

IOM Research Seminar

Organised by: Department of Intelligent Operations and Marketing

From Behavioral Perception to Intention Reasoning: Multimodal Artificial Intelligence Empowers Managerial Decision-Making

Abstract

In the era of the digital economy, the rapid advancement of artificial intelligence and the expansion of digital interaction environments have made user interaction behaviour become increasingly multimodal and dynamic evolving. Effectively fusing multimodal information (e.g., text, image, and audio) to better understand user needs, model user preferences, and accurately infer user intentions to support business decision-making has become a critical research topic. Focusing on multimodal user behavior perception, user cognitive modeling, and intention reasoning, this talk systematically discusses the design of theory-driven explainable deep learning methods and large language model (LLM) enabled intention reasoning approaches in several business application scenarios. Furthermore, it aims to explore future directions for leveraging LLMs to model the evolution of user cognition, achieve trustworthy intent reasoning, and support intelligent decision-making, while offering personal reflections on interdisciplinary research at the intersection of artificial intelligence and management science.

Presenter

Shuaiyong Xiao is an Associate Professor at the School of Economics and Management, Tongji University. His research focuses on AI algorithm design in business applications such as video content analysis and customer service. Grounded in management theories, he aims to develop novel deep learning methods to enhance capabilities of AI in learning user perception, modeling user cognition, and inferring user intent from multimodal user interaction behavior. He has published more than 20 articles in top-tier journals, including MIS Quarterly, Information Systems Research, and INFORMS Journal on Computing, and so on. He leads several research projects, including General Programs and Young Scientists Fund (Category C) projects supported by the National Natural Science Foundation of China, as well as projects under the National Key Research and Development Program of China. His honors include the 2026 Innovative Paper Award from the China Information Economics Society and the 2025 ICSF Best Paper Award.

- **Date**
  27 November, 2026
- **Time**
  1:30PM-2:30PM (China Standard)
- **Location**
  BS3124
- **Language**
  Chinese