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## Towards Real-time Event Detection for Online Behavioral Analysis on Social Big Data

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### Abstract

Social Networking Services are increasingly becoming popular for Internet citizens in their daily life, especially since the advent of smart mobile devices which are integrated with utility modules such as 4G/WIFI connectivity, Global positioning services, Cameras, Heart beat sensors, and so on. It is easy to come across the use of such devices for sharing information at anytime which can be listed as posting photo, sharing a status, or narrating an event. The behavior of users makes the flow of data (or a Social Data Stream) has real-time characteristics which actually are notifications about your friends's posts after a short delay of diffusion over the network. Inside the data stream, news pieces related to real social facts are covered together with unfocused information. And outstanding facts (or events) surely draw more public attentions, it is evidenced by the number of relevant messages or communication interactions between interested persons toward certain topics. Technically, the characteristics of data in the aforementioned scenario gives us an opportunity to build a model which can automatically determine occurrences of events from the Social Data Stream. In this paper we propose an approach to solve the challenge of early event identification, which requires proper approaches to process incoming data in terms of processing performance and number of data.

**Keywords:** Social Network Analysis; Event Detection; Real-time event

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