

The (un)invited in Collective Action on Social Media: A Socio-Technical Perspective of Fake News

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Abstract

Collective action is a form of cooperation in which a group of people coordinate their actions and cooperate to achieve a common objective. In collective action, the objective is out of reach for any individual acting alone; hence cooperation is necessary. Contemporary forms of collective action make use of social media as digital platforms providing support for communication and coordination of members' activities. The use of social media in collective action underpins the success of many initiatives that escalate to a mass size. However, social media amplify also one complication of the collective action: fake news. Fake news is sustained on social media by the same mechanisms that sustain information circulation: the socio-technical interplay of the technical features of the digital platform, and the behavioural habits of social media users in sharing, wittingly or carelessly, fake contents. This short position paper aims at framing the fake news issue in collective action from a socio-technical perspective, motivating the use of the same collective action mechanisms that produce fake news to contrast their diffusion.

Keywords 1

Social media, Collective Action, Fake News

1. Introduction and motivation

Collective action is a sophisticated form of cooperation among people. In collective action, a group of people actively cooperate to achieve a common objective [1]. The complexity of cooperation in collective action stems from the need of finding an agreement – not necessarily unanimous – on the decisions and the course of actions necessary to reach the goal. The decisions that participants of collective action take – based on agreed rules – are binding for the whole collective, including those who did not take part into the decision-making process, or those who supported a different outcome [2]. Even when the participants disagree on how to reach the common goal, they need to cooperate, because the objective is out of reach for individuals alone, and because the objective achieved will benefit all participants [1, 3]. Such characteristic makes collective action challenging. Participants to collective action need hence to agree on the rules regulating their cooperation, and this requires communication, coordination, and shared mechanisms for decision making [4–7]. Nowadays collective action settings frequently make use of digital platforms for communication and coordination of actions. These collective action settings take the form of online communities, with members having most of their contacts online [6, 8, 9].

At the end of the year 2020, the Internet will reach a projected number of 4.57 billion users. About three billion of these users will be connected on social media. These figures grew by a factor of three in the past ten years. Out of the many potential areas of application, social media are used as digital platforms to create interactive spaces in which individuals for online communities sharing, co-creating, discussing, and modifying the contents they produce [10]. Social media are also used in collective action in various fields, such as management of common goods, philanthropy, social transformation, or participation in political processes [9, 11].

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Pieces of evidence show that social media are valuable digital platforms supporting collective action. Social media are exploited by collective action settings to reduce the cost of disseminating information to a large mass of members [2, 12]. As a result, the use of social media afford collective action to experiment forms of mass size cooperation [13–16].

2. Challenges for Collective Action

The theory of collective action takes an economic argument for explaining cooperation. People cooperate to achieve a common objective based on a criterion of convenience [3]. Participants join the collective action effort because they expect a form of benefit when the objective of collective action is met. Given that the collective goal needs cooperation because it is out of reach of individual efforts alone, and since the achievement of the goal brings benefit to the collective, the most logical behavioural outcome is that participants will find cooperation convenient because it is the only way to have the objective achieved [1, 3]. The convenience is estimated with a difference of costs: the cost of non-achieving the goal is higher than the cost of non-cooperating.

In practice collective action is prone to forms of opportunistic behaviour. One form of opportunistic behaviour is free-riding [17]. A free-rider participates to the collective action acquiring the collective good but does not pay the participation cost, instead taken on by the rest of the collective [18]. A free-rider retains the cooperation may work well enough without her contribution. At the same time – being part of the collective effort – retains, it will be difficult for other members to exclude him from the benefit of the collective good. In all part, free riding is a risk for collective action, and detrimental for its outcome, because it removes resources to the collective effort. If all participants to collective action free ride, the common objective is impossible to achieve.

The second form of opportunistic behaviour in collective action is the circulation of inaccurate information on the digital platform to re-orient the collective action effort or to exploit the visibility opportunity that social media afford to online communities [19, 20]. These contents are circulated not to promote the collective action goal, but the goal of a few members, or even people external to the community. Nowadays this phenomenon is better known under the name of *fake news*.

Online communities for collective action work with three fundamental processes:

- Mobilising: the process of constructing resources necessary for mobilising people for collective action, for enrolling new members, and for increasing the capability of the collective of mobilising further resources [21–23];
- Framing: the process of constructing a shared meaning and building of a collective understanding among members of the purposes, phenomena, context, goals, and significance of the collective action [9, 24];
- Political opportunity: the process of challenging the contextual opportunities and constraints that the collective action engages with to create new, or exploit already existing, opportunities [21, 22, 25]

The diffusion of fake news in social media used for collective action has the potential of influencing the framing process, the mobilisation of resources, and the creation of political opportunities. The framework in Figure 1 highlights how the possibility of circulating information on social media influences the three collective action processes through the intermediate outcome of communicational ambidexterity. Said in other words, social media platforms afford collective action members to communicate inside and outside the group of people engaged in collective action, influencing, in turn, the three fundamental processes. Under this point of view, the impact of fake news on collective action on social media is relevant because it influences both the communication and coordination among its internal members, and the activity targeted externally to recruit other members.

Nowadays, fake news revealed a dark side of social media that is now on the fore of the public debate, especially in western democracies [26]. There are many examples in real life, such as the controversial usage of social media that populist movements and opinion leaders are making, bringing visibility to anti-scientific opinion movements such as climate change deniers, no-vax, or even COVID-19 deniers.

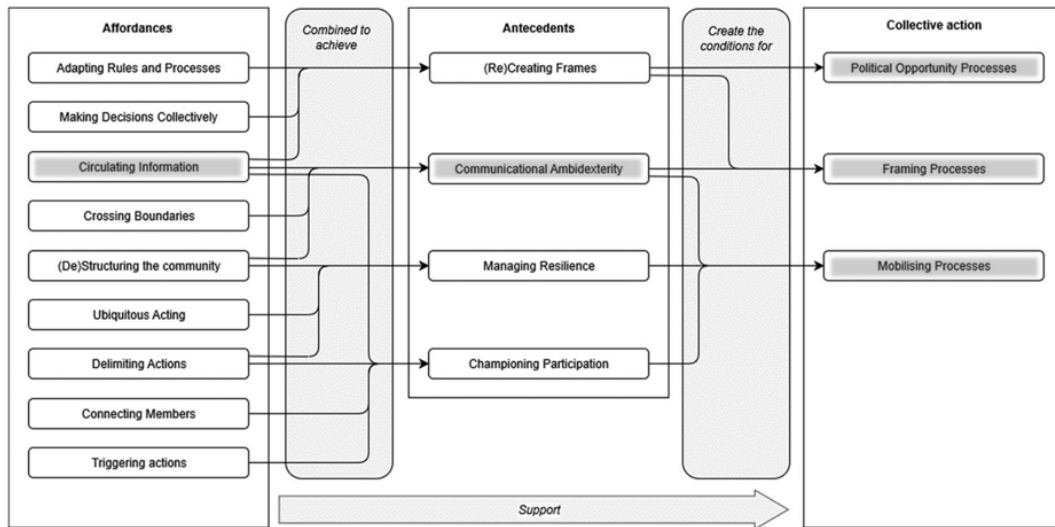


Figure 1. How social media affordances support collective action processes [11]

3. The Difficulty of Fighting Fake News in Collective Action

Fake news is fake content presented to people as being factually accurate, without genuinely being based on facts [26]. The fake news can be either actual fake or opinionated fake. Factual fake news is facts that are either not true or not accurate. Opinionated fake news is instead opinions expressed by people based on biased reasoning, not supported by facts, or supported by a misinterpretation of facts.

These pieces of content are created and circulated over social media, either with the deliberate objective of disinforming, or by accident or mistake of unattentively social media users[27]. Fighting fake news on social media is hard.

A first reason concerns the truthfulness of information circulating on social media, for which establishing authenticity is complicated by the challenge of determining the true source of the content circulating and setting its reliability. A second problem concerns the difficulty of distinguishing fake from actual contents as fake news are fabricated to imitate as much as possible actual news. As a result, fake news circulating on social media have a broad engagement and, in some cases, they are reported to circulate even more than actual news.

The social media platforms are designed to reduce the cost of information circulation among users and to maximise the information circulation and the creation of contents. A negative externality of such design goal is that the social media platform offer no barriers to fake news diffusion. Even if not all social media platforms are relaxed against fake news, many consider fake news just like another kind of content shared by their users and take no actions against them.

4. A Socio-Technical Perspective of Fake News

The fake news phenomenon can be analysed with a socio-technical perspective. Figure 2 represents the elements of fake news on social media for collective action and their interplay schematically. The visualisation is inspired by the framework provided by Bostrom & Heinen [28].

On the technical side, we have social media platforms and the tasks performed on them. On the social side, we have instead a heterogeneous group of actors with different levels of engagement and the set of organisational structures to coordinate the collective action that is either emergent or governed by a social movement organisation [6].

The technical side of the socio-technical interplay on social media for collective action affords people the action possibilities of connecting with other people, and of circulating information, either by creating new contents, circulating contents created by others, or contributing to contents created by others. On the task side, we have the fundamental processes of collective action which – especially in

online communities for collective action – are intensively supported by the affordances of social media [11].

On the social side, the users engaged in collective action and their behaviour towards the communal effort differ. Collective action settings see the engagement of both users that devote significant efforts in reaching the common goal – commonly called activists – and others that instead show a varying level of commitment testified by the discontinuous and shallow engagement of slacktivists to the passive position of bystanders or followers. The coordination of these actors is in many cases emergent and left to the mutual adjustment or to the coordination mechanisms of the technical platform or is instead regulated by norms and processes agreed by the collective action members, and in some situations also regulated by a formal social movement organisation.

In this socio-technical interplay, the control mechanisms against fake news could be at every level. One potential control point on the technical side is the social media platform itself. Social media platforms providers that are responsible for creating the platforms and designing the structural features could use filtering or signalling mechanisms to remove fake contents or identify contents as fake when they are presented to users. Research shows that labelling or rating news affects the way users share the news [29]. The technical complexity of this operation is high as automatic text-based filtering approaches – like the ones already used for spam on e-mails for instance – are less useful because a fake and a piece of actual news are virtually undistinguishable with a bag of words approach. The mechanisms should also include other pieces of information next to the text to increase such effectiveness [30].

Another control point is on the structure side, by promoting rules and controls, especially when promoted by a social movement organisation, aimed at de-incentivising the dissemination of fake news. However, collective action settings are, to a large extent, based on voluntary efforts [31] and emergent organising [32]. Even when collective action is coordinated by a social movement organisation, such organisation has little control over the volunteers, and can only control the technological platform and the conditions under which users are allowed to access it, and to use it [6]. On this side, the limitations are even more significant for those collective action settings in which the digital platforms are the mainstream social media (such as Facebook and Twitter) on which collective action members and the social movement organisation has little or no control at all.

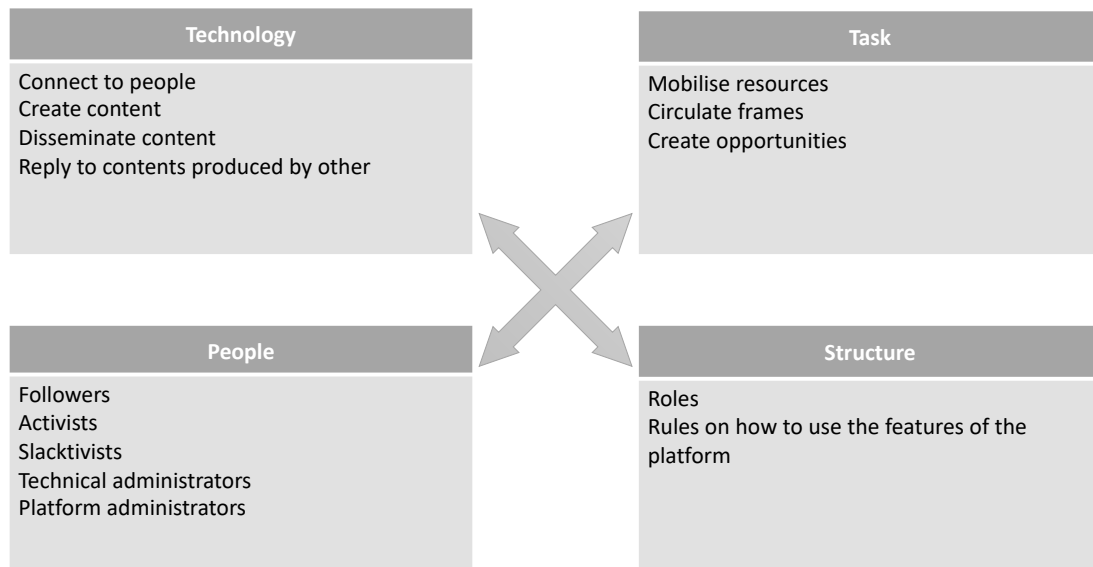


Figure 2. A socio-technical perspective of collective action on social media

Finally, the last control point could be on the behaviour of the users themselves. Since in collective action settings, social media affordances are socialised by participants [9], influencing how this socialisation takes place could be a way to prevent the dissemination of fake news. However, the same principle works also on the contrary. Collective action movements born on social media to disseminate

accurate information can easily polarise over time up to a point to be instead recognised as a fake news factory and no longer a trustworthy source of information [33].

5. Using Collective Action Against Fake News in Collective Action

Given the previous context, this paper raises the idea of using the same mechanisms that sustain fake news circulation on social media for collective action, to contrast the diffusion of fake news. The idea is based on the fact that in an online community for collective action, there are users who would not share fake news if they would know they are not accurate, or even users that would proactively try to debunk the fake news. The potential influence of their action in an online community, especially in one of mass size, is limited to the portion of the network they can reach through their direct links. The idea would then that of helping these members increasing the visibility of debunked fake news by the design of a platform supporting the collective efforts of fake news debunkers.

The platform supports a community of debunkers who, either acting on their input or reacting to inputs received from other persons, engage on a collective action effort assessing contents shared on social media, and rate those that are fake. The contents rated as fake will be indexed in the platform, and made publicly available to increase the visibility of debunked fake news. The platform would also allow debunkers to identify relationships between different contents. In this way, it would be possible to identify fake contents totally or partially based on a combination of existing fake contents, or contents based on old contents already rated as fake news.

Finally, the platform could work as an *anti-fake* software just like an anti-spam software works in an e-mail client, open to the use of ordinary users, not just debunkers. The ordinary users would have the possibility of searching contents – but not rating it – with the intent of qualifying a content as fake or accurate when received from a social media, or previous sharing it again on social media. This platform could also be integrated with the salient social media platforms to be used by all users to obtain information to better identify fake news circulating on social media before sharing them.

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