Traffic Congestions Modeling and Predictions by Social Networks

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Abstract : Reduction of traffic congestions and the effects of pollution and waste of resources that come with them has been a big challenge in the past decades. Having reliable systems to facilitate the process of modeling and prediction of traffic conditions would not only reduce the environmental pollution, but will also save people time and money. Social networks play big role of people's lives nowadays providing them means of communicating and sharing thoughts and ideas, that way generating huge knowledge bases by crowdsourcing. In addition to that, crowdsourcing as a concept provides mechanisms for fast and relatively reliable data generation and also many services are being used on regular basis because they are mainly powered by the public as main content providers. In this paper we present the Social-NETS-Traffic-Control System (SNTCS) that should serve as a facilitator in the process of modeling and prediction of traffic congestions. The main contribution of our system is to integrate data from social networks as Twitter and also implements a custom created crowdsourcing subsystem with which users report traffic conditions using an android application. Our first experience of the usage of the system confirms that the integrated approach allows easy extension of the system with other social networks and represents a very useful tool for traffic control.