

The Hong Kong University of Science and Technology

Department of Information Systems, Business Statistics and Operations Management

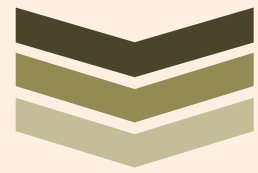
Seminar Announcement



Using Co-Location Networks to Examine How Information Impacts on Consumer Mobility

by

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Date : Wednesday, 3 November 2021
Time : 9:00 am - 10:30 am (Hong Kong Time)
[Click here to join Zoom](#)
Zoom Details : Meeting ID: 987 6286 1400 (Passcode: 810362)

Abstract: The availability of large-scale mobile location data offers the opportunity to investigate consumer behavior with high resolution. In addition to examining the behavior of individual consumers, such data enables the investigation of consumers' collective behaviors by studying the social network. The authors identify co-locations based on the geographic and temporal proximity between two mobile devices and present a scalable approach to derive a co-location network. Examining shifts in both macro- and micro-level network metrics between January 2020 and November 2020, which includes a state-mandated shelter-in-place order in response to the COVID-19 pandemic, the authors use the co-location networks to assess the impact of different sources of health-related information on consumer mobility behavior. Beyond examining the impact of the shelter-in-place order on the network structure, the authors show that consumers are more responsive to COVID-19 related information that is more psychologically proximate to them. They also observe that social media activity affects consumers' mobility behavior. The authors discuss the implications for the use of co-location networks to assess how consumers are affected by different sources of information, both online and offline, and opportunities for marketers and policymakers to leverage fast-growing location-based information.

Bio: Prof. Kunpeng 'KZ' Zhang is currently an Assistant Professor of Information Systems at the University of Maryland, College park. His research mainly focuses on large-scale unstructured social media analytics by developing and applying machine learning algorithms. He currently serves as Associate Editor of INFORMS Journal on Computing. For more details, please see his website: <https://kpzhang.github.io>.