Kunlei He

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Research Interests and Methods

Topics	Child-computer interaction, early childhood learning, conversational AI
Methods	Mixed effects models, structural equation modeling, latent growth curve models, lasso regression, confirmatory factor analysis, random forest, content analysis

Education

2022-2027 (Expected)	**University of California, Irvine** – Irvine, CA Ph.D. in Education Advisors: Professors Mark Warschauer, & Penelope Collins.
2019-2020	**Harvard Graduate School of Education** – Cambridge, MA M.Ed. in Language and Literacy Advisor: Professor Catherine Snow.
2015-2019	**Wuhan University** – Wuhan, China B.A. in German

Honors and Scholarships

2023	Best Paper Award, Interaction Design and Children Conference
2022	Teaching in Research Fellowship, University of California, Irvine
2020	Harvard Operation Impact First Prize, Harvard University
2020	Harvard President Innovation Challenge Semifinalist, Harvard University

Publications

Peer-reviewed Conference Proceedings

C2   **He, K.**, Levine, J., Cervera, K., Ojeda-Ramirez, S., Xu, Y., & Warschauer, M. (2024, May). A Home Study of Parent-Child Co-Reading with a Bilingual Conversational Agent *In Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (CHI'24)* . Association for Computing Machinery, Honolulu, HI, USA

C1   Xu, Y., **He, K.**, Vigil, V., Ojeda-Ramirez, S., Liu, X., Levine, J., Cervera, K., & Warschauer, M. (2023, June) . "Rosita Reads With My Family": Developing A Bilingual Conversational Agent to Support Parent-Child Shared Reading. *In Proceedings of the 22nd ACM International Conference on Interaction Design and Children (IDC'23).* Association for Computing Machinery, Chicago, IL, USA **(Best Paper Award)**

Journal Articles

J1   **He, K.**, & Bowman, Y. Z. (2021). Association between teachers' shared book reading strategies and children's vocabulary development in rural China preschools. *Journal of Chinese Writing Systems*, 5(3), 185-193.

Manuscripts under Review

M2   Artificial Intelligence Enhances Children's Science Learning from Television Shows. Revised and Resubmitted to *Journal of Educational Psychology*

M1   A Content Analysis of Interactive Storytelling Apps on the Market for Young Children's Learning.

Conference Presentations

P4   **He, K.**, Xu, Y., Levine, J., Ritchie, D., Bustamante., & Warschauer, M. (2024, March). *Artificial Intelligence Enhances Children's Science Learning from Television Shows by Boosting their Response to Questions of High Cognitive Demand* [Poster session]. Cognitive Development Society Conference, Pasadena, CA.

P3   **He, K.**, Xu, Y., Vigil, V., Ojeda-Ramirez, S., Cervera, K., & Warschauer, M. (2023, April). *Developing a Bilingual Dialogic Ebook with a Conversational Agent for Hispanic Families* [Paper session]. American Educational Research Association Annual Meeting, Chicago, IL.

P2   **He, K.**, Xu, Y., & Warschauer, M. (2023, Febuary). *Leveraging Large Language Models to Improve the Design of Conversational Agents for Young Children's Learning.* CHI 2023 Workshop on Child-centred AI Design: Definition, Operation and Considerations, Hamburg, Germany.

P1   **He, K.**, & Bowman, Y. Z. (2021, April). *Association between Shared Book Reading Strategies and Children's Vocabulary Development in Rural China Preschools.* [Poster session]. American Educational Research Association Annual Meeting, Virtual.

Teaching Experience

2022   **Guest lecturer**, EDUC 134 Teaching English Internationally
    Guest lecturer, EDUC 134 AI in Education

Research Experience

2022–Present   **Digital Learning Lab**, University of California, Irvine
Mentors: Dr. Mark Warschauer & Dr. Ying Xu.
Design and evaluate AI-powered conversational agents to promote children's language and STEM learning.

2021–2022   **The Snow Lab**, Harvard Graduate School of Education
Mentors: Dr. Catherine Snow & Dr. Si Chen.
Examined the associations between teachers' shared book reading teaching strategies and children's language learning outcomes.

Service

Professional Service

2023-Present   I serve as a reviewer for the following journals and conferences:
       Journal of Literacy and Technology
       ACM CHI Conference on Human Factors in Computing (CHI)
       ACM Conference on Interaction Design and Children (IDC)
       International Society of the Learning Sciences Conference (ISLS)

2024   I served as a student volunteer for the Conference on Human Factors in Computing Systems (CHI'24)

University Service

2022–Present   Coordinator, Digital Learning Lab
Mentor, UCI Undergraduate Research Opportunities Program

2024   Student Representative, UCI School of Education Admission Committee
Peer Mentor, UCI Diverse Educational Community and Doctoral Experience

2023   Student Buddy, UCI School of Education Recruitment Weekend