

Leveraging AI & LLMs for Richer Insights into Public Opinion: Applications and Opportunities

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Language Models and Public Opinion Research

- LLMs can't replace a high quality opinion survey (*yet*)
 - Representativeness
 - Variance in responses
- LLMs are a powerful complement to measuring opinions and behaviour
- Exciting pathways for LLMs in survey research:
 - Dynamic/adaptive surveys and interviews
 - Generate/simulate new survey data*

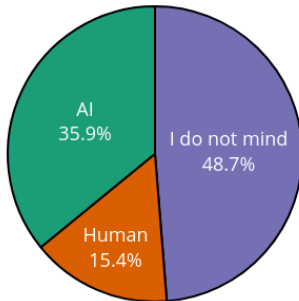
LLMs in [Adaptive] Survey Research

- Dynamic/adaptive surveys with embedded LLMs (Velez and Liu 2024)
 - Survey questions can be translated or modified to reflect user input
- Conversational surveys via interview (Geiecke and Jaravel 2024)
 - AI-led qualitative interviews at scale

“AI-powered interviewers can create a bridge between the richness of qualitative data and the statistical power of quantitative data” (Geicke & Jaravel, 2024)

Language Models in Interviewing for Electoral Choices

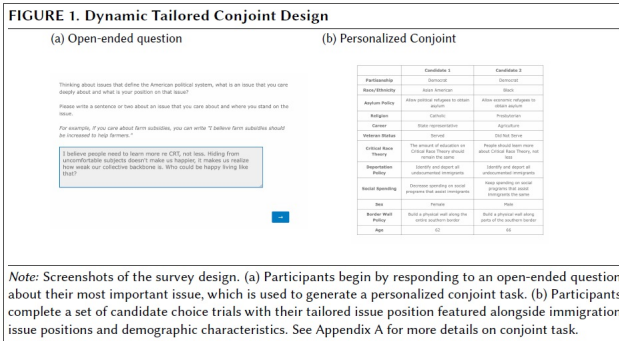
In the future, would you rather be interviewed by:



Source: Geicke & Jaravel (2024)

Dynamic/Adaptive Surveys

Velez and Liu (2024)



Simulating Public Opinion with LLMs

Bisbee et al (2024)

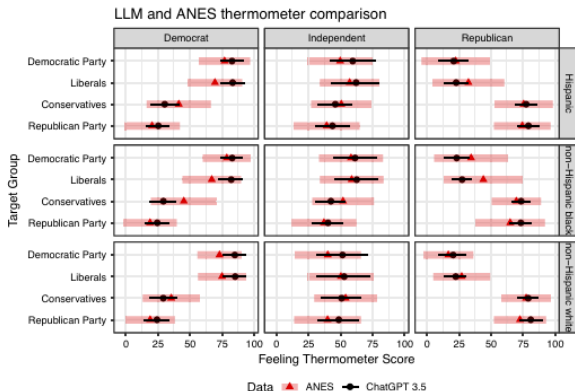
"It is [YEAR]. You are a [AGE] year-old, [MARST], [RACETH] [GENDER] with [EDUCATION] making [INCOME] per year, living in the United States. You are [IDEO], [REGIS] [PID] who [INTEREST] pays attention to what's going on in government and politics."¹³

In each query to ChatGPT, the characteristics in brackets are substituted with values corresponding to a real respondent in the 2016 or 2020 wave of the ANES. These values include:

- [YEAR]: 2016 or 2020
- [AGE]: age in years of ANES respondent
- [RACETH]: non-Hispanic white, non-Hispanic black, or Hispanic
- [GENDER]: male or female
- [MARST]: divorced, married, separated, single, or widowed
- [EDUCATION]: a high school diploma, some college but no degree, a bachelor's degree or more
- [INCOME]: \$30k, \$50k, \$80k, \$100k, \$150k or more
- [IDEO]: an extremely liberal, a liberal, a slightly liberal, a moderate, a slightly conservative, a conservative, an extremely conservative
- [REGIS]: registered, unregistered
- [PID]: Democrat, Independent, Republican
- [INTEREST]: never, sometimes, frequently, regularly, always

Can LLMs Represent Public Opinion?

Bisbee et al (2024)



The Path Forward: Opportunities & Responsible Innovation

■ Opportunities

- New insights from combining diverse data
 - ▶ Adaptive and dynamic surveys
 - ▶ Synthetic data*
 - ▶ Improving existing surveys (wording, cultural sensitivity etc.)

■ Key Challenges & Considerations

- Ethics: Privacy, potential for misuse (e.g., microtargeting, manipulation – Reddit story)
 - ▶ Very early days for LLMs – be curious, but be caution and consult a range of experts outside your domain

Thank you for your attention!

- Slides available on: [Github](#) or via the QR code
- My email: z.dickson@lse.ac.uk

