

The Hong Kong University of Science and Technology

Department of Information Systems, Business Statistics and Operations Management

Seminar Announcement



Consumer Privacy Concerns, Multihoming, and Platform Competition in Two-sided Markets

by

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Date : **Wednesday, 17 May 2023**
Time : **11am – 12:30pm**
Venue : **LSK 4047, ISOM Conference Room**

Abstract: Many online platforms adopt the ad-sponsored business model, which involves offering free services to consumers while collecting their data and selling targeted ads to advertisers. However, the collection of consumer data has raised growing privacy concerns, which may affect consumers' homing behavior, i.e., using one platform (i.e., single-homing) or multiple platforms (multi-homing). This study develops a game-theoretic model to examine how consumer privacy concerns affect consumers' homing and usage decisions, advertisers' platform choices, and platform. We describe privacy concerns with a fixed and a variable component, and develop a two-sided Hotelling model to capture the role of a two-sided platform connecting consumers and advertisers. In our model, we allow both consumers and advertisers to choose single-homing or multi-homing endogenously. We find the growing privacy concerns would change the composition of single-homing and multi-homing consumers, and the overall consumer demand on the platform. More importantly, the impact of privacy concerns is non-monotonic. We also discover that privacy concern leads to interesting effect on advertising pricing and advertisers' homing choices, through influence consumers' homing and usage decision. At the platform level, we discover that the platforms' data capability plays an important role and can mitigate the negative effect of privacy concerns. We discuss the relevant managerial and theoretical implications.

Bio: Dr. Hong Xu is an associate professor of information systems at the HKUST Business School. She received her Ph.D and M.Sc. from the University of Texas at Austin and B.M. from Tsinghua University. Her research interests include digital advertising, online privacy, and online platforms. She is currently an associate editor at ISR and JECR. Her work has appeared in Information Systems Research, MIS Quarterly, Journal of Management Information Systems, Economic Letters, and Journal of the Association for Information Systems.