

AI, Academic Research, and Open Access:

A Researcher's Perspective

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About me

- PhD in Comparative Literature from Binghamton University, NY as a Fulbright scholar (2017-2022).
- Postdoc at the Hans Christian Andersen Center, University of Southern Denmark (2023-2025).
- Tutorial on academic writing with AI being used by more than 6,000 academics.
- Webinars on academic writing with AI attended by more than 2,600 academics.
- A sizeable audience on social media (240,000+ on X/Twitter and 87,000+ on LinkedIn).
- Founded Chat Academia, an AI app that lets researchers integrate large language models (like ChatGPT) with multiple academic databases and helps them find research gaps.

AI and Academic Research



AI for Academic Work: Ground Rules

Outsource your labor to AI not your thinking

Use AI for structure not content

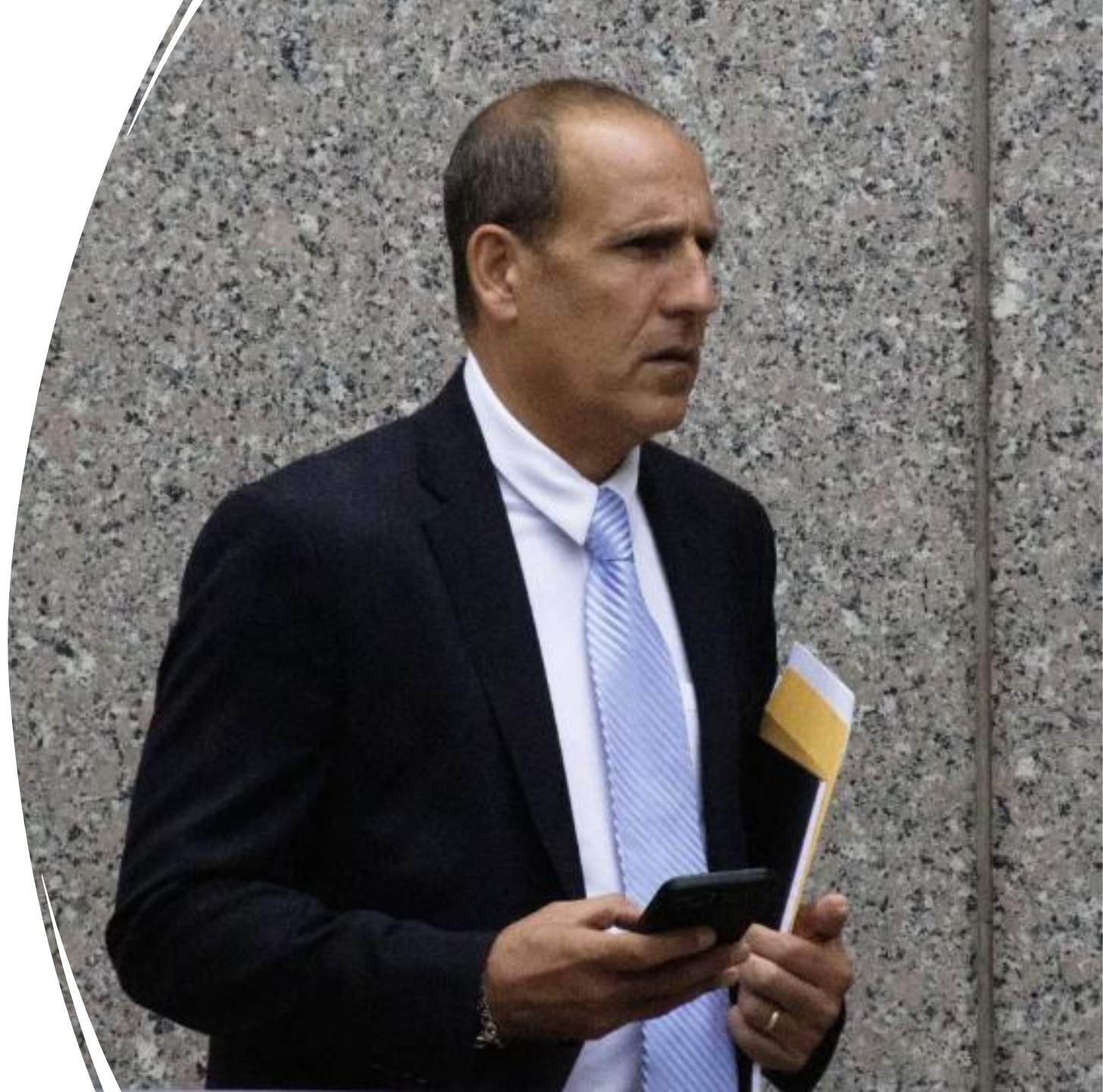
Treat AI as your research assistant and not your supervisor

Don't over-rely on AI, and don't forget to use your common sense

AI is Neither the Fantasized Utopia nor the Feared Dystopia

ChatGPT Lawyer

- New York based lawyer Steven Schwartz used ChatGPT to supplement his legal research.
- ChatGPT generated fake citations.
- Ended up getting sanctioned and fined \$5,000.

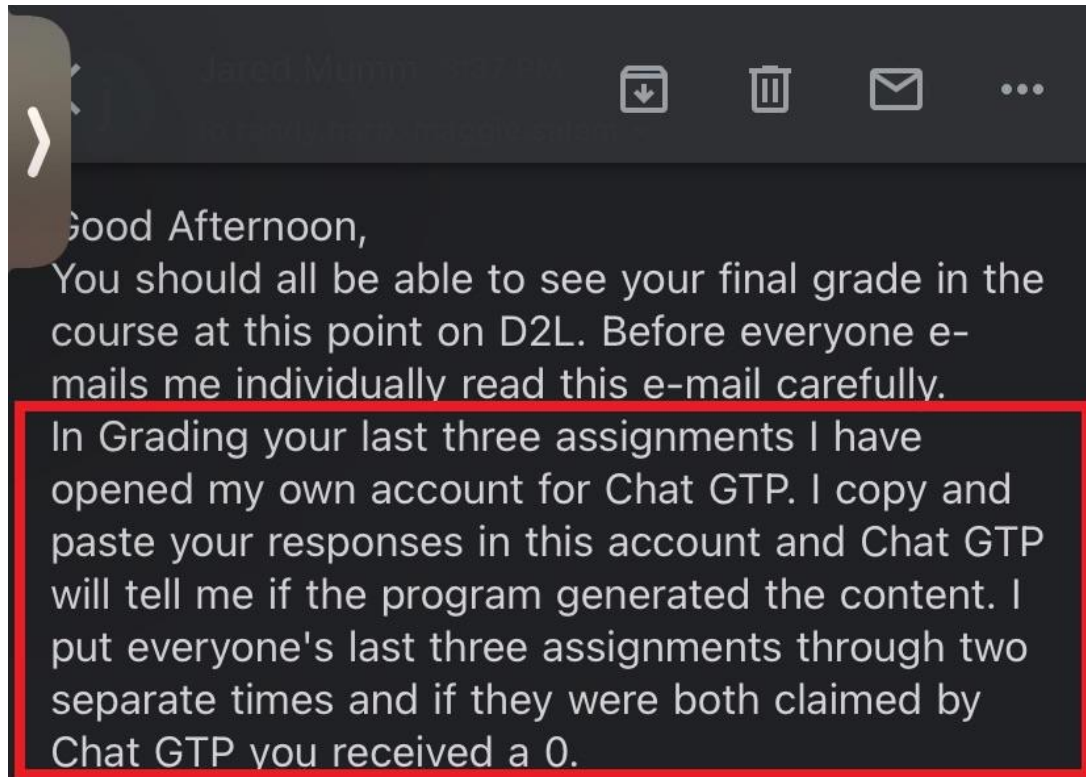


ChatGPT Professor

- Jared Mumm of Texas A&M wrongly suspected his students were cheating with ChatGPT and failed his whole class.



Jared Mumm's Email to Students



The prompt for this assignment will be the following:

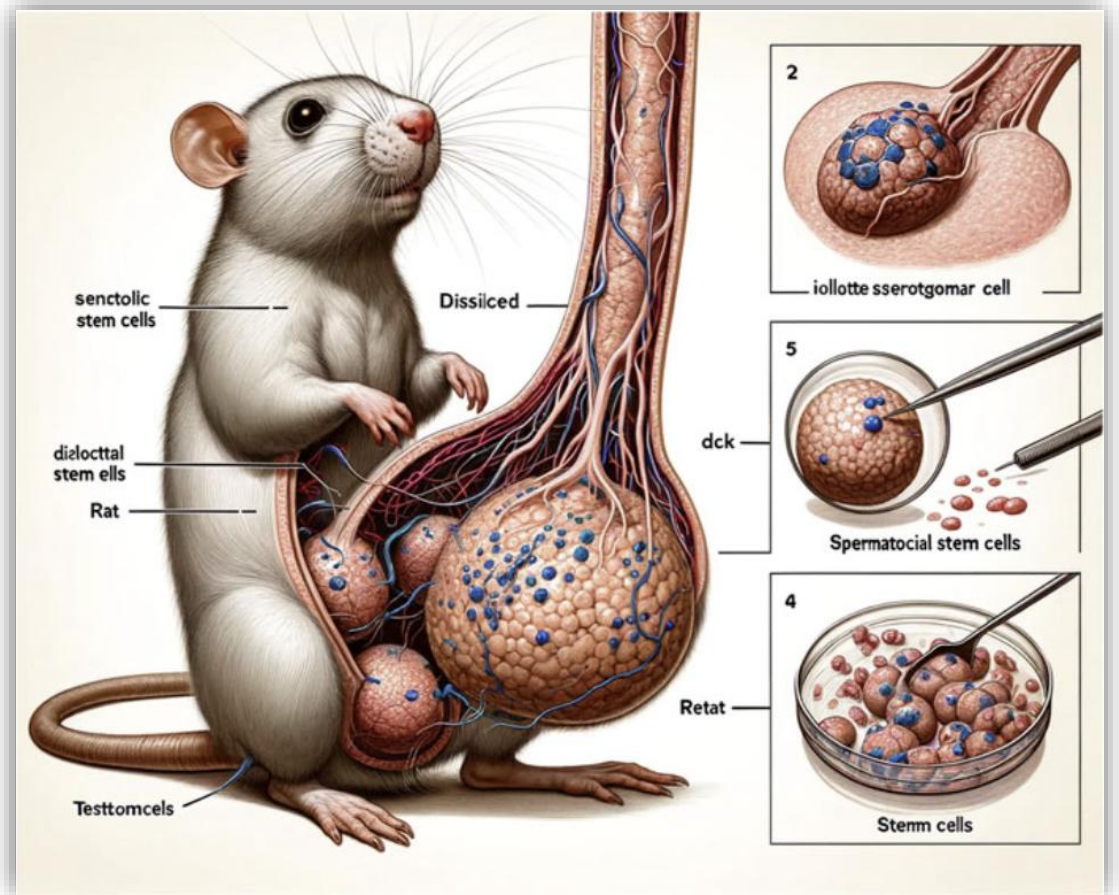
You are consulting for a farrow to finish operation and they have asked you to help them decide if they should begin creep feeding their pigs during farrowing.

You are to use 5 sources and as I run this through the chat GTP program if there is any inkling of its usage, not only will your grade stand in the class; but we will proceed beyond the class grade to the office of academic dishonesty and any further involvement in my classes or any other classes at this university then becomes the issue.

Jared

AI-Generated Rat

- An article titled “Cellular functions of spermatogonial stem cells in relation to JAK/STAT signaling pathway” was published in [*Frontiers in Cell and Developmental Biology*](#) with this AI-generated image of a rat with a huge penis.
- Authors: Xinyu Guo, Liang Dong, and Dingjun Hao





AI's Potential to Transform Academic Research

- Generative AI lets us run semantic searches.
- Apps that use semantic search include Scite, Consensus, SciSpace, Elicit, Evidence Hunt, Open Evidence, Future House.
- Example: Smart Citations in Scite.





Who Can Benefit from AI?

- If you're a good researcher, AI can make you a better researcher. If you're a better researcher, AI can make you a great researcher. But if you're not a researcher, AI can't make you a researcher.

Will AI Make
Science
More Open
and
Accessible?

No.



Why?

- Most research is paywalled by for-profit academic publishers like Elsevier and Clarivate, that are sponsoring this conference 😊
- Publishers like Elsevier will not give AI companies access to their datasets.
- In September, Elsevier announced that they are “developing a next-generation ‘end-to-end’ AI-powered solution for academic and corporate researchers.”

How Librarians Can Make Science More Accessible?

- There needs to be serious work done in terms of outreach towards researchers.
 - Existing resources in libraries remain under-utilized.
 - Example: SDU bought a subscription to Scite but didn't tell researchers.
 - A mandatory course on research methods for undergrad and graduate students on how to use different available databases tools (e.g. reference managers like Zotero, Mendeley, EndNote).
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