

THE HONG KONG POLYTECHNIC UNIVERSITY DEPARTMENT OF MANAGEMENT AND MARKETING

Departmental Research Seminar

From Measurement to Signification: A Framework for Early Urban Health Detection

By

Prof. Wai Fong Boh
Nanyang Technological University



Date : 9 Jun 2026 (Tue)
Time : 10:30 am – 12 noon
Venue : GH120c, PolyU

Abstract

Contemporary urban health monitoring systems excel at measuring outcomes but lack theoretical frameworks for detecting how cities express emerging conditions through everyday data before those conditions crystallize into measurable crises. We address this expression mechanism gap by reconceptualizing cities as meaning-making systems rather than objects-to-be-measured. Drawing on symbolic interactionism and phenomenology perspective, we propose a paradigm shift from data measurement to data signification, arguing that urban data patterns constitute active expressions of collective meaning-making across five phenomenological dimensions: Sociality, Embodiment, Meaning, Materiality, and Spatiality. We operationalize this framework through CityScan, a signification detection system deployed by Singapore's government. Applied to dementia vulnerability, CityScan identified cross-dimensional convergence of risk factors in western Singapore—combining limited green space, smaller household networks, and elevated chronic disease burden. Demonstrating the framework's capacity for anticipatory urban health governance.

Prof. Wai Fong Boh is President's Chair and Professor of Information Systems at Nanyang Technological University (NTU) in Singapore. She is currently Vice President for Lifelong Learning and Alumni Engagement for NTU, and she serves as co-Director for NTU Centre in Computational Technologies for Finance (CCTF). She received her PhD from the Tepper School of Business at the Carnegie Mellon University. Her research interests are in the areas of knowledge and innovation management and entrepreneurship. She has published in leading IS and management journals, including *Management Science*, *MIS Quarterly*, *Academy of Management Journal*, *Organization Science*, *Journal of Management Information Systems*, *Journal of Association Information Systems*, *Research Policy*, and *Information & Organization*. She has also won multiple awards, including an award for the Top Five IS Publications of the Year 2007. She has served as Senior Editor of *MIS Quarterly*, and Associate Editor for *Management Science* and *ISR*. Further, she is currently on or had been previously on the editorial board of multiple journals, including *Journal of Management Information Systems*, *Organization Science*, *Journal of Strategic Information Systems* and *Information & Organization*. Prof. Boh has also served as Program Co-Chair for ICIS 2019, and served as Doctoral Consortium Co-Chair for PACIS 2018 and 2013. She was recently awarded Singapore's Public Administration Medal (Silver) and published a book on Identifying Business Opportunities through Innovation. In 2023, she received the AIS Fellow Award and the AIS Sandra Slaughter Service Award.

All interested are welcome.



THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

Department of
**MANAGEMENT
& MARKETING**
管理及市場學系