THE HONG KONG POLYTECHNIC UNIVERSITY
DEPARTMENT OF MANAGEMENT AND MARKETING

Departmental Research Seminar

How Algorithmic Discrimination Propagates into Human Decision-Making in Socioeconomic Contexts

By

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Date : 27 Jan 2026 (Tue)
Time : 10:30 am – 12 noon
Venue : M802, PolyU

Abstract

Decades of research have shown that that human advice influences others' behavior, yet little is known about whether—and how—interaction with AI advice may alter human behavior, particularly by steering decisions toward algorithmic recommendations and inducing changes that persist even when the advice is absent. This issue is pressing in socioeconomic decision contexts, where deployed AI systems are often trained on historical data that encode pre-existing human biases, which these systems can inherit. The current research focuses on gender discrimination in STEM fields, a context where inequality persists worldwide despite mitigation efforts. In a task resembling real-life hiring decisions, Study 1, grounded in the Justification–Suppression Model of the Expression and Experience of Prejudice, shows that, after exposure to algorithmic recommendations that discriminate against females, individuals exhibit increased discriminatory choices against females even after the AI advice is withdrawn. The effects are heterogeneous: increases occur only among individuals with pre-existing prejudice against females who had refrained from overtly expressing it beforehand, suggesting that algorithmic advice serves as legitimization of suppressed prejudice rather than forming it. Study 2 will assess whether the post-exposure increase in gender-based discriminatory choices is transient or enduring, and Study 3 will test two intervention strategies to mitigate this effect. Overall, this research demonstrates the downstream consequences of human interaction with discriminatory algorithms, clarifies whether and under what conditions AI exposure increases discriminatory choices among decision makers, and offers actionable guidance for practitioners to mitigate this effect.

Prof. Juliana Sutanto is a Professor in Information Systems. After obtaining her PhD in 2008 from School of Computing at National University of Singapore, she joined ETH Zurich in Switzerland as Chair of Management Information Systems. In August 2015, she moved to Lancaster University as Professor in Information Systems. In January 2023, she joined Monash University as Lead of Digital Transformation Group in Department of Human-Centred Computing, and Indonesia Lead for the Faculty of IT. Since January 2025, she is Associate Dean (International) for the faculty.

Her research expertise is on system design, users' behavioural analysis and data management. She is a recipient of Informs ISS Design Science Award on privacy-safe design. Her research has been published in leading information systems journals, *MIS Quarterly, Information Systems Research, Journal of the Association for Information Systems,* and *Journal of Management Information Systems*. She was an Associate Editor in *MIS Quarterly*, and a Senior Editor in *Journal of the Association for Information Systems.* Among her on-going researches are IT-supported decision-making during disaster response; data governance, digital resilience and community resilience; and multi-perspectives analysis of health information systems use.

All interested are welcome.

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