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INTRODUCTION

Background

As artificial intelligence (AI) becomes more prevalent, AI-based media-generation services have rapidly developed and expanded. These tools are now also used to create memes, leading to the emergence of AI meme generators.

Problems & Goals

AI meme generators may reproduce political bias, especially when trained on biased data, but they have not been explored extensively. In this regard, we seek to discern whether, and to what extent, AI meme generators demonstrate political bias. Our research is grounded in theoretical frameworks of media bias (Litcher, 2017) and internet memes (Shifman, 2013).

Research Questions

1. To what extent is political bias observable in AI-generated memes, and how does it manifest across (a) format-level features and (b) stance-related features?
2. How does political bias vary across topics between or within AI meme generators?

EXAMPLE OF MEME FROM IMGFLIP WHEN PROMPTED "CLIMATE CHANGE"



Format	Image	Text
Genre	Cartoon	
Reference	SpongeBob SquarePants	
Content	SpongeBob SquarePants	
Expression	"Climate change isn't real"	"-says the guy sweating in December"
Political Orientation	Liberal	

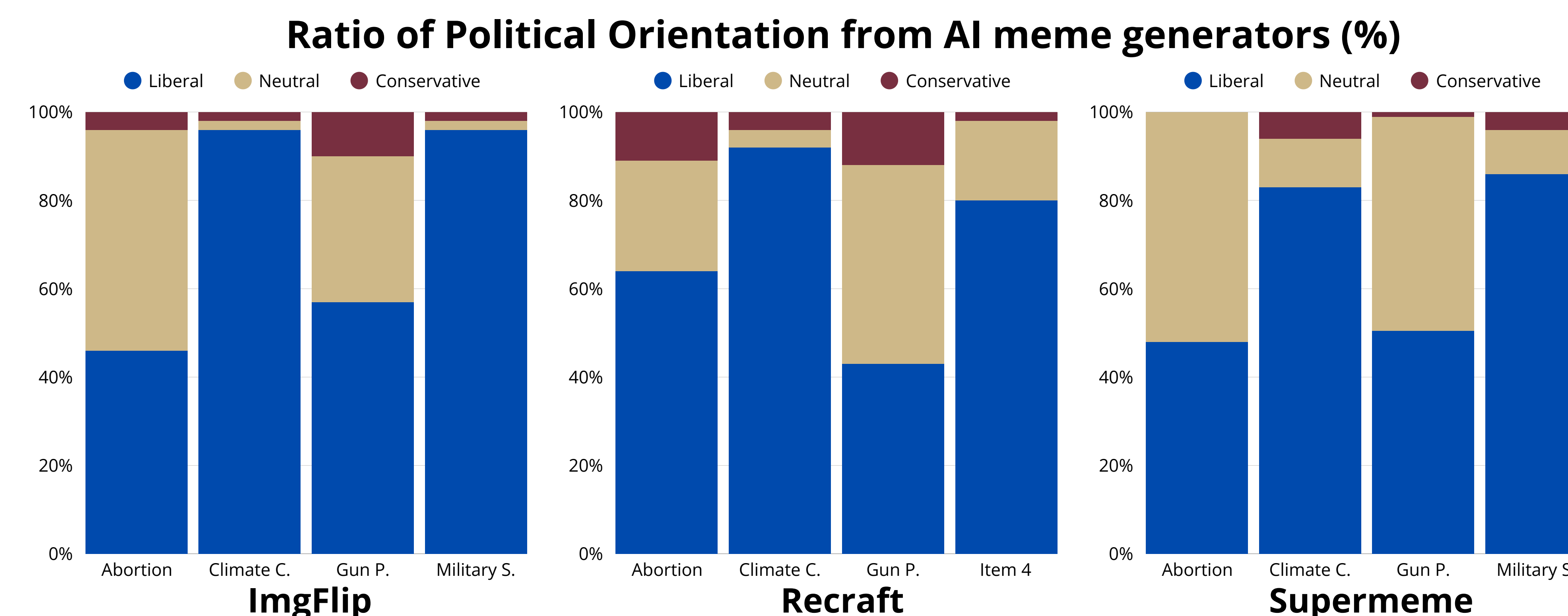
METHODS



EXPRESSION ANALYSIS (TOP 3)

Topics	ImgFlip	Supermeme	Recraft
Abortion	<ul style="list-style-type: none"> • serious face, • "women's bodies" • headaches, migraine 	<ul style="list-style-type: none"> • Smug face • Serious face • Nervous face 	<ul style="list-style-type: none"> • Deciding to have a baby • A big decision • Pro-choice • Pro-life
Climate Change	<ul style="list-style-type: none"> • "global warming" • mad seagull • serious face 	<ul style="list-style-type: none"> • Surprised face • Desperate expression • Approaching tornado 	<ul style="list-style-type: none"> • Ice cap • It's fine • Sweating earth
Gun Policy	<ul style="list-style-type: none"> • "Thought and prayers," • "One does not simply..." • Common-sense 	<ul style="list-style-type: none"> • Disappointed face • Yelling • Serious face 	<ul style="list-style-type: none"> • Assault weapons ban • Common sense • Gun policy 101
Military Spending	<ul style="list-style-type: none"> • Government education and healthcare • military budget 	<ul style="list-style-type: none"> • Angry face • Serious face • Inattentive parent 	<ul style="list-style-type: none"> • Military spending is a waste • Education • \$\$\$

DATA ANALYSIS & PRELIMINARY RESULTS



- After calculating bias distributions for each meme generator across each topic, our results show that the outcomes are **highly skewed to the liberal side.**
- Some topics and generators are more biased than others.
 - Overall, ImgFlip outcomes were 74% liberal, Recraft outcomes were 70% liberal, and Supermeme outcomes were 55% liberal.
 - Climate change had the most liberal memes at 90% across generators, while gun policy had the least liberal memes at 49% across generators.
 - Within a generator, the most significant difference in bias between topics was in ImgFlip, where climate change and military spending were 50 points more liberal than abortion.

- **ImgFlip:** Utilizing the meme templates with metaphorical expressions or scenario-based content is remarkable.
- **Supermeme:** Visual expressions, such as facial expressions or descriptors, are prominent.
- **Recraft:** Policy issues or arguments are intuitively expressed. Informative content (e.g., 'amount of budget') is often used.

NEXT STEPS

Further Analysis on Data

- Investigate the patterns in formats and content used in memes.
- Examine repeated expressions (or vernaculars) and misinformation by political orientations.

REFERENCES

- [1] Litcher, S. R. (2017). Theories of media bias. In K. Kenski & K. H. Jamieson (Eds.), *The Oxford handbook of political communication*. Oxford University Press.
- [2] Kaushik, S. (2025, September 26). *Best AI meme generators: My deeply researched list*. MobileAppDaily. <https://www.mobileappdaily.com/products/best-ai-meme-generators>
- [3] Peng, B. (2026, February 9). *10 best AI meme generators to create viral content/memes in 2026 (free & paid)*. Aiarty. <https://www.aiarty.com/ai-image-generator/best-ai-meme-generator.htm>
- [4] Pew Research Center. (2024, February 29). *Americans' top policy priority for 2024: Strengthening the economy*. <https://www.pewresearch.org/politics/2024/02/29/americans-top-policy-priority-for-2024-strengthening-the-economy/>
- [5] Shifman, L. (2013). Memes in a digital world: Reconciling with a conceptual troublemaker. *Journal of computer-mediated communication*, 18(3), 362-377.