

# THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

Department of Information Systems, Business Statistics and Operations Management

## IS SEMINAR ANNOUNCEMENT



### How Search Engine Impacts Market Structure: Empirical Evidence from a Multi-vendor Online Market

by

**Dr. Shu HE**

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<b>DATE</b>	<b>8 May 2024 (Wednesday)</b>
<b>TIME</b>	<b>10:30 am - 12:00 noon</b>
<b>VENUE</b>	<b>4/F Meeting Room (Room 4047), LSK Business Building</b>

### **ABSTRACT**

*Despite the public's familiarity with search engines, little existing research empirically investigates the impact of such a search-cost-reduction tool on online market structure. Knowledge scarcity of this question can mainly be attributed to the challenge of accessing detailed data and the lack of a cross-website search engine. Using data from the largest online illegal transaction platform, the Darknet market, we manage to empirically evaluate the influence of a cross-website search engine (i.e., GRAMS) on the market structure at the vendor and product category levels. The results show that while the search engine's entry enhances the overall market performance, the benefit is more significant among leading vendors and popular products, leading to a more concentrated market. Additional analyses provide empirical evidence that the trustworthiness and the scale-up ability of the leading vendors can be the underlying mechanism for the increased market concentration. Our study yields both theoretical and practical implications.*

### **BIOGRAPHY**

*Dr. Shu He's research is focused on the economics of information systems (IS), particularly on the impact of emerging technologies on firms and society using econometric analysis, machine learning techniques, and randomized field experiment tools. Her current research interests revolve around digital platforms, social media, and the societal implications of IT. Her research has been published in prestigious academic journals such as Information Systems Research (ISR), MIS Quarterly (MISQ), and Production and Operations Management (POM). She has been the recipient of research grants from the National Science Foundation Award on Secure & Trustworthy Cyberspace and the NET Institute. Additionally, she received the ISS Gordon B. Davis Young Scholar Award in October 2022.*

*Dr. He has been a reviewer for top-tier peer-review journals and leading academic conferences in her field. Her contributions as a reviewer were recognized with the Best Reviewer Award at ISR in 2020. She serves as a member of the ISR Editorial Review Board since 2023 and was granted with the Best Editorial Review Board Member Award in 2023. She is also a guest senior editor for the POM special issue on Social Technologies in Operations. Furthermore, she served as a cluster chair and associate editor at Informs Annual Meeting and International Conference of Information Systems (ICIS). She also held the positions of president and treasurer of the INFORMS e-Business cluster in 2022 and 2021, respectively.*

*Before joining the Warrington College of Business, Dr. He was an Assistant Professor in the Department of Operations Management and Information Systems at the School of Business, University of Connecticut.*