Routledge
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Information, Communication & Society

ISSN: 1369-118X (Print) 1468-4462 (Online) Journal homepage: http://www.tandfonline.com/loi/rics20

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To cite this article: Sheetal D. Agarwal, Michael L. Barthel, Caterina Rost, Alan Borning, W. Lance Bennett & Courtney N. Johnson (2014) Grassroots organizing in the digital age: considering values and technology in Tea Party and Occupy Wall Street, Information, Communication & Society, 17:3, 326-341, DOI: 10.1080/1369118X.2013.873068

To link to this article: http://dx.doi.org/10.1080/1369118X.2013.873068

Information, Communication & Society, 2014
Vol. 17, No. 3, 326–341, http://dx.doi.org/10.1080/1369118X.2013.873068

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Grassroots organizing in the digital age: considering values and technology in Tea Party and Occupy Wall Street

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(*Received 30 August 2013; accepted 3 December 2013*)

Power dynamics shape, and are shaped by, the tools used by participants in social movements. In this study we explore the values, attitudes, and beliefs of Tea Party and Occupy Wall Street stakeholders as they relate to their use of technology. This multi-method study applies the lens of value sensitive design [VSD; Friedman, B. (Ed.) (1997). *Human values and the design of computer technology* (vol. 72). Cambridge: Cambridge University Press] to examine stakeholder values and sites of value tension. We contextualize our findings with qualitative observation of how these values are reflected in each organization's online spaces, including Facebook, Twitter, and key organizational websites, as well as private spaces such as email.

We found liberty, the value most mentioned by Tea Party members, was not reflected in the movement's organizational websites and Facebook pages, where user autonomy is frequently undermined. However, the Occupy value of equality is supported in the movement's web presence. We also found a set of shared central values – privacy and security, inclusion, and consensus – underlying both Tea Party and Occupy's approach to organization and participation. Value tensions around privacy and inclusion emerged for both groups, as some members opted not to use these tools due to security concerns and leaders struggled to adapt their communication strategies accordingly.

This study provides insight into the adoption and contestation of different technological tools within grassroots social movements, how those decisions are shaped by core values, and how conflicts over the use of digital tools can result from tension between how different stakeholders prioritize those values.

Keywords: collective action; digital media; value-sensitive design; ICTs; Occupy; Tea Party

Introduction

In late 2011, members of the Occupy movement launched a proposal for what they called a 'social-networking site' for Occupy (Captain, 2011). Calling it the Global Square (GS), it was conceived of as an open-source alternative to for-profit services Facebook and Twitter, which GS co-founder Ed Knutson said were widely distrusted by Occupiers for their approaches to privacy. Roughly a year later, in February 2013, a new social networking site called TeaParty-Community.com (TPC) announced its launch, intending to provide what co-founder Ken Crow

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called 'a safe-haven for conservatives' (Wing, 2013). Similar to GS, the website was created with the intent of providing an alternative to Facebook for Tea Party members and other conservatives. According to Crow, many members felt Facebook was censoring their free speech and exposing them to too much negative engagement with non-members.

Crow, Knutson, and their development teams recognized the potential of these sites to connect like-minded individuals, provide means for sharing and gathering relevant information, and support local groups in taking action. Both also noted important underlying values of their respective movements as reasons for creating alternative technologies. For Knutson, privacy and control and ownership of information were critical for many Occupy participants (Captain, 2011). Crow cited concerns with censorship, liberty, and freedom of speech as core reasons for developing TPC (Wing, 2013).

As indicated by these stories from two contemporary American grassroots movements, information and communication technologies (ICTs) have become critical tools for citizen participation (Bennett & Segerberg, 2013; Fisher & Boekkooi, 2010). These two stories also show how participants are finding ways to resist using those ICTs that are not in line with their movement's values. Exercising their power to resist or appropriate different tools to meet their needs, participants in both groups engage in power struggles that shape the sociotechnical systems of these grassroots movements.

As new tools are created, the values of different subgroups – such as lead organizers, technologists, and lay members – become critical. What are these values, and how are they accounted for in new technology? How can understanding values within grassroots movements help us to understand how and why they use, resist, or (re)appropriate existing technologies? In this study we seek to address these broad questions regarding the use of ICTs in two grassroots US social movements: Tea Party and Occupy Wall Street. Through the lens of value sensitive design (VSD; Friedman, 1997) and through the use of in-depth interviews and an inventory of ICTs used by each group, we aim to understand values of different stakeholder groups and their use of technology.

ICTs and social movements

While communication technologies have been important to social movements in the past (Strodthoff, Hawkins, & Schoenfeld, 1985), the emergence of online social networks has allowed ICTs to play an increasing role in the formation of social movements (Howard & Hussain, 2011). Movements have shifted toward more decentralized forms of organizing and networking (Juris, 2012; Bennett & Segerberg, 2013) and it is conceivable that some 'crowd-enabled' movements relying heavily on ICTs during their formation process, such as the Spanish *Los Indignados* or Occupy, would not have occurred were it not for the ability of ICTs to serve a coordinating role (Bennett & Segerberg, 2013). Furthermore, ICTs have an impact on social movements beyond the formation stage. ICTs reshape the external and internal communication strategies of social movements (Van de Donk, Loader, Nixon, & Rucht, 2004) while creating new communication patterns and alternative publics, broadening their potential reach (Borge-Holthoefer, Rivero, García, Cauhé, & Ferrer, 2011; Hopke, 2012). ICTs have transformed the power dynamics of social movement politics by challenging traditional forms of organizations (DeWilde, Vermeulen, & Reithler, 2003). Those in power have less control over the flow of information, and technology-enabled activists are becoming a force in their own right without relying on organizational structures (Bennett & Segerberg, 2013).

Occupy and Tea Party

The use and impact of ICTs is widely addressed in relation to Occupy but arises less often in Tea Party research. For Occupy, various studies address the role of specific social media tools, such as

Facebook (Caren & Gaby, 2011) and Twitter (Jensen & Bang, 2013; Thorson *et al*., 2013). Hashtags related to the national movement, such as #ows, were widely used at the movement's height, while generally less activity was seen on city-based hashtags like #occupyseattle (Agarwal et al., 2012). Studies looking at Occupy's technological portfolio have found that face-to-face interaction and Facebook were Occupy members' most important source of information, while Twitter was found to be the least helpful technology at the local level (Center for Communication and Civic Engagement, 2012). Further, Occupy groups set up Facebook pages before setting up Twitter accounts or websites (Vasi & Suh, in press).

In studies of Tea Party and ICTs, Atkinson and Berg (2012) examine the content of Tea Party messages sent via ICTs and Rohlinger and Klein (in press) examine how Tea Party leaders use ICT to manage emotional life, while Mascaro, Novak, and Goggins (2012) examined the traceless elimination of dissent from Tea Party Patriot Facebook pages.[1] One aim of this article is to fill this gap in the existing literature as we address the social media use by members of Occupy and Tea Party.

Values, power, and technology

We are interested in understanding the dynamics between values, power, and technology in both movements. Following other scholarship on values, design, and technology, we define values as 'what a person or group of people consider important in life' (Friedman, Kahn, & Borning, 2006, p. 349). The notion that technology is not value-neutral, but shaped by the morals and ideas of the creators of technology, and that technological artifacts and systems interact with values is widely accepted across fields (Hughes, 2004; Winner, 1986). Recognized as shaped by both functional values (e.g. efficiency, reliability) and social, moral, and political values (e.g. democracy, authoritarianism), technological systems and artifacts become important to understanding how power dynamics are created and sustained or challenged in sociotechnical systems (Flanagan, Howe, & Nissenbaum, 2008).

Technological systems can be explicitly designed to support specific forms of power and authority that then help shape the interactions between social actors (Orlikowski & Gash, 1994; Winner, 1986). In turn, social actors also shape these systems as they are designed, developed, implemented, and (re)appropriated (Barley, 1986; DeSanctis & Poole, 1994; Orlikowski, 1992). Through affordances and constraints, technology can allow or restrict certain actions by specific users and, in the process, support certain values regarding who can participate and how they can participate, which reflect beliefs and values regarding the distribution of power.

Any given technology affects various stakeholders, who may have differing or contradictory values. In all likelihood, a technology will only support some of these values, resulting in tensions or conflict among stakeholders. For example, the designers of a system may value accountability while some users value privacy, and a login feature may ignite tension leading to non-use by a portion of the intended user population. Thus, understanding the values of different stakeholders, as well as identifying the values a system intends to support, becomes important to understanding how technological systems become established, resisted, and/or appropriated.

However, designers of technology are not often well versed in designing for values, an approach requiring connection of humanistic and social science approaches to design questions (Flanagan et al., 2008). VSD provides both theory and method to bridge this divide, allowing for understanding of the full range of stakeholders and their values, for designing technology to better support those values, and for assessing the results in terms of human values as well as functionality (Friedman et al., 2006). Existing VSD scholarship, however, does not probe the question of power thoroughly, which we recognize as an important point in understanding how technology design and adoption decisions are made in social groups with particular

beliefs about how power should be distributed. Instead, this literature tends to focus on rights-based arguments without examining or accounting for the struggle for these presupposed rights (Friedman et al., 2008; Kriplean, Bonnar, Borning, Kinney & Gill, 2013).

In examining the sociotechnical systems of Tea Party and Occupy, we seek to increase our understanding of why some tools are used and others are not by examining the values of various stakeholders in both groups, identifying values supported by the systems they use, and exploring how decisions about use and non-use are affected by value alignment or value tensions amongst stakeholders and between stakeholders and the artifacts. Thus, we offer the following research questions:

RQ1: What values are most important to the Tea Party and Occupy communities? How do they see these values reflected in technologies? What leads users to either engage with or resist a given technology?

RQ2: When users do engage with a given technology, how successful are they in appropriating and shaping it to better support their values?

Methods

Case rationale

For this study we employ the case study method, which is well suited for questions regarding the 'how' and 'why' of complex social phenomena that are best understood in real-life contexts (Gerring, 2007; Yin, 2009). Occupy and the Tea Party are compared here due to their similarities as grassroots movements that make extensive use of technology, but emphasize very different values, pursue different goals and utilize different tactics.

Occupy began in September 2011 as a protest against economic injustice, attracting participants and attention through word-of-mouth, mainstream media, live-streaming, social networking services, websites, and wikis (Costanza-Chock, 2012). The Tea Party movement began as a reaction to the 2009 government bailout, and while its origins are disputed (Zernike, 2010; Williamson, Skocpol, & Coggin, 2011), it currently exists as a loose affiliation of hundreds of local groups interested in fiscal responsibility and constitutionally limited government. Although both are grassroots movements, Occupy and the Tea Party pursued their interests in different ways. The Tea Party engages regularly with the political system through lobbying and electioneering, whereas Occupy has been relatively less involved with institutional US politics. These two movements also provide a fruitful comparison due to their significant demographic and political differences. As a whole, members of the Occupy movement are younger, more racially and ethnically diverse, and more liberal than members of the Tea Party (Milkman, Luce, & Lewis, 2012; New York Times/CBS News Poll, 2010).

We have chosen to examine these grassroots organizations at two different time periods: Occupy from January through April 2012, and Tea Party from June through August 2013. We chose these time periods because they represent similar periods of activity for the two movements, in that both had a stabilized presence but were not in the height of their activity – primarily 2009–2010 for Tea Party, and September–December of 2011 for Occupy.

Interviews

Our comparison of organizational values and technology use is based on two data sources: in-depth interviews with activists and an inventory of key technologies available online.

We conducted in-depth interviews in person or via phone or Skype with 16 members of the Tea Party and 16 members of Occupy ($n = 32$) to gain insight into their technology use and values.

Table 1. Interviewees by role type.

	Occupy		Tea Party	
Role	First	Secondary	First	Secondary
Member	4	6	3	0
Tech	9	0	2	3
Leader	2	3	11	2

The individuals were recruited via e-mail listservs and through a snowball sampling process. The selection criterion was that the individual self-identified as a participant in either Tea Party or Occupy. We targeted different stakeholders in each group, focusing on self-identified leaders/facilitators, technologists, and lay members. Some individuals indicated they held more than one position, but we report on only their primary roles here. Respondents come from 15 states. Table 1 identifies the number of interviewees representing each role type. To protect the identities of our interviewees we have created pseudonyms for all participants directly quoted in our findings.

The semi-structured interviews asked interviewees about the importance of certain participatory activities, their experiences using different technology in regards to participation, the values of their respective movements, and how these values relate to the use of different tools. Additionally, each participant was asked questions about either the TPC website or GS, depending on their affiliation. We transcribed each interview in full.

Emergent coding

The units of analysis for this study were themes, which could emerge as a group of words, sentences, or paragraphs of text (Krippendorff, 2004). We uploaded transcribed interviews into Dedoose, an online qualitative coding platform (see www.dedoose.com). Using inductive and emergent coding processes, three researchers analyzed transcriptions together to assign codes from the raw data. We identified codes in a comparative manner, going back to previously analyzed data to ensure codes were systematically assigned and distinct. An ongoing list was created through this process; we revisited previously coded texts to apply new codes as they emerged. We applied 56 codes for Tea Party and 55 for Occupy. Codes were categorized into the same four areas around which the interviews were organized: activities, values, organizing, and technologies.

Technology inventory

While interviews provided insight into the use of technology by individual members, we analyzed three public-facing spaces for each group in order to understand the broader online ecosystem of Tea Party and Occupy: Facebook, Twitter, and organizational websites. The type of analysis undertaken here is not meant to be a full-feature analysis, but rather a real-time qualitative observation of the different platforms during the periods identified in our case rationale to contextualize the experiences of our interviewees.

Facebook

We collected data on Occupy during spring 2012. A Python script queried the Facebook API to collect all public Facebook pages that included the word ‘Occupy’. This resulted in a list of 529

pages, 453 of which were relevant to the movement. We ran a similar Python script for Tea Party during summer 2013, though due to changes in the Facebook API it collected information through the Timeline feature. This resulted in 687 pages including the words 'Tea Party', with a total of 305 relevant pages. This lower percentage of relevant pages was due primarily to 'tea party' being a more common phrase than 'occupy', with the 'tea party' search pulling in pages on the historical Boston Tea Party, food vendors, and social events. Given that the sample was to be narrowed further before analysis, a minimal standard was used to assess relevance; any page containing the search term and appearing prima facie to be concerned with politics was included.

The script collected data from each page including the number of 'likes' and the number for the 'talking about' measure, which measures the level of weekly engagement of a Facebook page in the form of sharing, posting, and liking activity. We sorted the cleaned data by the number of likes and identified the top 20 Facebook pages for each group. We undertook an observational analysis of each page, employing real-time observation of the interactions on each page, noting who appeared to be posting (administrators, people who like the page, anyone), how often the page was updated (hourly, daily, weekly, monthly, less than monthly), what types of content were shared (articles, individual posts, polls, surveys, memes, other), and whether the page was moderated.

Twitter

We initially identified the Twitter handles associated with each of the Top 20 Facebook pages for each movement. For Occupy, 17 of the 20 top Facebook groups had associated Twitter handles, while 12 of the 20 Tea Party groups had Twitter accounts ($n = 29$). We supplemented this group by also following the hashtags #occupy and #teaparty. Researchers observed the postings of public accounts in real time to gain an understanding of how each handle was used on a daily basis. Researchers recorded the number of followers an account had, then monitored the feed to collect information such as how often the account posted (hourly, daily, weekly, monthly, less than monthly); whether tweets included links, other handles, or top hashtags; the level of activity; and the handles seen most frequently in each hashtag.

Websites

To understand the role of websites in the Tea Party and Occupy online ecosystems, we observed five websites related to each movement ($n = 10$). We focused on central 'hub' websites, meaning websites connecting local and state groups and facilitating communication between supporters. For the Tea Party, we examined teapartypatriots.org, teapartynation.com, teaparty911.com, teapartyexpress.org, and teaparty.org. For Occupy, we examined occupywallst.org, occupytogether.org, occupy.net, interoccupy.net, and nycga.net. We used data from compete.com to determine the number of monthly unique visitors for each website during the time periods mentioned in the case rationale.

The researchers began analysis by recording their experiences on and observations about a website. As our focus was on understanding how the affordances and constraints of the website may support or undermine different values, the researcher recorded observations in regards to these concepts. Some of the qualitative observations included noting whether there was an opportunity to share information via other platforms such as Facebook or Twitter, the degree of interactivity afforded by the website, and if the website included features such as blogs, event calendars, tools for organizing events, or newsfeeds. The researchers clicked through all available links and noted if the website ever sent them to other websites.

Technology use in Tea Party and Occupy: support and constraint of practices & behaviors

E-mail

Overall, e-mail is the most important technology for both movements (Table 2). Interviewees primarily use e-mail for event-planning and for private conversations during decision-making processes. Tea Party members also mobilize, distribute, and gather information through e-mail newsletters. This practice of public outreach is less prevalent in Occupy, where e-mail is mostly used for internal coordination among working groups, while 'broadcasting and getting the word out is [done through] Facebook' (Addison, Occupy technologist). An Occupy lay member noted the importance of e-mail connections between cities and groups across the country for crisis situations, such as Hurricane Sandy (Yolanda).

Respondents attributed e-mail's importance to two factors: its ubiquity and its privacy. 'For our members, e-mail is much more of a natural medium than social media', a Tea Party technologist (John) reported, and interviewees from both movements universally spoke of e-mail as the most reliable way to contact members. While some voiced concern with government and corporate monitoring of e-mail, it was still seen as the best substitute for unmediated communication, 'formal and private' (Edith, Tea Party leader).

Facebook

Interviewees in both movements described Facebook as the most important social networking service for their political activities (Table 2), although privacy concerns have led to significant non-use. Interviewees described it as especially useful for events, information-gathering, discussion, and reaching people who are not already members. Facebook is often used in concert with other tools, as information posted on Facebook is also released elsewhere. However, different chapters use Facebook differently, with no common 'best practices' for how to use it; while some have fully integrated pages, others have bare-bones presences that post occasional news links. Facebook also supplements decision-making as leaders utilize it to get input from their membership. Ultimately, however, 'Facebook is not a decision-making tool' due to its openness to outsiders and limited capabilities (Edith, Tea Party leader). Occupy groups tend to have multiple Facebook pages and/or groups, reported Occupy technologist Brian. Private groups are used for planning and organizing (e.g. to test memes), while public pages allow for networking and outreach.

Both Occupy and Tea Party facilitators viewed Facebook as a useful tool for reaching a broader audience, but reported reservations with the site. Occupy members were cautious of police using Facebook to gather information on protesters, while Tea Party members voiced displeasure with censorship of Tea Party discussion by Facebook administrators. This reflects the particular barriers each movement has faced to wide acceptance: Occupy protests were often

Table 2. Importance attached to different technological tools.

	E-mail		Facebook		Twitter	
Importance	Occupy	Tea Party	Occupy	Tea Party	Occupy	Tea Party
Not at all important	0	0	2	3	7	6
Somewhat important	5	0	4	7	6	4
Very important	10	15	9	5	2	5

Note: number in each cell represents raw count.

disrupted by police and mass arrests, while Tea Party members fought for acceptance of their views within the media.

Twitter

According to interviewees, Twitter is not among the main technologies used by either movement at the local level. Although Tea Party interviewees acknowledged the theoretical benefits of Twitter, few reported using it themselves. When Twitter was mentioned, it was mostly viewed as important at the national or organizing level. Twitter seemed somewhat more important to Occupy interviewees, although again, few reported personal use. When Occupiers did rely on Twitter, it was mainly for event updates and photos, coordinating actions, and retweeting information to support other groups.

This finding may seem contrary to previous studies that have identified Twitter as a primary site of political action for Occupy (e.g. Lotan et al., 2011). Our interviewees, who spoke of Twitter as a useful tool for monitoring events in the movement and connecting with other chapters, did not contradict this. However, they did not typically use Twitter as a tool for organizing and acting locally. It should be noted that our interviews are conducted primarily with core organizers, who in previous studies have been found to prioritize Facebook pages over Twitter accounts in the early stages of organizing (Vasi & Suh, in press). These core activists also attended physical protests and meetings, and therefore tended to rely less on Twitter. A study focusing more on lay members would likely find different patterns of usage; indeed, the volume of Occupy-related tweets suggests greater Twitter usage among peripheral Occupy sympathizers.[2]

Websites

Both Tea Party and Occupy participants spoke relatively rarely about websites in discussing their use of technology, perhaps because the interview protocol focused heavily on e-mail, Facebook, and Twitter. Some interviewees reported their Tea Party chapter has a website, but none reported using the website extensively. Among the Occupy groups that rely more heavily on their website, it is mainly used for information sharing; as technologist Joshua noted, 'I view it as a news magazine'. However, one Occupy technologist (Armin) said members are more likely to update their social media page than an Occupy website. Finally, some Occupiers also mentioned hub websites interoccupy.net and occupy.net as resources.

Other technologies

According to several respondents, live-streaming has been crucial for Occupy, especially during its most active phases. Using the platform Ustream, Occupy groups broadcast their meetings live to the Internet to allow participation by members who could not attend the meetings. Meetup.com was mentioned by some of our Tea Party interviewees. In addition, the website Ning emerged as vital to the Tea Party in our web presence analysis, but it was not discussed widely in interviews except by technologists. Tea Party interviewees also reported relying heavily on conference calls to distribute information and make decisions, while some Occupiers mentioned using conference calls.

Values and technology use in Tea Party and Occupy

To address RQ1, we used our analysis of interview responses to identify values that interviewees perceived as important to their participation and to the movement in general. We identified a total

Table 3. List of shared and distinct values for Tea Party and Occupy interviewees.

Shared values	Tea Party-specific values	Occupy-specific values
Accountability, consensus, deliberation, diversity, efficiency, flexibility, honesty, inclusion, personal rights, privacy/security, respect, transparency, trust	Liberty, individual responsibility, personal rights	Equality, direct democracy

of 16 values important to Tea Party members and 14 values for Occupiers; 13 values were commonly shared (see Table 3). In the next section we dive more deeply into liberty and equality, which were the most prominent values mentioned by Tea Party and Occupy, respectively, and then offer insight into four shared values of importance to both groups: privacy/security, inclusion, consensus, and transparency.

Tea party value: liberty

Every Tea Party interviewee mentioned liberty as a primary value, expressing it as the right or freedom to make decisions and to participate on one's own terms, with the individual and local community being preeminent in decision-making. Interviewees across all three roles perceived different technologies as supporting the value of liberty because it gave people the opportunity to share their voices, the freedom to participate when they want to, and the option to participate in the manner in which they are most comfortable. Technologist John points out, 'there is an inherent tendency for modern, virtual communication to enhance liberty. Otherwise, I don't think you would see so many governments trying to control it'. However, some interviewees noted organizations like Tea Party Patriots imposed on this freedom by enforcing a kind of hierarchical approach to organizing and decision-making, and that exclusionary use of conference calls and listservs facilitated this behavior. Members expressed some concern that Facebook's policies undermined liberty, but also expressed an appreciation for the ways in which Facebook allowed for greater liberty of personal expression and political organization.

Occupy value: equality

Equality, which emphasizes fairness and justice, was a critical value to our Occupy interviewees. Interviewees felt social media supported equality because it was easily accessible and low cost, which allowed more people to participate. Additionally, both leaders and members noted social media supported equality by providing a space where alternative media could cover stories ignored by mainstream media, giving voice to underrepresented groups. However, one Occupy technologist challenged the openness of social media, noting it is not accessible for Occupy members belonging to the homeless community, including himself (Gavin). Interviewees also said equality was inherently incorporated into face-to-face General Assembly (GA) meetings and through other offline processes that provided every individual equal opportunity to discuss and participate in decision-making.

Shared values: privacy/security, consensus, inclusion, and transparency

Privacy and security was a primary concern for both groups. Participants voiced concern with how technologies collected, gathered, and stored their information, and were skeptical that they had control over their information. Tension emerged between membership and leadership, with

> a tremendous resistance in pockets of Tea Party to using the electronic social media in any way. Most people don't trust the information, don't trust people not to data mine, and that's a very valid concern … it's one that we balance with the need to have as many people feel welcome to participate as possible. (Anthony, Tea Party leader).

Privacy concerns often conflicted with the efficiency and convenience offered by social media tools.[3]

Consensus, or the idea that decision-making should be group-based, was another value widely mentioned by both groups. This value speaks to the bottom-up organizing principles of Tea Party and Occupy. Consensus was closely tied to the value of transparency, as interviewees indicated the importance of openness in decision-making processes. Though interviewees identified face-to-face communication as most critical in supporting consensus, interviewees also viewed technology as supporting it. The opportunity to discuss issues and build consensus through forums, discussion boards, and Facebook walls was seen as an affordance that allowed Tea Partiers nationwide to participate in decision-making. Members and leaders appreciated both the affordance of online tools to archive records of decision-making processes and to announce decisions. Occupy interviewees across all three roles noted that consensus building in any case was difficult, due to the particular qualities of the movement. Occupy's organizing principles set a higher bar for consensus than did the Tea Party, and their membership was less cohesive.

Inclusivity, or the incorporation of as many voices as possible in decision-making, was strongly supported and mentioned by nearly all interviewees. Movements sought to be inclusive by broadcasting information through as many channels as possible (Facebook, Twitter, websites, e-mail). Technologists explained that social media tools are especially effective in providing opportunities for people to have their voice heard and 'breaking down barriers and inviting people to communicate broadly' (John, Tea Party technologist). Tea Party membership explained they were included in decision-making through processes such as polls and surveys they take via e-mail. One Occupy lay member explained how technologists in his camp created opportunities for marginalized groups, such as the blind or disabled, to have voice by creating keyboard code to mimic hand signals used at meetings (Marcio). As mentioned previously, a value tension emerged between inclusivity and privacy/security, with members wanting greater ability to speak without interference from non-members, while organizers sought open spaces that allowed non-members to be incorporated into the movement. Both leadership and technologists discussed moderation as a work-around to help members feel more secure in these online discussion spaces.

Transparency and *trust* were also values that emerged for both groups. These were so strongly linked that we consider them a single key value: participants said, with near uniformity, that transparency in how the movement and its members deliberated and acted was crucial to building trust. Face-to-face communication was critical to trust-building for both sets of interviewees, as many said that building strong ties required the transparency of intention and identity. Transparency in process was critical for Occupy participants who cited use of Facebook, websites, and Livestream as important to providing 'unmediated' access to information. However, Tea Party leaders reported some conflicts around sharing information: 'There is a faction who think that we should keep things a lot more secret. We believe, in the executive committee, that secrecy is toxic' (Anthony).

Reappropriation and resistance

To address RQ2, we now turn to how the above values manifest in their use, appropriation, and resistance to particular tools. This section will first examine the web presence of each movement in terms of the five key values identified through interviews by drawing on our observations of

each movement's Facebook, Twitter, and website presence. It will then discuss each movement's non-use of different tools and their reasons for resisting use, drawing on our interviews.

Reappropriation and movement-specific values

In terms of movement-specific values, the Tea Party had mixed success in supporting the value of *liberty*, which members routinely specified as 'individual liberty' (Edward), within their online presence. Some members felt they were not free to use Facebook as a decision-making tool (Edith), but ample user participation and comment threads made Facebook a space for the kind of open participation and independent organization users valued (Iris). This is slightly more complicated on Twitter, where user interaction was limited but participation was highly open. The space did not seem to be dominated by a few institutional voices, with little policing of who could participate. Tea Party websites were less supportive of liberty in the spaces most controlled by leadership, such as the news and participation sections; these spaces were tightly controlled, and not open to comment from lay members. In the user-driven sections, however, members could use fake names, share media, and start their own discussions – the kind of activities users said supported personal liberty.

Occupiers considered the technology widely used in their movement as supportive of the value of *equality.* Interviewees said administrative decisions for social media platforms (managing comments, making pages public or private, etc.) were subject to group debate, and the goal at all times was to allow equal participation. In contrast though, most tweets originated from major Occupy organizations rather than individuals, and members were acutely aware of how power inherent to having a large number of followers undermined equality. Websites, as designed through group deliberation, strongly reflected equality as well.

Reappropriation and shared values

Both groups were somewhat able to use these tools to support the values of *privacy* and *security,* which members defined as control over personal information. Members in both movements spoke of the existence and use of private Facebook pages to coordinate action in small groups (Edith, Tea Party; Armin, Occupy), but these were not part of our data collection given our desire to respect participants' privacy. All public Tea Party Facebook pages and 95% of public Occupy pages were moderated. Moderators made most posts, and Occupy pages explicitly allowed anonymous or pseudonymous accounts. Most official Occupy and Tea Party accounts posted only their own information and rarely retweeted private users' posts. Most Occupy websites require at most a name, username, email address, and state to create an account, and discussion sections frequently required login. Tea Party websites, however, often did not support the value of privacy. While users could pick their names to be displayed on the site, many pages were publicly accessible without registering, and users were often urged to sign in using an outside service (such as Facebook or Yahoo!) which would link users' site activity to their activity elsewhere. This disconnect may reflect the fact that websites are designed and controlled by leadership, or perhaps that the designers made a tradeoff between organizational control and usability, or that neither group recognized the possibility that this decision would conflict with members' wishes.

Both groups experienced difficulty in implementing the value of *consensus* through their use of ICTs, and stressed the greater importance of face-to-face discussion in serving this goal (Addison, Occupy; Anthony, Tea Party). Although Facebook pages offered space for debate, few if any decision-making mechanisms were present beyond encouraging individuals to show support via sharing or liking and participating in predetermined protest actions. Support for developing consensus was almost entirely absent on Twitter; there was little discussion via @-replies or

active decision-making. While Tea Party websites offered the capability for polls or other forms of active input, in practice consensus was largely avoided in favor of the mere opportunity to participate in actions whose goals and scope had already been determined by leadership. Occupy websites, however, were widely used to support consensus, offering tools for active decision-making such as polls and forums, as well as the ability to form organizing spaces.

Occupy was successful in promoting the value of *inclusiveness* in their use of digital tools. Facebook pages showed high levels of user interaction and openness, including much cross-posting of other organizations' items on Occupy pages (Steven). On Tea Party pages, however, non-administrators could not post original posts. Twitter was highly open for both groups, and while little discussion was evident, the high level of activity allowed users to participate passively. And though some vetted user accounts and moderated discussions, websites were nevertheless open to all; in interviews, technologists noted the vetting was mostly to keep out spam accounts. It should be noted, however, that Tea Party leaders reported frequent use of deliberately non-inclusive tools such as e-mail and conference calls to exclude some members from high-level discussions, and said these tools were used to limit the number of people involved in the discussion (Deborah). Additionally, Tea Party websites rarely link to other Tea Party websites.

Finally, there were mixed results for *transparency and trust*. Facebook use seemed to represent a successful implementation of trust, as users frequently interacted. Tea Party members found their fellow posters' identities to be transparent (Iris), while Occupy Facebook pages and websites offered information about groups and meetings, including minutes or even recordings (Sam). On Twitter, however, little trust was evident, as accounts mostly ignored other users in favor of isolated broadcasts of information and links. As for websites, some trust could be built on user forums, but the use of moderation, the vetting of accounts, and the one-way nature of most participation would seem to discourage trust.

Non-use in Tea Party

Issues of privacy and security, as well as skill level and information overload, were most often mentioned as reasons for not using particular technologies. Interviewees suggested Facebook's treatment of users' personal information was one reason they did not use Facebook. Several interviewees mentioned they do not use Facebook because of trolling, or because they heard about someone else being censored for posting, which at least one interviewee said felt like an infringement on her right to free speech. Many interviewees described Twitter as confusing, saying it provided too much information or that they did not feel they had the skill set to manage it well. Interviewees often perceived Twitter to be useful for national-level conversations, but of limited use for local-level participation. Websites were hardly mentioned as useful tools by interviewees. Leadership in Tea Party Patriots mentioned that, despite several attempts to re-launch the website, they were unable to draw membership to use the site or the social networking functions.

Non-use in Occupy

The reasons for non-use of technology in Occupy were that tools did not allow users to control their own data, users did not find the tool to be useful, and, to a lesser degree, internet access was lacking. The non-use of Facebook was mostly due to privacy and security concerns. Those who did not use Twitter noted that at the height of the movement it was a critical piece of the communication ecosystem, but its centrality waned over time. The issue of accessibility also arose, as Gavin noted his limited access to the internet meant he focused on more simple and efficient ICTs, such as e-mail.

This mismatch between the tools and the users' values resulted, our participants said, in the creation of a set of open-source tools for Occupiers' use (hosted through Occupy.net). This countered the lack of control users felt they had over their information, as well as addressing some of the privacy concerns many participants worried about in using corporate platforms. At a national level, an entire team is still dedicated to creating open-source websites and tools that support the different organizational needs of Occupiers while still adhering to the community values.

Conclusion

Supporting the findings of previous research, our interviews show that ICTs have reshaped the external and internal communication strategies of social movements. (Van de Donk et al., 2004). However, we found that social movement actors take a far more strategic approach to their use of technology than simply folding an existing tool into their communication portfolio. As DeWilde and colleagues (2003) and Bennett and Segerberg (2013) suggest, ICTs shift the power dynamics in social movement politics. By examining the values and use decisions of leadership, technologists and lay members, we find that conflict between stakeholders plays a role in the technology strategies of both Occupy and Tea Party. We find leaders and lay members exercise careful consideration about which tools they use. While leadership may be more open and willing to use a variety of tools to create efficiencies in organizing and mobilizing, ultimately our interviewees suggest tools are often rejected in favor of simpler face-to-face or email communication, where users feel bonds of trust are better established. At times, however, leadership and technologists still define the parameters of meaningful action, as we observed on websites where lay members were unable to post freely.

Supporting previous studies (Hughes, 2004; Mackenzie & Wajcman, 1985; Winner, 1986), our interviews confirm that technology is not value-neutral. We build upon such studies by revealing the ways users felt technologies supported or did not support their movement's values, and by examining those tools in the context of each movement's communication strategy. The approach both groups took to Facebook and websites did not consistently reflect the key values of inclusion and consensus. However, we found Occupy's design decisions better supported our interviewees' values than did the approach used by Tea Party leaders. On Tea Party sites we found user autonomy regularly undermined by decisions such as limiting opportunities to post original content on Facebook pages and limiting website interactivity. We learned Occupy participants experienced difficulty in achieving consensus about how to integrate online tools into their political activities, as power struggles emerged between those who valued on-the-ground action more than online action. This struggle was reflected in Occupy's approach to making technology decisions, which interviewees suggested supported equality and transparency by allowing user input regarding the establishment of rules for how the tools would be managed.

Few studies employing the VSD approach in civic contexts have adequately examined power. In this study, we examined the power dynamics at play between stakeholders in the online organizing strategies of Tea Party and Occupy. When faced with platforms limiting the autonomy of each group to make design choices, each group exerted power by attempting to develop their own platform, though Tea Party was more successful than Occupy in doing so. When conflicts emerged between the values of users and leadership, it appears that non-use by members had a greater influence on the outcomes of such conflicts, with leadership and technologists expanding their outreach strategies to incorporate the tools members ultimately preferred. The affordances of current ICTs, then, would seem to offer members of social movements the ability to route around power differentials and act within spaces suited to their goals.

Acknowledgements

The article benefited from comments received on earlier versions. The authors particularly wish to thank the anonymous referees for excellent comments as well as Yuri Choi, James Ketaily, Ezra Oyce, Nathan Potts, and Alexis Yurovchek for their support during the data collection phase.

Notes

1. We note here that the distinction of 'leadership' is potentially problematic for participants in both groups, as there is a claim to the 'leaderless' nature of each. We employ these words simply to help draw meaningful comparisons between the different values and goals of members who indicate they have taken on more responsibility at times or when they hold leadership titles such as 'State Coordinator'.
2. While our interviews took place well after the height of the OWS movement and may contribute to their perception that Twitter was less important, we asked interviewees to reflect both on their current uses and attitudes towards Twitter and on their use of it during the time of their most active participation.
3. Some Tea Party interviews took place during the time of the PRISM scandal, which may have contributed to heightened concern around privacy.

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