

# THE HONG KONG POLYTECHNIC UNIVERSITY DEPARTMENT OF MANAGEMENT AND MARKETING

## Departmental Research Seminar



**Unleashing Employee Creativity:  
Evidence on AI Assistance and  
Employee Job Performance**  
By

**Dr Nan Jia**  
**University of Southern California**

**Date : 7 September 2022 (WED)**

**Time : 9 am – 10:30 am**

**Venue : Online via Zoom**

### Abstract

Can artificial intelligence (AI) complement the work of human employees, particularly by increasing employee creativity? We examine AI assistance in the form of a sequential division of labor within organizations, wherein AI handles the initial portion of a task that is repetitive and well-codified, and employees focus on subsequent higher-level problem-solving. First, we provide causal evidence from a field experiment conducted at a telemarketing firm. We find that AI assistance with generating sales leads can significantly increase employee creativity in answering customer questions during subsequent sales presentations. This effect is more pronounced for highly skilled employees. Enhanced creativity leads to an increase in employee performance and sales success. Subsequently, we conducted a qualitative study based on semi-structured interviews with employees. We find that AI assistance enables highly skilled employees to generate innovative scripts and develop positive emotions at work that are conducive to promoting creativity. Conversely, with AI assistance, lower-skilled employees make limited improvements to scripts and experience greater stress at work. Nevertheless, both types of employees profess a strong appreciation and support of the firm for its AI adoption strategy. These findings help organizations design augmented intelligence and achieve optimal performance from AI and human collaboration.

**Dr Nan Jia** is Dean's Associate Professor in Business Administration at the Marshall School of Business, University of Southern California. She holds a PhD in Strategic Management from the Rotman School of Management, University of Toronto (Canada). Her research interests include corporate political strategy, business-governance relationships, emerging technology in management, and corporate governance in international business. Her research has been published in the *Management Science*, *Strategic Management Journal*, *Organizational Science*, *Administrative Science Quarterly*, *Academy of Management Journal*, *Academy of Management Review*, and *Journal of Politics*. She currently serves as an associate editor for the *Strategic Management Journal* and on the editorial boards of multiple leading academic journals.

**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