

WHEN SOCIAL SCIENCE MEETS COMPUTER SCIENCE...

## Webinar of Computational Social Science Laboratory (CSSL@CUHK)

## Al as Humans? Using LLMs to Synthesize Human Responses in Persuasive Contexts

25 February 2025 (Tuesday), 09:30 - 11:00 (UTC+8, HKT) Venue: Rm 422, Sino Building, CUHK and Zoom (Mixed Mode)

## Abstract

Generative AI and LLMs are not only enhancing the efficiency of communication research; they are fundamentally reshaping how scholars observe and understand the intricacies of human communication processes and effects. By automating tasks that once required extensive human efforts such as experimental design and data annotation, LLMs provide new ways to approach complex communication dynamics and enhance the diversity and inclusiveness in communication research. This talk explores the capability of LLMs to synthesize and replicate human-AI persuasive conversations, illuminating LLM's potential in predicting how humans converse with persuasive AI and their resultant belief changes. Using the setup and findings from a recent Science paper (Costello et al., 2024), we set up two GPT-40 agents where one replicates the persuasive AI chatbot and the other simulates a human participant by using corresponding demographic and other personal information. Findings suggest significantly lower belief change in the simulated conditions compared to the original human-chatbot interactions, suggesting that while LLM-based simulations can approximate conversational patterns, they may fall short in replicating the strength of persuasive effects observed in human-AI dialogues. Implications of these findings for the use of AI in communication interventions and the study of belief modification are discussed.



Prof. Jingwen Zhang Associate Professor Department of Communication University of California, Davis



## **Biography**

Dr. Jingwen Zhang is an Associate Professor in the Department of Communication and an Affiliate Faculty in the Department of Public Health Sciences at the University of California, Davis. She directs the Communication in Health and Technology Research Lab (CHATR), where her research centers on understanding, designing, and testing persuasive technologies—such as social media and AI chatbots—to shape public attitudes and drive behavior change.







Registration (non-CSS fellows only)

Zoom Link

CSSL@CUHK