

AI LITERACY: AI AND RESEARCH

HOSTED BY ALISON GURGANUS & RODRIGO GOMEZ, II&E

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Getting to Know You:

- What College Are You From?
- Title



ALISON GURGANUS

- FACULTY SPECIALIST FOR EMERGING TECHNOLOGY
- ONLINE SERVICES LIBRARIAN/FACULTY PROFESSOR
- PRESIDENT, COUNCIL OF CHIEF LIBRARIANS

RODRIGO GOMEZ

- FACULTY SPECIALIST FOR EMERGING TECHNOLOGY
- FULL PROFESSOR, MIRAMAR COLLEGE



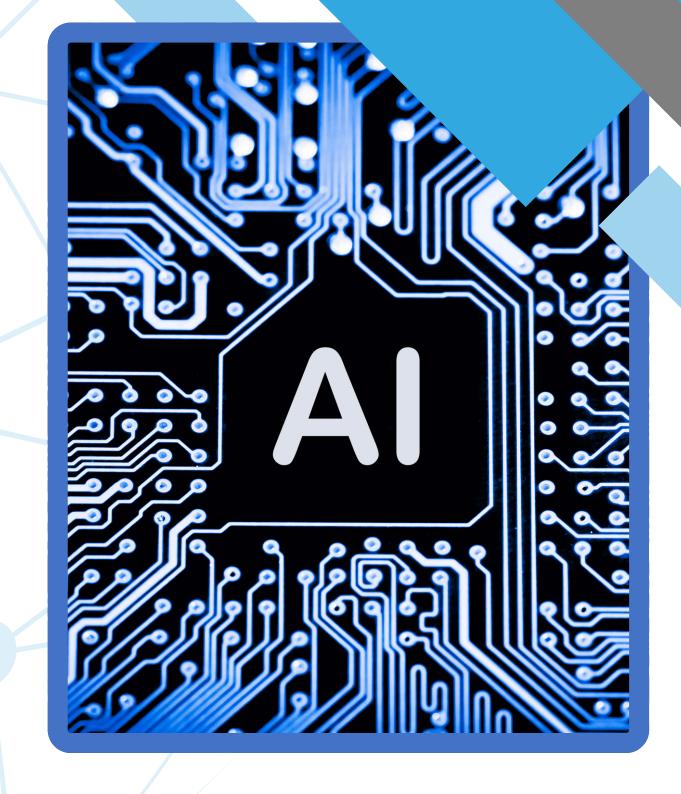
Add Your Voice to The Conversation!

- How are you feeling about using AI in your work?
- How are you using AI in your personal and/or professional?
- What AI tools have you seen used for research?
- What Other Professional Development sessions on AI would you like to see offered?



menti.com:

code: 1761 7153





Al Literacy and Information Literacy

Understanding how these two literacies are entertwined

2

Tools

Becoming familiar with some AI tools for research

Practical Applications

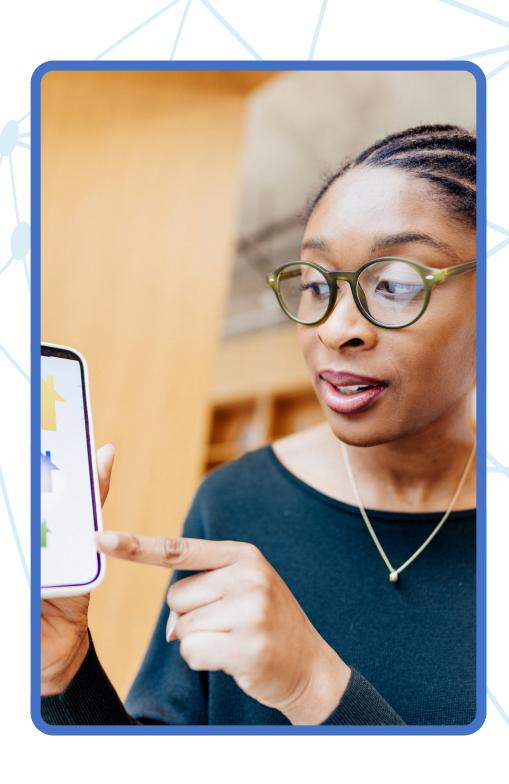
Real classroom use of Al tools for research purposes

What is a Large Language Model?



- Generate human-like text
- Trains on language patterns, context and semantics enhancing relevance
- Researchers are using for literature reviews, data analysis, grant writing and content generation...

Al Literacy is Information Literacy



Research Skills

- Recognizing the Need and Formulating a Question
- Locating Information
- Evaluating Sources
- Managing & Organizing Information
- Ethical and Legal Use
- Critical Thinking and Analysis
- Creating and Sharing Information

Can you give me the citation for the Bardzell and Bardzell 2023 research that you quoted above?

The citation for the research by Bardzell and Bardzell in 2023 that I referred to earlier is:

Chan, C. K. Y. (2023). Is AI Changing the Rules of Academic Misconduct? An In-depth Look at Students' Perceptions of 'AI-giarism'.

arXiv. This study explores the complexities of AI-related academic misconduct ("AI-giarism") and how it affects traditional definitions of plagiarism. It examines students' perceptions of various AI-generated content scenarios and proposes new frameworks for addressing these issues in academic settings.

You can access the full paper <u>here</u>

What is the Bardzell paper? You didn't give me that one

The paper by Bardzell and Bardzell (2023) focuses on the implications of artificial intelligence (AI) on academic integrity in higher education. They address the potential for AI to disrupt traditional academic practices, particularly concerning cheating and plagiarism. The authors argue that while AI tools can facilitate learning, they also raise significant ethical concerns about their impact on student behavior and integrity.

For reference, here's the citation for the Bardzell and Bardzell paper:
Bardzell, S., & Bardzell, J. (2023). Artificial Intelligence and Academic Integrity:
An Overview. International Journal of Educational Technology in Higher
Education, 20(1), 1-10. Link to the paper
Springer Link

<u>Times Higher Education (THE)</u>

If you need more detailed insights from their research or any specific themes they covered, feel free to ask!

Does the Bardzell paper exist? I can't find it

It appears that there is no specific paper by Bardzell and Bardzell from 2023 regarding academic integrity and AI that I could find. However, there are several other relevant scholarly works discussing academic integrity in the context of artificial intelligence, particularly concerning its implications for writing and learning.

Does the Morris & Stommel article exist? If so, I would like the citation information

Yes, the article by Morris and Stommel (2023) does exist. The citation for this research paper is as follows:

Morris, S., & Stommel, J. (2023). Disrupting the disruption: What it means to teach in a world filled with AI. Educause Review. Available at EDUCAUSE Review

This article discusses the implications of AI in education and offers insights into how educators can adapt their teaching methods in response to the rise of AI tools. If you're looking for specific themes or quotes from the article, feel free to ask!

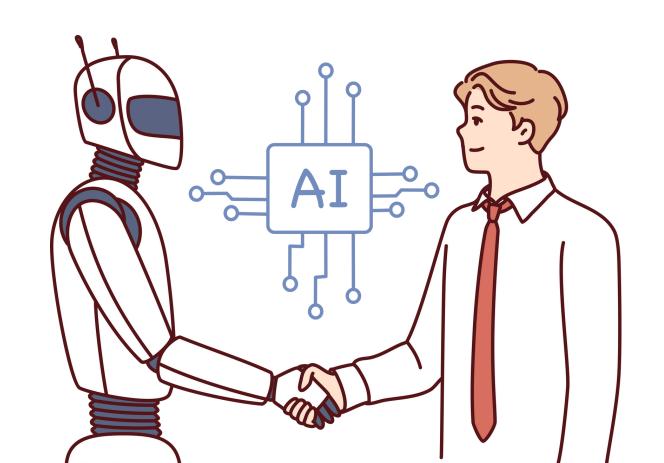
I don't believe that actually exists, please give me a working link

It appears that the article by Jesse Stommel and Sean Michael Morris titled "Disrupting the Disruption: What It Means to Teach in a World Filled with AI" does not currently exist in any easily accessible scholarly format. While Stommel and Morris are both active in discussions about pedagogy and AI, their work on this specific topic may not have been formally published yet.

However, they have written extensively on related subjects, particularly about teaching practices and the implications of grading in education. For example, Stommel's recent discussions involve themes of "ungrading" and the impacts of AI on educational practices. You can find a range of his work on his personal site and through Hybrid Pedagogy, where he frequently publishes articles about digital pedagogy and educational equity

If you're looking for insights into teaching in an AI-influenced environment, checking out their other writings may be beneficial. You can explore their work at Hybrid Pedagogy <u>here</u>.

Understanding opportunities for Al in Research



A glance at research:



Traditional:

Time-intensive, manual processes at every stage, from idea generation to drafting and citing.

Research is, after all, a process of inquiry where researchers enter into a conversation with other scholars and the topic itself. This requires careful reading, critical questioning, and synthesizing information.

A glance at research:



With AI Tools:

Al speeds up and simplifies multiple steps, offering new ways to brainstorm, find, and organize sources.

Al could accelerate this process by acting as a conversation partner, suggesting relevant information and even helping us engage with complex materials. However, researchers must still critically assess Al output.

Brainstorming & Formulating Questions

Traditional: Brainstorming ideas through reading books, articles, and manual keyword searches.



Library Research: Tools & Assistance

- OneSearch (find articles, books, videos, and more)
- Articles & Databases
- Multi-Subject Article & Reference Databases
- Databases by Subject
- A-Z Databases
- A-Z Journals
- eBook Collections
- Open-Access Collections

Search articles, books, journals & more

Searching: Academic Search Complete (and 8 more)	
Berserk AND dark fantasy	
Full Text Peer Reviewed All time >	
Google Scholar	
Bersek and Dark Fantasy	Q
♠ Articles	

Brainstorming + AI (S.T.O.R.M) STORM (Stanford University)

Synthesis of

Topic

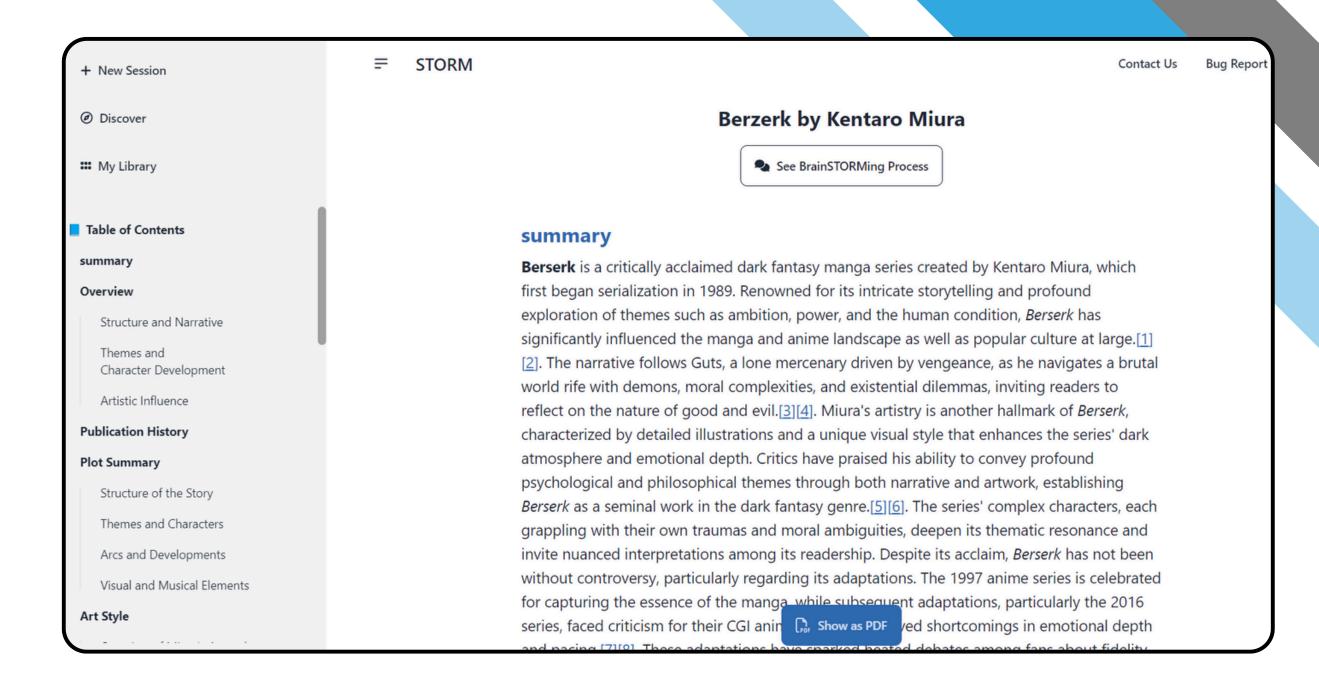
Outlines through

Retrieval and

Multi-perspective

Question Asking

Al can create generalized wiki-like pages for your topic!



Formulating Research Questions + Al



"I'm writing a paper on Berzerk manga by Kentaro Maura. Help me brainstorm topics and formulate a research question"

1. Themes of Power, Corruption, and Sacrifice

- Explore how Berserk delves into the corrupting nature of power, particularly through characters like Griffith and his quest for dominance.
- Research Question: How does Berserk portray the moral complexities of power and sacrifice through its characters, and what message does this convey about ambition?

2. The Struggle Between Fate and Free Will

- Miura's work often reflects on the tension between destiny and personal choice, particularly through Guts' journey.
- Research Question: How does Berserk address the concept of free will in the face of overwhelming destiny, and what philosophical implications does it offer?

Al can assist in generating potential problems or questions using general points of view

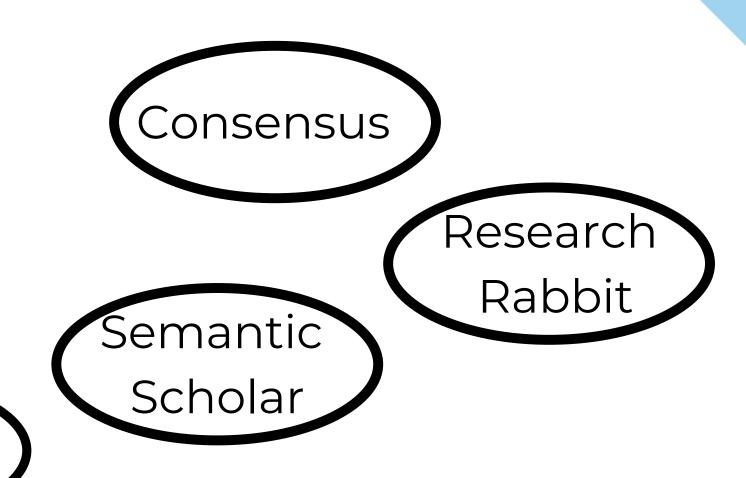
Institutional Innovation and Effectiveness

Finding Sources + Al

Traditional: Finding and selecting sources manually is a deliberate and time-consuming task-- but critical engagement is crucial

Scholar

With Al Tools: Al aids this process by quickly retrieving relevant sources and suggesting connections, though researchers still need to evaluate these sources critically.





Initial topic interest:

Berserk (Manga) by Kentaro Miura

Refined research topic:

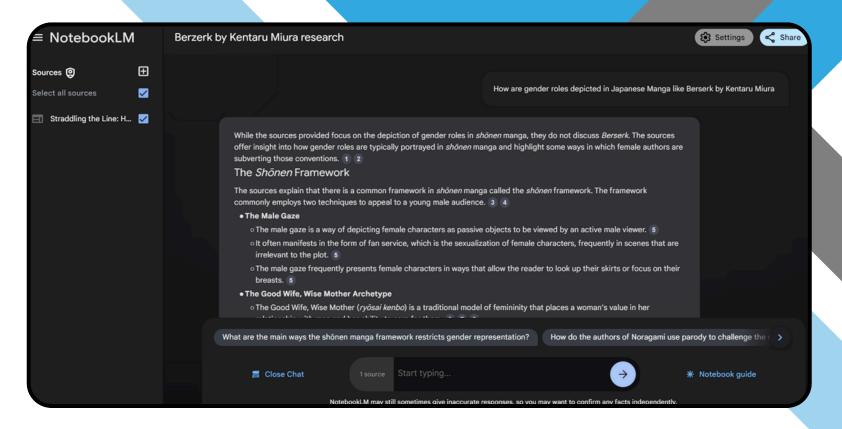
How does Berserk challenge or reinforce traditional gender roles, particularly in its portrayal of masculinity and the treatment of female characters?



Engaging with Sources + Al

In the traditional research process, engaging with sources involves manually reading through texts, highlighting key information, and taking extensive notes.

NOTEBOOK LM



With AI Tools: AI-powered tools make engaging with sources faster and more interactive. They can quickly summarize large texts, highlight key information, and generate structured outlines to provide an immediate overview of the main points. Additionally, they allow for real-time questioning and deeper insights, streamlining the reading and analysis process.



Al Research Assistance Tools

- STORM (Stanford University)
 - write grounded and organized longform articles from scratch, with comparable breadth and depth to Wikipedia pages
- Semantic Scholar
 - More traditional academic search engine layout, focusing on structured data presentation
- Research Rabbit
 - Offers a more visual, interactive interface that maps relationships between papers
- Citation Assistance

Workshop Example: From Ideation to Research & Citation

Getting Started: S.T.O.R.M

"mental health trends among college students post pandemic"

mental health trends among college students post pandemic



summary

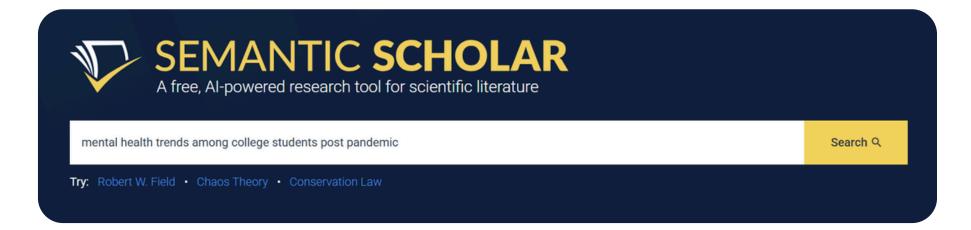
The COVID-19 pandemic has profoundly impacted the mental health of college students, ushering in alarming trends in anxiety, depression, and suicidal behaviors. A significant review highlighted that approximately 39.4% of college students met the clinical threshold for depression, and 40.1% experienced notable anxiety symptoms, marking a distressing shift in the mental health landscape for this demographic.[1][2] The transition to online learning and social isolation due to pandemic restrictions contributed significantly to these mental health declines, with many students reporting difficulties in concentration and feelings of loneliness. [3][4] Gender disparities have emerged as a critical factor, with research indicating that women face higher rates of severe mental health issues, including increased suicidal thoughts and self-harming behaviors compared to their male counterparts.[5][6] This vulnerability is particularly pronounced among individuals with pre-existing health conditions. The combination of academic stressors, such as adapting to virtual classrooms, and heightened emotional burdens related to the pandemic has exacerbated mental health challenges for many students, necessitating urgent attention and intervention from educational institutions. [7][8] In response to these unprecedented challenges, colleges and universities are reevaluating and expanding their mental health support systems. While many institutions have introduced telebealth services and adjusted academic policies to alleviate stress, barriers to

For initial ideation.

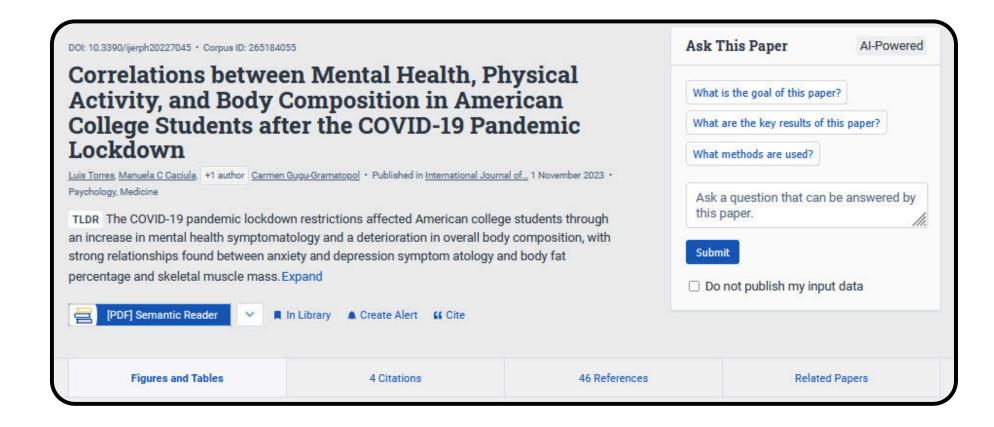
S.T.O.R.M will create a wiki-like page for your topic. It's a great place to start.

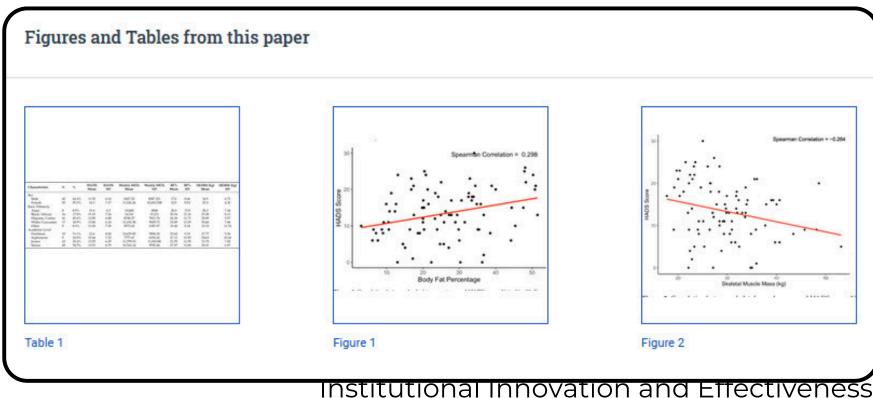
Institutional Innovation and Effectiveness

Researching with Semantic Scholar



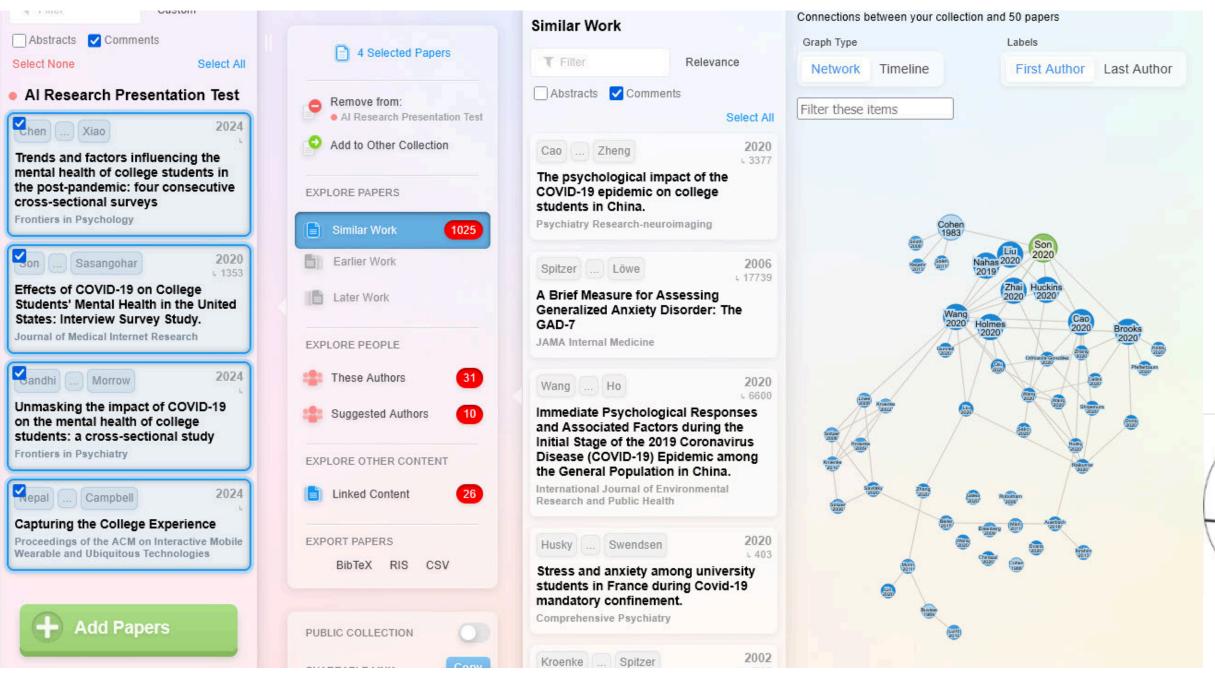
Al-powered research tool that helps users discover, understand, and analyze academic papers across a wide range of disciplines by highlighting key insights, citations, and connections between works





Researching with Research Rabbit

Al-powered academic discovery tool that helps researchers explore, visualize, and organize scholarly literature by mapping connections between papers, authors, and citations.





Research Rabbit

The most powerful discovery app ever built for researchers!

researchrabbitapp.com

Institutional Innovation and Effectiveness

Citing Sources

Traditional: Here, too, not much changes. Research is built on the credibility and proper acknowledgment of sources. Citation is not just a technical requirement but an ethical obligation in the scholarly conversation.

With AI Tools: All assists in managing citations and ensures proper formatting, but it remains the researcher's responsibility to verify accuracy and adherence to style guides.



Citing Sources

APA:

Reference

OpenAI. (2023). ChatGPT (Mar 14 version) [Large language model]. https://chat.openai.com/chat

MLA:

Works Cited

"Text of prompt" prompt. ChatGPT, Day Month version, OpenAI, Day Month Year, chat.openai.com.

Chicago:

Chicago Footnote

1. Text generated by ChatGPT, March 31, 2023, OpenAI, https://chat.openai.com.





Conclusion & Q&A

- Al Literacy is Information Literacy: We must learn how to effectively use Al tools is a crucial part of modern information literacy
- Al Streamlines Research: Al tools automate tasks like summarizing, outlining, and finding sources, making the research process more efficient.
- Al Supports, but Doesn't Replace
 Critical Thinking: Al can assist in various stages, but engagement with sources remain key responsibilities of the researcher.







SURVEY











THANK YOU





