

Artificial Impressions: Trust and Credibility in AI-Enhanced Profile Pictures

Jacob A. Long, Jingyi Xiao, Shamira McCray, Ertan Ağaoğlu, Abdullah M. Alajmi, Chinwendu Akalonu, Yanzhen Xu

University of South Carolina

Introduction

- **Background:** Rapid advancements in AI tools for generating realistic images allow users to create convincing photos for online self-presentation.
- **Problem:** The use of AI-generated images raises questions about authenticity, trustworthiness, and the potential for mild deception
- **Objective:** To investigate how people perceive AI-generated profile pictures, especially when the AI origin is disclosed.

Methods

Sample

- **Participants:** 817 U.S. adults, quota to census demographics

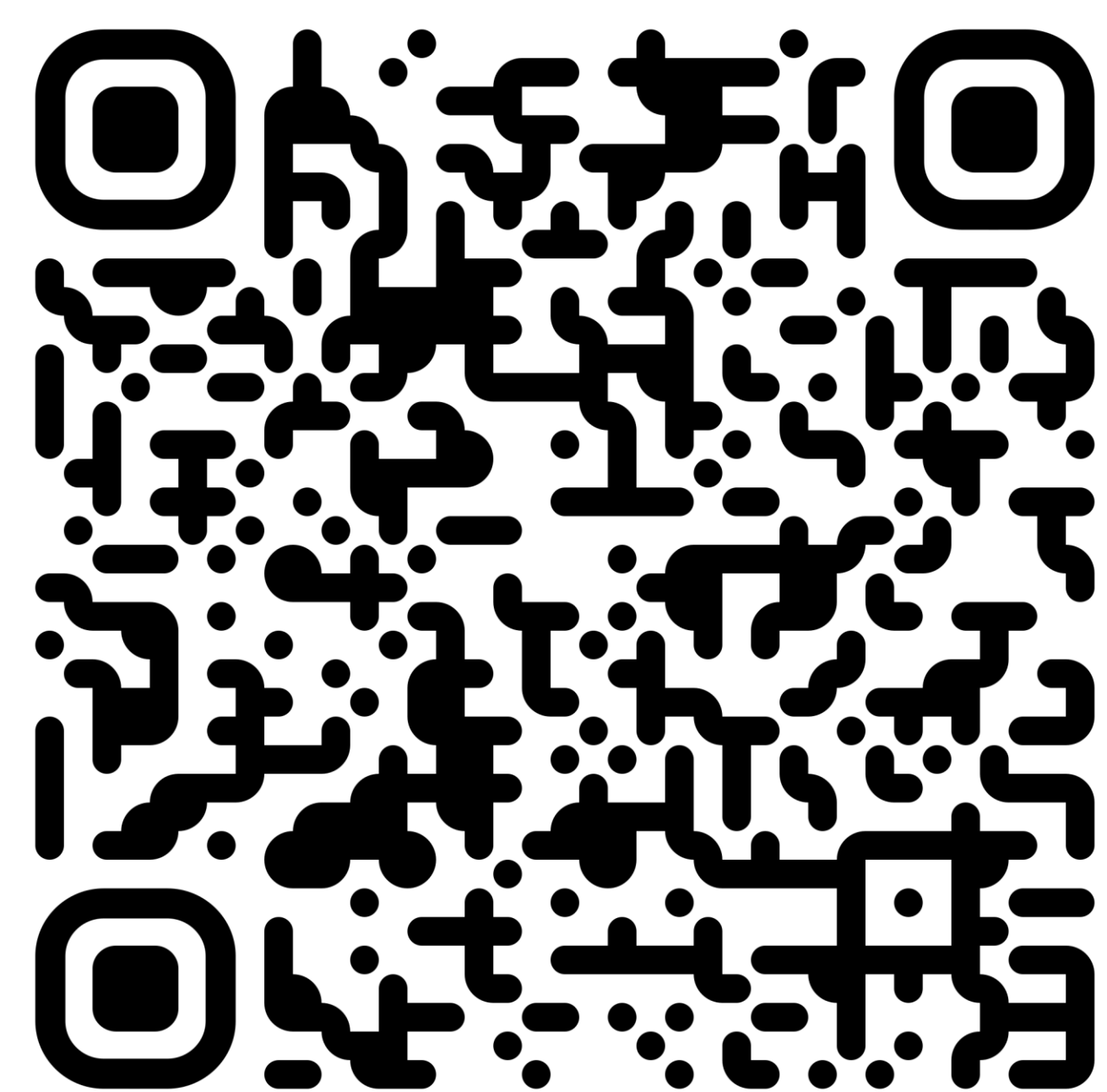
Stimuli

- **Images:** Generated using the Remini app, compared against professional photos
- **Variants:** 12 diverse subjects
- **Disclosure:** Images labeled either as AI-generated or not

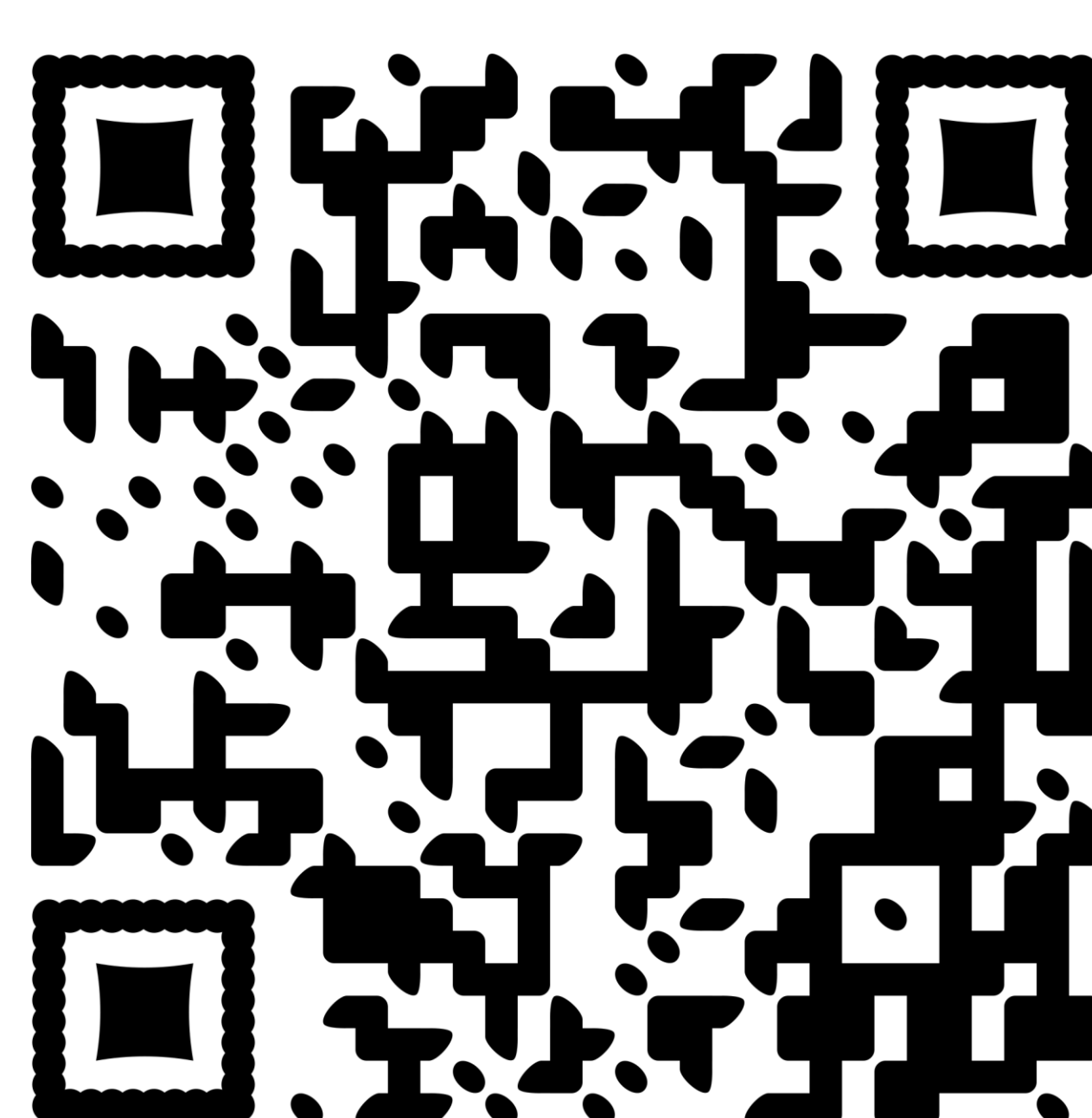
Procedure

- 2x2 factorial experiment with repeated measures.
- Participants evaluated three photos, all within the same experimental condition.
- Ratings on photo quality, attractiveness, and trustworthiness.

Preregistration



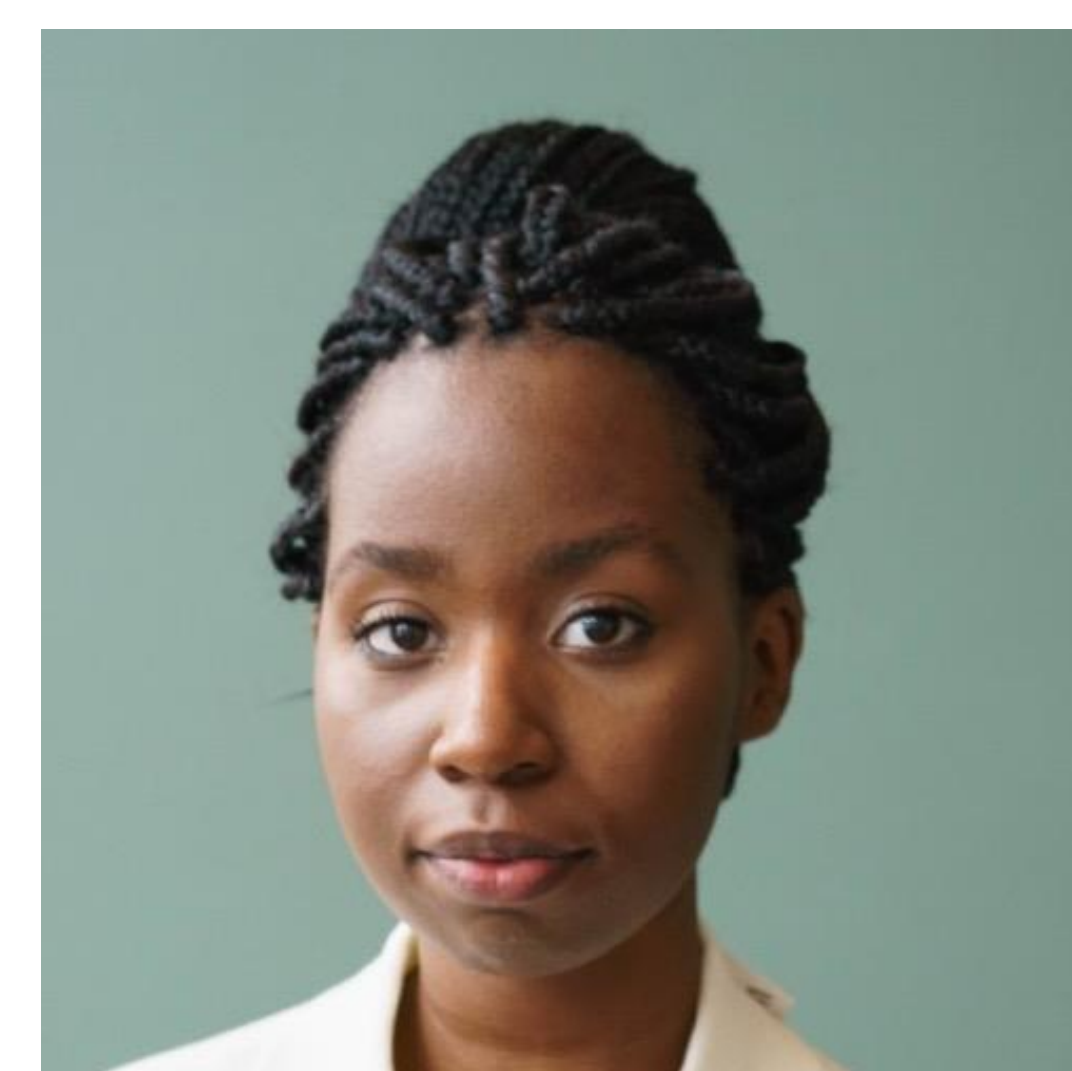
Full paper



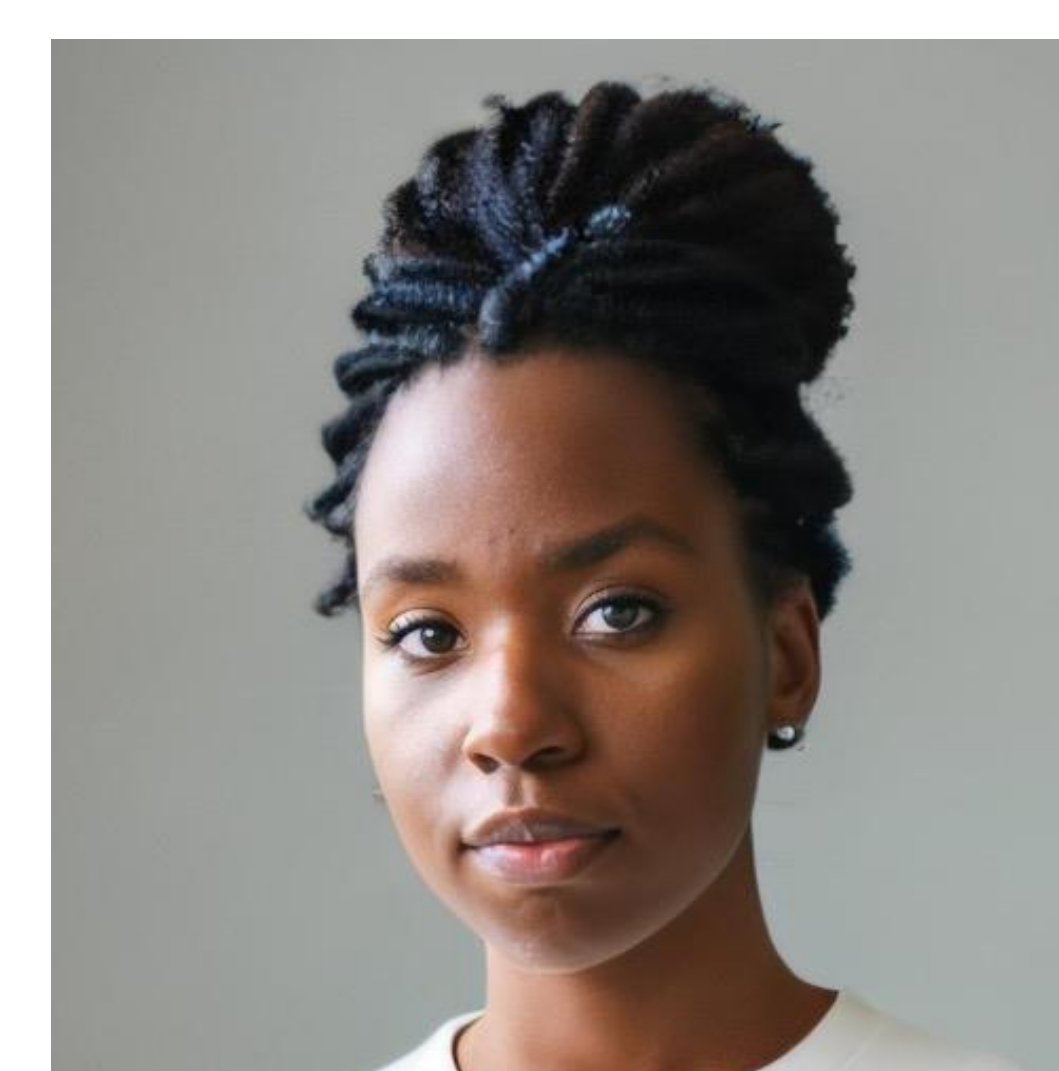
Hypotheses

- **Photo quality:** AI use increases, disclosure decreases
- **Trustworthiness of person in photo:** AI use increases, disclosure decreases
- **Attractiveness of person in photo:** AI use increases, disclosure decreases

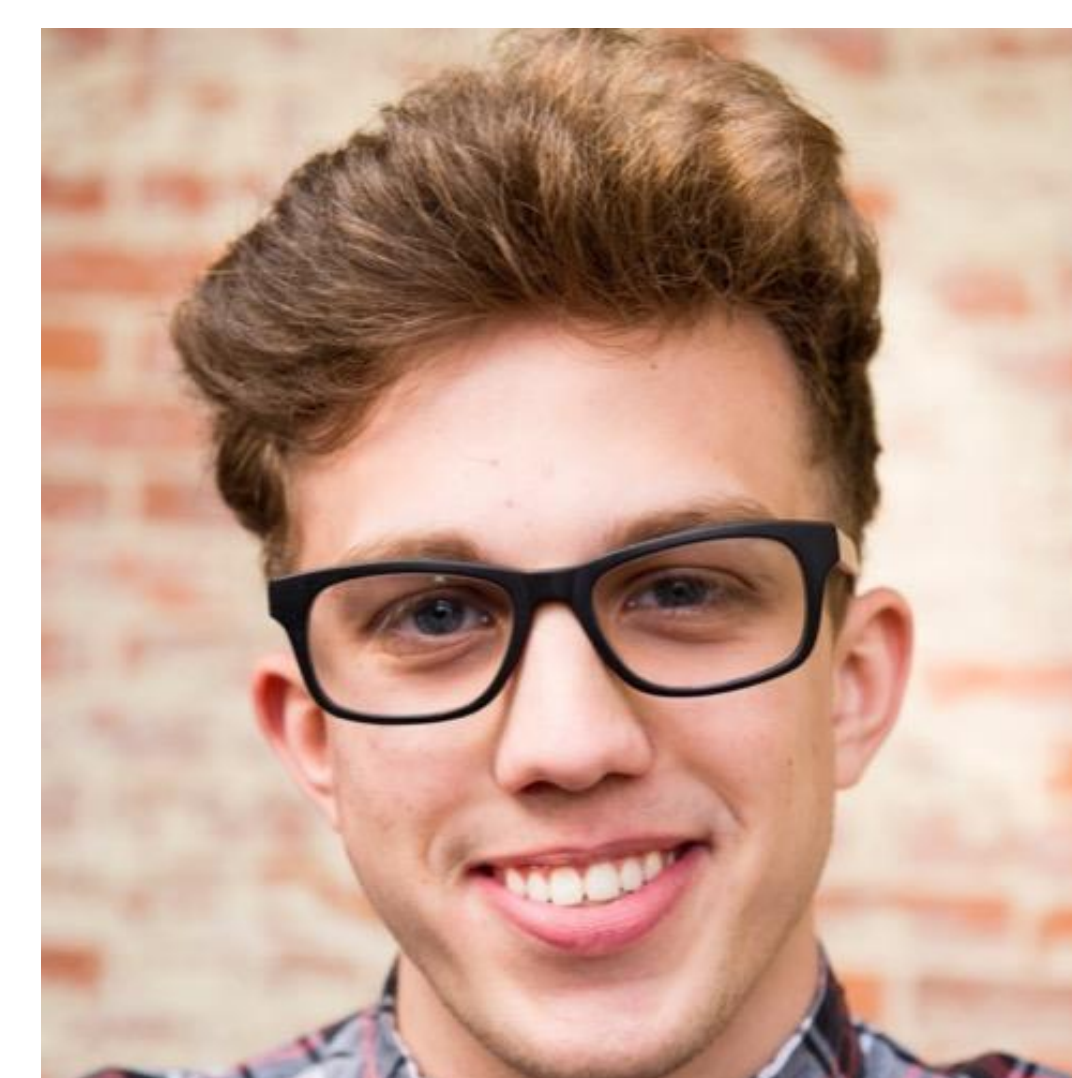
Example Stimuli



Real photo



AI-generated



Real photo



AI-generated

Acknowledgements and Contact

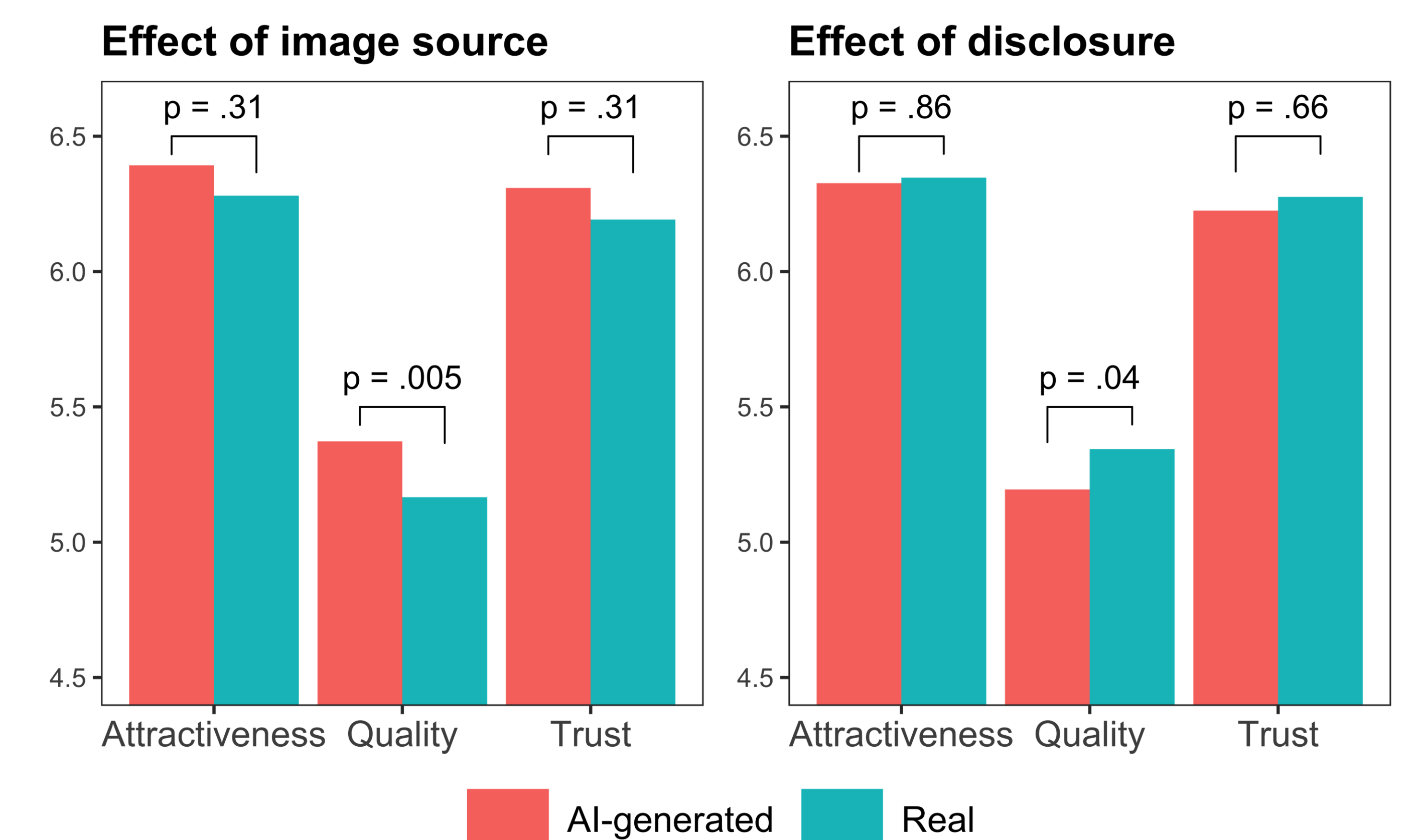
This study was funded by the School of Journalism and Mass Communication's PhD program at the University of South Carolina.

For questions/comments/feedback, contact Jacob Long at: jacob.long@sc.edu

Quick Summary

- There are online services that will take pictures of a user and use them to AI-generate a professional-looking headshot of the user.
- Our results:
 - **AI-generated** profile pictures **look better** (to participants) than professional headshots
 - **Disclosure** that they are AI-generated **lowers perceived quality**
 - Use of AI **does not reduce trust** or attractiveness of the AI user

Results



Conclusions

Positive Perception of AI-Generated Images:

- AI-generated profile pictures are perceived to be high quality

Impact of AI Disclosure:

- Disclosure that an image is AI-generated reduces its perceived quality but not enough to negate the higher perceived quality.

Trust and Attractiveness Unaffected:

- No significant differences in perceived trustworthiness or attractiveness regardless of disclosure.



UNIVERSITY OF
South Carolina