Article

Digital Media and Knowledge Production Within Social Movements: Insights From the Transition Movement in Italy

Elena Pavan[1] iD and Andrea Felicetti[2]

Abstract

In this article, we aim at contributing to ongoing discussions on the nexus between digital media and social movements. We investigate how activists problematize the inclusion of digital media within their courses of action and exploit these tools to produce and diffuse alternative knowledge on the issues on which they mobilize. We do so by studying Transition Italia (TI), the Italian hub of the transnational Transition movement struggling for resilience and sustainability. First, we reconstruct how activists problematized the adoption of digital media within TI's courses of action. Second, we explore how activists leveraged Facebook affordances to produce and diffuse alternative knowledge on TI as a collective actor, its visions and practices, its action networks, and the political alternatives it aims to achieve. Far from being passive adopters of digital media, activists considered critically the inclusion of digital media within TI's activities in light of three elements of import to the national activist community: the appropriateness of mainstream digital platforms to inform citizens, the perceived efficacy of digital tools, and the attempt to distinguish themselves from the global Transition Network. Moreover, we show that activists engaged in a "knowledge curation work" by sharing links and creating and spreading original contents.

Keywords

social movements, Facebook, knowledge practices, digital media, transition movement

Introduction

With the rise of the global protest wave at the end of 2010s, attention has grown for the communicative dimension of social movements. In continuity with the "classic agenda" of social movement research (McAdam et al., 2001), particular attention has been paid to how increased communication and networking possibilities offered by digital communication tools affect movement framing and ideational activities (Bennett & Segerberg, 2013), mobilizing structures and opportunities (Cammaerts, 2018), and action repertoires (Van Laer & Van Aelst, 2010).

Whether the focus is set on organizational, symbolic, or tactical implications of digital media, extant reflections tend to start from the implicit assumption that, as much as digital communications have become routinized in our societies, social movements are inevitably and invariantly adopting digital media in their courses of action. Therefore, only rarely attention has gone toward studying how activists critically approach pervasive digital media, their potentialities, and risks, and problematize their inclusion within their daily activities (Kavada, 2013; Mattoni & Treré, 2014).

Moreover, few attempts have been made so far to investigate the implications of the massive production and circulation of user-generated contents beyond the organization and the symbolic production of social movements. Particularly disregarded in this respect are the implications of digital media adoption for the continuous production of alternative knowledge that takes place within collective endeavors, which is instead increasingly recognized as one of the key components of contemporary mobilizations (Casas-Cortes et al., 2008; Chesters, 2012; Cox, 2014).

Against this background, in this article we investigate how movement actors problematize the inclusion of digital media within their courses of action and exploit these tools to produce and diffuse alternative knowledge on the issues on which

[1]University of Trento, Italy
[2]KU Leuven, Belgium

Corresponding Author:
Elena Pavan, Department of Sociology and Social Research, University of Trento, Via Verdi n.26, 38122 Trento, Italy.
Email: elena.pavan@unitn.it

which they mobilize. We do so by exploring the case of Transition Italia (TI), the Italian hub of the transnational Transition movement struggling for environmental sustainability and resilience. TI provides a "revelatory case study" (Yin, 2013) to investigate the proactive orientation that activists hold toward digital media and the knowledge work they perform online.

As we will see, the Italian branch of the movement features a small-size and yet dynamic community of activists who were among the first ones to adopt and adapt Transition ideas outside the Anglo-Saxon context in which the movement was born and thrived. In this process, TI has worked over time both in continuity with and autonomously from the transnational Transition Network (TN) to spread activism on environmental resilience as a global issue while trying to affirm itself as an autonomous and well-recognizable actor in the Italian context. This twofold mode of action has invested also the communication strategy endorsed by Italian activists. While they agree with the rest of the movement that being present online is crucial, they envision a distinctive approach to the adoption of digital media—one that keeps into account the needs, capacities, and strategies of the Italian group and tunes online communications toward dealing with the challenges and the problems that characterize environmental sustainability in Italy.

Our investigation of the TI case is in two steps. First, by means of in-depth interviews, we reconstruct how TI core activists problematize the adoption of digital media in relation to the bulk of initiatives they realize on the Italian territory. Second, we explore how, in tight connection with this negotiation process, TI core activists leveraged the possibility to form public groups on Facebook to sustain their struggle and to foster the public circulation of knowledge on environmental sustainability and alternative modes of consumption. To this aim, we examine the contents published within TI's official Facebook group over the period 2010–2016. We use the lens of movement "knowledge repertoires" (della Porta & Pavan, 2017), which has been recently proposed to disentangle the variety of actions that movements realize, sometimes deliberately and some others unintendedly, to produce knowledge about the world around them and on how to change it.

By means of this twofold exploration, we aim to move beyond deterministic views of digital media presence within social movements by stressing the importance of factoring in the peculiarities of and the differences between movement actors even when they operate under a common umbrella. Indeed, while digital media offer the same *material features* to all users (e.g., posting contents on Facebook is an action that is performed through the same interface in all contexts), they offer different *protest affordances* insofar as these material features are embedded within specific protest contexts marked by specific concerns, strategies, and action possibilities.

Moreover, we aim to broaden the scope of current reflections on the nexus between movements and digital media. By focussing specifically on knowledge production and diffusion, we highlight that digital media do not solely affect movement organization, strategies, and symbolic production. More radically, they reinforce activists and movement supporters' efforts to construct new "cognitive territories" (Eyerman & Jamison, 1991) wherein, starting from individual experiences, alternative ways of being and living are imagined and strategies to translate these imaginaries into practice are fleshed out. In addition, looking at the experience of TI helps complementing the typical protest-oriented approach with a more fine-grained examination of how these technologies enter the "communication repertoires" enacted by activists along the whole mobilization process (Treré et al., 2017).

The remainder of the article is organized as follows. We begin by reviewing the main perspectives according to which the nexus between social movements and digital media has been addressed so far. In doing this, we highlight the need to explore the ways in which these tools are critically embedded within collective endeavors and affect the production and the diffusion of movement knowledge. We then introduce the TI case study and illustrate the data collection and analysis procedures that we followed to reconstruct its approach to digital media and how Facebook was employed as a means to collectively produce and spread knowledge on environmental sustainability and resilience. After reviewing our main findings, we conclude by elaborating on how digital media cross social movement strategies, and knowledge production and diffusion activities.

More Than Organization, Identities, and Action Repertoires: Digital Media and Movement Knowledge Production

Over the last decade, the nexus between social movements and digital media has been addressed according to several perspectives. A first research strand underlines how these tools affect the organization of collective endeavors. Observers point out that digital communications can stimulate offline mobilizations either by allowing for faster, wider, and cheaper organization of protest or by motivating people to engage in offline events (Earl & Kimport, 2011). Notably, digital media have been considered as new "organizational hubs" that connect individuals in "relaxed and highly personalized" forms of political engagement (Bennett & Segerberg, 2013), enable networks of action that develop fluidly across the online/offline boundary (Pavan, 2014), and often succeed in mobilizing traditionally disengaged categories—such as youngsters, women, and lower status citizens (Enjolras et al., 2013). Recent studies show also that, even when incidental, exposure to political discourse online increases issue salience in public opinion and tends to generate traditional media coverage (Feezell, 2017).

The massive production and circulation of user-generated content has been analyzed also with respect to the production of movement collective identities (Melucci, 1996). Digitally mediated collective identities tend to be more fluid than in the past, as they constantly evolve together with users' behaviors. They also tend to be more diversified, as they result from the juxtaposition of individual choices and preferences, and inherently sociotechnical, as they emerge from the interactions of users with platforms' affordances (Milan, 2015). Nonetheless, the construction of movement identities remains a highly conflictual process because it requires the coordination of heterogeneous inputs delivered by a myriad of dispersed participants (Kavada, 2013).

There is also increasing attention on how digital media affect protest repertoires (Tilly, 1986). In this respect, observers agree that the strategic exploitation of digital platforms enrich movement protest tactics. These commonly include setting up websites and public pages on social networking sites, launching protest hashtags, electronic boycotts and sit-ins, e-mail bombing, but can also arrive to include more sophisticated forms such as Distributed Denial of Service attacks (Van Laer & Van Aelst, 2010).

Whether the focus is set on organizational, symbolic, or tactical implications of digital media, extant reflections rarely problematize social movements' adoption of digital media. In fact, they often start from the implicit assumption that digital media are pervasively diffused and, therefore, inevitably and invariantly affect collective endeavors. However, some scholars suggest that movement actors own *media cultures*—that is, they understand, appropriate, and exploit differently traditional and digital media platforms, professions, and roles. In turn, this process depends on movement actors' knowledge of media objects and working logics but also strictly connects with their very peculiar strategic, organizational, and communication cultures (Kavada, 2013; Mattoni & Treré, 2014).

Seen from a cultural lens, the appropriation of digital media within contentious dynamics is a fluid and ever-evolving process. Albeit offering invariantly the same material features, digital media afford different possibilities of action depending on the stages of the mobilization as well as on the users who decide to employ them in connection with specific protest acts (Pavan, 2017). Ultimately, as noted by Bennett and Segerberg (2016),

> attention to situated and dynamic activist "media practices" brings focus squarely to movement actors (as opposed to conditioning media and technology) and emphasizes the embedded character of movement communication cultures [revealing] situated ideas about organization, identification, strategy, and media choices. (p. 376)

The overall tendency to approach media and communication processes as "subordinated" to mobilization structures, action opportunities and framing strategies, has also hampered

attempts to grasp the implications of digital media beyond movement organization and symbolic production. In this sense, increased networking and communication possibilities have been rarely read in conjunction with other foundational processes within collective endeavors. Particularly disregarded in this respect is the study of how digital media affect the continuous production of alternative knowledge within social movements, which is instead increasingly recognized as one of the key components of contemporary mobilizations.

To be fair, social movement studies have largely overlooked dynamics of knowledge production. With the exception of the seminal work by Ron Eyerman and Andrew Jamison (1991) on movement "cognitive praxes," only recently scholars have sought to investigate more systematically the specificities of knowledge production and diffusion within collective endeavors (Casas-Cortes et al., 2008; Chesters, 2012; Cox, 2014). Researches on some of the latest progressive mobilizations, from the Global Justice Movement to anti-austerity and feminist protests, stress the centrality of knowledge production mechanisms to the collective generation of social and political change (see, for example, della Porta, 2015; Juris, 2012). In all their heterogeneity, these studies contribute to reveal the peculiarity of movement knowledge, which is produced outside institutionalized educational and epistemic spaces and is deeply rooted in personal experiences of participants. As such, movement knowledge connects directly to the places it aims to affect and tends to be geared toward creating "an appropriate and operative theoretical horizon, very close to the surface of the 'lived,' where the simplicity and concreteness of elements from which it has emerged, achieve meaning and potential" (Malo, as cited in Casas-Cortes et al., 2008, p. 44). In this sense, movement knowledge tends often to be a "knowledge-in-struggle" (Barker & Cox, 2002, p. 23) as it is always evolving because of its constant interaction and confrontation with the broader cultural and political milieu.

Starting from the acknowledgment that movement actors strive to achieve social and political change always on the escort of their personalized and situated way of "knowing the world," it has been recently suggested that, as much as movement actors enact repertoires of protest, they also enact "repertoires of knowledge practices" (della Porta & Pavan, 2017). These repertoires comprise sets of practices through which local and highly personal experiences, rationalities, and competences get connected and coordinated within shared cognitive systems which, in turn, provide movements and their supporters with a common orientation for making claims and acting collectively.

Two main sets of practices are proposed that contribute to movement knowledge repertoires (della Porta & Pavan, 2017). On one hand, there are "knowledge production practices" through which movement actors generate knowledge alternatives. These are carried out at different levels and with different implications. First, movements collectively produce "knowledge about the collective self," that is, about the vision that grounds a collective endeavor as well as about the envisaged or

actual practices that transform this vision into reality. This type of knowledge contributes to shape movement "cosmologies" (Eyerman & Jamison, 1991), that is, their understanding of the world and of its functioning mechanisms. At the same time, it is a type of knowledge that gives substance to this cosmology as personal experiences provide evidence of the actuality of collectively envisaged alternatives. Second, movements produce "knowledge about the action network," that is, about the different agendas, competences, and resources that converge and cross-fertilize within their collective space. This type of knowledge has practical implications as it supports the construction of coordinated networks of action between movements (or parts of them) as well as the identification of specific areas, domains, and subjects to target through these networks. Finally, movements collectively produce "political alternatives" that are meant to be delivered to political institutions and to underpin the production of policy outputs. This type of knowledge fuels movements' efforts to act outside the realm of contention and to engage in relationships of "conflictual cooperation" (Giugni & Passy, 1998) with institutional actors such as local and national governments.

On the other hand, social movements enact practices of "knowledge transmission" insofar as they provide spaces and occasions for radical education and learning (della Porta & Pavan, 2017). While practices of knowledge production do naturally entail the public display, circulation, and diffusion of local knowledges, knowledge transmission practices are characterized by an explicit pedagogical aim geared toward expanding the reach of movement knowledge outside the porous boundaries of the collective actor and within society at large.

Because digital media are rarely approached as part of movement cultures and have been rarely put in connection with movement knowledge, some key issues are left unexplored. In particular, it remains to be assessed what are the elements that play a role when activists evaluate digital media potentialities and risks and when they discuss their adoption to scale-up protest, innovate their modus operandi, circulate claims, attract media and citizens' attention. Similarly, while we now have a better understanding of how digitally enabled ties can result in large-scale systems of alliances wherein individuals and organizations act under common frames of references, it is not clear how the networking and communication potentials of digital media affect the processes through which activists elaborate alternative imaginaries of the world, translate them into practice, and spread these visions and strategies to their supporters and bystanders online. With a view of contributing to address more systematically these open questions, in the reminder of the article, we focus on the case of Transition Italia (TI), the Italian hub of the Transition transnational movement for sustainability and resilience.

Case Study: Transition Italia

The origins of the Transition movement largely ground in the research and activism of its co-founder Rob Hopkins. In 2004, Hopkins started to explore the basic ideas of the movement while developing with his permaculture students in Kinsale (Ireland) a project to reduce energy consumption and promote local sustainability and resilience. In 2006, this experience was elaborated into a more comprehensive approach to tackle the twin problems of peak oil and climate change through community action and the first official Transition Town was funded in Totnes, UK. While climate change remains a key concern for the movement, over the years, resource depletion has replaced the initial focus on the (controversial) idea of peak oil. Moreover, the movement has expanded its concerns to include the effects of the financial crisis, critical economic localism, and social justice. Over the last decade, a raft of Transition Initiatives emerged across the United Kingdom and abroad, mainly in Europe and the Northern America. Today, there exist about 900 Transition initiatives joined in the Transition network (TN), a transnational association born in 2006 with the mission to "inspire, encourage, support, enable networking, and training" Transition Initiatives around the world (Hopkins & Lipman, 2009, p. 15). To date, there are also 25 national Transition Hubs, which stand in between the local Transition efforts and the global TN and support the development of local experiences by giving and receiving feedback on how to best promote Transition in different contexts.

The Italian hub of the movement, Transition Italia (TI), has a central role in the global Transition movement as, back in 2008, the first official Transition initiative outside the movement's birthplaces was started in the city of Monteveglio, in the Italian region of Emilia Romagna. TI was founded that same year as a private association by a small group of activists relaying largely on their voluntary work. Since its inception, TI has contributed to the consolidation in Italy of what Forno and Graziano (2014) call the "sustainable community movement"—a composite movement gathering more or less structured and formalized collective experiences that combine interests for solidarity, environmental protection, and the quality of social life. Following the demobilization of the Global Justice Movement (della Porta, 2007), the sustainable community movement resumed the critique to global economy and markets as well as the quest for social justice by reorienting attention toward the individual and the local dimensions. Citizens' critical consumerism and collective initiatives such as Transition Towns, Ecovillages, Community Gardens have thus sought to move beyond more traditional protest repertoires mainly by promoting and enacting alternative forms of food and energy production and consumption to "re-embed the economic system within social relations" (Forno & Graziano, 2014, p. 140).

In this context, TI has effectively functioned as a hub to emerging Transition efforts across Italy. In continuity with the global TN and similarly to other hubs across the world, Italian activists engage in fostering knowledge about Transition through face-to-face events, including meetings such as *Transition Trainings* and *Talks*, conferences,

Table 1. Number of Collected and Analyzed Posts from the Transition Italia Official Facebook Group (2010–2016).

Feature year	Posts per year	Average likes (SD)	Average comments (SD)	Analyzed posts
2010	38	1 (1.76)	1 (2.81)	3
2011	487	2 (2.38)	1 (2.12)	18
2012	1,113	1 (1.83)	1 (2.29)	29
2013	882	1 (1.75)	1 (1)	33
2014	869	6 (4.17)	3 (2.19)	16
2015	1,733	5 (8.65)	1 (3.35)	47
2016	1,915	4 (7.35)	1 (2.97)	51
Total	7,037			197

gatherings, and celebrations. Yet, by virtue of its orientation toward the local, TI adopts a peculiar organizational mode that distinguishes it from the model endorsed by the global TN. The Italian hub intentionally leans on voluntary commitment and, differently from other national and transnational Transition groups, rarely seeks for external donations or institutional financial support. Moreover, rather than focussing on providing structures and material resources to foster engagement (e.g., building local headquarters), TI invests more in forming local networks of highly motivated individuals capable of "contaminating" social, economic, and political contexts with Transition ideas. Today, a group of half a dozen people represent the core activists of TI and are engaged on a voluntary basis or as freelance Transition Trainers, helping organizations interested in building resilience and sustainable practices. More than a contrast between the Italian Transition and the global Network, the peculiarities of TI can be interpreted, in line with Transition ideals, as efforts on the side of activists to be responsive to the different contexts in which they operate (Hopkins & Lipman, 2009).

Data and Methods

To reconstruct how TI has progressively embedded digital media in the context of their activities, we adopted an ethnographic approach that combines participant observation with semi-structured interviews. We conducted participant observation during the international 2017 Transition Gathering, held in Italy and organized by TI. This biennial meeting represents the most important occasion for leaders from Transition hubs across the world to meet and compare their national experiences, reflect on challenges, and envision future developments. The meeting is therefore not only important to the movement and the national hub responsible for its organization, but it also provides a unique opportunity to interact with a vast array of Transition leaders and observe similarities and differences across national initiatives. During the Gathering, we interviewed four of the half-dozen key activists of TI. Interviews lasted around 40 min and aimed at understanding interviewees' views on the Transition movement, their role in TI, and their experience with the use of digital media in the context of their activism. Besides being among the organizers of the Transition Gathering, our interviewees are among the initiators of TI and have been prominently active in the Emilia Romagna core of the movement. Three of them have been or are still involved also in the global TN and thus gave us insights on its relationships with national Transition chapters. Materials collected in these ways were analyzed through an interpretive approach (Yanow, 2006). More specifically, we focused on the perspectives of activists involved in producing and sharing knowledge on local sustainability and resilience in the Italian context as well as on their perceptions of the role that digital media played in these processes.

To grasp the value of digital media employment with regard to knowledge production and diffusion about Transition main themes, we collected all posts published within TI's official Facebook group in the period 2010–2016. Our post data set was compiled through Netvizz (Rieder, 2013)—a data collection and extraction application that allows to export data in standard file formats from different sections of the Facebook social networking service. Overall, we collected 7,037 posts published over a time span of 7 years (see Table 1). Of these posts, we retained for our analysis only those that, for every year, catalyzed the attention of the group members—that is, those posts that received a number of likes and comments higher than the average number of likes and comment in a certain year.[1] Overall, we analyzed 197 posts that we consider as the "linchpins" of TI's knowledge work—as it is around these posts that participants converged and expressed their viewpoints and opinions. Certainly, these posts represent only a small subgroup of all posts that have been published, discussed, and commented within the TI Facebook group and, therefore, limit our analysis to a portion of the contents that circulated within it. While this purposive sampling of contents (Neuendorf, 2012) does not allow us to elaborate on the whole of knowledge practices enacted by TI via Facebook, the analysis of posts that catalyzed more attention provides a useful entry point to reflect on the core of knowledge production and diffusion activities that TI enacted in the online space.

Starting from a qualitative content analysis of the posts' content (including not only the text but also other media contents such as pictures and videos), each selected post was

classified according to the categories of practices originally associated with the idea of "knowledge repertoires" (della Porta & Pavan, 2017):

- knowledge about the collective self—that is, contributions to the creation of TI as a collective actor, it vision as well as testimonies of the translation of this vision into practice;
- knowledge about the network—that is, pieces of knowledge about the network of collaboration that TI builds on the Italian territory but also within the broader TN;
- political alternatives—that is, contributions to the creation of political alternatives to foster the diffusion of environmentally sustainable and resilient practices through the collaboration with institutions;
- knowledge transmission—that is, an explicit use of Facebook by TI's activists to pass codified pieces of information about established principles of environmental resilience that inform the Transition movement or about events realized "offline" to educate on TI's approach and practices.[2]

On this basis, we qualitatively reconstructed how Facebook has sustained with its different affordances—particularly, the creation or original contents, the possibility to share links to existing online materials—the progressive construction of a Transition culture mixing up knowledge contributions by activists, interested citizens, and movement supporters.

Transition Italia Approach to Digital Media

As mentioned earlier, TI is sustained by a small group of volunteers. While the voluntary nature of the initiative constitutes one of its defining traits, it also entails a limited availability of material, cultural, and human resources (Edwards & McCarthy, 2004). At its inception, TI did promote its online presence only thorough a rather basic WordPress blog, which has now evolved into a permanently "under construction" website.[3] The website was created and developed largely out of the initiative of one of the group leaders to provide nonexperts with a variety of introductory information, which oftentimes consisted of the translation of materials produced by the global TN. Occasional broken links and scant updates still give today to the TI's website an outdated appearance. Similarly, the TI's blog,[4] which has been reactivated in 2010 as a section of the website, is rarely updated. The reasons behind the lack of a systematic curation activity for both the website and the blog were well explained by Adriana, who specified that, in the absence of remuneration, it was hard to find someone willing to give online presence a professional look: "Many among us work in more or less online

environments and the last thing you want to do when you are done with is keep doing that!"

TI's approach to digital media was also shaped by a deliberate choice of activists, who saw digital media engagement as a highly demanding activity with relatively little ability to promote true radical change. In this respect, a first set of concerns that emerged from the interviews pertains to the modes in which TI should promote its message. As one of the interviewees claimed, a carefully crafted online communication strategy could put activists in a contradictory position, as they would end up "doing pretty much the same job that mass-media do. It looks like manipulating. . . working as an industry finding customers" (Matteo, TI activist). Interviewees revealed a tension between "having to conform" to the standards of a "good" online presence and their distance from mainstream marketing strategies which, in their opinion, are increasingly adopted by social movement actors. In this sense, activists feared that, by reproducing the image of "yet another smart-looking movement," Transition would risk betraying its commitment to radical change. As Adriana put it,

> having a proper presence on the Internet, with the webpage, Twitter, social media, a polished website, a nice blog, would that be something good or bad, an advantage or not, something useful or not? I don't know. I mean, there's a side that says that's how it works, that's what a serious organization does, so if you don't have it that means you are a bunch of amateurs. But there is also the voice saying "wait a sec, [since we are] doing things for passion, let's try to do things that are needed when they are needed . . ." which maybe is not at all having a polished website.

A further set of concerns relates to the perceived effectiveness of digital media use with respect to TI's aims. In this sense, interviewees revealed a certain skepticism toward the added value of online communications, which was not seen as a resource but, rather, as a means to achieve results in the "offline" world. In the words of Giorgia,

> Probably we could use digital tools better and the potential they offer even though this can be a bit of a temptation to take refuge in the online dimension whereas in reality it is very important, how to say, favour as much as possible the part having to do with real life at the local level, you know. We should find a way for the virtual to be a support to local activities and not self-directed. . .

Nonetheless, TI activists also acknowledged the benefits of having a quality online presence. In this sense, digital media were seen as a space wherein long-term activists can encounter interested individuals and potentially new movement supporters. As Matteo puts it,

> [Online] there are those who have been there for a long time, know things, have experience and so on and there are also the new ones, there are always, who are a bit curious, who try to understand how this stuff works. . .

Balancing limited resources with possible benefits, TI activists decided to put less effort in maintaining the website and to be

more actively present on Facebook. As well explained by Nicola, "we kept up the blog for a while, then we realized that all discussion were on Facebook." Nonetheless, this shift has been lived negatively in some cases, almost as surrender to TI's attempts to appropriate the digital space in its own terms: "There was an attempt at first to try and define our space, then . . . [we thought] if here the goal is to stay open to the people one has to go where people are. You detest Facebook? That's irrelevant, if everyone is there . . .," Nicola added.

Finally, a third set of concerns that informed TI's approach to digital media relates to its identity within the broader context of the global TN. As part of a broader alliance, TI activists recognized the added value of digital media for organizing as well as for developing the contents that substantiate their vision of environmental sustainability and resilience. For this reason, core activists in the global TN made a strategic use of Skype to meet and discuss within thematic rooms. These online discussions had a twofold added value: catalyzing the expertise of longer term activists and providing spaces of sociality where highly committed individuals could find support that they would otherwise miss in their everyday life. As pointed out by Nicola,

> The idea was to have rooms, always open 24/7, with themes. It could seem banal but it has been fundamental to create relationships much more stable among people working on these things. At the global level there's a room called hubsters, for instance, that is the chill out room of the hubsters. It's a sort of global virtual office with no times and anyone that feels like hanging can use it. Working groups have their separate rooms. But one of the big problems to ace was loneliness because those who do Transition have in their head a world that is not easy to share when you go to the café and order a coffee.

Nonetheless, the deliberate choice of not pursuing a professional and strategic communication strategy was also functional to mark a distinction between the Italian group and the more "mainstream" attitude of TN. Adriana illustrated this choice of TI by drawing a comparison with what she experienced during a stage at the global TN:

> the Italian group is very focused and very good at taking care of human [relational] aspects . . . we are pretty good at creating events, festivals, because there is this super care on human aspects . . . it was very interesting for me to be one month at the Totnes office and find people eating a sandwich in front of the computer during a five-minute lunch break. I mean, the atmosphere in the Transition Network office is that of a real office. . .

Transition Italia on Facebook

The analysis of the Facebook posts that received more attention by TI's group members suggests a use of the platform to create and diffuse different types of knowledge about Transition and the issues it tackles. As shown in Figure 1,

regardless of the number of analyzed posts per year, members engaged more extensively in creating and sharing contents that contributed to construct an overall "knowledge about the collective self." Indeed, at least half of the posts we analyzed for every year of our observation period is geared to provide knowledge about TI as a collective actor struggling to achieve environmental resilience and sustainability. A partial exception in this sense occurred in 2014, when only one post every three served this specific knowledge purpose. However, even in this case, the production of knowledge about the collective self was the main part of the knowledge work pursued through these posts. Secondary, but still relevant, was the creation of knowledge about the broader network of action within which the movement pursues its goals. Knowledge transfer practices enacted by TI's activists administrating the page also constituted an important part of TI's online activity while the collective creation of political alternatives was the least frequently engaged type of knowledge practice over time.

Overall, TI's online knowledge work pursued in the analyzed posts involved an extensive activity of sharing within the space of the group existing materials (Figure 2). In particular, links pointing to pages and resources of the TI's website but also toward other Facebook pages and external sources—mainly other blogs on permaculture and environmental sustainability. Only in few cases, links coming from mainstream news and entertainment media were shared, as members of the online TI's group preferred to contribute contents coming from alternative information sources. Interestingly, mainstream media–related links became more frequently used as means to generate knowledge about the movement in conjunction with the broadcasting of an Italian TV show (i.e., "*Scala Mercalli*") which dealt explicitly with the preservation of ecosystems, sustainability, and critical consumption.

Beside links, group members shared and commented also videos that, oftentimes, came from YouTube. Only seldom the construction and the diffusion of TI's knowledge passed through the creation of original texts and the upload of photos in the status box provided in the group space. Only 17% of all analyzed posts were status updates and only 10% entailed the uploading of picture from members' devices.

Knowledge About the Collective Self

A closer look at the contents of the posts classified as pertaining to the creation of knowledge about the collective self (72 across the observation period) allowed us to disentangle how members of the TI Facebook group created and shared both existing and original contents about TI as a collective actor, its vision, and the feasibility of the alternatives it proposes. This part of knowledge work involved a twofold use of posts. On one hand, the majority of discussions and interactions developed around posts dealing with views and ideals characteristically associated with the Transition movement. Thus, members created a variegated knowledge about the TI's
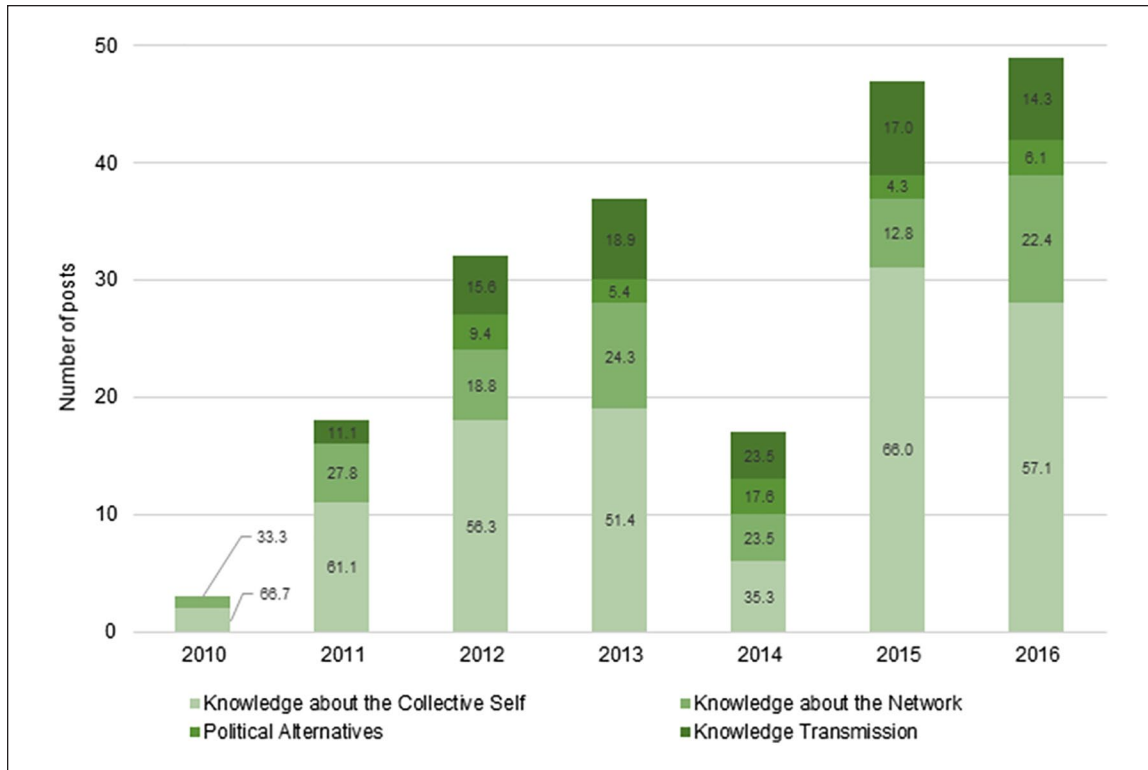
Figure 1. Number of analyzed posts and percentages of knowledge practices per year (2010–2016) (*N* = 203).
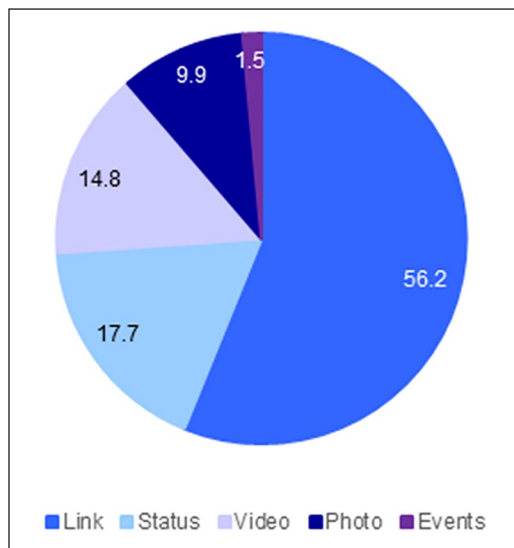

Figure 2. Use of Facebook affordances to produce and transmit knowledge about Transition Italia (percentages)(*N* = 203).

vision. On the other hand, group members posted contents that provided evidence about the actual possibility to translate Transition's vision into practices, sharing examples of environmentally sustainable and resilient practices coming from Italy and abroad. In this way, they contributed to create knowledge about TI's practices.

Mostly constructed through the sharing of links to external resources (Figure 3), knowledge about TI vision emerged at the crossroads between two opposite and yet complementary uses of Facebook's affordances. First, members published or shared contents regarding the main themes addressed by the Transition movement—such as peak oil, CO_2 emissions, renewable energies, energetic efficiency (especially in private housing). Through this type of posts, they aimed at creating a collective awareness about the problems and the challenges that are to be faced to achieve sustainability. A good example in this respect comes from the post in Figure 4, where one of the members of the group shared an animation produced by National Aeronautics and Space Administration (NASA) and added a caption inviting to reflect on CO_2 emissions.[5]

Second, knowledge about TI vision was created by making a more frequent use of status updates to post argumentative but also polemic positions. In these cases, users posted within the group space contents that were deliberately seeking to provoke reactions, sometimes making use of uppercase letters to suggest emphasis and, more generally, touching upon topics that were highly debated also within the Transition community. A good example in this respect is provided by a post, published in 2016, which contested the art-installation "Floating Piers" realized by the duo of artists internationally known as Christo and Jeanne-Claude on the Italian Lake of Iseo. The installation consisted of a long gangway to walk upon the lake surface. When it was open to the public around
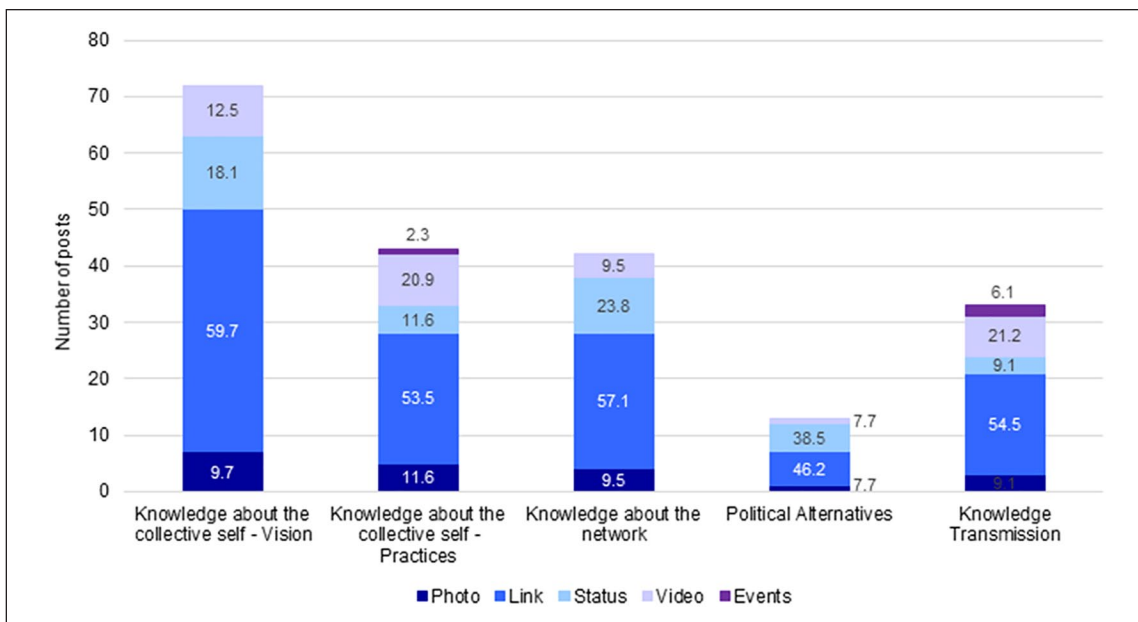
Figure 3. Number of posts and percentage of affordances use per knowledge type (*N* = 203).

Figure 4. A post contributing to create Transition Italia's collective vision.

mid-June 2016, it was rushed at by tourists. Commenting on the inauguration, one of the members of the group highlighted many problematic aspects of the installation and connected them to an irresponsible attitude toward the environment:

> FLOATING DELIRIUM. It is incredible to observe the naïve and childish joy of a million people who rushed to walk the synthetic gangways of the #floatingpiers of Christo at the Lake of Iseo. It is really a plastic cloth . . . supported by plastic tanks and lying on the surface of a lake that the crowd has made inaccessible. It's the triumph of the disposable (between the use of plastic, the emissions created during the construction process and to bring tourists there), of the unnecessary, and of the artificialization of Nature.

Albeit strongly supported by the sharing of links to existing resources, the creation of knowledge on TI practices benefited also from the sharing of videos and the upload of pictures (respectively, in the 21% and 12% of practice-focussed posts). By publishing and commenting photos, links, and videos, members of the group provided evidence of the practical translations of the movement's vision. Users often gave examples derived from their direct experiences or shared best practices coming from other countries. An example of this is in a post published in 2011 by a member who shared a photo of a newly completed synergic vegetable garden and captioned it: "I just finished by mini-synergic garden! It's been exhausting . . . If you want, you can find all the pictures in the album on my profile: I really need to share this with all of you!" (Figure 5). In commenting the post, group members congratulated its author but also asked practice-oriented questions on how to reproduce the same experience.

In some cases, members submitted direct questions to the group in search for specific expertise to realize a task or to comment on pieces of news or information that they came across online. For instance, in a post published in 2015, a member asked the group to confirm the actual performance of an "energy-generation box" advertised online by posting a picture of an ad and wondering, "Is this true? I am asking to the experts." In response to this direct request, members of

Figure 5. A post contributing to the creation of knowledge about Transition Italia through a practice-oriented focus.

the TI's group explained the functioning procedures of the machine, underlined its usefulness to produce electricity and drinkable water, made clear some of its limitations, and guaranteed on the reliability of its producers.

Knowledge About the Action Network and Political Alternatives

A good part of posts receiving more attention in the TI's online group (43 across the observation period) contributed to form a public knowledge on the action network that can sustain and enhance TI's struggle. The sharing of links also in this case served to create quick connections between different experiences aspiring to achieve the same goals (57% of the network-oriented posts). Nonetheless, ties with possible collaborators were often built through the publication of original contents through which they recounted struggles that were complementary to those of TI (24% of the posts). By linking directly to or by narrating local experiences of resilience and sustainability, the online TI group contributed to construct ties, among others, with primary and secondary schools, with sister initiatives of solidarity with survivors of the 2016 earthquake in central Italy, or with other grassroots initiatives of critical consumption. However, posts contributing to create knowledge about the action network also fostered connections within TI and between this national chapter and the overall TN. This is testified, for example, by the posts published in 2016 to organize collectively to participate to the "Resilience Conference," which took place in Stockholm in 2017.

A similar pattern of affordances usage characterizes the construction of knowledge about the political alternatives created by TI—as the sharing of link counted, in this case, for 46% of cases and the creation of original texts for the 38%. As mentioned, this set of knowledge practices are those that are realized less often by members and, in some years, are completely absent from the core of TI online knowledge work. Most notably, links and status update usually bring to the group news about collaborations with institutions that are already in place. This happened, for instance, in 2012, when a link to a handbook for policy makers was shared in the group, or, in 2014, when images and links led members to retrieve the podcasts of a meeting that TI organized in collaboration with the local municipality of Bologna. In this sense, more than to discuss the creation of political alternatives, members of the TI's online group used Facebook to generate awareness of the fact that institutional change is also achievable.

Knowledge Transmission

Finally, the transmission of knowledge from the TI managers of the Facebook group to the rest of its members was, not very surprisingly, largely sustained by link-sharing practices (55% of the cases). Contents shared from the core activists to the rest of the group often pertained to the realization of "Transition trainings"—that is, ad hoc training events organized by TI to instruct anyone who has an interest in starting a transition initiative on their local territories. Equally advertised within the group, particularly after 2014, have been links to the mainstream media contents devoted to the big challenges faced by Transition: climate change, environmental sustainability, energy efficiency, and renewability. In this sense, consistently with the series of consideration that guided the introduction of digital media within TI's courses of action, TI core activists did exploit Facebook affordances to complement and support their "offline" knowledge diffusion activities.

Discussion and Conclusion

In this article, we sought to contribute to ongoing discussions on the nexus between digital media and social movements by moving beyond a deterministic view for which pervasive communication tools inevitably and invariantly affect the organization and the symbolic production of collective endeavors. We did so by examining the case of TI, the Italian hub of the transnational Transition movement struggling for environmental resilience and sustainability.

Our empirical investigation showed that activists were not passive adopters of digital media but, in fact, critically discussed their inclusion within TI's activities. TI's specific organizational culture and identity are two paramount benchmarks against which activists have negotiated the adoption

of digital media. In this sense, TI's online presence has been defined in a context of limited material and human resources, which, in turn, follow from the small-size and voluntary nature of this initiative. Activists carved a space for these tools without, however, redefining their organizational modes or their resource management strategies to accommodate digital media as something "necessary" for contemporary protests. Moreover, the TI's orientation toward changing lifestyles and modes of consumption led to privilege "offline" actions and to consider online communications as secondary. This way of approaching digital media served also to mark TI's autonomy from the global TN, which makes instead a systematic use of digital communications.

Balancing critical aspects and potential benefits of their online presence, TI core activists decided to invest mainly on Facebook, which, among all available platforms, was the one that allowed them to reach out to the largest number of activists, supporters, and interested citizens. Our scrutiny of a subset of posts that have received more attention in the TI Facebook group provided us with initial insights on how digital media contributed to the movement's effort to create alternative knowledge. Together, TI's activists and supporters contributed to define also in the online space a collective vision of environmental resilience and sustainability. Moreover, they documented the actual possibility to translate this vision into practice. Mostly through link-sharing practices, they forged collaborations to be carried out both online and offline and gave visibility to the political outcomes generated by Transition—both locally and transnationally. Finally, the Facebook group also contributed to TI's pedagogical endeavor by making learning materials available and advertising training events.

Looking at the modes in which the members of the TI group exploited Facebook affordances, we could disentangle the ways in which digital media have been purposely oriented toward the production and the diffusion of alternative knowledge. The widespread habit of link sharing suggests that the knowledge work performed by members of the TI's online group entailed more content curation than content generation actions. In this way, Facebook allowed group members to coordinate their personal experiences, whether these were lived online, and therefore consisted of finding useful pieces of information, or offline, and hence pointed to the lived practices of environmental sustainability and resilience that they were protagonists of. Thus, Facebook mediation allowed to realize also in the online space that continuous "series of social encounters" which Eyerman and Jamison (1991, p. 57) see as foundational to the construction of movement knowledge.

Above and beyond this curation work, Facebook affordances were exploited to create and put in circulation original contents. In turn, this fostered public knowledge about the broader action network sustaining the struggle for environmental resilience and collaboration with institutions. However, particularly in this latter case, contents that stimulated the engagement of the members referred almost exclusively to successful experiences that were already concluded or to already existent resources for policy makers. This suggests that the online space of the TI Facebook group did not function as a laboratory to design and discuss political alternatives but, rather, to showcase good practices of collaboration.

Ultimately, our investigation of the TI case contributes to a more nuanced understanding of how digital media intersect collective endeavors. On one hand, the pervasive diffusion of these tools does not necessarily put them at the core of movement strategies. On the other hand, once embedded in the complex fabric of collective endeavors, digital media do not only affect the organization of initiatives or the framing of issues. Different affordances to share existing materials or to produce and circulate original contents contribute to create and spread alternative visions of the world that, in fact, prelude to and, at the same time, depend on specific organizational and framing strategies.

Declaration of Conflicting Interest

Funding

ORCID iD

Elena Pavan [iD] https://orcid.org/0000-0001-8693-5998.

Notes

1. We opted for a joint evaluation of likes and comments as these features have remained constant throughout all modifications of Facebook's interface—particularly, the introduction of single reactions in 2016.
2. Only six posts contributed to more than one category of knowledge practice (maximum two categories in one post). In these cases, we counted the post twice, to properly account for its knowledge-related contribution.
3. http://transitionitalia.it/. The website homepage features a small-font header specifying "Sito in fase di allestimento" (i.e., "Under construction website").
4. http://transitionitalia.it/blog/
5. "Here you go: our hypnotic dance of Co2 emissions. Sometimes looking at the invisible helps understanding. Yes, sometimes."

References

Barker, C., & Cox, L. (2002). "What have the Romans ever done for us?" Academic and activist forms of movement theorizing. In C. Barker & M. Tyldesley (Eds.), *Alternative futures and popular protest VIII: Conference proceedings* (pp. 1–27). Manchester Metropolitan University.

Bennett, L. W., & Segerberg, A. (2013). *The logic of connective action: Digital media and the personalization of contentious politics*. Cambridge University Press.

Bennett, L. W., & Segerberg, A. (2016). Communication in movements. In D. della Porta & M. Diani (Eds.), *The Oxford handbook of social movements* (pp. 367–382). Oxford University Press.

Cammaerts, B. (2018). *The circulation of anti-austerity protest*. Palgrave Macmillan.

Casas-Cortes, M. I., Osterweil, M., & Powell, D. E. (2008). Blurring boundaries: Recognizing knowledge-practices in the study of social movements. *Anthropological Quarterly*, *81*(1), 17–58. https://doi.org/10.1353/anq.2008.0006

Chesters, G. (2012). Social movements and the ethics of knowledge production. *Social Movement Studies*, *11*(2), 145–160. https://doi.org/10.1080/14742837.2012.664894

Cox, L. (2014). Movements making knowledge: A new wave of inspiration for Sociology? *Sociology*, *48*(5), 954–971. https://doi.org/10.1177/0038038514539063

della Porta, D. (Ed.). (2007). *The global justice movement: Cross-national and transnational perspectives*. Paradigm Publishers.

della Porta, D. (2015). *Social movements in times of austerity: Bringing capitalism back into protest analysis*. Polity Press.

della Porta, D., & Pavan, E. (2017). Repertoires of knowledge practices: Social movements in times of crisis. *Qualitative Research in Organizations and Management: An International Journal*, *12*(4), 297–314. https://doi.org/10.1108/QROM-01-2017-1483

Earl, J., & Kimport, K. (2011). *Digitally enabled social change: Activism in the internet age*. The MIT Press.

Edwards, B., & McCarthy, J. D. (2004). Resources and social movement mobilization. In D. A. Snow, S.A. Soule, & H. Kriesi (Eds.), *The Blackwell companion to social movements* (pp. 116–152). Blackwell Publishing.

Enjolras, B., Steen-Johnsen, K., & Wollebæk, D. (2013). Social media and mobilization to offline demonstrations: Transcending participatory divides? *New Media & Society*, *15*(6), 890–908. https://doi.org/10.1177/1461444812462844

Eyerman, R., & Jamison, A. (1991). *Social movements: A cognitive approach*. Pennsylvania State University Press.

Feezell, J.T. (2017). Agenda-setting through social media: The importance of incidental news exposure and social filtering in the digital era. *Political Research Quarterly*, *71*(2), 482–494. https://doi.org/10.1177%2F1065912917744895

Forno, F., & Graziano, P. R. (2014). Sustainable community movement organisations. *Journal of Consumer Culture*, *14*(2), 139–157. https://doi.org/10.1177/1469540514526225

Giugni, M. G., & Passy, F. (1998). Contentious politics in complex societies: New social movements between conflict and cooperation. In M. G. Giugni, D. McAdam, & C. Tilly (Eds.), *From contention to democracy* (pp. 81–107). Rowman & Littlefield.

Hopkins, R., & Lipman, P. (2009). *Who we are and what we do*. Transition Network.

Juris, J. S. (2012). Reflections on #occupy everywhere: Social media, public space, and emerging logics of aggregation. *American Ethnologist*, *39*(2), 259–279. https://doi.org/10.1111/j.1548-1425.2012.01362.x

Kavada, A. (2013). Internet cultures and protest movements: E cultural links between strategy, organizing and online communication. In B. Cammaerts, A. Mattoni, & P. McCurdy (Eds.), *Mediation and protest movements* (pp. 75–94). Intellect.

Mattoni, A., & Treré, E. (2014). Media practices, mediation processes, and mediatization in the study of social movements. *Communication Theory*, *24*(3), 252–271. https://doi.org/10.1111/comt.12038

McAdam, D., Tarrow, S., & Tilly, C. (2001). *Dynamics of contention*. Cambridge University Press.

Melucci, A. (1996). *Challenging codes: Collective action in the information age.* Cambridge: Cambridge University Press.

Milan, S. (2015). From social movements to cloud protesting: The evolution of collective identity. *Information, Communication & Society*, *18*(8), 887–900. https://doi.org/10.1080/1369118X.2015.1043135

Neuendorf, K. (2012). *The content analysis guidebook* (2nd ed.). SAGE.

Pavan, E. (2014). Embedding digital communications within collective action networks: A multidimensional network perspective. *Mobilization: An International Quarterly*, *19*(4), 441–455. https://doi.org/10.17813/maiq.19.4.w24rl524u074126k

Pavan, E. (2017). The integrative power of online collective action networks beyond protest. Exploring social media use in the process of institutionalization. *Social Movement Studies*, *16*(4), 433–446. https://doi.org/10.1080/14742837.2016.1268956

Rieder, B. (2013). Studying Facebook via data extraction: The Netvizz application. In *Websci'13 Conference Proceedings* (pp. 346–355). ACM.

Tilly, C. (1986). European violence and collective action since 1700. *Social Research*, *53*(1), 159–184.

Treré, E., Jeppesen, S., & Mattoni, A. (2017). Comparing digital protest media imaginaries: Anti-austerity movements in Spain, Italy & Greece. *tripleC*, *15*(2), 406–424. https://doi.org/10.31269/vol15iss2pp404-422

Van Laer, J., & Van Aelst, P. (2010). Internet and social movement action repertoires. *Information, Communication & Society*, *13*(8), 1146–1171. https://doi.org/10.1080/13691181003628307

Yanow, D. (2006). Qualitative-interpretive methods in policy research. In F. Fisher, G. J. Miller, & M. S. Sideny (Eds.), *Handbook of public policy analysis: Theory, politics, and methods* (pp. 405–415). Taylor & Francis.

Yin, R. K. (2013). *Case study research: Design and methods*. SAGE.

Author Biographies

Elena Pavan (PhD, University of Trento) is senior assistant professor at the Department of Sociology and Social Research of the University of Trento. Her research focuses on the nexus between social movements and digital media, with particular attention to knowledge and discourse collective production within online networks.

Andrea Felicetti (PhD, Australian National University) is a postdoctoral researcher at the Center for Political Research at KU Leuven. His research interests include democracy and innovation, public sphere, and social movements, particularly in the area of environmental sustainability.