**ABSTRACT**

Recent studies have shown that a noticeable percentage of web search traffic is about social events. While traditional websites can only show human-edited events, in this paper we present a novel system to automatically detect events from search log data and generate storyboards where the events are arranged chronologically. We chose image search log as the resource for event mining, as search logs can directly reflect people’s interests. To discover events from log data, we present a Smooth Nonnegative Matrix Factorization framework (SNMF) which combines the information of query semantics, temporal correlations, search logs and time continuity. Moreover, we consider the time factor an important element since different events will develop in different time tendencies. In addition, to provide a media-rich and visually appealing storyboard, each event is associated with a set of representative photos arranged along a timeline. These relevant photos are automatically selected from image search results by analyzing image content features. We use celebrities as our test domain, which takes a large percentage of image search traffics. Experiments consisting of web search traffic on 200 celebrities, for a period of six months, show very encouraging results compared with handcrafted editorial storyboards.