The Past and Future of Systems for Current Events

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ABSTRACT

People share in social media an overwhelming amount of content from real-world events. These events range from major global events like an uprising or an earthquake, to local events and emergencies such as a fire or a parade; from media events like the Oscar's, to events that enjoy little media coverage such as a conference or a music concert. This shared media represents an important part of our society, culture and history. At the same time, this social media content is still fragmented across services, hard to find, and difficult to consume and understand.

We have worked since 2008, in both research and startup settings, to tackle key challenges in making social media information about events accessible and usable. These challenges include detecting new events in a stream of content (e.g. [1]), identifying content related to events (e.g., [2]) and organizing event content to be presented in a ways that get *better* when new content is added (e.g., [3]). A core useful concept for all these challenges is *Attention Rank*: how to computationally model the human attention reflected in real-time social media content. (This work was supported in part by National Science Foundation grants Number 1446374 and 1444493).

Several recent commercial services (Twitter, Instagram and even Snapchat) attempt to better present “moments” and other trending events. Still, I argue that there are no current systems that provide a coherent summary or narrative representation of event content from social media at scale using automated or semi-automated tools. My own startup that addressed this very problem moved away from it despite initial success.

There are several open challenges before we can reliably provide precise and engaging narratives for all the world's stories. One such key challenge is developing flexible systems that intelligently apply a combination of machines and humans to create appropriate narratives for events of any type and size. Social media – a mirror and record of our humanity – is now rapidly expanding to include real-time

mobile video and even virtual reality. The work to make sense of all this information is far from complete.

Categories and Subject Descriptors

H.4 [Information Systems Applications]: Miscellaneous

Keywords

social media, events, information organization, startup

Bio

Mor Naaman is an associate professor of Information Science at the Jacobs Institute at Cornell Tech, where he is the founder of the Connective Media hub, and leads a research group focused on social technologies. His research applies multidisciplinary methods to 1) gain a better understanding of people and their use of social tech; 2) extract insights about people, technology and society from social media and other sources of social data, and 3) develop new social technologies as well as novel tools to make social data more accessible and usable in various settings.

Previously, Mor was on the faculty at Rutgers SC&I, led a research team at Yahoo! Research Berkeley, received a Ph.D. in Computer Science from the Stanford InfoLab, and played professional basketball for Hapoel Tel Aviv. He is a recipient of a NSF Early Faculty CAREER Award, corporate research awards and grants from companies like Google and AOL, and multiple best paper awards. Find out more about Mor at <http://mornaaman.com>.

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