Masterclass in Social Research

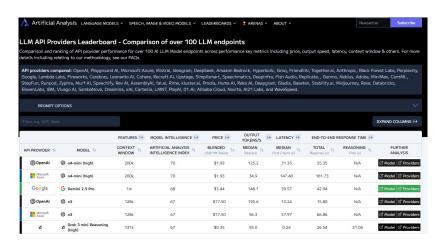
Al for Social Research: Overview







Large language models: From classification to "generation"

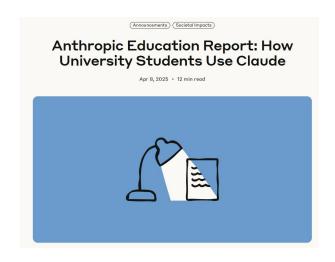


https://artificialanalysis.ai/leaderboards/providers



Al and Social Sciences

- Use AI to improve social sciences (see the next slide) or other practical uses such as in
 - Education (for both teachers and students)
 - Newsroom
 - Healthcare and counseling
 - Crime control
- Broad societal impacts of and (potential) changes brought by AI, such as
 - Misinformation and democratic backsliding
 - Group inequality and discrimination
 - Climate change and sustainable development
- Development, regulation and governance of AI geopolitics of LLMs (e.g., Deepseek)



https://www.anthropic.com/news/anthropic-education-report-how-university-students-use-claude



Medium

Q Search

Generative AI In the Newsroom

Generative AI in the Newsroom

Home About Use Cases Audiences Evaluation Prompting Ethics Legal

https://generative-ai-newsroom.com/



"How ChatGPT and Bing can help" (Hendriksen 2023)

- ► Identifying and adjusting research ideas/questions and relevant literatures (e.g. "what has been done in this area?")
- ► Locating relevant co-authors and key researchers in the field (e.g. "who has worked on this topic?")
- Exposing ideas to simulated and targeted critical readers (e.g. "how will my research be received")
- ► Producing research applications (e.g. "develop an outline for research proposal; coding and programming for specified tasks")



What social researchers can do with GenAI: Scale, scope and speed

- Explore human behaviour through "impersonation" (simulation) and human-machine interactions/comparisons – AI agents and agent-based modeling (ABM)
- ➤ Text annotation and (qualitative) grounded-theory coding interviews; natural language processing; discourse, content and thematic analysis (e.g., Geiecke and Jaravel 2024; Korinek 2023; Leek et al 2024)
- Design, implement and replicate surveys, including experiments (see Bail 2024)
- ➤ (Statistical) programming "vibe coding" (!?), more in Adv Topics in Quant Social Research

Yale 2024 DISSC AI Lightning Talk



https://www.youtube.com/watch?v=dBh_9pKOxd4&t=118s



Caveats

- ► Human bias sure, but perhaps an opportunity to "reverse engineer" the (re)production of different biases?
- Junk science and quality control domain-specific retrieval-augmented generation (RAG)?
- Ethics, perhaps both as a problem and solution deception and simulation?
- Transparency and replicability performance evaluation, prompt tweaking and model comparison?





'The Worst Internet-Research Ethics Violation I Have Ever Seen'

The most persuasive "people" on a popular subreddit turned out to be a front for a secret AI experiment.

By Tom Bartlett



MAY 2, 2025

SHARE A SAVE

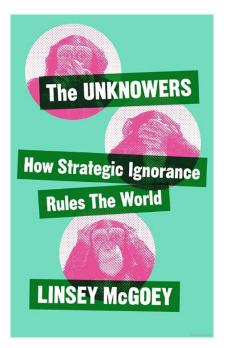


Questions to consider

Now AI has become a possibility − how might you incorporate AI into your research? How comfortable are you with using AI for research purposes? Why?

- ▶ Bail (2024) listed a lot of promising research opportunities and questions, which one would like to explore further? What else?
- ▶ In order to take advantage of AI, what might be the skills that you need to acquire? How much AI do you have to "know?" Perhaps apply the principle of "strategic ignorance" (Linsey McGoey 2019)?







Appendix: GenAl for plausibility checks

- ► Without using ChatGPT and Bing, imagine how you can integrate Al into your research practice and workflows
- Ask ChatGPT and Bing to see what they can do for your research. Are these suggestions at the risk of violating the College's policy on Al and academic integrity?
- Ask ChatGPT and Bing in general what they can do for qualitative and/or quantitative (social) researchers

