Exploring Gender Differences in the Perception of Levels of Automation and Comfort with Autonomous Vehicles

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Trust and adoption of automated vehicles (AVs) (Choi & Ji, 2015; Lee & Kolodge, 2020)

- Those with positive attitudes and willingness to adopt AVs live in densely populated areas, are younger, highly educated, and male (Lee et al., 2020; Rahimi et al., 2020; Hohenberger et al., 2016)
- Gender and geographic differences due to safety, affective reactions and perceived benefits (Pyrialakou et al., 2020; Hudson et al., 2019)

Do individual differences in the perception of automation influence comfort with AVs?
Take a moment to imagine an automated vehicle

- \( N = 403 \) (45.7% women)
- \( \text{Age}_M = 41.36 \) (SD = 16.10)

Women less comfortable (\( M = 1.76, SD = .87 \)) than men (\( M = 2.59, SD = 1.50 \)) for SAE Level 5, \( t(66) = -.83, p = .01 \)

Differences for gender and perceptions of levels of automation \( \chi^2(4) = 19.27, p < .001 \)

Women living in major metropolitan areas less comfortable with AVs compared to men in major metropolitan areas, \( t(161) = -4.14, p < .001 \)
• Variation in the types of exposure women and men receive as a group to automated vehicle technologies, leading to different conceptualizations of AVs overall

• Role of trip complexity and influence on comfort

• More inclusive education, outreach and demonstration of currently available automated technology is needed to reach a diverse user population