Minitrack Introduction: Decision Support for Smart City and E-Society Services

Wei Xu  
School of Information  
Renmin University of China  
Beijing, 100872, China  
weixu@ruc.edu.cn

Jian Ma  
Department of Information Systems  
City University of Hong Kong  
Hongkong, China  
isjian@cityu.edu.hk

Developing smart city and enhancing e-society services are the critical important to urbanization process for improving the effectiveness and efficiency of traditional cities. With the massive applications of Internet of things (IoT), mobile networks, and social networks, unprecedentedly large amount of various heterogeneous data can be gathered and processed in terms of advanced analytics to support smart applications and e-society services. Furthermore, decision support tools and soft computing models can be employed to speed up the whole process.

This minitrack addresses issues that focus on the applications of various decision support tools, such as big data analytics, decision analysis, and soft computing, to develop smart city applications and e-society services. We also encourage papers to report on system level research and case studies related to smart city and e-society.

In this minitrack, two papers have been accepted. The first paper titled “Predicting travel volumes for long-distance coach services through big data analytics - a case study on German public viewing events during the UEFAEURO 2016” proposes a big data analytics method for predicting travel volumes. To improve the quality of predictions about future capacities, information from different data sources e.g. social media, geo-based information or websites has to be considered. Technologies to collect structured and unstructured information from different data sources are available. This paper presents an approach to use these technologies for capacity predictions and pricing of coach vendors in terms of travel-intensive events. To verify the approach, a case study, focused on the UEFA EURO 2016, is described. The case study is necessary to demonstrate the value of the research and to give a deeper understanding about data sources and the discussion culture of travelers in social networks.

The second paper titled “Person-oriented modeling methodology: a case study on personal credit scoring” proposes person-oriented modeling methodology to construct personal virtual image which consists of personal comprehensive information, event, task and interactive rules, imposing great significance on subjective initiative and personal practice. Basic information units and standard tree structure are employed together to depict individuals from a comprehensive perspective. This paper demonstrates how to establish an appropriate information category in detail on the basis of sociology and philosophy related theories to guarantee the completeness and rationality of the structure of personal virtual image and takes personal credit scoring as an example to prove the feasibility and effectiveness of personal virtual image model.

In summary, smart city and e-society services play a critical important role in real life and have great potential in future. We believe there are more theory contributions and novel applications in smart city and e-society services.