

DEPARTMENT OF GEOGRAPHY

The 2014-2015 Geography Colloquium Series
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Arthur H. Robinson Cartography Colloquium

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Big Data, Human Dynamics and Space-Time GIS

Due to the developments of location-aware technology, information and communication technology (ICT), and mobile technology in recent decades, we have seen changes in human life patterns as well as in the operations of urban, economic and social systems in today's world. In the meantime, detailed data of individual activities and interactions are being collected at an unprecedented spatial and temporal granularity level by vendors (e.g., online searches and purchases, retail store transactions), service providers (e.g., phone companies, banks), and government agencies. These big datasets contain useful information for us to better understand human dynamics in both physical and virtual spaces. However, there exist some research challenges of representing, analyzing and visualizing human dynamics with geographic information systems (GIS) to gain insights on spatiotemporal activities and interactions in both physical and virtual spaces. This presentation will use several datasets (e.g., GPS tracking data, cell phone tracking data, online social network data) to illustrate our work of tackling some of these challenges. This presentation also will discuss other research challenges that are yet to be addressed.

Friday, November 21, 2014
Derby Hall Room 1080
3:30-5:00 p.m.



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