香港科技大學
THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

土木及環境工程學系
DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

SEMINAR

TRANSFERRING LAB-BASED EYE-TRACKING INSIGHTS TO INVESTIGATE THE DECOY EFFECT IN ONLINE CHOICE EXPERIMENTS

Speaker

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Abstract

Understanding decision-making strategies is essential for explaining consumers' irrational behaviors under decoy effects, where introducing a new alternative can nudge preferences toward existing options. Eye-tracking offers insights into underlying strategies, but integrating this information into models is challenging and data collection is resource-intensive. We propose incorporating eye-tracking data into a Sequential Sampling Model (SSM) to explain the decision-making under the decoy effect. Additionally, we present a method to transfer insights from small-scale lab experiments to widely-used online or street-intercept experiments. To validate it, we conducted the same experiment in the lab (with eye-tracking) and street-intercepted samples. Our results show that transferring insights from lab-based eye-tracking enhances SSM's ability to capture consumers' irrational behavior under the decoy effect, resulting in higher prediction accuracy in the online dataset.

Biography

Dr Prateek Bansal is a Presidential Young (Assistant) Professor at the National University of Singapore (NUS). Before joining NUS in 2022, he was a Leverhulme Trust Early Career Fellow at Imperial College London and did a Ph.D. from Cornell, an MSc from UT Austin, a BTech from IIT Delhi. Prateek leads the Behavioural Cognitive Science Lab at NUS and is a co-principal investigator of the Adaptive Mobility module at Future Cities Laboratory, Singapore. His research group is interested in creating new methods to address challenging questions related to mobility behavior and the adoption of emerging technologies at an individual level and an urban scale. His research has led to over 55 journal articles. Apart from top Transportation journals, he regularly publishes in interdisciplinary journals like Energy Economics and Statistics and Computing. He also serves as the editorial board member of Transportation Research Part A: Policy and Practice, Transportation Research Part B: Methodological, and Journal of Choice Modelling, among others. He is a member of the TRB's standing committees on Travel Survey Methods (AEP25) and Travel Forecasting (AEP50), and a regular board member of the International Association of Travel Behavior Research (IATBR).

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