The Computational Social Science of (Turbulent) Politics

Helen Margetts

@HelenMargetts
www.politicalturbulence.org
social media = internet platforms that allow users to generate content

POLITICAL TURBULENCE

This compelling book shows how, when, and why individuals decide to join online collective actions, and what makes those actions scale up. Using a fascinating array of cases taken from the news headlines of our time, the authors draw an important set of conclusions about democracy in turbulent times. Political Turbulence provides invaluable insights into political participation, individual choice, and democracy in an age of changing societies and politics.

—LANCE BENNETT
University of Washington

“Political Turbulence is an exciting book: The authors bring a psychological perspective to the analysis of experimental results and big data to tell an insightful and fresh story about social media and collective action dynamics at the individual level.”

—BRUCE BIMBER
author of Information and American Democracy: Technology in the Evolution of Political Power

“This engagingly written and elegantly designed study tests to their limits half a century’s worth of big ideas about collective action. The authors convincingly show why information signals, visibility, and the distribution of thresholds are important for explaining the pace and scale of political engagement. Essential reading if you want to understand how it all breaks down online.”

—ANDREW CHADWICK
author of The Hybrid Media System: Politics and Power

“This is great, adventurous social science.”

—PHILIP N. HOWARD
counselor of Democracy’s Fourth Wave: Digital Media and the Arab Spring

As people spend increasing proportions of their daily lives using social media, such as Twitter and Facebook, they are invited to support myriad political causes by sharing, liking, endorsing, or downloading. Chain reactions caused by these tiny acts of participation form a growing part of collective action today, from neighborhood campaigns to global political movements. Political Turbulence reveals that, in fact, none of these attempts at collective action online do not succeed, but some give rise to huge mobilizations—even revolutions.

Drawing on large-scale data generated from the Internet and real-world events, this book shows how mobilizations that succeed are unpredictable, amoral, and often unsustainable. To better understand this uniquely new force in the political world, the authors use experiments that test how social media influence citizens deciding whether or not to participate. They show how personality types react to social influences and identify which types of people are willing to participate in an early stage in a mobilization when there are few signals or signs of viability. The authors argue that pluralism is the model of democracy that is emerging in the social media age—not the ordered, organized vision of early pluralism, but a chaotic, turbulent form of politics.

This book demonstrates how data science and experimentation with social data can provide a methodological toolkit for understanding, shaping, and perhaps even predicting the outcomes of this democratic turbulence.
People’s lives are intertwined with internet-based platforms, especially social media – dripping with data

What does politics look like in this digital, datafied world?
And what tools do we need to research it?
Politics in a new habitat
Facebook usage across the world

Facebook data, annual reports
Social media allow tiny acts of participation in support of social and political causes.
Tiny acts of political participation (micro-donations of time and effort)

• Which expand ‘ladder’ of participation
• And draw new people into politics
• Contra ‘politics as pain’ principle
Tiny acts of participation can scale up to huge mobilizations which …

… can bring about social and policy change & challenge party systems and regimes
...but mostly don’t

Most mobilizations fail
Successful mobilizations develop fast

Petitions receiving more than 10,000 signatures
Collective attention decays very quickly.

\[ r(t) = \frac{E[\log(N(t))] - E[\log(N(t - 1))]}{E[\log(N(t))]} \]

Modeling the Rise in Internet-based Petitions
Success (if it comes) comes quickly
YouTube videos show similar pattern (no s-shape)

Mobilizations against policing in the US

To block or not to block Trump

Block Donald J Trump from UK entry

Don't ban Trump from the United Kingdom
Petition

EU Referendum Rules triggering a 2nd EU Referendum

We the undersigned call upon HM Government to implement a rule that if the remain or leave vote is less than 60% based a turnout less than 75% there should be another referendum.

Sign this petition

4,148,629 signatures

Show on a map

Parliament debated this topic

This topic was debated on 5 September 2016

Watch the debate • Read the transcript
Signatures on petition to rerun Brexit referendum, 2016
What shapes behaviour?
Social media exert social influence

- **Social information** – real-time information about participation of others
- **Visibility** – action being visible to outside world (e.g. Icebucket Challenge) – or invisible, anonymous (e.g. trolls)
- Can use **experiments** to test and compare their effect

Social information and visibility as drivers of political behaviour
Experimenting with social information: a natural experiment
Social information reinforces (un)popularity

Investigating Political Participation and Social Information Using Big Data and a Natural Experiment
Leadership without leaders?
Summing up

• Tiny acts of participation - can scale up to large-scale mobilizations (but mostly don’t)
• Lacking leaders, institutions, organizations, collective identity
• Mobilizations are unstable, unpredictable – unsustainable
• Leading to political turbulence and a model of democracy which looks like chaotic pluralism
• Requiring institutional redesign for new engagement
The Democratic Party is Broken
A computational social science for political turbulence

Take a few issues on our minds post-election:
• Fake news (how to detect?)
• Echo chambers (do they exist?)
• Advertising on social media (was that what won it?)
• The rise of hate (or exposing dark secrets?)
• Political bots (will they destroy political participation?)

We will need:
• Multi-disciplinarity (including social science)
• Data sources, partnerships
• Machine learning, algorithm design... the tools of social data science
• Experimentation
• Ethical framework that is part of the science