



# Artificial Intelligence (AI) Assistant Helpfulness

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## Background

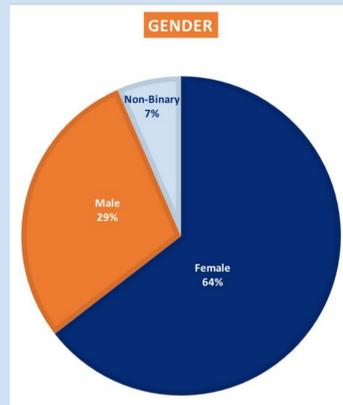
- Since Apple first introduced Siri in 2011, AI powered voice assistants (VA's) have become established features of mobile devices (Guzman, 2019)
- Female voiced computers created to perform a dominant role, such as rating performance, were evaluated more negatively by users than male-voiced computers performing the same role (Nass et al., 2006).
- Our study focuses on the relationships between benevolent sexism and conservative attitudes towards women in regard to AI use.

## Objectives

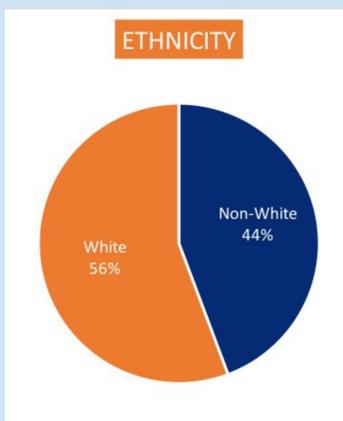
- **Hypothesis 1:** Listening to a female AI voice assistant would increase sexism ratings, specifically benevolent sexism, compared to listening to a male AI voice assistant
- **Hypothesis 2:** Listening to a female AI voice assistant would increase traditional attitudes towards women compared to listening to a male AI voice assistant

## Participants

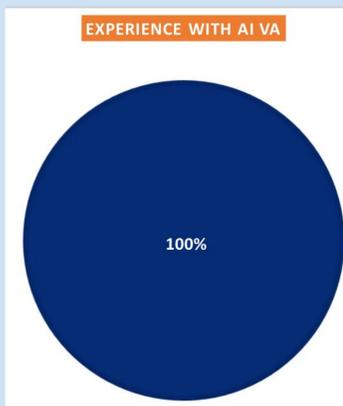
- 62 participants; 18 - 61 years of age (M= 26.1)



64.5% female,  
29.0%- male,  
6.5% non-binary



44.3% were non-white students,  
55.7 were white



Every participant had experience using some type of AI VA's

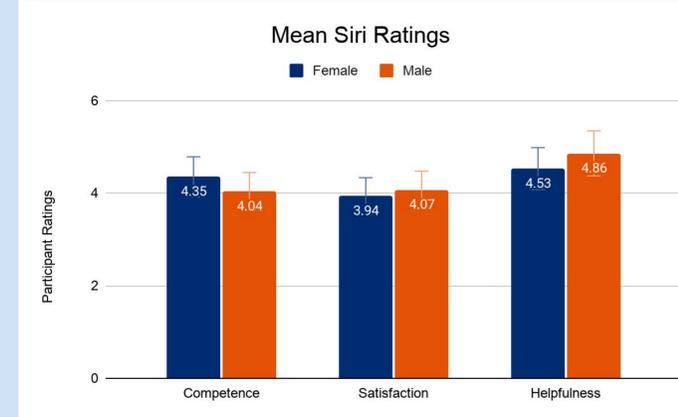
## Measures

- **Attitudes Towards Women Scale (AWS):** Measures traditional and pro-feminist attitudes towards women
- **Ambivalent Sexism Inventory (ASI):** Measures characteristics of hostile (HS) and benevolent sexism (BS)
- Participants rated Siri's helpfulness, competence, and performance on a 10 point scale (ex: On a scale of 1-10, how competent was Siri at providing you quiz answers?)

## Methods

1. Participants clicked a link to the survey & indicated their consent.
2. Participants then answered demographic questions
3. Completed the AWS and the ASI
4. Randomly assigned pre-recordings of either a male or female voice of Siri that gave them the answers to imaginary trivia questions
5. They rated their satisfaction with Siri's performance after receiving a quiz score
6. Completed a post test of the ASI and AWS

## Results & Discussion



- Helpfulness:  $F(1,59)=.261, p=NS.$
- Competence:  $F(1,59)= 2.66,p=NS.$
- Satisfaction:  $F(1,59)=.031, p=NS.$
- HS Difference:  $F(57)= 2.639, p=NS$
- BS Difference:  $F(57)=.275, p=NS$
- ATS:  $F(57)=6.338, p=NS$
- Future research should further look into this perceived gender bias and the effects of frequent interactions with VA's

## References

- Guzman, A. L. (2019). Voices in and of the machine: Source orientation toward mobile virtual assistants. *Computers in Human Behavior, 90*, 343-350.
- Nass, C., Moon, Y., & Green, N. (1997). Are machines gender neutral? Gender-stereotypic responses to computers with voices. *Journal of Applied Social Psychology, 27*(10), 864-876.
- Spence, J.T. & Helmreich, R. (1972). The attitudes toward women scale: An objective instrument to measure attitudes toward the rights and roles of women in contemporary society. *Catalog of Selected Documents in Psychology, 2*(66).