Research Guide
Artificial Intelligence for Researchers

What is Artificial Intelligence (AI)?

AI is the replication of human intellect and awareness in machines that think, judge, respond, and behave like humans ([Frakenfield, 2022](#)).

[What Is AI? | Artificial Intelligence | What is Artificial Intelligence? | AI In 5 Mins |Simplilearn](#)

AI in Academia

AI is infiltrating many facets of our daily lives, including education, and has the potential to significantly expand and improve teaching and learning in higher education ([Crompton and Song, 2021](#)).

Since generative AI technologies can transform knowledge generation in education, they have caught the attention of academics and raised major concerns regarding their impact on higher education research. These tools[1] can reshape research by opening new avenues for exploration, analysis, and innovation ([Al-Zahran, 2023](#)).

[How AI Could Save (Not Destroy) Education by Sal Khan | 15:36 Mins](#)

Literature Review Tools

- **IrisAI** is an artificial intelligence tool designed to help understand scientific texts. It can also be used for literature reviews, research data extraction, post-market monitoring, and other laborious tasks.

- **Rayyan** is an AI-powered tool designed for systematic literature review. It serves as a collaboration platform that can help academics with systematic reviews, literature reviews, and knowledge synthesis projects.

---

[1]Some of the tools require subscription—the use of AI tools for academic research and publishing is the author's sole discretion.

- **Covidence** is a web-based platform designed to streamline the systematic review process in academic research. It provides tools for study screening, data extraction, and risk of bias assessment.

- **SciteAI** is a citation index that retrieves and contextualises scientific material through machine learning. It classifies data using a deep learning model and presents the surrounding textual information from the referenced publication.

- **LitMaps** is an AI tool designed for literature review. It generates results using a citation network unlike traditional literature review tools which use keywords and references.

- **Consensus** is a search engine that uses artificial intelligence to locates research materials for scientific studies.

- **ResearchRabbitAI** is a citation-based literature mapping tool.

- **Elicit** summarises a paper's main points related to the query and finds relevant papers. It also includes brainstorming and text categorisation tasks.

- **Scispace** is an AI-powered literature review tool for researchers. It helps users easily search for and understand research papers.

Writing Tools

- **Squibler** is a user friendly program designed for authors and writers who wish to finish their projects more quickly.

- **WordTune** is an AI-powered writing tool designed to help users improve the quality and clarity of their written content.

- **WriteFull** provides writers and copy editors with big data insights and AI-powered language feedback to help them write better.

- **PaperPal** is an AI academic writing tool. It checks for plagiarism, grammar and can help improve writing speed and quality.

- **ProwritingAid** is an online writing and editing tool that assists writers in improving grammar, spelling, style, and overall writing quality.

- **TrinkaAI** is an online grammar checker and language correction AI tool for academic and technical writing**.**

Presentation Tools

- **Piktochart** is an AI-powered tool that allows users to create professional-quality infographics using themed templates, even if they do not have extensive graphic

design   knowledge.

- **Gamma App** is a platform that uses artificial intelligence to quickly and easily produce professional documents, presentations, and web pages.

AI Search Engines

- **Perplexity** is an AI-driven search engine and chatbot that combines natural language processing (NLP) and machine learning to provide precise answers to user queries.
- **ChatGPT** by OpenAI is a chat assistant that converses naturally, answers questions, generates original material, and solves problems.
- **Gemini,** formerly known as Bard, is a Google's 2023 AI chatbot designed to compete with ChatGPT. Similar to ChatGPT, it can answer queries and assist with creative projects.
- **Bing** is an artificial intelligence assistant that is integrated into the Bing search platform, designed to function as a more intelligent search engine.

References:

1. https://ucsd.libguides.com/ai

2. https://libguides.ucalgary.ca/artificialintelligence

Last updated: 09-07-2024