

THE HONG KONG POLYTECHNIC UNIVERSITY DEPARTMENT OF MANAGEMENT AND MARKETING

Departmental Research Seminar

The problem with solution:
A study of the limiting effect of an individual's solution distance
on problem-search

By

Prof. Puay Khoon Toh
Nanyang Technological University



Date : 13 Nov 2025 (Thu)
Time : 10:30 am – 12 noon
Venue : M714, PolyU

Abstract

How an individual within the organization searches for solution to a given problem is a well-studied topic. But we know relatively less about how she searches for problems to begin with, an increasingly relevant issue in modern organizations where individuals have autonomy to do so. We advance beyond the typical 'solution-search distance' to introduce the concept of 'problem-search distance' and examine their interplay. Using data on more than 800,000 contributions from over 40,000 developers across 45 open-source projects on GitHub, we demonstrate that an individual's past solution-search distance reduces distance of her subsequent problem-search, especially with greater uncertainty over value-capture, experience at problem-solution matching, or autonomy. Findings suggest that the often-lauded distant solution-search potentially limits subsequent search for distant problems which may hurt the organization.

Prof. Puay Khoon Toh is a Professor of Strategy and the Assistant Dean of Faculty at the Nanyang Business School, Nanyang Technological University (NTU). He is an expert in technology strategy, focusing on issues such as value creation and capture in digital and AI platforms, standard setting in ecosystems, technological search, competition and innovation, and firms' resource allocation. He earned a Ph.D. in Strategy from the University of Michigan at Ann Arbor. Before joining NTU, he was a Professor of Management at the University of Texas at Austin.

Prof. Toh has held various leadership roles in the Strategy research community. He served as a Senior Editor at *Organization Science* (2017 – 2022) and is on the editorial boards of various academic journals such as *Strategic Management Journal*, *Strategy Science*, and *Strategic Organization*. His research has been published in leading academic journals and has won several prestigious awards. He actively contributes back to the research community in different capacities, e.g. as chair, organizer, or panelist in numerous conferences, junior faculty consortia, Ph.D. dissertation and doctoral consortia, and research committees. Before his return to Singapore, he was the strategy area coordinator at UT Austin and sat on several school-level and department-level committees.

Prof. Toh has been training senior executives and managers across different ranks and industries in strategic decision-making over the past two decades, winning numerous teaching awards along the way. He has deep experience in offering strategy courses through various executive and working-professional MBA programs.

Prior to his academic career, Prof. Toh was a currency options trader at J.P. Morgan. Besides academic qualification, he has two advanced piano performance diplomas – Licentiate and Fellowship of the Trinity College of London.

All interested are welcome.



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