

Cognitive Engineering for Mobile GIS

Organizers: Krzysztof Janowicz, The Pennsylvania State University, USA; Martin Raubal, ETH Zurich, Switzerland; Antonio Krüger, Saarland University, Germany; Carsten Keßler, University of Muenster, Germany

While mobile computing and Location-Based Services have been around for more than a decade, it is just now that the availability of open source APIs and GPS-enabled smartphones make them accessible to a broader public. Citizens as sensors, location-based social networks, and lifelogs offer highly heterogeneous and timely sources of data that require processing and integration to develop mobile recommender and decision support systems. Mobile services are highly affected by contextual information, they have reduced user interfaces, and require additional inference to extract user profiles and tasks from implicit information such as time and location. The combination of these factors makes cognitive engineering methods a promising approach. Such methods integrate cognitive and computer science approaches to the design and construction of machines. More specifically, when applying cognitive engineering to Mobile GIS, principles of human spatial cognition regarding the representation and processing of spatial and temporal aspects of phenomena, and aspects of mobile decision-making must be considered.

Workshop website: <http://psumobile.org/?q=content/workshop-cognitive-engineering-mobile-gis-2011>