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DIGITAL TRACES OF OFFLINE MOBILISATION

By integrating data-driven methods with psychological theory, we provide responsibly developed tools to model the relationship between social media activity and participation in offline collective action.

THE DYNAMICS OF MOBILISATION IN THE DIGITAL AGE

We are in an age of protest. From the anti-Brexit 'People's Vote' marches of 2018, to the Black Lives Matter protests of 2020, to the pro-Palestine marches of 2023 and 2024, collective action has surged to unprecedented levels. In recent years, we've witnessed a significant increase in the mobilisation of collective action worldwide, spanning peaceful mass protests to violent extremist action. This surge coincides with the global expansion of internet users, surpassing five billion, including 4.95 million social media users. Concurrently, we have witnessed collective action taking many forms, and occurring both online and offline: for example, online people can post information about social causes, as well as symbols of unity and allyship, recruit new members to their group, crowdsource Distributed Denial of Service (DDoS) attacks, and hack rival organisations.

The online and offline worlds are not separate: people can communicate online whilst engaging in offline action, and vice versa. These social media interactions, sometimes dismissed as trivial, are instrumental in the mobilisation of collective action. Social media serve as spaces for debate, disagreement, and the expression of opinions on social injustices, fostering a sense of shared values among individuals. Indeed, it's been suggested that the internet is the 'greatest critical enabler' for mobilisation: but is there any evidence that people mobilise, at least partially, through their online communications? If so, what are the implications of using online communications data to predict future mobilisation? What ethical considerations arise from developing tools to analyse people's digital footprints for this purpose? Is the internet 'the greatest enabler' of mobilisation?

There are several reasons why communicating via networked technologies might facilitate mobilisation. Social media aid in the development of social groups and networks, providing a platform for online communication of grievances that may lead to polarisation and radicalisation. The internet's capacity for rapid information dissemination and logistical planning further enhances its role in organising, advertising, and serving social-psychological functions in mobilising offline collective action.

Politicians and policymakers have emphasised the role of online polarisation in motivating individuals to join and participate in radicalised groups, which is crucial for collective

action. Indeed, in the wake of an increase in extremist action in which social media sites were implicated, politicians took legislative steps to prevent people from becoming radicalised on social media platforms (e.g., the U.K. Online Safety Act 2023). Online polarisation has been cited as a risk factor for mobilisation to violence in the United Kingdom's and Australia's counterterrorism strategies. However, there is a lack of specificity in the claims around how and why online polarisation might cause offline mobilisation, and there are no established methods to capture the polarisation of individual users in communications data - and therefore no evidence that directly links an individual's online polarisation with their offline behaviour. This means there is room for a more granular understanding of the connection between people's online behaviour and their offline participation in collective action.

“The internet facilitates the rapid communication of information and enables the planning of logistics.”

The relationship between online interactions and offline collective action is intricate. While online interactions commonly encourage offline activism, some research suggests they can also have a *demobilising* effect, satisfying the need to act offline, or people may even have disingenuous motivations for engaging in them. These latter online collective actions may be examples of 'performative' allyship, which have no significant disruptive offline impact.

THE DIGITAL TRACES OF MOBILISATION

Digital traces are digital records of online activities and events, offering valuable insights into the connection between online and offline behaviors. To understand and predict how and why people's online interactions may be related to their offline mobilisation, we modelled the digital traces left by people engaged in and discussing the anti-Brexit 'People's Vote' marches.

The People's Vote March, a significant rally against Brexit, unfolded on October 20th, 2018, drawing an estimated 700,000 participants in London. Online groups formed to encourage

people to attend the march, and on social media there was widespread political polarisation, which had an economic fallout and was accompanied by a rise in hate crime. This context provided us with an opportunity to investigate how people's online behaviour and offline collective action intersected.

We developed new methods to enable us to test and potentially improve the predictive capabilities of psychological theories of collective action, so that we could better explain *why* online communications could predict offline mobilisation. Conversely, we used psychological theories to inform the design of our algorithms to enhance the algorithms' rigor, validity, and effectiveness.

KEY TAKEAWAYS

1 Online polarisation did not predict mobilisation

Our research modelled online polarisation as *communication behaviour*, employing an equation capturing changes in people's online communications data (as a relative intensification of an individual's posts about a grievance over time). We found polarisation on its own was *not* sufficient for mobilisation.

2 Validation from others matters

The impact of online polarisation on mobilising individuals for the People's Vote March depended on the validation (likes) received on their Brexit-related posts. This validation served as a cue, affirming and validating shared perceptions of injustice and fostering a sense of group support. That provided a solid psychological foundation for taking offline action.

3 People leave a digital footprint of mobilisation

We found that in the 24 hours around the protest event, people left an online 'digital footprint' of their participation in offline collective action. Therefore, the digital traces left online by people before and during an offline protest event can indicate that they are, or will be, attending that event.

4 Enhancing security through digital traces

The algorithms could be employed to (a) detect potential unrest, (b) provide information to first responders about the potential size of crowds at protest events, and (c) therefore inform crowd management strategies prior to and during large-scale events.

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5 Balancing risks and benefits

Algorithms predicting lawful protest pose potential ethical concerns. Our results should be used to safeguard rather than limit lawful protest mobilisation.

Individual's motivation and self-efficacy for engaging in collective action likely originates online before translating into real-world actions. However, expressing grievances online does not necessarily imply dangerous intentions on an individual level, although it might inspire others. Instead, social media sites act as catalysts for mobilisation, providing spaces for validating grievances and ideas. Rather than censoring expressions of grievances online, which may stifle positive social change, policy should focus on social media sites' algorithms, affordances, and features that drive people together and enable them to validate and legitimise unlawful, violent extremist ideas.

This text is adapted in part from a research article (see Read More).

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