6 Massive trajectory data analysis and visualization

Mobility pattern analysis using heterogeneous data

***Abstract*— The spread of GPS devices and traffic IC cards means that massive quantities of human mobility data are stored throughout the world. Human mobility traces may change according to exogenous factors such as the traffic situation and weather conditions. We demonstrate multidisciplinary analysis and the visualization of mobility patterns at various levels of spatial magnitude (e.g., regional area, metropolitan area, and inside buildings) by combining heterogeneous external information such as SNS logs, weather reports, and event schedules. Further analysis will be aimed at building technologies for predicting human activities and situations in real time. This will enable just-in-time guidance as regards evacuation routes during a disaster and allow the development of applications for planning novel urban transportation systems etc.**

Related works

[1] J. Yuan, Y. Zheng, X. Xie, G. Sun, "T-Drive: Enhancing Driving Directions with Taxi Drivers' Intelligence," *IEEE Transactions on Knowledge and Data Engineering*, Vol. 25, No. 1, pp. 220-232, 2013.

Contact

Futoshi Naya Learning and Intelligent Systems Research Group, Innovative Communication Laboratory
E-mail : naya.futoshi{at}lab.ntt.co.jp (Please replace {at} with @)