Abstract

Anatomy of a Social Media Movement: Diffusion, Sentiment and Network Analysis

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Introduction: Social media has increased the availability of abundant user interaction data. Technology-mediated social participation tools like Twitter can inform us about collective actions and social movement mobilization. Mass collaborations and coordination on Twitter can bring major changes in societal and political landscapes. Current focus of social media and social movement research are on usage and impact of technology during historical uprisings. But online social networks are participatory mediums, and filled up with multi-dimensional user interactions, which requires more concrete attentions and need investigations at granular levels. Moreover, limited attention has been paid on how activists develop online social networks.

Research Question: This study stresses on Twitter's ability of helping in making sense of online debates and present meaningful descriptions about social events. For this purpose, this study focuses on a specific social media movement and investigates the following question:

- What are protesters' behaviors and opinions on Twitter, the structures of their online networks, leadership roles, and information diffusion patterns?

Methods: This study applies mixed methods with combination of sentiment analysis, content analysis, social network analysis, and time series analysis.

Findings: It identifies sentiments of activists, structures of their online networks, and information diffusion patterns. During social movement people's sentiment take a range of emotional levels including anger, anticipation, disgust, fear, joy, sadness, surprise, and trust. Their opinions express political biasness. The study reveals that protesters broadcast information worldwide, and during digital activism they can form leaderships even on Twitter's horizontal-structural platform. Twitter activists expose a long-tail information sharing culture. Strong-ties form small-world network while weak-ties stay on peripheries.