

How Do Animated Pedagogical Agents Influence Multimedia Learning?

Professor Fuxing Wang

School of Psychology, Central China Normal University

October 8, 2025 (Wednesday)

12:45 – 14:00

Room 401-402, Meng Wah Complex, HKU

Chair: Professor Xiao Zhang

Registration:

https://hkuemsl.hku.hk/hkuems/ec_regform.aspx?guest=Y&UEID=103178

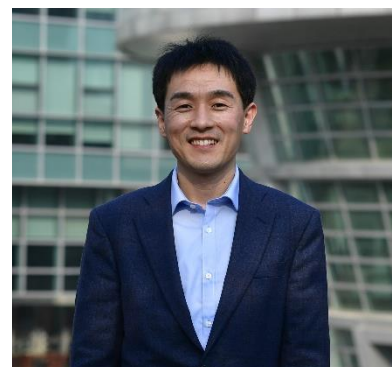


Abstract:

Animated pedagogical agents (PAs) are increasingly integrated into multimedia instruction, yet their effectiveness depends on how they are designed and implemented. Drawing on a series of studies conducted by our team, this lecture demonstrates that PAs foster learning through two complementary pathways. First, consistent with the signaling principle, gestures function as visual cues that guide learners' attention to relevant information. Eye-tracking evidence confirms that deictic pointing directs visual focus to task-related areas, thereby facilitating the selection, organization, and integration of content. Second, in line with social agency theory, PAs act as social cues that enhance social presence and cognitive engagement. Study with fNIRS technique further reveals heightened activation in brain regions associated with social processing when students learn with PAs. Together with meta-analytic syntheses, this body of work demonstrates how well-designed pedagogical agents promote meaningful learning and underscores their central role in multimedia environments.

About the speaker:

Dr. Fuxing Wang is a Professor from School of Psychology, Central China Normal University. He received his Ph D. from Beijing Normal University in 2009. His main research is developmental and educational psychology, and his research interests are multimedia learning and instructional design in learning and teaching, digital media and children's development. He and his colleagues employ eye tracking and fNIRS techniques to investigate how instructional design can enhance learning and teaching. He has published more than 50 papers in academic journals such as *Journal of Educational Psychology*, *Educational Psychology Review*, *Developmental Science*, and *Learning and Instruction*. His studies were funded by the National Natural Science Foundation of China. He is an editorial board member of *Learning and Instruction*, *Chinese Journal of Psychological Development and Education*, and *Journal of Psychological Science*. He received the "Guizi Young Scholar" award from Central China Normal University in 2019.



~ All are welcome ~

~ This seminar is sponsored by Tin Ka Ping Visiting Fellowship Scheme ~

For enquiries, please contact the Office of Research, Faculty of Education at hkchow@hku.hk