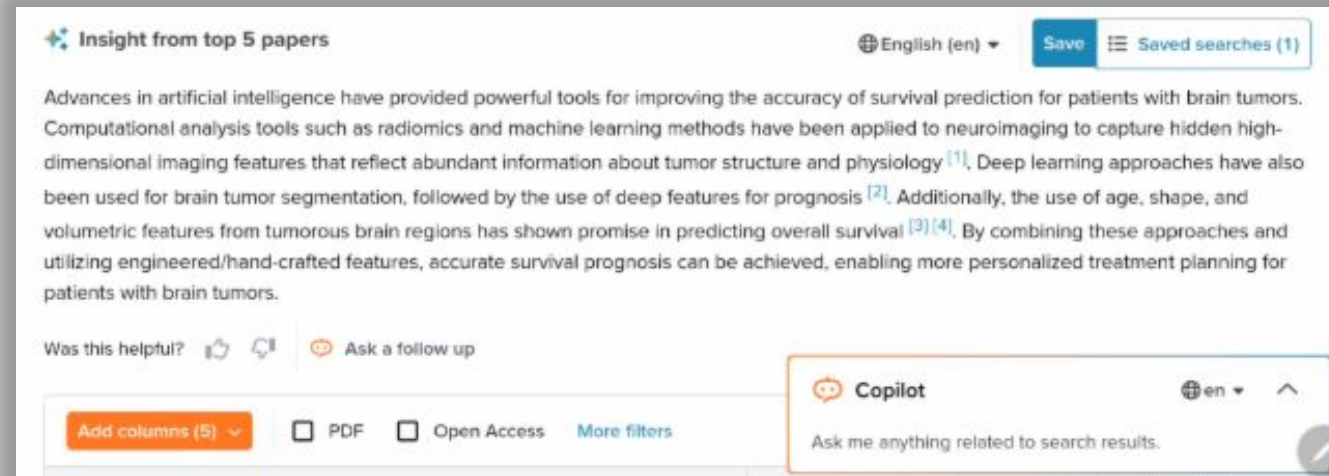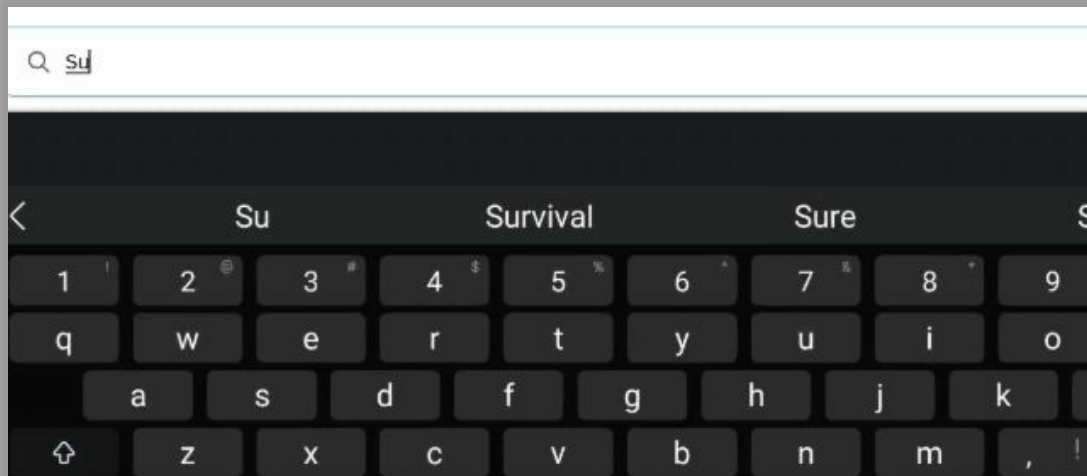
Reading with Scispace

Use copilot to:

- Ask questions

- Make follow-up questions

- Explain a selected text, table, equations etc.

Inciteful

- Builds a network of papers from citations.
- Uses network analysis algorithm to provide helpful information
- Provides a way to link papers in different domains.

Tools to help you accelerate your research

Build a network of academic papers and we'll analyze the network to help you discover the most relevant literature.

Search for the title of a paper to get started.

Paper title, DOI, PubMed URL, or arXiv URL

or Import BibTeX file

OR

Select two papers and we will show you how the literature connects them together.

From: Paper title, DOI, PubMed URL, or arXiv URL

To: Paper title, DOI, PubMed URL, or arXiv URL

Inciteful

It can be used to find

- Similar papers
- Most important papers
- Recent papers
- Review papers
- Top Authors
- Top Journals

255	12	2018	Yes	31,713	280,152	2
Cited By	Citing	Published	Open Access	Papers in Graph	Citations in Graph	Graph Depth

Links: Publisher | Full Text from LibKey

Paper Filters ⓘ

Keywords

(hello AND world) NOT cruel

Min Distance · Max Distance · Min Year · Max Year
⌄ · ⌄ · 2015 · 2015 · Filter

Add Papers to the Graph

Paper Title or DOI

Paper title, DOI, PubMed URL, or arXiv URL 🔍

or Import BibTeX file

Zero draft with Bing, ChatGPT, Bard

- Writing a zero draft is also called "free writing," an idea popularised by Peter Elbow in his 1973 book *Writing Without Teachers*.

- Set your timer to 25min and start writing as many words as possible.

- Ask ChatGPT to edit your zero draft to make it more coherent and cohesive

Litmaps

A robust literature map software that can help researchers

- discover new academic papers,

- track the development of a field of research,

- and identify gaps in the literature.
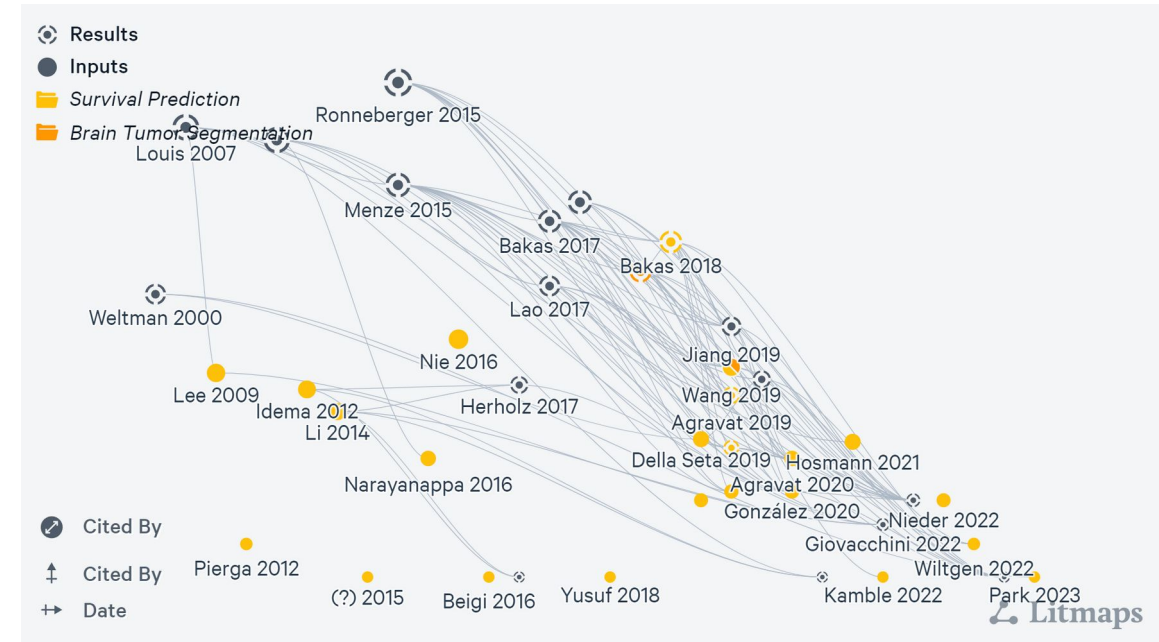
The use of computers is now ubiquitous. They have transformed every aspect of human life. They can be found in cars; they are being used to communicate, automate tasks and create innovative solutions to the problem the world is facing every day. They are now woven into the fabric of human life. Since the COVID-19 pandemic, a paradigm has shifted in how people interact, learn, and do business. Recent revelations have seen the need to embrace digital technologies to bring agility, operational efficiency, and innovation across organizations. As more organizations and individuals begin to adopt digital technologies, there has been a growing need to fill the expertise gap to design, develop, and maintain exciting technologies.

- and · Add a comma

- GRAMMAR

  problem → **problems**

  It seems that **problem** may not agree in number with other words in this phrase.

  ? Learn more

- are now woven · Rewrite the sentence

- begin to · Remove the phrase

94 Overall score

Goals

All suggestions

Correctness

Clarity

Engagement ✓

Delivery ✓

Grammarly

- A writing assistant tool that helps people improve their writing.
- It can help with a variety of writing tasks, including:
  - Checking for grammar, spelling, and punctuation errors
  - Identifying and correcting stylistic issues, such as overused words and phrases, wordiness, and passive voice
  - Improving the clarity and conciseness of your writing
  - Ensuring that your writing is appropriate for the intended audience

Paperpal

Rephrase and 3 other suggestions

In the production sector, ~~it is shown that~~ seafood comes from three main sources~~:, which is the~~ wild catch, aquaculture (freshwater ~~culture~~ and marine culture), and seafood imported~~imported ones~~ from other countries.

5 Accept All   Reject All

Insertion

Another AI writing assistant for researchers:

- Provides real-time suggestions and checks, including language, grammar, vocabulary and consistency.
- Can evaluate the whole manuscript for common errors and omissions.
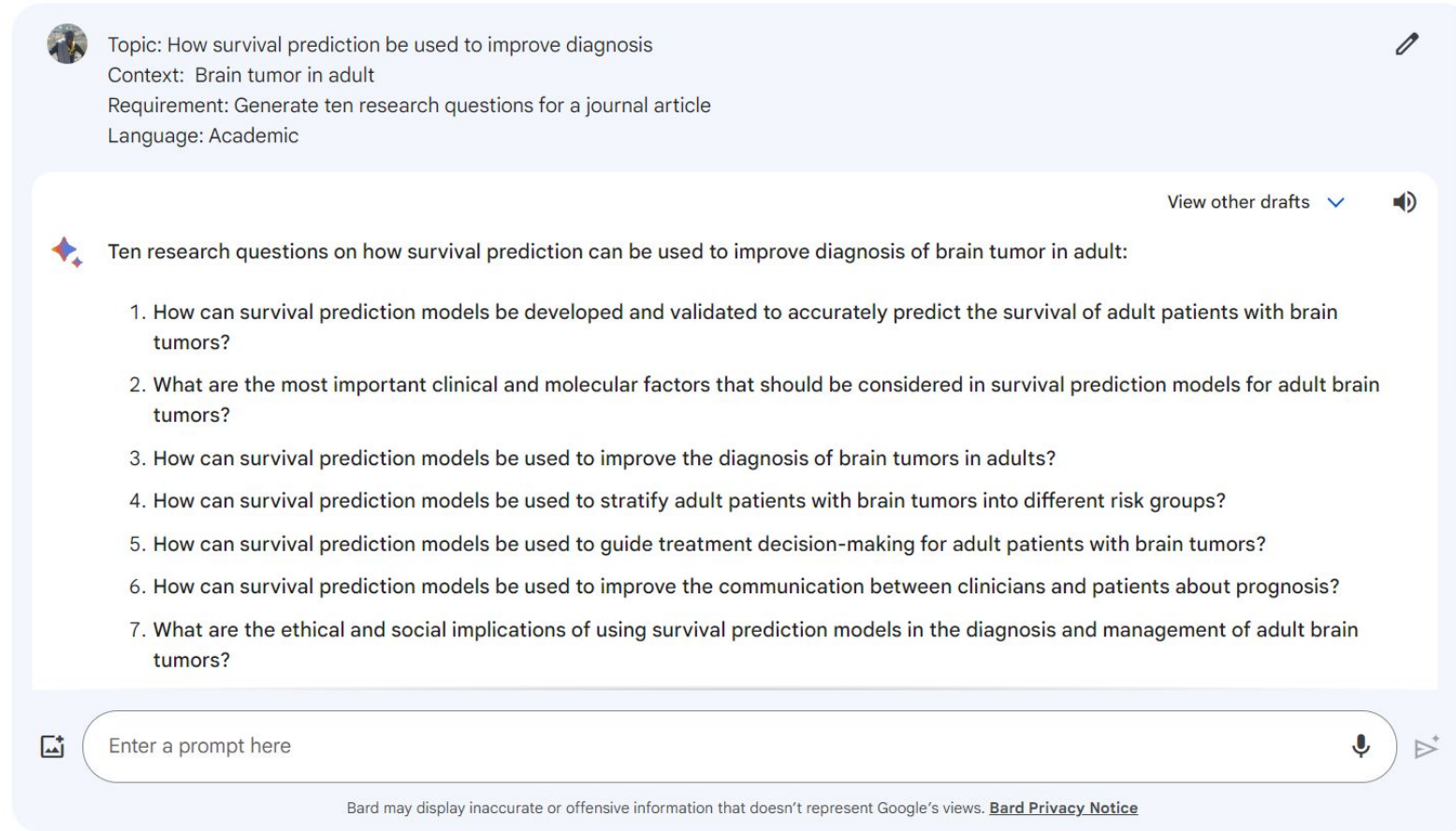
Staying Up to Date with R Discovery

A smartphone app that keeps you updated with recent published literature in your field of research
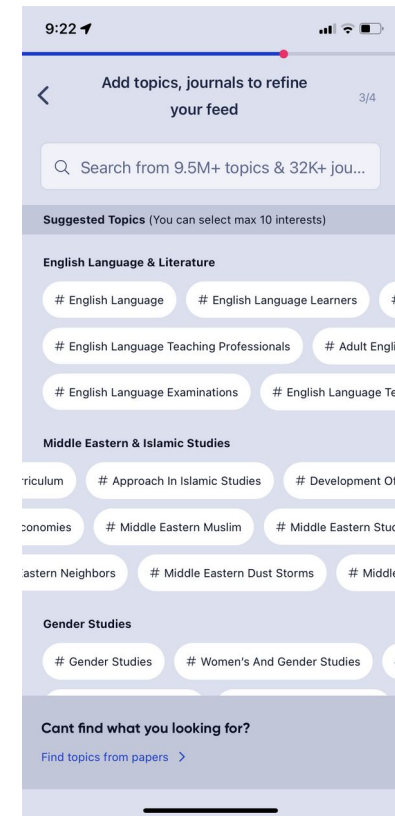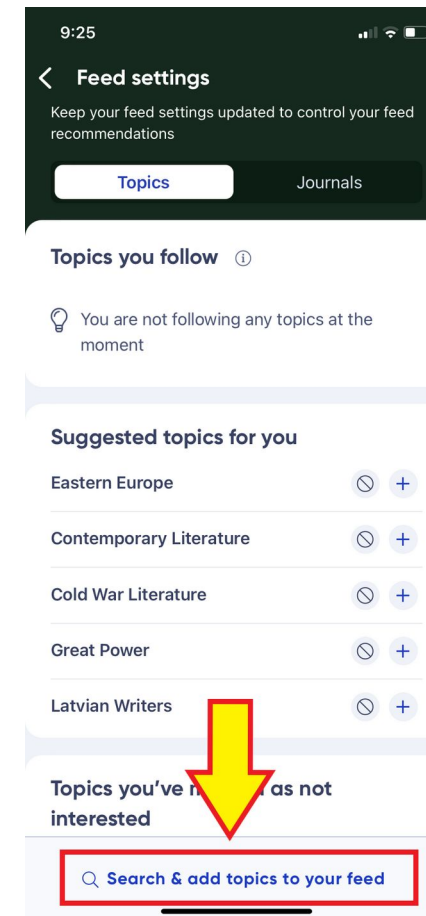
AI prompts for Academic Writing

AI prompts like ChatGPT, Bing AI, and Google Bard can be used to:

- Brainstorm research questions
- Produce an outline for a research/seminar paper
- Critique Partner
- Reading assistant
- Write introductions and conclusions.

Topic: How survival prediction be used to improve diagnosis
Context: Brain tumor in adult
Requirement: Generate ten research questions for a journal article
Language: Academic

View other drafts ⌄

Ten research questions on how survival prediction can be used to improve diagnosis of brain tumor in adult:

1. How can survival prediction models be developed and validated to accurately predict the survival of adult patients with brain tumors?

2. What are the most important clinical and molecular factors that should be considered in survival prediction models for adult brain tumors?

3. How can survival prediction models be used to improve the diagnosis of brain tumors in adults?

4. How can survival prediction models be used to stratify adult patients with brain tumors into different risk groups?

5. How can survival prediction models be used to guide treatment decision-making for adult patients with brain tumors?

6. How can survival prediction models be used to improve the communication between clinicians and patients about prognosis?

7. What are the ethical and social implications of using survival prediction models in the diagnosis and management of adult brain tumors?

Enter a prompt here

Bard may display inaccurate or offensive information that doesn't represent Google's views. **Bard Privacy Notice**

The right mindset for AI-Powered tools

- Researchers should use AI to
  - automate tasks,
  - find summaries information,
  - and generate outlines,
- but they should constantly critically evaluate the output of AI tools
- use their judgment to make decisions.

Links

- https://bard.google.com/
- https://consensus.app/
- https://typeset.io/
- https://paperpal.com/
- https://www.perplexity.ai/
- https://www.grammarly.com/
- https://inciteful.xyz/
- https://researchrabbitapp.com/
- Bing AI – Search
- https://discovery.researcher.life/
- https://www.semanticscholar.org/
- https://www.connectedpapers.com/
- https://www.litmaps.com/

Thank You