Cover page for ‘Beyond Keywords’

Thank you for considering this submission.

## Abstract

The potential of social media to give insight into the dynamic evolution of public conversations, and into their reactive and constitutive role in political activities, has to date been underdeveloped. While topic modeling can give static insight into the structure of a conversation, and keyword volume tracking can show how engagement with a specific idea varies over time, there is need for a method of analysis able to understand how conversations about societal values evolve and react to events in the world, incorporating new ideas and relating them to existing themes. In this paper, we propose a method for analyzing social media messages that highlights how world events become connected to existing conversations. This approach has applicability to the study of framing processes, and may reveal how contentious groups connect evolving events to their larger narratives.

## About the Authors

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James Houghton is a Doctoral Student at the MIT Sloan School of Management. His research investigates large-scale shifts in the dynamic behavior of complex social systems. His work combines the tools of systems modeling and statistical inference with grounding in sociological theory. He has presented and published in the fields of cyber security, API development, idea diffusion and polarization, the influence of cultural stories on collective behavior, and methodologies for merging top-down systems modeling with bottom-up data mining and machine learning.

**Michael Siegel**

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## Potential Reviewers

The following individuals are known to me only by their published works, and would be well equipped to critique this paper:

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## Replication Materials

The analysis tools described in this paper, along with all scripts necessary for producing visualizations contained within the paper, are available at: <https://github.com/JamesPHoughton/twitter-cluster>