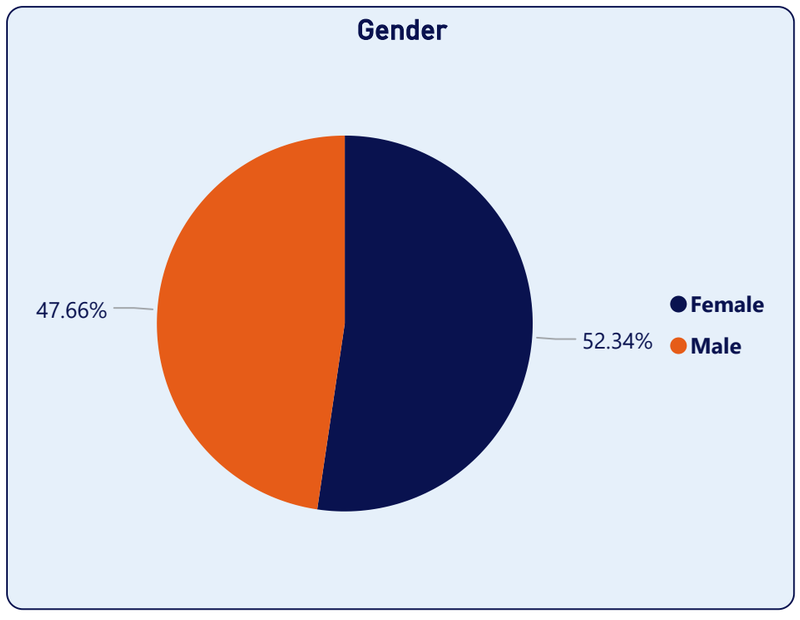
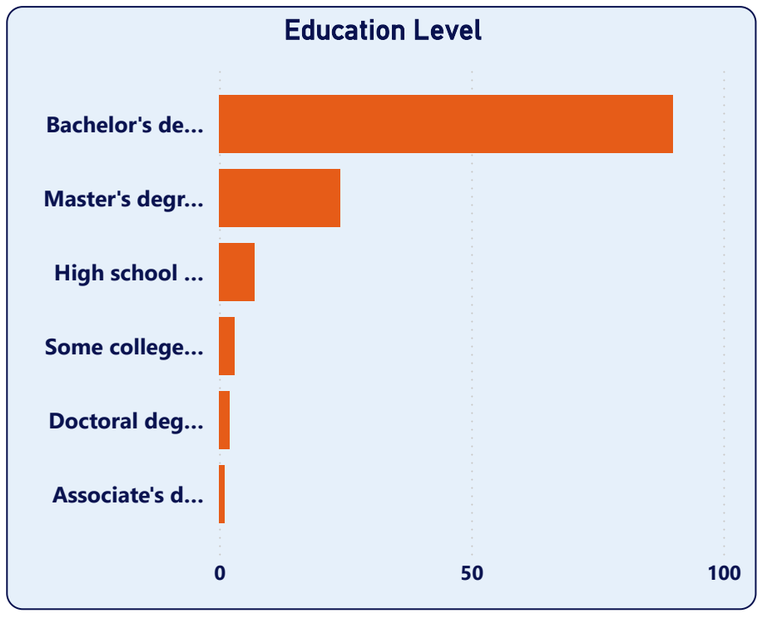
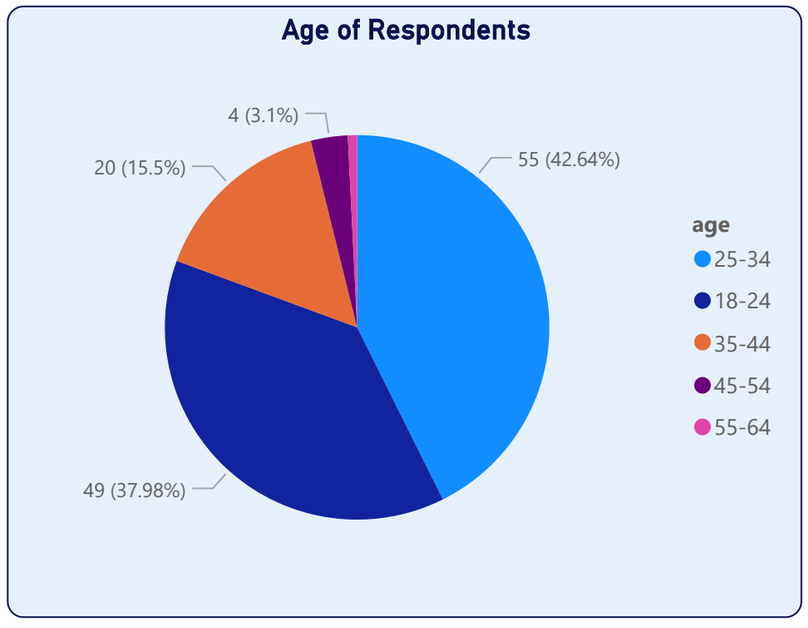
Gender Disparity in Generative Pre-Trained Systems

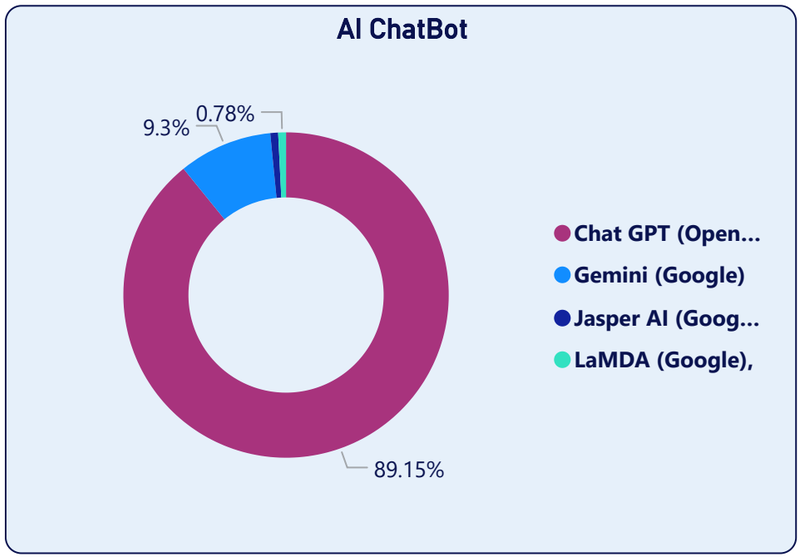
Demographics

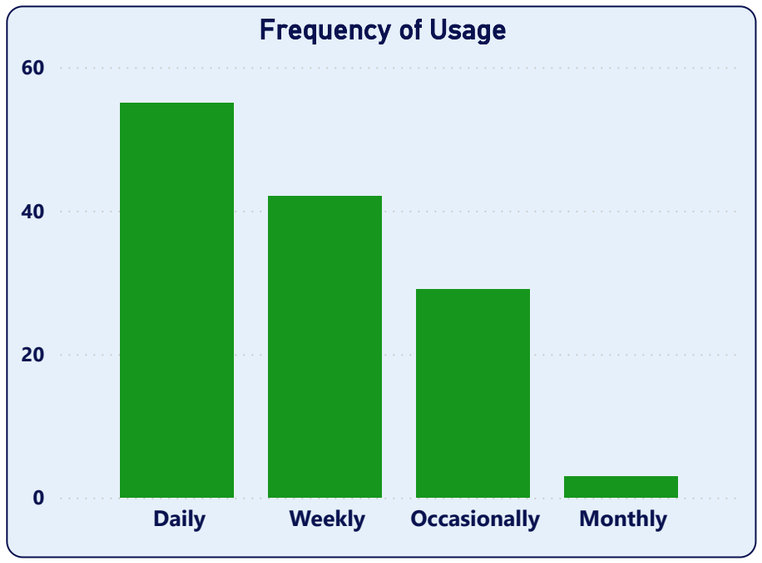


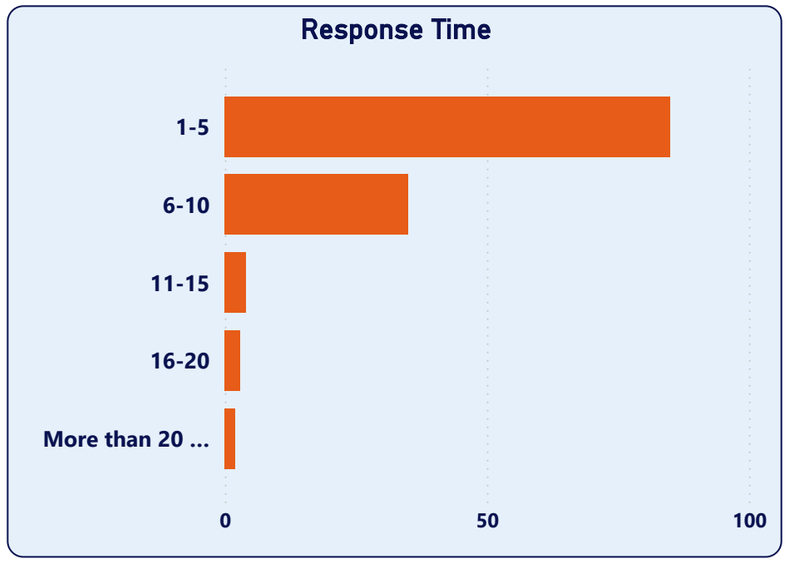




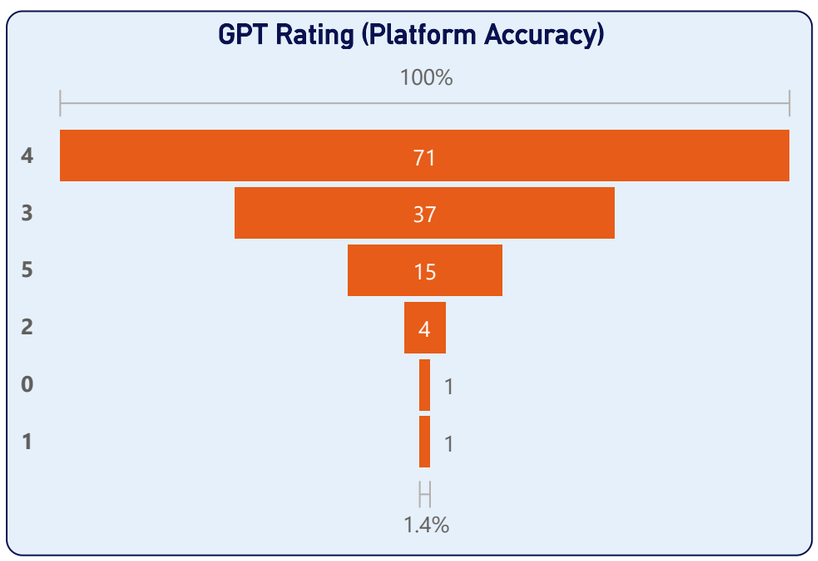
System Questions

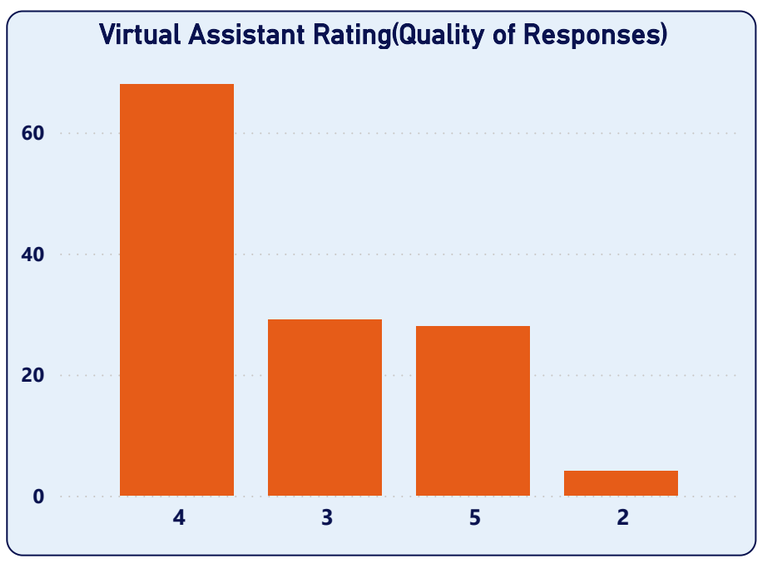


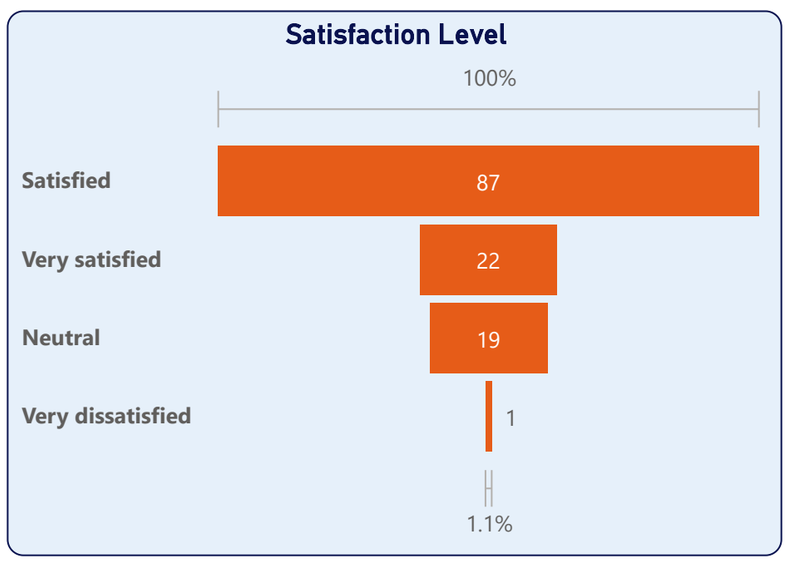




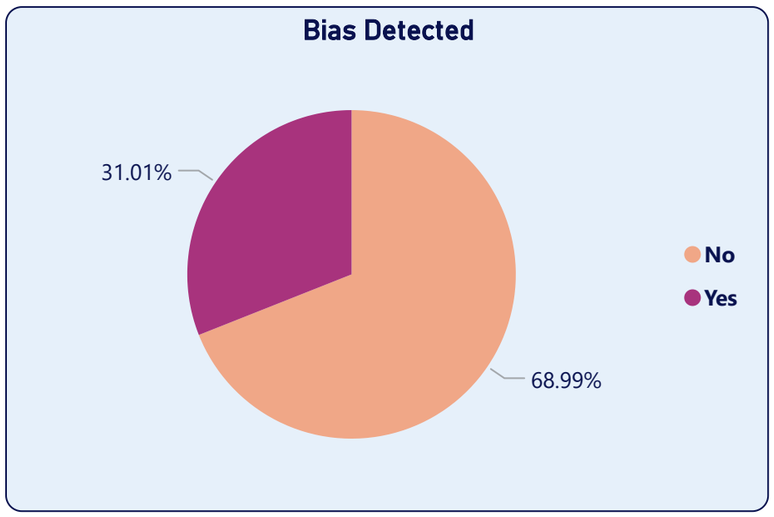
Performance Metrics

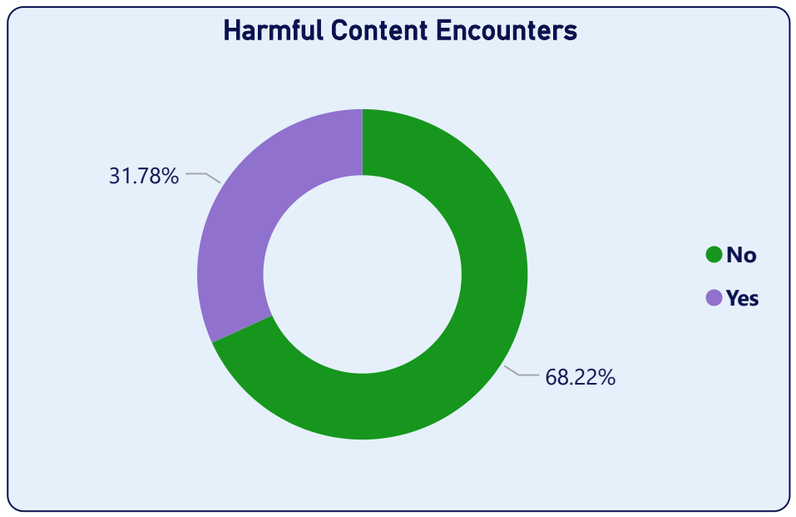


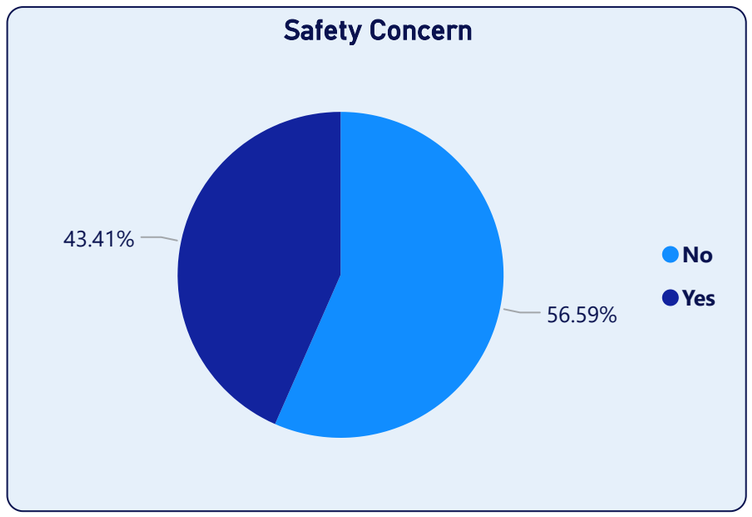


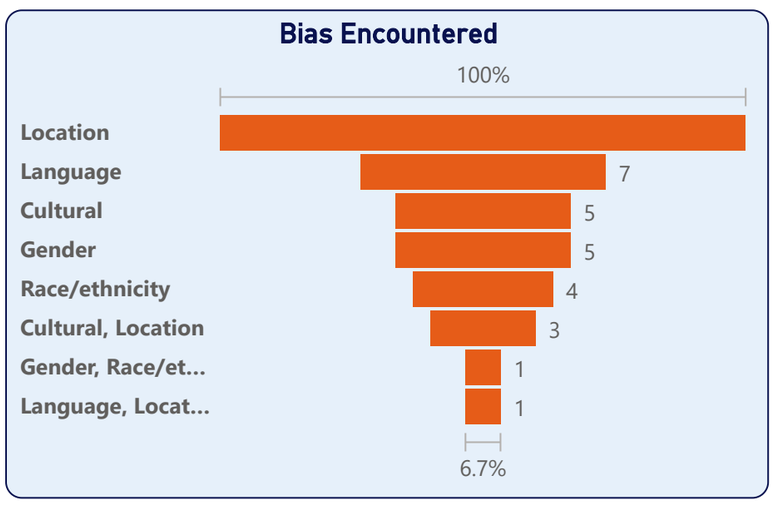


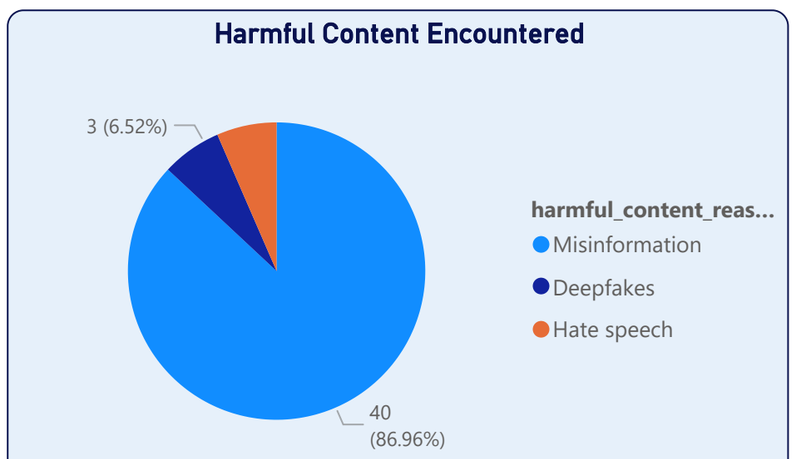
Bias and Fairness

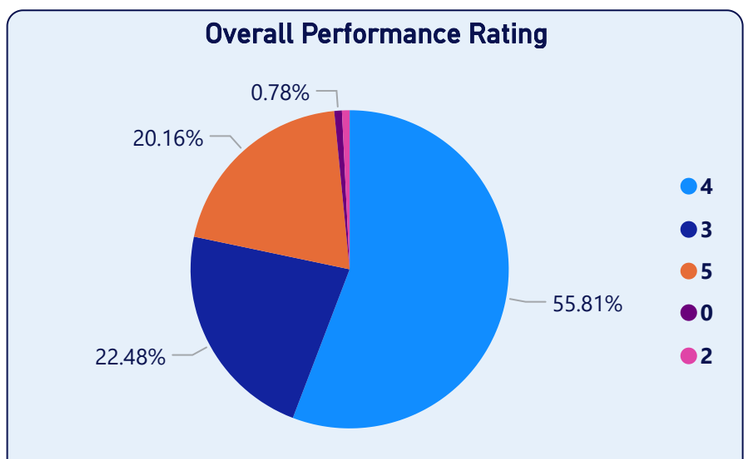




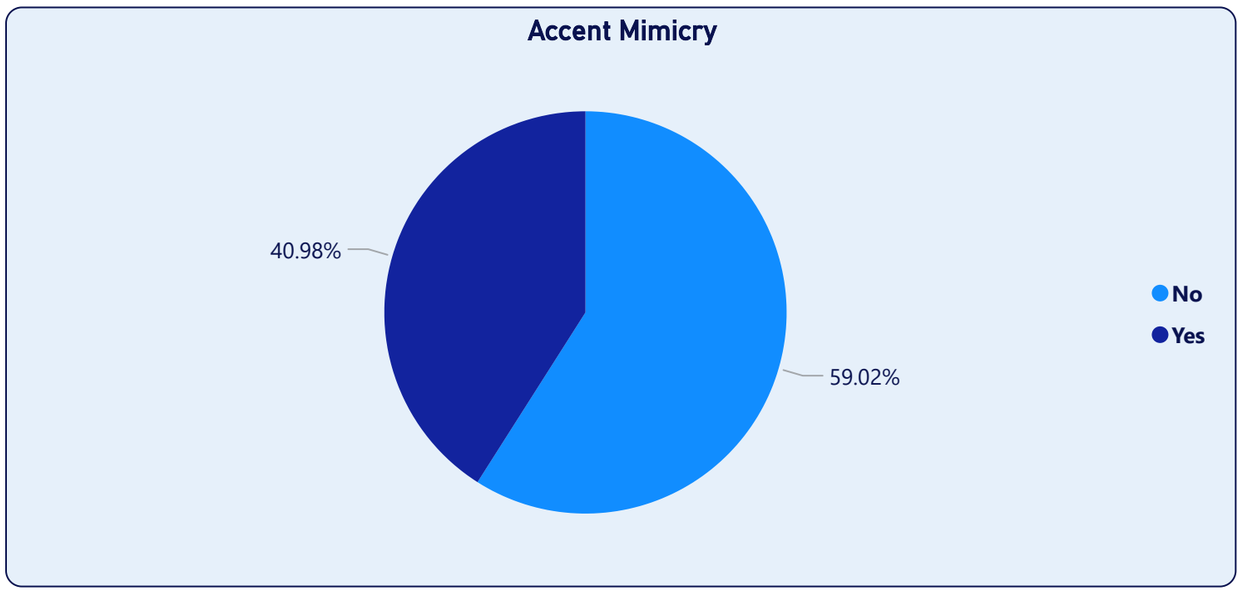


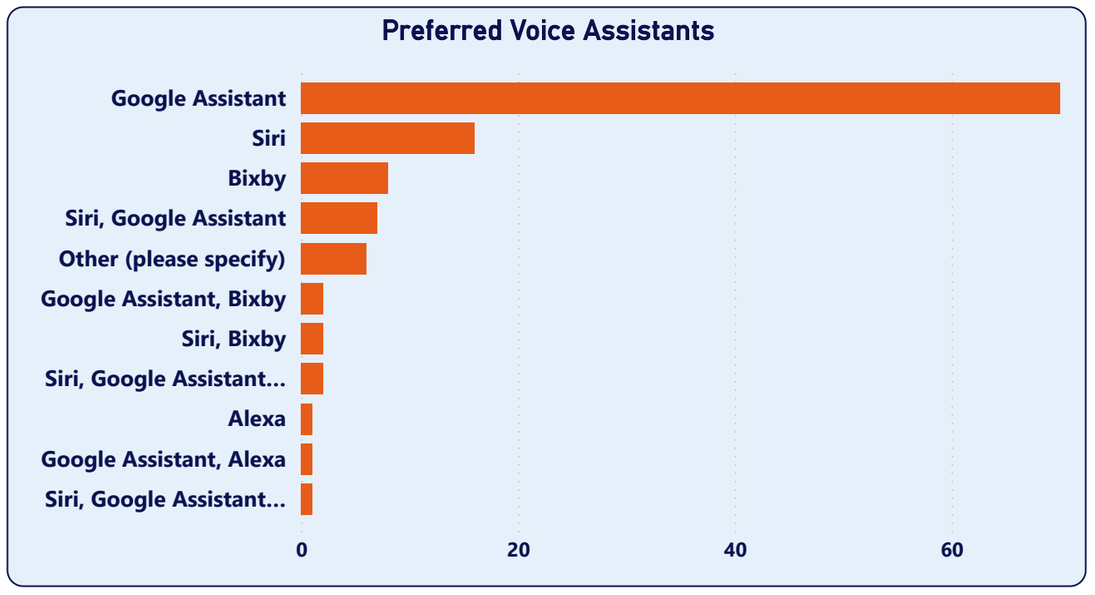






Voice Assistants





Summary

Demographics

Our dataset consisted of 52% females and 48% males. The majority of the respondents are African (89%), with an outlier in the multiple ethnicity race. The majority of our respondents are well educated, with those holding a Bachelor's degree leading at 71%. Finally, 43% of our respondents are aged between 25 and 34, followed by the ones aged between 18-24 at 38%.

System Usage

Chat GPT was the most popular GPT at 89%, and the largest share of our respondents use the GPT systems daily. The average response time of the GPTs provided lies between 1 and 5 seconds.

Performance Metrics

On a scale of 1-5, with 5 being the most accurate and 1 being the least accurate, 55% of our respondents chose 4, followed by 29% who chose 3 as their level of confidence in the accuracy of the responses provided by the Gen-AI platforms.
On a scale of 1-5, with 5 being the most accurate and 1 being the least accurate, 53% of our respondents selected 4, as their satisfaction with the quality of responses provided by virtual assistants.

Across the board, 67% of respondents were satisfied, 17% were very satisfied and 14% were neutral with the performance of the GPT platforms.

Bias and Fairness

31% of our respondents experienced some form of bias while using the Gen-AI systems, location bias was the most frequently experienced, followed by a language bias. 32% of our respondents encountered harmful content when using the AI platforms, and misinformation was in the forefront at 87%, followed by deep fakes and hate speech at 6.5% each.

57% of our respondents are not confident in the safety of their personal information with the GPTs.

On the **overall performance of the Gen AI platforms,** a scale of 1-5 was used, with 1 being the weakest and 5 being the strongest response. 56% of our respondents chose 4, followed by 22% who chose 3, and then 20% by those who chose 5.

The most popular voice Assistant is the Google Assistant, followed by Siri and Bixby in the top three positions. For those who use voice assistants, 41% of the respondents have to mimic their accents for the platform to understand them.