

This is an accepted manuscript of an article published by Taylor & Francis in Information Communication & Society on 10 Apr 2012 (online), available online:
<http://dx.doi.org/10.1080/1369118X.2012.670661>

To cite or quote please refer to the published article: W. Lance Bennett & Alexandra Segerberg (2012): The Logic of Connective Action: The Personalization of Contentious Politics, *Information, Communication & Society*, 15 (5), pp. 739-768

THE LOGIC OF CONNECTIVE ACTION: Digital Media and the Personalization of Contentious Politics

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From the Arab Spring and los indignados in Spain, to Occupy Wall Street (and beyond), large-scale, sustained protests are using digital media in ways that go beyond sending and receiving messages. Some of these action formations contain relatively small roles for formal brick and mortar organizations. Others involve well-established advocacy organizations, in hybrid relations with other organizations, using technologies that enable personalized public engagement. Both stand in contrast to the more familiar organizationally managed and brokered action conventionally associated with social movement and issue advocacy. This article examines the organizational dynamics that emerge when communication becomes a prominent part of organizational structure. It argues that understanding such variations in large-scale action networks requires distinguishing between at least two logics that may be in play: The familiar logic of collective action associated with high levels of organizational resources and the formation of collective identities, and the less familiar logic of connective action based on personalized content sharing across media networks. In the former, introducing digital media do not change the core dynamics of the action. In the case of the latter, they do. Building on these distinctions, the article presents three ideal types of large-scale action networks that are becoming prominent in the contentious politics of the contemporary era.

With the world economy in crisis, the heads of the 20 leading economies held a series of meetings beginning in fall of 2008 to coordinate financial rescue policies. Wherever the G20 leaders met, whether in Washington, London, St. Andrews, Pittsburgh, Toronto, or Seoul, they were greeted by protests. In London, anti-capitalist, environmental direct activist, and non-governmental organization (NGO)-sponsored actions were coordinated across different days. The largest of these demonstrations was sponsored by a number of prominent NGOs including Oxfam, Friends of the Earth, Save the Children, and World Vision. This loose coalition launched a Put People First (PPF) campaign promoting public mobilization against social and environmental harms of 'business as usual' solutions to the financial crisis. The website for the campaign carried the simple statement:

Even before the banking collapse, the world suffered poverty, inequality and the threat of climate chaos. The world has followed a financial model that has created an economy fuelled by ever-increasing debt, both financial and environmental. Our future depends on creating an economy based on fair distribution of wealth, decent jobs for all and a low carbon future. (Put People First 2009)

The centerpiece of this PPF campaign was a march of some 35,000 people through the streets of London a few days ahead of the G20 meeting to give voice and show commitment to the campaign's simple theme.

The London PPF protest drew together a large and diverse protest with the emphasis on personal expression, but it still displayed what Tilly (2004, 2006) termed WUNC: *worthiness* embodied by the endorsements by some 160 prominent civil society organizations and recognition of their demands by various prominent officials; *unity* reflected in the orderliness of the event; *numbers* of participants that made PPF the largest of a series of London G20 protests and the largest demonstration during the string of G20 meetings in different world locations; and *commitment* reflected in the presence of delegations from some 20 different nations who joined local citizens in spending much of the day listening to speakers in Hyde Park or attending religious services sponsored by church-based development organizations.¹ The large volume of generally positive press coverage reflected all of these characteristics, and responses from heads of state to the demonstrators accentuated the worthiness of the event (Bennett & Segerberg 2011).²

The protests continued as the G20 in 2010 issued a policy statement making it clear that debt reduction and austerity would be the centerpieces of a political program that could send shocks through economies from the United States and the UK, to Greece, Italy, and Spain, while pushing more decisive action on climate change onto the back burner. Public anger swept cities from Madison to Madrid, as citizens protested that their governments, no matter what their political stripe, offered no alternatives to the economic dictates of a so-called neoliberal economic regime that seemed to operate from corporate and financial power centers beyond popular accountability, and, some argued, even beyond the control of states.

Some of these protests seemed to operate with surprisingly light involvement from conventional organizations. For example, in Spain 'los indignados' (the indignant ones) mobilized in 2011 under the name of 15M for the date (May 15) of the mass mobilization that involved protests in some 60 cities. One of the most remarkable aspects of this sustained protest organization was its success at keeping political parties, unions, and other powerful political organizations out: indeed, they were targeted as part of the political problem. There were, of course, civil society organizations supporting 15M, but they generally stayed in the background to honor the personalized identity of the movement: the faces and voices of millions of ordinary

¹ Simultaneous protests were held in other European cities with tens of thousands of demonstrators gathering in the streets of Berlin, Frankfurt, Vienna, Paris, and Rome.

² US Vice President Joe Biden asked for patience from understandably upset citizens while leaders worked on solutions, and the British Prime Minister at the time, Gordon Brown, said: '... the action we want to take (at the G20) is designed to answer the questions that the protesters have today' (Vinocur & Barkin 2009).

people displaced by financial and political crises. The most visible organization consisted of the richly layered digital and interpersonal communication networks centering around the media hub of *Democracia real YA!*³ At the time of this writing, this network included links to over 80 local Spanish city nodes, and a number of international solidarity networks. On the one hand, *Democracia real YA!* seemed to be a website and on the other, it was a densely populated and effective organization. It makes sense to think of the core organization of the *indignados* as both of these and more, revealing the hybrid nature of digitally mediated organization (Chadwick 2011).

Given its seemingly informal organization, the 15M mobilization surprised many observers by sustaining and even building strength over time, using a mix of online media and offline activities that included face-to-face organizing, encampments in city centers, and marches across the country. Throughout, the participants communicated a collective identity of being leaderless, signalling that labor unions, parties, and more radical movement groups should stay at the margins. A survey of 15M protesters by a team of Spanish researchers showed that the relationships between individuals and organizations differed in at least three ways from participants in an array of other more conventional movement protests, including a general strike, a regional protest, and a pro-life demonstration: (1) where strong majorities of participants in other protests recognized the involvement of key organizations with brick and mortar addresses, only 38 per cent of *indignados* did so; (2) only 13 per cent of the organizations cited by 15M participants offered any membership or affiliation possibilities, in contrast to large majorities who listed membership organizations as being important in the other demonstrations; and (3) the mean age range of organizations (such as parties and unions) listed in the comparison protests ranged from 10 to over 40 years, while the organizations cited in association with 15M were, on average, less than 3 years old (Anduiza et al. 2011). Despite, or perhaps because of, these interesting organizational differences, the ongoing series of 15M protests attracted participation from somewhere between 6 and 8 million people, a remarkable number in a nation of 40 million (rtve 2011).

Similar to PPF, the *indignados* achieved impressive levels of communication with outside publics both directly, via images and messages spread virally across social networks, and indirectly, when anonymous Twitter streams and YouTube videos were taken up as mainstream press sources. Their actions became daily news fare in Spain and abroad, with the protesters receiving generally positive coverage of their personal messages in local and national news – again defying familiar observations about the difficulty of gaining positive news coverage for

³ <http://www.democraciarealya.es/>

collective actions that spill outside the bounds of institutions and take to the streets (Gitlin 1980).⁴ In addition to communicating concerns about jobs and the economy, the clear message was that people felt the democratic system had broken to the point that all parties and leaders were under the influence of banks and international financial powers. Despite avoiding association with familiar civil society organizations, lacking leaders, and displaying little conventional organization, *los indignados*, similar to PPF, achieved high levels of WUNC.

Two broad organizational patterns characterize these increasingly common digitally enabled action networks. Some cases, such as PPF, are coordinated behind the scenes by networks of established issue advocacy organizations that step back from branding the actions in terms of particular organizations, memberships, or conventional collective action frames. Instead, they cast a broader public engagement net using interactive digital media and easy-to-personalize action themes, often deploying batteries of social technologies to help citizens spread the word over their personal networks. The second pattern, typified by the *indignados*, and the *occupy* protests in the United States, entails technology platforms and applications taking the role of established political organizations. In this network mode, political demands and grievances are often shared in very personalized accounts that travel over social networking platforms, email lists, and online coordinating platforms. For example, the easily personalized action frame ‘we are the 99 per cent’ that emerged from the US *occupy* protests in 2011 quickly travelled the world via personal stories and images shared on social networks such as Tumblr, Twitter, and Facebook.

Compared to many conventional social movement protests with identifiable membership organizations leading the way under common banners and collective identity frames, these more personalized, digitally mediated collective action formations have frequently been larger; have scaled up more quickly; and have been flexible in tracking moving political targets and bridging different issues. Whether we look at PPF, Arab Spring, the *indignados*, or *occupy*, we note surprising success in communicating simple political messages directly to outside publics using common digital technologies such as Facebook or Twitter. Those media feeds are often picked up as news sources by conventional journalism organizations.⁵ In addition, these digitally mediated action networks often seem to be accorded higher levels of WUNC than their more conventional social movement counterparts. This observation is based on comparisons of more conventional anti-capitalist collective actions organized by movement groups, in contrast with both the

⁴ Beyond the high volume of Spanish press coverage, the story of the *indignados* attracted world attention. BBC World News devoted no fewer than eight stories to this movement over the course of two months, including a feature on the march of one group across the country to Madrid, with many interviews and encounters in the words of the protesters themselves.

⁵ For example, our analyses of the US *occupy* protests show that increased media attention to economic inequality in America was associated with the coverage of the *occupy* protests. While political elites were often reluctant to credit the occupiers with their newfound concern about inequality, they nonetheless seemed to find the public opinion and media climate conducive to addressing the long-neglected issue.

organizationally enabled PPF protests and relatively more self-organizing 15M mobilizations in Spain and the Occupy Wall Street protests, which quickly spread to thousands of other places. The differences between both types of digitally mediated action and more conventional organization-centered and brokered collective actions led us to see interesting differences in underlying organizational logics and in the role of communication as an organizing principle.

The rise of digitally networked action (DNA) has been met with some understandable scepticism about what really is so very new about it, mixed with concerns about what it means for the political capacities of organized dissent. We are interested in understanding how these more personalized varieties of collective action work: how they are organized, what sustains them, and when they are politically effective. We submit that convincingly addressing such questions requires recognizing the differing logics of action that underpin distinct kinds of collective action networks. This article thus develops a conceptual framework of such logics, on the basis of which further questions about DNA may then be tackled.

We propose that more fully understanding contemporary large-scale networks of contentious action involves distinguishing between at least two logics of action that may be in play: the familiar logic of collective action and the less familiar logic of *connective* action. Doing so in turn allows us to discern three ideal action types, of which one is characterized by the familiar logic of collective action, and other two types involve more personalized action formations that differ in terms of whether formal organizations are more or less central in enabling a connective communication logic. A first step in understanding DNA, the DNA at the core of connective action, lies in defining personalized communication and its role along with digital media in the organization of what we call connective action.

Personal action frames and social media networks

Structural fragmentation and individualization in many contemporary societies constitute an important backdrop to the present discussion. Various breakdowns in group memberships and institutional loyalties have trended in the more economically developed industrial democracies, resulting from pressures of economic globalization spanning a period from roughly the 1970s through the end of the last century (Bennett 1998; Putnam 2000). These sweeping changes have produced a shift in social and political orientations among younger generations in the nations that we now term the post-industrial democracies (Inglehart 1997). These individualized orientations result in engagement with politics as an expression of personal hopes, lifestyles, and grievances. When enabled by various kinds of communication technologies, the resulting DNAs in post-industrial democracies bear some remarkable similarities to action formations in decidedly undemocratic regimes such as those swept by the Arab Spring. In both contexts, large numbers of

similarly disaffected individuals seized upon opportunities to organize collectively through access to various technologies (Howard & Hussain 2011). Those connectivities fed in and out of the often intense face-to-face interactions going on in squares, encampments, mosques, and general assembly meetings.

In personalized action formations, the nominal issues may resemble older movement or party concerns in terms of topics (environment, rights, women's equality, and trade fairness) but the ideas and mechanisms for organizing action become more personalized than in cases where action is organized on the basis of social group identity, membership, or ideology. These multi-faceted processes of individualization are articulated differently in different societies, but include the propensity to develop flexible political identifications based on personal lifestyles (Giddens 1991; Inglehart 1997; Bennett 1998; Bauman 2000; Beck & Beck-Gernsheim 2002), with implications in collective action (McDonald 2002; Micheletti 2003; della Porta 2005) and organizational participation (Putnam 2000; Bimber et al., in press). People may still join actions in large numbers, but the identity reference is more derived through inclusive and diverse large-scale personal expression rather than through common group or ideological identification.

This shift from group-based to individualized societies is accompanied by the emergence of flexible social 'weak tie' networks (Granovetter 1973) that enable identity expression and the navigation of complex and changing social and political landscapes. Networks have always been part of society to help people navigate life within groups or between groups, but the late modern society involves networks that become more central organizational forms that transcend groups and constitute core organizations in their own right (Castells 2000). These networks are established and scaled through various sorts of digital technologies that are by no means value neutral in enabling quite different kinds of communities to form and diverse actions to be organized, from auctions on eBay to protests in different cultural and social settings. Thus, the two elements of 'personalized communication' that we identify as particularly important in large-scale connective action formations are:

(1) Political content in the form of easily personalized ideas such as PPF in the London 2009 protests, or 'we are the 99 per cent' in the later *occupy* protests. These frames require little in the way of persuasion, reason, or reframing to bridge differences with how others may feel about a common problem. *These personal action frames are inclusive of different personal reasons for contesting a situation that needs to be changed.*

(2) Various personal communication technologies that enable sharing these themes. Whether through texts, tweets, social network sharing, or posting YouTube mashups, the communication process itself often involves further personalization through the spreading of digital connections

among friends or trusted others. Some more sophisticated custom coordinating platforms can resemble organizations that exist more online than off.

As we followed various world protests, we noticed a dazzling array of personal action frames that spread through social media. Both the acts of sharing these personal calls to action and the social technologies through which they spread help explain both how events are communicated to external audiences and how the action itself is organized. Indeed, in the limiting case, the communication network becomes the organizational form of the political action (Earl & Kimport 2011). We explore the range of differently organized forms of contention using personalized communication up to the point at which they enter the part of the range conventionally understood as social movements. This is the boundary zone in which what we refer to as connective action gives way to collective action.

The case of PPF occupies an interesting part of this range of contentious action because there were many conventional organizations involved in the mobilization, from churches to social justice NGOs. Yet, visitors to the sophisticated, stand alone, PPF coordinating platform (which served as an interesting kind of organization in itself) were not asked to pledge allegiance to specific political demands on the organizational agendas of the protest sponsors. Instead, visitors to the organizing site were met with an impressive array of social technologies, enabling them to communicate in their own terms with each other and with various political targets. The centerpiece of the PPF site was a prominent text box under an image of a megaphone that invited the visitor to ‘Send Your Own Message to the G20’. Many of the messages to the G20 echoed the easy-to-personalize action frame of PPF, and they also revealed a broad a range of personal thoughts about the crisis and possible solutions.

‘PPF’ as a personal action frame was easy to shape and share with friends near and far. It became a powerful example of what students of viral communication refer to as a meme: a symbolic packet that travels easily across large and diverse populations because it is easy to imitate, adapt personally, and share broadly with others. Memes are network building and bridging units of social information transmission similar to genes in the biological sphere (Dawkins 1989). They travel through personal appropriation, and then by imitation and personalized expression via social sharing in ways that help others appropriate, imitate, and share in turn (Shifman, forthcoming). The simple PPF protest meme travelled interpersonally, echoing through newspapers, blogs, Facebook friend networks, Twitter streams, Flickr pages, and other sites on the Internet, leaving traces for years after the events.⁶ Indeed, part of the meme travelled to Toronto more than a year later where the leading civil society groups gave the name ‘People

⁶ A Google search of ‘put people first g20’ more than two years after the London events produced nearly 1.5 million hits, with most of them relevant to the events and issues of the protests well into 75 search pages deep.

First' to their demonstrations. And many people in the large crowds in Seoul in the last G20 meeting of the series could be seen holding up red and white 'PPF' signs in both English and Korean (Weller 2010).

Something similar happened in the case of the *indignados*, where protesters raised banners and chants of 'Shhh . . . the Greeks are sleeping', with reference to the crushing debt crisis and severe austerity measures facing that country. This idea swiftly travelled to Greece where Facebook networks agreed to set alarm clocks at the same time to wake up and demonstrate. Banners in Athens proclaimed: 'We've awakened! What time is it? Time for them to leave!' and 'Shhh . . . the Italians are sleeping' and 'Shhh . . . the French are sleeping'. These efforts to send personalized protest themes across national and cultural boundaries met with varying success, making for an important cautionary point: We want to stress that not all personal action frames travel equally well or equally far. The fact that these messages travelled more easily in Spain and Greece than in France or Italy is an interesting example pointing to the need to study failures as well as successes. Just being easy to personalize (e.g. I am personally indignant about x, y, and z, and so I join with *los indignados*) does not ensure successful diffusion. Both political opportunities and conditions for social adoption may differ from situation to situation. For example, the limits in the Italian case may reflect an already established popular anti-government network centered on comedian/activist Beppe Grillo. The French case may involve the ironic efforts of established groups on the left to lead incipient solidarity protests with the *indignados*, and becoming too heavy handed in suggesting messages and action programs.

Personal action frames do not spread automatically. People must show each other how they can appropriate, shape, and share themes. In this interactive process of personalization and sharing, communication networks may become scaled up and stabilized through the digital technologies people use to share ideas and relationships with others. These technologies and their use patterns often remain in place as organizational mechanisms. In the PPF and the *indignados* protests, the communication processes themselves represented important forms of organization.

In contrast to personal action frames, other calls to action more clearly require joining with established groups or ideologies. These more conventionally understood collective action frames are more likely to stop at the edges of communities, and may require resources beyond communication technologies to bridge the gaps or align different collective frames (Snow & Benford 1988; Benford & Snow 2000). For example, another set of protests in London at the start of the financial crisis was organized by a coalition of more radical groups under the name G20 Meltdown. Instead of mobilizing the expression of largescale personal concerns, they demanded ending the so-called neoliberal economic policies of the G20, and some even called for the end to capitalism itself. Such demands typically come packaged with more demanding calls to join in

particular repertoires of a collective action. Whether those repertoires are violent or non-violent, they typically require adoption of shared ideas and behaviors. These anarcho-socialist demonstrations drew on familiar anti-capitalist slogans and calls to ‘storm the banks’ or ‘eat the rich’ while staging dramatic marches behind the four horsemen of the economic apocalypse riding from the gates of old London to the Bank of England. These more radical London events drew smaller turnouts (some 5,000 for the Bank of England march and 2,000 for a climate encampment), higher levels of violence, and generally negative press coverage (Bennett & Segerberg 2011). While scoring high on commitment in terms of the personal costs of civil disobedience and displaying unity around anti-capitalist collective action frames, these demonstrations lacked the attributions of public worthiness (e.g. recognition from public officials, getting their messages into the news) and the numbers that gave PPF its higher levels of WUNC.

Collective action frames that place greater demands on individuals to share common identifications or political claims can also be regarded as memes, in the sense that slogans such as ‘eat the rich’ have rich histories of social transmission. This particular iconic phrase may possibly date to Rousseau’s quip: ‘When the people shall have nothing more to eat, they will eat the rich.’ The crazy course of that meme’s passage down through the ages includes its appearance on T-shirts in the 1960s and in rock songs of that title by Aerosmith and Motorhead, just to scratch the surface of its history of travel through time and space, reflecting the sequence of appropriation, personal expression, and sharing. One distinction between personal action and collective action memes seems to be that the latter require somewhat more elaborate packaging and ritualized action to reintroduce them into new contexts. For example, the organizers of the ‘Storm the Banks’ events staged an elaborate theatrical ritual with carnivalesque opportunities for creative expression as costumed demonstrators marched behind the Four Horsemen of the financial apocalypse.⁷ At the same time, the G20 Meltdown discourse was rather closed, requiring adopters to make common cause with others. The Meltdown coalition had an online presence, but they did not offer easy means for participants to express themselves in their own voice (Bennett & Segerberg 2011). This suggests that more demanding and exclusive collective action frames can also travel as memes, but more often they hit barriers at the intersections of social networks defined by established political organizations, ideologies, interests, class, gender, race, or ethnicity. These barriers often require resources beyond social technologies to overcome.

While the idea of memes may help to focus differences in transmission mechanisms involved in more personal versus collective framing of action, we will use the terms personal action frames and collective action frames as our general concepts. This conceptual pairing

⁷ We would note, however, that carnivalesque or theatrical expressions may entail strategically de-personalized forms of expression in which individuals take on other personae that often have historically or dramatically scripted qualities. We thank Stefania Milan for this comment.

locates our work alongside analytical categories used by social movement scholars (Snow & Benford 1988; Benford & Snow 2000). As should be obvious, the differences we are sketching between personal and collective action frames are not about being online versus offline. All contentious action networks are in important ways embodied and enacted by people on the ground (Juris 2008; Routledge & Cumbers 2009). Moreover, most formal political organizations have discovered that the growing sophistication and ubiquity of social media can reduce the resource costs of public outreach and coordination, but these uses of media do not change the action dynamics by altering the fundamental principles of organizing collectivities. By contrast, digital media networking can change the organizational game, given the right interplay of technology, personal action frames, and, when organizations get in the game, their willingness to relax collective identification requirements in favor of personalized social networking among followers.

The *logic of collective action* that typifies the modern social order of hierarchical institutions and membership groups stresses the organizational dilemma of getting individuals to overcome resistance to joining actions where personal participation costs may outweigh marginal gains, particularly when people can ride on the efforts of others for free, and reap the benefits if those others win the day. In short, conventional collective action typically requires people to make more difficult choices and adopt more self-changing social identities than DNA based on personal action frames organized around social technologies. The spread of collective identifications typically requires more education, pressure, or socialization, which in turn makes higher demands on formal organization and resources such as money to pay rent for organization offices, to generate publicity, and to hire professional staff organizers (McAdam et al. 1996).⁸ Digital media may help reduce some costs in these processes, but they do not fundamentally change the action dynamics.

As noted above, the emerging alternative model that we call the *logic of connective action* applies increasingly to life in late modern societies in which formal organizations are losing their grip on individuals, and group ties are being replaced by large-scale, fluid social networks (Castells 2000).⁹ These networks can operate importantly through the organizational processes of social media, and their logic does not require strong organizational control or the symbolic

⁸ We are not arguing here that all contemporary analyses of collective action rely on resource mobilization explanations (although some do). Our point is that whether resource assumptions are in the foreground or background, many collective action analyses typically rely on a set of defining assumptions centered on the importance of some degree of formal organization and some degree of strong collective identity that establishes common bonds among participants. These elements become more marginal in thinking about the organization of connective action.

⁹ While we focus primarily on cases in late modern, post-industrial democracies, we also attempt to develop theoretical propositions that may apply to other settings such as the Arab Spring, where authoritarian rule may also result in individualized populations that fall outside of sanctioned civil society organization, yet may have direct or indirect access to communication technologies such as mobile phones.

construction of a united 'we'. The logic of connective action, we suggest, entails a dynamic of its own and thus deserves analysis on its own analytical terms.

Two logics: collective and connective action

Social movements and contentious politics extend over many different kinds of phenomena and action (Melucci 1996; McAdam et al. 2001; Tarrow 2011). The talk about new forms of collective action may reflect ecologies of action that are increasingly complex (Chesters & Welsh 2006). Multiple organizational forms operating within such ecologies may be hard to categorize, not least because they may morph over time or context, displaying hybridity of various kinds (Chadwick 2011). In addition, protest and organizational work is occurring both online and off, using technologies of different capabilities, sometimes making the online/offline distinction relevant, but more often not (Earl & Kimport 2011; Bimber et al., in press).

Some mark a turning point in patterns of contemporary contentious politics, which mix different styles of organization and communication, along with the intersection of different issues with the iconic union of 'teamsters and turtles' in the Battle of Seattle in 1999, during which burly union members marched alongside environmental activists wearing turtle costumes in battling a rising neoliberal trade regime that was seen as a threat to democratic control of both national economies and the world environment. Studies of such events show that there are still plenty of old-fashioned meetings, issue brokering, and coalition building going on (Polletta 2002). At the same time, however, there is increasing coordination of action by organizations and individuals using digital media to create networks, structure activities, and communicate their views directly to the world. This means that there is also an important degree of technology-enabled networking (Livingston & Asmolov 2010) that makes highly personalized, socially mediated communication processes fundamental structuring elements in the organization of many forms of connective action.

How do we sort out what organizational processes contribute what qualities to collective and connective action networks? How do we identify the borders between fundamentally different types of action formations: that is, what are the differences between collective and connective action, and where are the hybrid overlaps? We propose a starting point for sorting out some of the complexity and overlap in the forms of action by distinguishing between two logics of action. The two logics are associated with distinct dynamics, and thus draw attention to different dimensions for analysis. It is important to separate them analytically as the one is less familiar than the other,

and this in turn constitutes an important stumbling block for the study of much contemporary political action that we term *connective action*.¹⁰

The more familiar action logic is the *logic of collective action*, which emphasizes the problems of getting individuals to contribute to the collective endeavour that typically involves seeking some sort of public good (e.g. democratic reforms) that may be better attained through forging a common cause. The classical formulation of this problem was articulated by Olson (1965), but the implications of his general logic have reached far beyond the original formulation. Olson's intriguing observation was that people in fact cannot be expected to act together just because they share a common problem or goal. He held that in large groups in which individual contributions are less noticeable, rational individuals will free-ride on the efforts of others: it is more cost-efficient not to contribute if you can enjoy the good without contributing. Moreover, if not enough people join in creating the good your efforts are wasted anyway. Either way, it is individually rational not to contribute, even if all agree that all would be better off if everyone did. This thinking fixes attention on the problematic dynamics attending the rational action of atomistic individuals, and at the same time makes resource-rich organizations a central concern. Both the solutions Olson discerned – coercion and selective incentives – implied organizations with substantial capacity to monitor, administer, and distribute such measures.

In this view, formal organizations with resources are essential to harnessing and coordinating individuals in common action. The early application of this logic to contentious collective action was most straightforwardly exemplified in resource mobilization theory (RMT), in which social movement scholars explicitly adopted Olson's framing of the collective action problem and its organization-centered solution. Part of a broader wave rejecting the idea of social movements as irrational behavior erupting out of social dysfunction, early RMT scholars accepted the problem of rational free-riders as a fundamental challenge and regarded organizations and their ability to mobilize resources as critical elements of social movement success. Classic formulations came from McCarthy and Zald (1973, 1977) who theorized the rise of external support and resources available to social movement organizations (SMOs), and focused attention on the professionalization of movement organizations and leaders in enabling more resource-intensive mobilization efforts.

The contemporary social movement field has moved well beyond the rational choice orientation of such earlier work. Indeed, important traditions developed independently of, or by rejecting, all or parts of the resource mobilization perspective and by proposing that we pay more attention to the role of identity, culture, emotion, social networks, political process, and

¹⁰ Routledge and Cumbers (2009) make a similar point in discussing horizontal and vertical models as useful heuristics for organizational logics in global justice networks (cf. Robinson & Tormey 2005; Juris 2008).

opportunity structures (Melucci 1996; McAdam et al. 2001; della Porta & Diani 2006). We do not suggest that these later approaches cling to rational choice principles. We do, however, suggest that echoes of the modernist logic of collective action can still be found to play a background role even in work that is in other ways far removed from the rational choice orientation of Olson's original argument. This comes out in assumptions about the importance of particular forms of organizational coordination and identity in the attention given to organizations, resources, leaders, coalitions, brokering differences, cultural or epistemic communities, the importance of formulating collective action frames, and bridging of differences among those frames. Connective action networks may vary in terms of stability, scale, and coherence, but they are organized by different principles. Connective action networks are typically far more individualized and technologically organized sets of processes that result in action without the requirement of collective identity framing or the levels of organizational resources required to respond effectively to opportunities.

One of the most widely adopted approaches that moved social movement research away from the rational choice roots toward a more expansive collective action logic is the analysis of collective action frames, which centers on the processes of negotiating common interpretations of collective identity linked to the contentious issues at hand (Snow et al. 1986; Snow & Benford 1988; Hunt et al. 1994; Benford & Snow 2000). Such framing work may help to mobilize individuals and ultimately lower resource costs by retaining their emotional commitment to action. At the same time, the formulation of ideologically demanding, socially exclusive, or high conflict collective frames also invites fractures, leading to an analytical focus on how organizations manage or fail to bridge these differences. Resolving these frame conflicts may require the mobilization of resources to bridge differences between groups that have different goals and ways of understanding their issues. Thus, while the evolution of different strands of social movement theory has moved away from economic collective action models, many still tend to emphasize the importance of organizations that have strong ties to members and followers, and the resulting ways in which collective identities are forged and fractured among coalitions of those organizations and their networks.

Sustainable and effective collective action from the perspective of the broader logic of collective action typically requires varying levels of organizational resource mobilization deployed in organizing, leadership, developing common action frames, and brokerage to bridge organizational differences. The opening or closing of political opportunities affects this resource calculus (Tarrow 2011), but overall, large-scale action networks that reflect this collective action logic tend to be characterized in terms of numbers of distinct groups networking to bring members and affiliated participants into the action and to keep them there. On the individual level,

collective action logic emphasizes the role of social network relationships and connections as informal preconditions for more centralized mobilization (e.g. in forming and spreading action frames, and forging common identifications and relations of solidarity and trust). At the organizational level, the strategic work of brokering and bridging coalitions between organizations with different standpoints and constituencies becomes the central activity for analysis (cf. Diani 2011). Since the dynamics of action in networks characterized by this logic tends not to change significantly with digital media, it primarily invites analysis of how such tools help actors do what they were already doing (cf. Bimber et al. 2009; Earl & Kimport 2011).

Movements and action networks characterized by these variations on the logic of collective action are clearly visible in contemporary society. They have been joined by many other mobilizations that may superficially seem like movements, but on closer inspection lack many of the traditional defining characteristics. Efforts to push these kinds of organization into recognizable social movement categories diminish our capacity to understand one of the most interesting developments of our times: how fragmented, individualized populations that are hard to reach and even harder to induce to share personally transforming collective identities somehow find ways to mobilize protest networks from Wall Street to Madrid to Cairo. Indeed, when people are individualized in their social orientations, and thus structurally or psychologically unavailable to modernist forms of political movement organization, resource mobilization becomes increasingly costly and has diminishing returns. Organizing such populations to overcome free riding and helping them to shape identities in common is not necessarily the most successful or effective logic for organizing collective action. When people who seek more personalized paths to concerted action are familiar with practices of social networking in everyday life, and when they have access to technologies from mobile phones to computers, they are already familiar with a different logic of organization: the logic of connective action.

The *logic of connective action* foregrounds a different set of dynamics from the ones just outlined. At the core of this logic is the recognition of digital media as organizing agents. Several collective action scholars have explored how digital communication technology alters the parameters of Olson's original theory of collective action. Lupia and Sin (2003) show how Olson's core assumption about weak individual commitment in large groups (free riding) may play out differently under conditions of radically reduced communication costs. Bimber et al. (2005) in turn argue that public goods themselves may take on new theoretical definition as erstwhile free-riders find it easier to become participants in political networks that diminish the boundaries between public and private – boundaries that are blurred in part by the simultaneous public/private boundary crossing of ubiquitous social media.

Important for our purposes here is the underlying economic logic of digitally mediated social networks as explained most fully by Benkler (2006). He proposes that participation becomes self-motivating as personally expressive content is shared with, and recognized by, others who, in turn, repeat these networked sharing activities. When these interpersonal networks are enabled by technology platforms of various designs that coordinate and scale the networks, the resulting actions can resemble collective action, yet without the same role played by formal organizations or transforming social identifications. In place of content that is distributed and relationships that are brokered by hierarchical organizations, social networking involves co-production and co-distribution, revealing a different economic and psychological logic: co-production and sharing based on personalized expression. This does not mean that all online communication works this way. Looking at most online newspapers, blogs, or political campaign sites makes it clear that the logic of the organization-centered brick and mortar world is often reproduced online, with little change in organizational logic beyond possible efficiency gains (Bimber & Davis 2003; Foot & Schneider 2006). Yet, many socially mediated networks do operate with an alternative logic that also helps to explain why people labor collectively for free to create such things as open source software, Wikipedia, WikiLeaks, and the Free and Open Source Software that powers many protest networks (Calderaro 2011).

In this connective logic, taking public action or contributing to a common good becomes an act of personal expression and recognition or self-validation achieved by sharing ideas and actions in trusted relationships. Sometimes the people in these exchanges may be on the other side of the world, but they do not require a club, a party, or a shared ideological frame to make the connection. In place of the initial collective action problem of getting the individual to contribute, the starting point of connective action is the self-motivated (though not necessarily self-centered) sharing of already internalized or personalized ideas, plans, images, and resources with networks of others. This ‘sharing’ may take place in networking sites such as Facebook, or via more public media such as Twitter and YouTube through, for example, comments and re-tweets.¹¹ Action networks characterized by this logic may scale up rapidly through the combination of easily spreadable personal action frames and digital technology enabling such communication. This invites analytical attention to the network as an organizational structure in itself.

Technology-enabled networks of personalized communication involve more than just exchanging information or messages. The flexible, recombinant nature of DNA makes these web spheres and their offline extensions more than just communication systems. Such networks are

¹¹ We are indebted to Bob Boynton for pointing out that this sharing occurs both in trusted friends networks such as Facebook and in more public exchange opportunities among strangers of the sort that occur on YouTube, Twitter, or blogs. Understanding the dynamics and interrelationships among these different media networks and their intersections is an important direction for research.

flexible organizations in themselves, often enabling coordinated adjustments and rapid action aimed at often shifting political targets, even crossing geographic and temporal boundaries in the process. As Diani (2011) argues, networks are not just precursors or building blocks of collective action: they are in themselves organizational structures that can transcend the elemental units of organizations and individuals.¹² As noted earlier, communication technologies do not change the action dynamics in large-scale networks characterized by the logic of collective action. In the networks characterized by connective action, they do.

The organizational structure of people and social technology emerges more clearly if we draw on the actor-network theory of Latour (2005) in recognizing digital networking mechanisms (e.g. various social media and devices that run them) as potential network agents alongside human actors (i.e. individuals and organizations). Such digital mechanisms may include: organizational connectors (e.g. web links), event coordination (e.g. protest calendars), information sharing (e.g. YouTube and Facebook), and multifunction networking platforms in which other networks become embedded (e.g. links in Twitter and Facebook posts), along with various capacities of the devices that run them. These technologies not only create online meeting places and coordinate offline activities, but they also help calibrate relationships by establishing levels of transparency, privacy, security, and interpersonal trust. It is also important that these digital traces may remain behind on the web to provide memory records or action repertoires that might be passed on via different mechanisms associated with more conventional collective action such as rituals or formal documentation.

The simple point here is that collective and connective logics are distinct logics of action (both in terms of identity and choice processes), and thus both deserve analysis on their own terms. Just as traditional collective action efforts can fail to result in sustained or effective movements, there is nothing preordained about the results of digitally mediated networking processes. More often than not, they fail badly. The transmission of personal expression across networks may or may not become scaled up, stable, or capable of various kinds of targeted action depending on the kinds of social technology designed and appropriated by participants, and the kinds of opportunities that may motivate anger or compassion across large numbers of individuals. Thus, the Occupy Wall Street protests that spread in a month from New York to over 80 countries and 900 cities around the world might not have succeeded without the inspiring

¹² We have developed methods for mapping networks and inventorying the types of digital media that enable actions and information to flow through them. Showing how networks are constituted in part by technology enables us to move across levels of action that are often difficult to theorize. Network technologies enable thinking about individuals, organizations, and networks in one broad framework. This approach thus revises the starting points of classic collective action models, which typically examine the relationships between individuals and organizations and between organizations. We expand this to include technologies that enable the formation of fluid action networks in which agency becomes shared or distributed across individual actors and organizations as networks reconfigure in response to changing issues and events (Bennett et al. 2011).

models of the Arab Spring or the *indignados* in Spain, or the worsening economic conditions that provoked anger among increasing numbers of displaced individuals. Yet, when the ‘Occupy’ networks spread under the easy-to-personalize action frame of ‘we are the 99 per cent’, there were few identifiable established political organizations at the center of them. There was even a conscious effort to avoid designating leaders and official spokespeople. The most obvious organizational forms were the layers of social technologies and websites that carried news reported by participants and displayed tools for personalized networking. One of the sites was ‘15.10.11 united for #global change’.¹³ Instead of the usual ‘who are we’ section of the website, #globalchange asked: ‘who are you?’.

Collective and connective action may co-occur in various formations within the same ecology of action. It is nonetheless possible to discern three clear ideal types of large-scale action networks. While one is primarily characterized by collective action logic, the other two are connective action networks distinguished by the role of formal organizations in facilitating personalized engagement. As noted above, conventional organizations play a less central role than social technologies in relatively self-organizing networks such as the *indignados* of Spain, the Arab Spring uprisings, or the ‘occupy’ protests that spread from Wall Street around the world. In contrast to these more technology-enabled networks, we have also observed hybrid networks (such as PPF) where conventional organizations operate in the background of protest and issue advocacy networks to enable personalized engagement. This hybrid form of organizationally enabled connective action sits along a continuum somewhere between the two ideal types of conventional organizationally managed collective action and relatively more self-organized connective action. The following section presents the details of this three-part typology. It also suggests that co-existence, layering, and movement across the types become an important part of the story.

A typology of collective and connective action networks

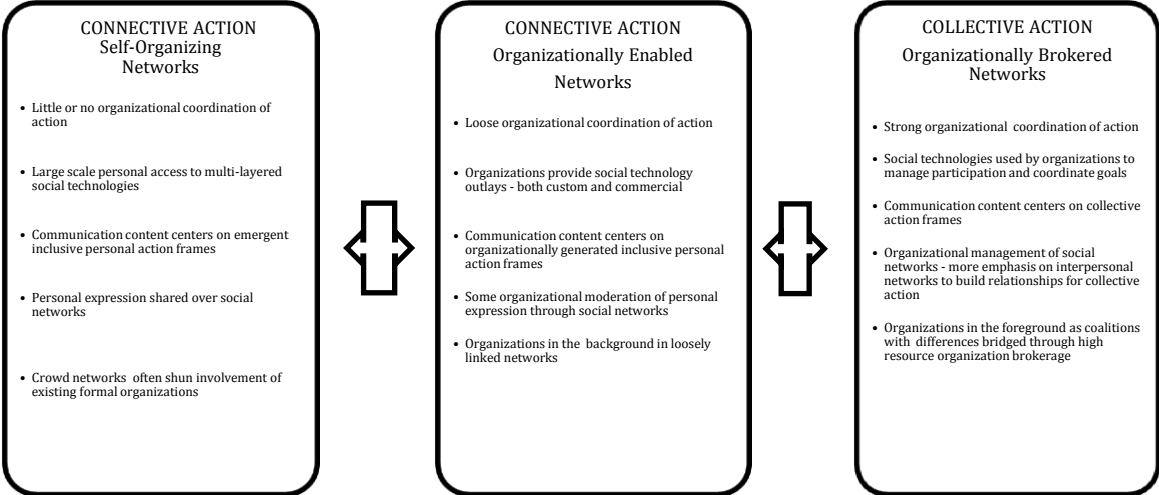
We draw upon these distinct logics of action (and the hybrid form that reveals a tension between them) to develop a three-part typology of large-scale action networks that feature prominently in contemporary contentious politics. One type represents the brokered organizational networks characterized by the logic of collective action, while the others represent two significant variations on networks primarily characterized by the logic of connective action. All three models may explain differences between and dynamics within large-scale action networks in event-centered contention, such as protests and sequences of protests as in the examples we have already discussed. They may also apply to more stable issue advocacy networks that engage people in

¹³ <http://www.15october.net> (accessed 19 October 2011).

everyday life practices supporting causes outside of protest events such as campaigns. The typology is intended as a broad generalization to help understand different dynamics. None of the types are exhaustive social movement models. Thus, this is not an attempt to capture, much less resolve, the many differences among those who study social movements. We simply want to highlight the rise of two forms of digitally networked connective action that differ from some common assumptions about collective action in social movements, and, in particular, that rely on mediated networks for substantial aspects of their organization.

Figure 1 presents an overview of the two connective action network types and contrasts their organizational properties with more familiar collective action network organizational characteristics. The ideal collective action type at the right side in the figure describes large-scale action networks that depend on brokering organizations to carry the burden of facilitating cooperation and bridging differences when possible. As the anti-capitalist direct action groups in the G20 London Summit protests exemplified, such organizations will tend to promote more exclusive collective action frames that require frame bridging if they are to grow. They may use digital media and social technologies more as means of mobilizing and managing participation and coordinating goals, rather than inviting personalized interpretations of problems and self-organization of action. In addition to a number of classic social movement accounts (e.g. McAdam 1986), several of the NGO networks discussed by Keck and Sikkink (1998) also accord with this category (Bennett 2005).

FIGURE 1 Elements of connective and collective action networks.



At the other extreme on the left side in the figure we place connective action networks that self-organize largely without central or ‘lead’ organizational actors, using technologies as important organizational agents. While some formal organizations may be present, they tend to

remain at the periphery or may exist as much in online as in offline forms. In place of collective action frames, personal action frames become the transmission units across trusted social networks. The loose coordination of the *indignados* exemplifies this ideal type, with conventional organizations deliberately kept at the periphery as easily adapted personal action frames travel online and offline with the aid of technology platforms such as the *Democracia Real Ya!* organization.¹⁴

In between the organizationally brokered collective action networks and the more self-organizing (technology organized) connective action network is the hybrid pattern introduced above. This middle type involves formal organizational actors stepping back from projecting strong agendas, political brands, and collective identities in favor of using resources to deploy social technologies enabling loose public networks to form around personalized action themes. The middle type may also encompass more informal organizational actors that develop some capacities of conventional organizations in terms of resource mobilization and coalition building without imposing strong brands and collective identities.¹⁵ For example, many of the General Assemblies in the *occupy* protests became resource centers, with regular attendance, division of labor, allocation of money and food, and coordination of actions. At the same time, the larger communication networks that swirled around these protest nodes greatly expanded the impact of the network. The surrounding technology networks invited loose tied participation that was often in tension with the face-to-face ethos of the assemblies, where more committed protesters spent long hours with dwindling numbers of peers debating on how to expand participation without diluting the levels of commitment and action that they deemed key to their value scheme. Thus, even as *occupy* displayed some organizational development, it was defined by its self-organizing roots.

Networks in this hybrid model engage individuals in causes that might not be of such interest if stronger demands for membership or subscribing to collective demands accompanied the organizational offerings. Organizations facilitating these action networks typically deploy an array of custom built (e.g. ‘send your message’) and outsourced (e.g. Twitter) communication technologies. This pattern fit the PPF demonstrations discussed earlier, where some 160 civil society organizations – including major NGOs such as Oxfam, Tearfund, Catholic Relief, and World Wildlife Fund – stepped back from their organizational brands to form a loose social network inviting publics to engage with each other and take action. They did this even as they

¹⁴ We wish to emphasize that there is much face-to-face organizing work going on in many of these networks, and that the daily agendas and decisions are importantly shaped offline. However, the connectivity and flow of action coordination occurs importantly online.

¹⁵ We thank the anonymous referee for highlighting this subtype.

negotiated with other organizations over such things as separate days for the protests (Bennett & Segerberg 2011).

The formations in the middle type reflect the pressures that Bimber et al. (2005) observed in interest organizations that are suffering declining memberships and have had to develop looser, more entrepreneurial relations with followers. Beyond the ways in which particular organizations use social technologies to develop loose ties with followers, many organizations also develop loose ties with other organizations to form vast online networks sharing and bridging various causes. Although the scale and complexity of these networks differ from the focus of Granovetter's (1973) observations about the strength of weak ties in social networks, we associate this idea with the elements of connective action: the loose organizational linkages, technology deployments, and personal action frames. In observing the hybrid pattern of issue advocacy organizations facilitating personalized protest networks, we traced a number of economic justice and environmental networks, charting protests, campaigns, and issue networks in the UK, Germany, and Sweden (Bennett & Segerberg, forthcoming).¹⁶ In each case, we found (with theoretically interesting variations) campaigns, protest events, and everyday issue advocacy networks that displayed similar organizational signatures: (a) familiar NGOs and other civil society organizations joining loosely together to provide something of a networking backbone, (b) for digital media networks engaging publics with contested political issues, yet with (c) remarkably few efforts to brand the issues around specific organizations, own the messages, or control the understandings of individual participants. The organizations had their political agendas on offer, to be sure, but, as members of issue networks, put the public face on the individual citizen and provided social technologies to enable personal engagement through easy-to-share images and personal action frames.

The organizations that refrain from strongly branding their causes or policy agendas in this hybrid model do not necessarily give up their missions or agendas as name brand public advocacy organizations. Instead, some organizations interested in mobilizing large and potentially WUNC-y publics in an age of social networking are learning to shift among different organizational repertoires, morphing from being hierarchical, mission-driven NGOs in some settings to being facilitators in loosely linked public engagement networks in others. As noted by Chadwick (2007, 2011), organizational hybridity makes it difficult to apply fixed categories to

¹⁶ Our empirical investigations focused primarily on two types of networks that display local, national, and transnational reach: networks to promote economic justice via more equitable north south trade norms (fair trade) and networks for environmental and human protection from the effects of global warming (climate change). These networks display impressive levels of collective action and citizen engagement and they are likely to remain active into the foreseeable future. They often intersect by sharing campaigns in local, national, and transnational arenas. As such, these issue networks represent good cases for assessing the uses of digital technologies and different action frames (from personalized to collective) to engage and mobilize citizens, and to examine various related capacities and effects of those engagement efforts.

many organizations as they variously shift from being issue advocacy NGOs to policy think tanks, to SMOs running campaigns or protests, to multi-issue organizations, to being networking hubs for connective action. In other words, depending on when, where, and how one observes an organization, it may appear differently as an NGO, SMO, INGO, TNGO, NGDO (non-governmental organization, social movement organization, international non-governmental organization, transnational non-governmental organization, non-governmental development organization), an interest advocacy group, a political networking hub, and so on. Indeed, one of the advantages of seeing the different logics at play in our typology is to move away from fixed categorization schemes, and observe actually occurring combinations of different types of action within complex protest ecologies, and shifts in dominant types in response to events and opportunities over time.

The real world is of course far messier than this three-type model. In some cases, we see action formations corresponding to our three models side by side in the same action space. The G20 London protest offered a rare case in which organizationally enabled and more conventional collective action were neatly separated over different days. More often, the different forms layer and overlap, perhaps with violence disrupting otherwise peaceful mobilizations as occurred in the Occupy Rome protests on 15 October 2011, and in a number of *occupy* clashes with police in the United States. In still other action cycles, we see a movement from one model to another over time. In some relatively distributed networks, we observe a pattern of informal *organizational resource seeking*, in which informal organizational resources and communication spaces are linked and shared (e.g. re-tweeted), enabling emergent political concerns and goals to be nurtured without being co-opted by existing organizations and their already fixed political agendas. This pattern occurred in the self-organizing Twitter network that emerged around the 15th UN climate summit in Copenhagen. As the long tail of that network handed its participants off to the Twitter stream devoted to the next summit in Cancun, we saw an increase in links to organizations of various kinds, along with growing links to and among climate bloggers (Segeberg & Bennett 2011). Such variations on different organizational forms offer intriguing opportunities for further analyses aimed at explaining whether mobilizations achieve various goals, and attain different levels of WUNC.

In these varying ways, personalized connective action networks cross paths (sometimes with individual organizations morphing in the process) with more conventional collective action networks centered on SMOs, interest organizations, and brand-conscious NGOs. As a result, while we argue that these networks are an organizational form in themselves, they are often hard to grasp and harder to analyze because they do not behave like formal organizations. Most formal organizations are centered (e.g. located in physical space), hierarchical, bounded by mission and

territory, and defined by relatively known and countable memberships (or in the case of political parties, known and reachable demographics). By contrast, many of today's issue and cause networks are relatively de-centered (constituted by multiple organizations and many direct and cyber activists), distributed, or flattened organizationally as a result of these multiple centers, relatively unbounded, in the sense of crossing both geographical and issue borders, and dynamic in terms of the changing populations who may opt in and out of play as different engagement opportunities are presented (Bennett 2003, 2005). Understanding how connective action engages or fails to engage diverse populations constitutes part of the analytical challenge ahead.

Compared to the vast number of theoretically grounded studies on social movement organizing, there is less theoretical work that helps explain the range of collective action formations running from relatively self-organizing to organizationally enabled connective action networks. While there are many descriptive and suggestive accounts of this kind of action, many of them insightful (e.g. Castells 2000; Rheingold 2002), we are concerned that the organizational logic and underlying dynamic of such action is not well established. It is important to gain clearer understandings of how such networks function and what organizing principles explain their growing prominence in contentious politics.

Conclusion

DNA is emerging during a historic shift in late modern democracies in which, most notably, younger citizens are moving away from parties, broad reform movements, and ideologies. Individuals are relating differently to organized politics, and many organizations are finding they must engage people differently: they are developing relationships to publics as affiliates rather than members, and offering them personal options in ways to engage and express themselves. This includes greater choice over contributing content, and introduces micro-organizational resources in terms of personal networks, content creation, and technology development skills. Collective action based on exclusive collective identifications and strongly tied networks continues to play a role in this political landscape, but this has become joined by, interspersed with, and in some cases supplanted by personalized collective action formations in which digital media become integral organizational parts. Some of the resulting DNA networks turn out to be surprisingly nimble, demonstrating intriguing flexibility across various conditions, issues, and scale.

It has been tempting for some critics to dismiss participation in such networks as noise, particularly in reaction to sweeping proclamations by enthusiasts of the democratic and participatory power of digital media. Whether from digital enthusiasts or critics, hyperbole is unhelpful. Understanding the democratic potential and effectiveness of instances of connective

and collective action requires careful analysis. At the same time, there is often considerably more going on in DNA than clicktivism or facile organizational outsourcing of social networking to various commercial sites.¹⁷ The key point of our argument is that fully explaining and understanding such action and contention requires more than just adjusting the classic social movement collective action schemes. Connective action has a logic of its own, and thus attendant dynamics of its own. It deserves analysis on its own terms.

The linchpin of connective action is the formative element of ‘sharing’: the personalization that leads actions and content to be distributed widely across social networks. Communication technologies enable the growth and stabilization of network structures across these networks. Together, the technological agents that enable the constitutive role of sharing in these contexts displace the centrality of the free-rider calculus and, with it, by extension, the dynamic that flows from it – most obviously, the logical centrality of the resource-rich organization. In its stead, connective action brings the action dynamics of recombinant networks into focus, a situation in which networks and communication become something more than mere preconditions and information. What we observe in these networks are applications of communication technologies that contribute an organizational principle that is different from notions of collective action based on core assumptions about the role of resources, networks, and collective identity. We call this different structuring principle the logic of connective action.

Developing ways to analyze connective action formations will give us more solid grounds for returning to the persistent questions of whether such action can be politically effective and sustained (Tilly 2004; Gladwell 2010; Morozov 2011). Even as the contours of political action may be shifting, it is imperative to develop means of thinking meaningfully about the capacities of sustainability and effectiveness in relation to connective action and to gain a systematic understanding of how such action plays out in different contexts and conditions.

The string of G20 protests surrounding the world financial crisis illustrate that different organizational strategies played out in different political settings produce a wide range of results. The protests at the Pittsburgh and Toronto G20 summits of 2009 and 2010, respectively, were far more chaotic and displayed far less WUNC than those organized under the banner of PPF in London. Disrupted by police assaults and weak organizational coordination, the Pittsburgh protests displayed a cacophony of political messages that were poorly translated in the press and even became the butt of late night comedy routines. The Daily Show sent a correspondent to Pittsburgh and reported on a spectrum of messages that included: a Free Tibet matching cymbal

¹⁷ Technology is not neutral. The question of the degree to which various collectivities have both appropriated and become dependent on the limitations of commercial technology platforms such as Flickr, Facebook, Twitter, or YouTube is a matter of considerable importance. For now, suffice it to note that at least some of the technologies and their networking capabilities are designed by activists for creating political networks and organizing action (Calderaro 2011).

band, Palestinian peace advocates, placards condemning genocide in Darfur, hemp and marijuana awareness slogans, and denunciations of the beef industry, along with the more expected condemnations of globalization and capitalism. One protester carried a sign saying 'I protest everything', and another dressed as Batman stated that he was protesting the choice of Christian Bale to portray his movie hero. The correspondent concluded that the Pittsburgh protests lacked unity of focus and turned for advice to some people who knew how to get the job done: members of the Tea Party. The Daily Show panel of Tea Party experts included a woman wearing a black Smith & Wesson holster that contained a wooden crucifix with an American flag attached. When asked what the Pittsburgh protesters were doing wrong, they all agreed that there was a message problem. One said, 'I still don't know what their message is' and another affirmed, 'Stay on message and believe what you say'. The Daily Show report cut back to show a phalanx of Darth Vader-suited riot police lined up against the protesters – according to the correspondent, the 'one single understandable talking point' in Pittsburgh (Daily Show 2009). Humor aside, this example poses a sharp contrast to the more orderly London PPF protests that received positive press coverage of the main themes of economic and environmental justice (Bennett & Segerberg 2011).

The challenge ahead is to understand when DNA becomes chaotic and unproductive and when it attains higher levels of focus and sustained engagement over time. Our studies suggest that differing political capacities in networks depend, among other things, on whether (a) in the case of organizationally enabled DNA, the network has a stable core of organizations sharing communication linkages and deploying high volumes of personal engagement mechanisms or (b) in the case of self-organizing DNA, the digital networks are redundant and dense with pathways for individual networks to converge, enabling viral transmission of personally appealing action frames to occur.

Attention to connective action will neither explain all contentious politics nor does it replace the model of classic collective action that remains useful for analyzing social movements. But, it does shed light on an important mode of action making its mark in contentious politics today. A model focused primarily on the dynamics of classic collective action has difficulties accounting for important elements in the Arab spring, the *indignados*, the *occupy* demonstrations, or the global protests against climate change. A better understanding of connective action promises to fill some of these gaps. Such understanding is essential if we are to attain a critical perspective on some of the prominent forms of public engagement in the digital age.

Acknowledgements

The article builds on work supported by the Swedish Research Council grant Dnr. 421-2010-2303. It benefited from comments received on earlier versions, including those presented at the ECPR General Conference 2011 and the iCS/ OII Symposium 'A Decade of Internet Time'. The authors particularly wish to thank Bruce Bimber, Bob Boynton, Andrew Chadwick, Nils Gustafsson, Rasmus Kleis Nielsen, Annette Schnabel, Sidney Tarrow, and the anonymous referees for excellent comments.

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