

AI for Social Research

2025 Birkbeck AI Summit



February 2, 2025 ChatGPT

OpenAI deep research

Bain & Company researcher Reem Anchassi uses OpenAI deep research to understand complex industry trends.

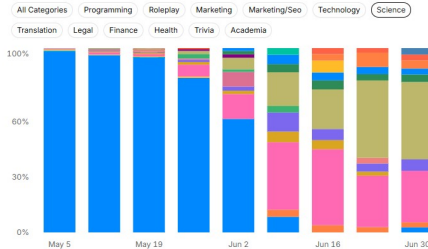


<https://openai.com/research/>



LLM Rankings

Compare models for science prompts



Leaderboard

Token usage across models

Top this week

- Google: Gemini 2.5 Flash Preview 05-20** > 84B tokens
Gemini 2.5 Flash May 20th Checkpoint is Google's state-of-the-art ...
↑ 202%
- Google: Gemini 2.5 Flash** > 13B tokens
Gemini 2.5 Flash is Google's state-of-the-art workhorse model, spe...
↑ 77%
- Google: Gemini 2.0 Flash** > 8.27B tokens
Gemini Flash 2.0 offers a significantly faster time to first token (TTFT)...
↑ 5%
- DeepSeek: DeepSeek V3 0324** > 6.64B tokens
DeepSeek V3, a 685B-parameter, mixture-of-experts model, is the L...
↑ 21%

<https://openrouter.ai/rankings/science?view=week>



LLMs and Social Sciences

- ▶ Use AI to improve 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)



Announcements Societal Impacts

Anthropic Education Report: How University Students Use Claude

Apr 8, 2025 • 12 min read



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



Generative AI In the Newsr⚙️⚙️m

Generative AI in the Newsroom

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



A blue whale logo is displayed on a smartphone screen. The whale is stylized in a solid blue color, facing left. The screen is set against a dark blue background.

**Germany tells Apple and
Google to block DeepSeek
as the Chinese AI app faces
rising pressure in Europe**

 **CNBC** INTL

@cnbcinternational




“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")



AI Tools For Research

 SCISPACE

 scholarcy

 Napkin

 yoodli

 Litmaps®

 OpenRead

 scite_

 NotebookLM

 CONNECTED PAPERS

 Humata

 ATLAS.ti

 ResearchRabbit


 Discovery
by Edstage

 jenni

 Julius

 Elicit

 Consensus

 EvidenceHunt



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?



TECHNOLOGY

'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



Illustration by The Atlantic

MAY 2, 2025

SHARE  SAVE 

<https://www.theatlantic.com/technology/archive/2025/05/reddit-ai-persuasion-experiment-ethics/682676/>



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?
- ▶ Christopher Bail (PNAS 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)?





The UNKNOWNERS



**How Strategic Ignorance
Rules The World**



LINSEY McGOEY



Online shortcourse: “AI for Social Science”

- ▶ Session 1: Overview: From GPT to AGI
- ▶ Session 2: LLMs and qualitative social research (interviews and discourse/thematic analysis)
- ▶ Session 3: LLMs and survey and experimental research
- ▶ Session 4: LLMs and social data science I (natural language processing)
- ▶ Session 5: LLMs and social data science II (agent-based modeling and simulations)
- ▶ Session 6: Project workshop and looking ahead



Appendix: GenAI for plausibility checks

- ▶ Without using ChatGPT and Bing, imagine how you can integrate AI 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 AI and academic integrity?
- ▶ Ask ChatGPT and Bing in general what they can do for qualitative and/or quantitative (social) researchers

