McCormick Northwestern Engineering

The Transportation Center

Transportation Center Seminar

Location-Based Social Network (LBSN) Data: Emerging Big Data Sources for Travel Demand and Activity Modeling

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Thursday – Feb. 11, 2016

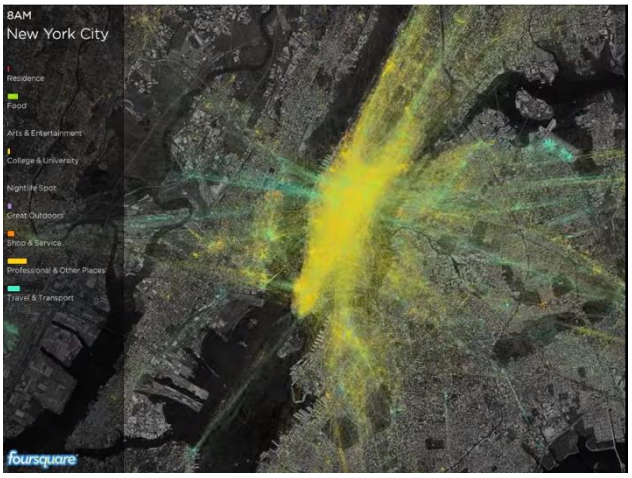
4:00 – 5:00 pm

Location:

Transportation Center
Chambers Hall- Lower Level
600 Foster, Evanston

Abstract:

The combination of mobile devices and social network data has created a new type of secondary data that can be used in travel demand and activity modeling. Location-based social network (LBSN) services, e.g. Foursquare, Yelp, and Geo-tagged Twitter data records user-confirmed arrivals (checkins) at points of interests (POIs). Through geo-spatial analytics, such checkin data can not only be converted into valuable demand data in terms of trip attractions and OD matrices to serve conventional trip-based model but also microscopic data that can used to validate activity-based models. This seminar provides an in-depth discussion on the LBSN data characteristics and the advantages and limitations of modeling travel activities, and the corresponding data modeling techniques and enabling applications in traffic and travel demand management.



Short Bio:

Peter J. Jin, Ph.D., is an assistant professor at the Department of Civil and Environmental Engineering at Rutgers, The State University of New Jersey. He obtained his M.S. and Ph.D. degree from University of Wisconsin-Madison in 2012. He worked as a postdoc fellow with Dr. C. Michael Walton at Center for Transportation Research (CTR) at The University of Texas at Austin. His major research interests include transportation big data analytics, active traffic and demand management, and connected and autonomous vehicle applications. He has 10 years of experience in ITS sensor and data system development and deployment. He contributed to the deployment of cellphone based traffic monitoring system in Shanghai, the development of Wisconsin WisTransporTal ITS data hub, and Foursquare location-based social network data. His research has resulted in 30 journal and more than 50 conference papers.