

HAO LING

CHI 2026 Honourable Mention • Behavioral & Experimental Economics • Prosocial Behavior • Cross-Media Causal Comparison
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Research Statement

I study what happens to the conditions for trust when economic interaction moves onto a new medium. My training in behavioral and experimental economics - incentive-compatible designs, causal identification, pre-registered analysis - enables a direct comparison across physical laboratory, virtual reality, and AI-mediated settings, treating the medium as the treatment variable. The pattern so far: medium change does not uniformly erode trust but selectively disrupts specific social signals. Which signals survive mediation, and through what mechanisms, is a question that matters beyond any single technology.

Education

Hong Kong University of Science and Technology (Guangzhou)

Ph.D. Candidate in Economics

- Advisors: Prof. Xu Zhang, Prof. Mingming Fan
- Key Student Researcher on 2 grants (RMB 150,000 total)

Guangzhou, China

Sep 2022 - Present (defense pending)

The Chinese University of Hong Kong, Shenzhen

M.Sc. in Economics

Shenzhen, China

Sep 2020 - Jun 2022

Southwestern University of Finance and Economics

B.A. in Finance & Accounting

Chengdu, China

Sep 2016 - Jun 2020

Publications

Peer-Reviewed / Accepted

Trust Formation in AI Delegation: The Interplay of Explainability and Anthropomorphism

Honourable Mention (Top 5%)

- Chenyang Li[†], Zhixuan Deng[†], **Hao Ling**[†], & Xu Zhang[†] [†]Co-first authors, equal contribution
- *ACM CHI 2026* (CCF-A) • Barcelona, April 2026 • DOI: 10.1145/3772318.3793215
- **Design:** Study 1 online experiment (N=900) + Study 2 lab eye-tracking (N=57, Ergoneers Dikablis 100Hz). 2×2 factorial: XAI × Anthropomorphism.
- **Core finding:** Context-dependent interaction: in low-engagement online settings, combining XAI and anthropomorphism reduces trust vs. XAI alone ($\beta = 18.44$ vs. 23.14); in high-engagement lab settings, the combination is complementary ($\beta = 34.81$).
- **Mechanism:** Eye-tracking reveals XAI acts as a cognitive activator, redirecting gaze to the avatar (Icon Ratio: 1.22% → 15.99%), forming a Text→Icon→Text attention loop.

Cognitive Load as a Hidden Cost of Empathy: Trade-offs in Using VR for Inclusive Design

- Dawei Xiong, Zhijun Ma, **Hao Ling**, Xun Wu, Mingming Fan, & Xu Zhang
- *International Journal of Human-Computer Interaction* (SSCI) • Accepted (forthcoming).
- **Design:** A three-condition study compares interactive, embodied VR with passive video and tests whether emotional intensification adds to empathy or downstream user-need alignment.
- **Core finding:** Both VR conditions produced greater empathy gains than passive video, while Emotional VR added no measurable empathy gain over Non-Emotional VR. Non-Emotional VR yielded a higher proportion of auditory-focused solutions and the strongest user-need alignment, without greater measurable empathy.
- **Implication:** Emotional intensity is not a reliable proxy for downstream user-need alignment.

Interpersonal Trust and Trustworthiness in a High-Immersion Virtual Environment

- **Hao Ling** (First author), Xiangyu Xu, & Xu Zhang
- SSRN: <https://ssrn.com/abstract=5896843>
- **Design:** 3-group between-subjects (Physical Lab vs. VR Baseline vs. Avatar-Presence), N=180. Standard Berg Trust Game with gender-matched avatars; 15s visual contact manipulation.
- **Core finding:** First incentive-compatible deployment of the Berg Trust Game in high-immersion VR (VRChat, N=180). Avatar visual presence increases trustors' transfer by approximately 17 percentage points ($p < .05$), but only when participants know the avatar represents a real person - ruling out reputational accounts and supporting a pre-cognitive mechanism. VR outcomes are statistically indistinguishable from physical lab, validating the platform for behavioral economics experiments.

VRization: A Social Science-Informed Framework for Designing and Evaluating VR as a Scientific Instrument

- Hao Ling, Zhongyue Zhang, Mingming Fan, & Xu Zhang
- *Work in progress*
- **Research focus:** Developing a framework for designing and evaluating virtual reality as a scientific instrument in experimental and behavioral research.

Cognitive-Level Differences in Learning with Multi-User Virtual Reality: A Three-Class Cluster-Randomized Pilot Study in Economics Education

- **Hao Ling**, Chunming Ma, Xu Zhang, Lei Chen, & Yi-Lung Kuo
- *Work in progress* • Presented at CAERDA 2026
- **Research focus:** Studying how multi-user virtual reality may shape cognitive-level differences in learning in economics education.

Research Grants

Basic and Applied Basic Research Foundation of Guangdong Province

RMB 100,000

No. 2025A1515010549 • *Experimental Investigation of Human Trust and Cooperation in VR*

2024 - 2026

- **Role:** Key Student Researcher: experimental design, VR development, data analysis
- **Output:** 1 accepted CHI paper + 1 working paper

Research on HKUST(GZ) Practices (ROP) in 2025

RMB 50,000

Project No. HKUST(GZ)-ROP2025040 • *Featured in HKUST(GZ) Opening Ceremony, President's Lecture, 2025*

2025 - 2026

- **Role:** Key Student Researcher: VR experiment development, course design, data analysis
- **Output:** 1 working paper

Conference Presentations

ACM CHI 2026

Apr 2026

"Trust Formation in AI Delegation"

CAERDA 2026

Apr 2026

"Cognitive-Level Differences in Learning with Multi-User Virtual Reality"

CPLAS Summit

Jun 2025

"Beyond the Lecture Hall: Using VR to Teach Economics"

ESA World Meeting

Jun 2025

"Balancing Empathy-Cognition Trade-off: VR for Understanding Visually Impaired Consumers"

AP-PPN Annual Conference

Apr 2024

VR Experiments Workshop (Organizer)

Technical Skills

VR Development:

- **Unity (C#):** Independent development of multiplayer VR experiments
- **Networking:** Mirror Networking for synchronous multiplayer environments
- **Hardware:** Meta Quest Pro, PICO, VRChat

Experimental Economics Methods:

- **Platforms:** oTree, z-Tree
- **Paradigms:** Trust Game, Public Goods Game, game-theoretic incentive design
- **Physiological:** Eye-tracking integration with behavioral data (Ergoneers Dikablis)

Statistical Analysis:

- **Python:** Pandas, SciPy, Scikit-learn
- **Stata / R:** Econometrics, regression, causal inference
- **MATLAB:** Data preprocessing

Languages: Mandarin (native), English (fluent: academic writing and conference presentations)

Professional Service

- **Membership:** Economic Science Association (ESA)
- **Membership:** ACM (Association for Computing Machinery)

References

Prof. Xu Zhang: Primary PhD Advisor

HKUST (Guangzhou), Social Hub

- Collaborator: CHI 2026, IJHCI; Trust Game working paper

Prof. Mingming Fan: Co-Advisor

HKUST (Guangzhou), Information Hub

- Collaborator: IJHCI; co-supervisor throughout PhD

Prof. Chenyang Li: Co-Author

HKUST (Guangzhou), Social Hub

- Co-Author