



Editorial

Social network analysis in future transportation systems: Contributions on observability, behaviour and structure[☆]

1. Introduction to the special issue

Transportation systems analysis, an interdisciplinary area from its fundamental underpinnings, has relied upon assumptions on collective and/or individual desires expressed or satisfied by the mobility of people and goods. Thus, it reflects the need for social connectivity, social behaviour and social integration. Analytical frameworks proposed and used both for social networks, as well as in transportation systems, take advantage of a wide spectrum of modeling approaches. Recent advances in information technology, in particular related with data availability, ubiquitous and multi-channel connectivity provided by new mobile devices and the Internet, people participation in media platforms and the development of specialized communication means (social media, phone-based ‘apps’, public or personalized services, etc.), raise new opportunities and threats that may lead to the transportation sector structural reorganization. After a first wave of social network and transport research, where the “low-hanging fruit” has been mostly picked, we need to start thinking about and moving towards the second generation of social network and transportation systems research, which will benefit from deeper insights and ideally provide superior results.

In this Special Issue, 8 papers were ultimately selected from a large number of submissions (Calastri et al., 2018; Cottrill et al., 2018; Ali et al., 2018; Hu and Jin, 2018; Kim et al., 2018; Kuflik et al., 2018; Rashidi et al., 2018; Zhao and Zhang, 2018), based on the high quality review criteria of *Transportation Research Part C – Emerging Technologies*, but also on the relevance for the scope of this special edition, which was:

- Transportation systems observability by monitoring social network activity
- Social network information as inference of travel behavior
- Using social networks analysis to map urban structures and processes
- Mobility pattern recognition through Social/Public/Opportunistic data
- Mining internet for contextual data about travel behavior
- Social data analysis for anomaly/extreme events detection and prediction
- Supplementing traffic information with social media information
- Natural language processing technologies for social and transportation network analysis
- Sentiment analysis and opinion mining in transport demand modeling

Social media is playing an ever-increasing role, which is in fact shifting. Therefore, this special issue is not expected to be an end in this research direction, but instead an incremental contribution, giving ideas towards the future.

References

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[☆] This article belongs to the Virtual Special Issue on "Social Network"

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