Call for Papers

Big Data in Mobility and Logistics – BDMobiLog 2014

Workshop at INFORMATIK 2014, Stuttgart, September 22-26, 2014


Important Dates

Paper submission deadline: April 22, 2014 May 4, 2014 (extended)
Author Notification: May 20, 2014
Camera ready version: June 23, 2014
Workshop: September 22, 2014

Objectives

The growing technical possibilities to gather data, like sensors, mobile devices, social media, log files, cameras, microphones etc., have resulted in large and complex data sets, which today are known as Big Data. Big Data is characterized by high data volume, high variety of the data types and data sources as well as by high velocity of the incoming data and the expected information output (real time requirement), which makes it difficult to process the data using existing data management applications. On the other hand, when processed properly, Big Data might carry huge amounts of useful information, which wasn’t accessible before and allows better-founded and more robust predictions and better decision-making. That’s why new predictive and prescriptive analytic approaches are gaining in importance.

Besides bringing benefits to different application fields like healthcare, retail, finance, Big Data can also have a huge business value for the logistics domain. Logistics describes the organization, management and optimization of the flow of physical items (e.g. materials, staff, …) and abstract items (e.g. information, energy, …) along the supply chain. Because of the rising complexity of logistic networks and logistic processes as well as a usually big amount of data to be handled there is already a growing amount of IT-based applications, which support and automate different steps of the logistic processes. We believe that using Big Data can elevate these applications to a new level and enable precise and well-founded decisions.

Mobility is closely linked to logistics. Describing all flows of freight and passenger traffic it has a strong influence on the efficiency of logistic processes, especially when it comes to transportation. Not only did city logistics become an important part of the logistics domain, but also knowing the traffic density on certain routes at certain times can have very beneficial
effects on transportation planning and organization. Besides e-mobility is gaining in importance in the private sector and will most likely also become an important factor in logistics. Due to the strong limitations in battery capacity and therefore in range, careful planning considering order patterns as well as traffic patterns is crucial for a smooth operation. Using Big Data can provide transparency regarding traffic density, fuel or energy consumption etc. and thereby improve planning processes in logistics.

Topics of Interest

The BDMobiLog 2014 workshop shall bring together researchers and practitioners who use Big Data or apply Big Data technologies in mobility and logistics and shall support technology transfer from foundational research into practice. The workshop covers diverse application areas of Big Data in mobility and logistics including, but not limited to:

- Transport logistics
- Production planning and control
- Production scheduling
- Process planning and monitoring
- Maintenance logistics
- Service parts demand analytics
- Quality control and test planning
- Supply Chain Management
- Smart Factory
- Integration and visualization of sensor and mobility data
- Data-driven supply chain and traffic optimization
- Risk and congestion management
- Disruption management
- Mobility service analytics
- Traffic flow analytics
- Traffic flow modelling
- Prescriptive analytics in mobility and logistics

In addition to general usage of Big Data in mobility and logistics a special focus will be given to using Big Data for real-time process management and optimization. We explicitly encourage contributions tackling this challenge.

Intended Audience

As participants of the workshop we expect researchers and practitioners from diverse mobility and logistic areas in research and industry.

Submission

Submissions must be in PDF format and follow the LNI style guidelines (http://www.gi.de/service/publikationen/autorenrichtlinien.html).

Full papers must not exceed 12 pages. Short papers, work in progress and industrial papers must not exceed 8 pages.

Contributions shall be submitted via Easychair online submission system at https://www.easychair.org/conferences/?conf=bdmobilog2014
Submissions will be reviewed by at least two program committee members. Accepted papers will appear in the (electronic) Lecture Notes in Informatics (LNI, http://www.gi.de/service/publikationen/lni/).

Program Committee

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