## BOOKS et al.

## DATA SCIENCE

## The social revolution

A team of researchers sheds light on when and how we participate in politics online

By Arnout van de Rijt

ocial media platforms, e-petitioning websites, and activists' social networks have made it easier than ever for dispersed collectives to communicate in their fight for a common cause. In *Political Turbulence*, Helen Margetts, Peter John, Scott Hale, and Taha Yasseri show how our use of these online tools leaves behind a treasure trove of digital traces that can be fruitfully employed for social scientific inquiry.

Scholars interested in working with these new data and techniques will find detailed examples and applications explaining how the authors obtained their data and how results may be replicated. The authors draw on a wide range of data sources—including laboratory, natural, and field experiments, as well as large-scale digital data captured from social media platforms—and employ both traditional social science methods and techniques imported from the computer and natural sciences.

The intellectual focus of the book is the social mechanisms through which new media allow individuals to be persuaded to join a collective effort. The authors present a number of empirical results on the susceptibility of individuals to social influence that speak to the disciplines of political science, sociology, psychology, economics, network science, and complex systems. For example, the authors find that the chance that a funding goal will be reached roughly doubles when everyone can see who has contributed in real time. Chances of funding also double when individuals can observe how much has been raised from how many others.

The authors further demonstrate how the "Big Five" personality traits—openness, conscientiousness, extroversion, agreeableness, and neuroticism—as well as how one



We like, share, and sign electronic petitions on social media-but do our online actions translate to real change?

chooses to allocate resources between oneself and another person (known as social value orientation), affect both an individual's willingness to partake in collective action and his or her susceptibility to social pressure. Extroverts in particular are more willing than others to be the first to contribute money toward a public good, and their participation in the early phase of mobilization can make or break a collective effort.

Consistent with other forms of online activity and theories of social contagion, the authors find the distributions of Internet mobilization to be extreme: Millions of initiatives typically accumulate just a handful of supporters, while just a handful of campaigns reach millions. Nearly all clicks, signatures, and donations happen in brief episodes of hyperactivity, while most of the time campaigns lie dormant.

The question that this book cannot answer is whether the social dynamism observed in Internet-facilitated communication translates into significant political action. Have social media simply replaced traditional modes of organization, or have they empowered collectives with effective instruments to achieve policy change? Are the commonly heard charges of "slacktivism" and "clicktivism"–allegations that electronic signatures are just empty ges-

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tures—unfounded? Although the findings presented in the book cannot speak to the ultimate impact on policy, the authors nonetheless suggest an affirmative answer throughout the book.

This position is advanced most forcefully in the final chapter, where the authors develop the argument that social media and modern communication technologies allow citizens with various minority beliefs and niche interests to effectively impact politics, thereby limiting the exercise of power by a dominant group or ruling organization.

This argument, however, would seem in tension with the rest of the book. The evidence presented in the earlier chapters supports a model in which people are susceptible to the opinions and actions of others and participation is triggered by the legitimacy of large crowds. Would we not expect this susceptibility to favor the loudest voices coming from the strongest forces—states and organizations funded by wealthy donors? If, as has previously been found, social media often echo traditional media, would they not increase people's vulnerability to conformity pressure, propaganda, and agenda setting?

Although the evidence presented in the book may permit a conclusion opposite to the one the authors draw, with social media serving as a tool of rather than a weapon against vested interests, it nonetheless contributes an important series of creatively and rigorously researched insights into the social mechanics of Internet-based collective action, handing researchers a new toolbox of methods and techniques in the process.

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