RESEARCH SEMINAR

From Potential to Practice: Generative AI for EDucation

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Date : 16 Apr 2025 (Wed)
Time : 11:00 am - 12:30 pm
Venue : HJ305

Abstract

This presentation offers a critical exploration of the complex impact of generative AI on educational practices, organized into three interconnected parts. The opening section examines potential drawbacks related to the integration of generative AI—most notably its function as an extension of conventional search engines—which may inadvertently foster intellectual complacency by reducing the incentive for deeper inquiry. This analysis weighs these concerns against the potential benefits of enhanced information accessibility and innovative learning opportunities. In the second segment, the discussion shifts to the unique role of natural language as a defining human trait and its transformation through large language models (LLMs). Here, the presentation evaluates how the conversational capabilities of LLMs address longstanding technological challenges in intelligent tutoring systems, while also considering the broader implications of replicating human communication in automated contexts. The final section introduces the "Socratic Playground for Learning" (as detailed in arXiv:2501.06682v1), a practical framework that utilizes iterative, question-based interactions to stimulate reflective learning. By integrating traditional Socratic methods with cutting-edge AI, this approach is designed to foster critical thinking and active engagement, challenging established pedagogical models. Attendees are encouraged to bring their own laptops to experience firsthand how this framework can be employed to seamlessly incorporate generative AI into educational settings.

About the Speaker

Prof. Xiangen Hu's academic journey spans applied mathematics, social sciences, and cognitive psychology. After earning degrees from Huazhong University and completing advanced studies in the United States, he held significant roles, including 30 years at the University of Memphis and serving as Dean at Central China Normal University. Now a Chair Professor in Learning Sciences and Technologies at PolyU, Prof. Hu's research combines mathematical modeling, statistical analysis, and artificial intelligence to enhance computerized tutoring systems and distributed learning. His experience managing multimillion-dollar projects underpins his talk, "From Potential to Practice: Generative AI in Education," which examines AI's impact on learning.

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