

CPS Collaborations Opportunities in Asia

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Microsoft Research

- Research lab locations

- Redmond, Washington (Sep, 1991)
- Cambridge, UK (July, 1997)
- **Beijing, China (Nov, 1998)**
- Silicon Valley, California (July, 2001)
- Bangalore, India (Jan, 2005)
- Boston, MA (Sep, 2008)
- New York City (May, 2012)



Cambridge



Beijing



Bangalore

Opportunities in Asia

Strong focus on education & engineering

Big talent pool

Largest Internet and mobile user population

Aspiration to innovate for Asia and the world

MSR Asia in the Past 14 Years

- Advance the state-of-the-art in computing research, and share the results at top academic venues (3000+ pubs, 20+ best papers)
- Rapidly transfer innovations to Microsoft products and ensure the Company has a future (300+ tech transfers)



Academic Collaboration

Academic Exchange

Annual Computing in the 21st Century Symposium

- *Invite leading computer science researchers from academia and industry and students from universities*

Verified Software Workshop

- *Technically designed by Dr. Tony Hoare & academicians of Chinese Academy of Sciences*
- *Invited most influential researchers in this area*
- *240 attendees from 31 universities*



Talent



Internship Program



Microsoft Fellowship



Young Faculty Program

Collaboration

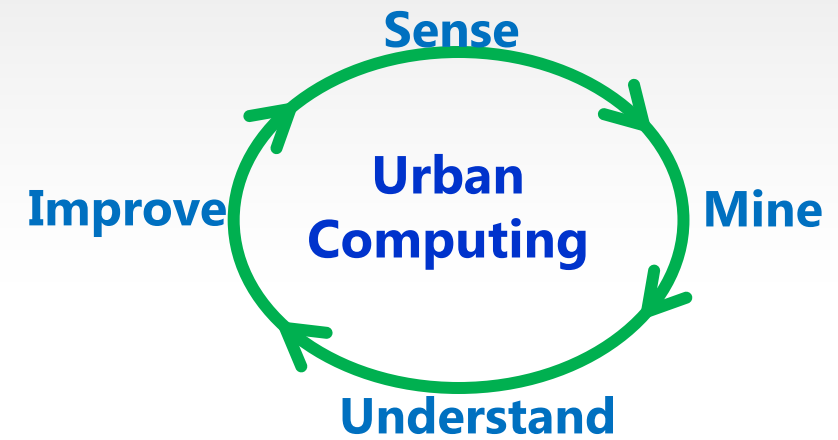
Mainland China: Great Wall Program

Taiwan: NCP (Networked Communications Program)

Japan: Mt. Fuji Program

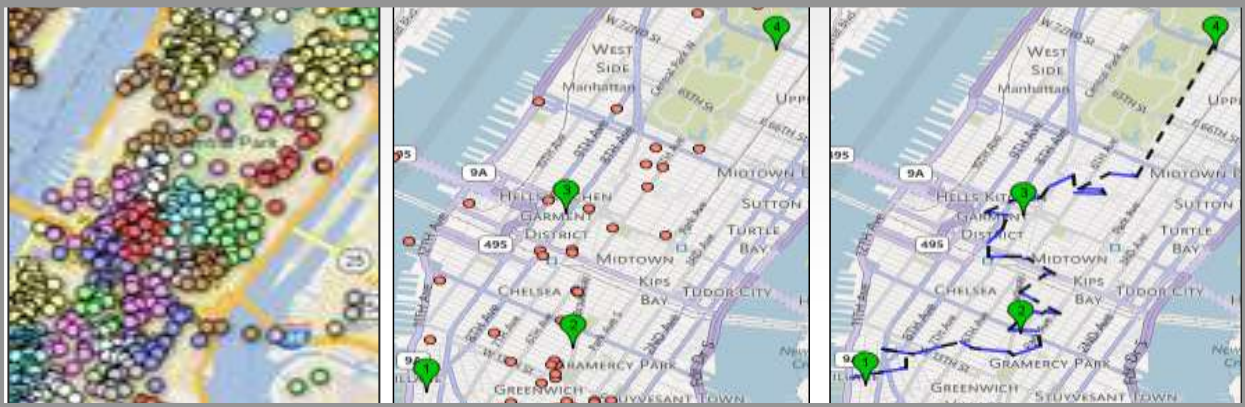
Korea: MSR-KAIST Center

Urban Computing

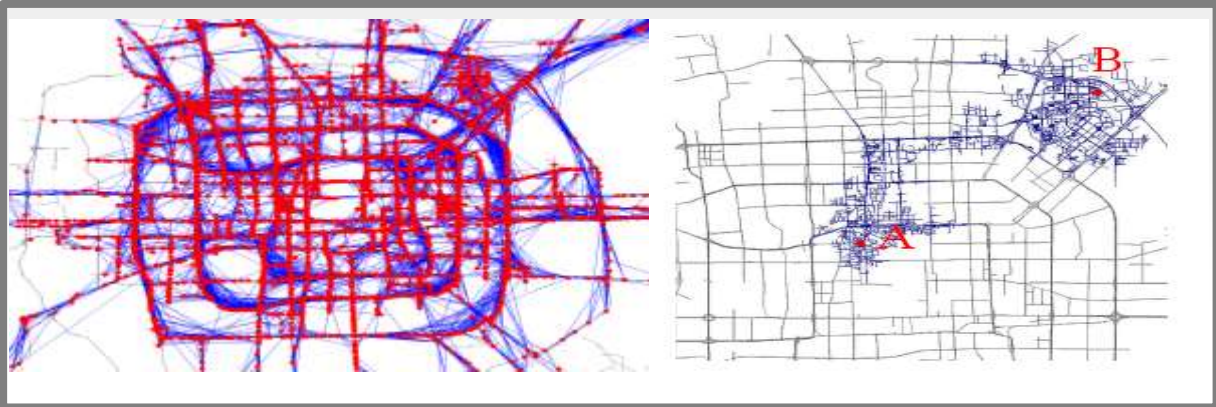


Every device, person, vehicle, building, and street may contribute data about city dynamics, for applications from transportation to healthcare to emergency management

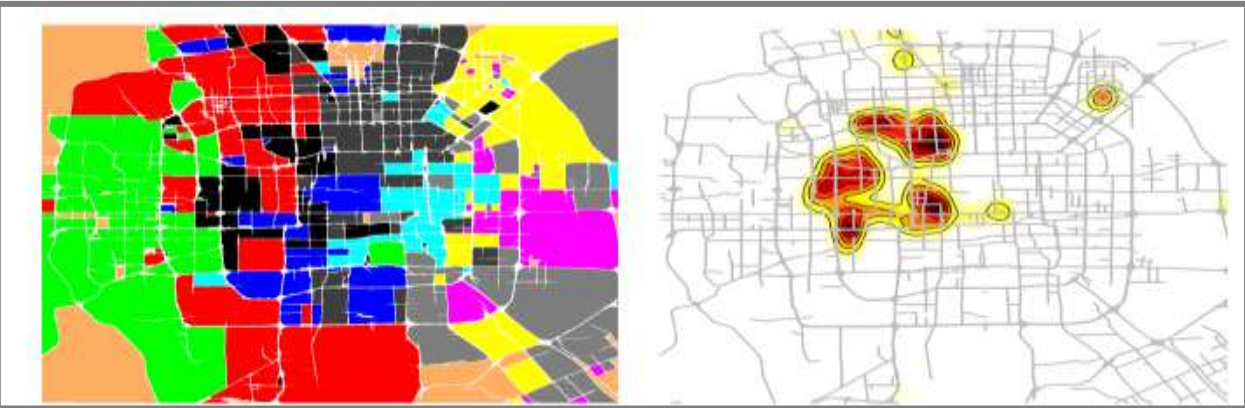




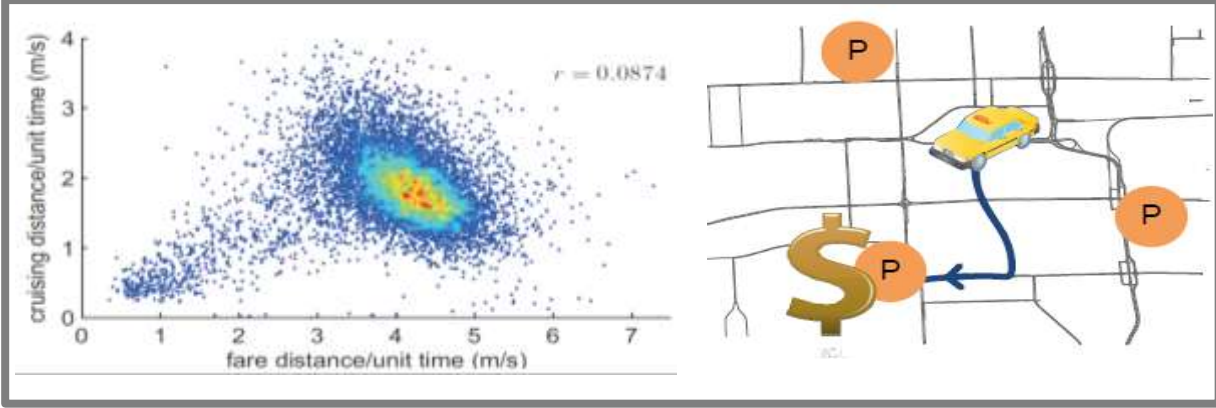
Route Construction from Uncertain Trajectories



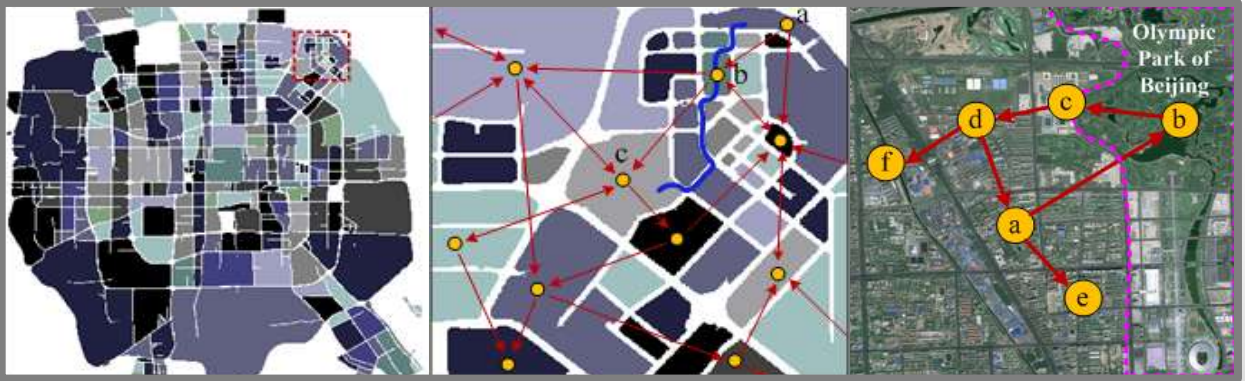
Finding Best Driving Direction



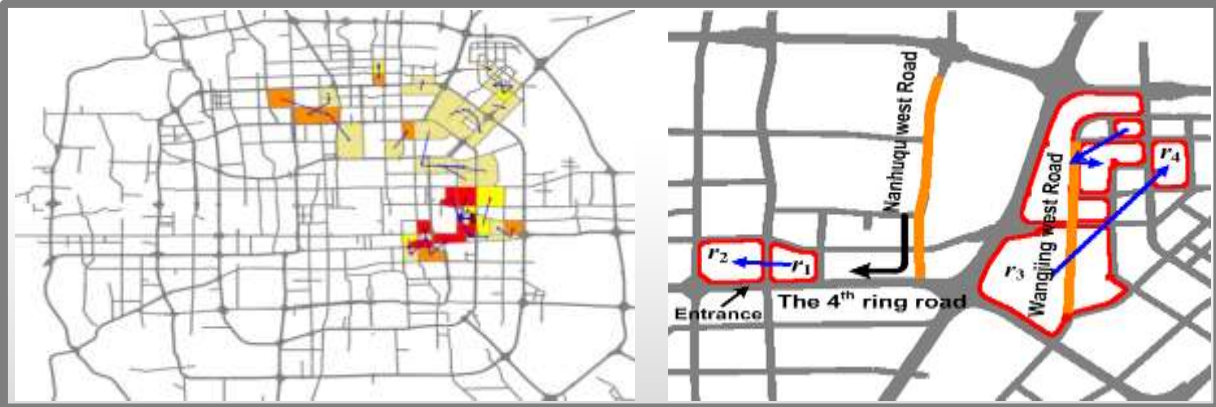
Discovering Functional Regions



Passengers-Cabbie Recommendation



Anomalous Event Detection



Urban Planning

A few observations

- **Broaden the base of CPS**
 - Diverse apps, mobile devices, big data and the cloud
- **Leverage geo-specific CPS themes**
 - IoT/Smart City in China, Japan, Korea, ...
- **Offer online courses on CPS**
 - Reach the next billion in China, India, ...