

Identity-Based Roles in Rhizomatic Social Justice Movements on Twitter

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Abstract

Contemporary social justice movements can be understood as rhizomatic, growing laterally without a central structure. In this mixed methods study, we investigated the roles that activists develop based on their personal and professional identities and carry with them through the dynamic landscape of rhizomatic social justice movements on Twitter. We conducted interviews with self-identified social justice activists and analyzed seven weeks of their Twitter timeline and retweets. We found three activist roles—organizer, storyteller and advocate—and described the identities, approaches to activism, behaviors on Twitter, and the relationship to social justice movements for each role. We used these roles as a lens to better understand how movement identities are constructed, laid out an agenda for future research on roles in rhizomatic social justice movements and suggested design directions.

Introduction

Social movements work outside of existing political structures to unite a network around a social or political issue (Tarrow 2011). Operating somewhat autonomously from existing institutions and governments, the internet has provided a meeting ground for like-minded individuals to gather, discuss and mobilize, providing a means to resist dominant sociopolitical narratives and structures (Castells 2015). Through the use of social media, social movements such as Occupy, the Arab Spring and Black Lives Matter have transformed our political and social landscape.

Funke describes our current era of networked social movements as the “rhizomatic epoch of contention,” a metaphor likening social movements to rhizomatic plants, which have underground stems that grow horizontally, periodically putting out lateral shafts and growing roots for support (Funke 2014). The metaphor, originating with Deleuze and Guattari (Deleuze and Guattari 1988), is used by some social justice activists and researchers to describe the horizontal nature of social movements (Castells 2015), and the interconnectedness of movements and movement actors around the world and across different social issues.

HCI and related fields have primarily studied movements through the mechanisms and affordances of social media platforms (e.g. (De Choudhury et al. 2016)) or by developing and studying applications developed for a social movement (e.g. (Dimond et al. 2013)). However, by studying networked movements through the lens of a single hashtag or application, we lose sight of the rhizomatic interconnectedness of movements and activists. As a result, we understand very little about the roles activists play as they participate in a succession of campaigns toward long-term social change. Twitter has been instrumental in many transformative social justice movements of the last decade. It is essential to understand how social justice activists enact activism on Twitter, negotiate between personal and movement goals and identities, and how this affects their identity construction and affiliation with a broader movement.

In this mixed methods study, we interview 12 activists representing a range of ongoing social justice movements in the U.S., U.K. and Canada, and analyze the tweeting behavior (timelines and retweets) of 11 of them. Using a grounded theory approach, we identify three activist roles: organizer, storyteller and advocate. Participants describe these roles in terms of their personal and professional identities, suggesting consistent role-based behavior over time and across hashtag campaigns. We then validate these roles and their stability through an analysis of feature use and tweeting behavior. We learn that activists amplify aspects of their identity to align with a movement agenda and take on roles shaped by their professional identities and goals. Aspects of identity, such as race, ethnicity, ability, gender, sexuality and geography impact decisions about the movements they participate in, but professional identity influences how they participate, shaping the roles they take on, and affecting the construction of movement identities.

Related Work

In this section, we review the literature on internet-enabled social movements with a focus on their rhizomatic nature. We then present theory on identity in social movements and discuss how movement identity construction has been studied in online movements in HCI and related fields. We suggest that professional identity has not been adequately con-

sidered in movement identity construction. Drawing from research on roles in emergent and self-organizing communities, we submit that the roles activists play are shaped by their personal and professional identity.

Rhizomatic Social Movements

Internet-enabled social movements lack the centralized structures typical of traditional social movements. Funke uses the image of a rhizome, a plant that grows laterally, occasionally putting down roots with no central structure (picture a ginger root), to describe contemporary social movements (Funke 2015). In rhizomatic movements communication serves as infrastructure, shaping and organizing social relations across a fragmented landscape (Funke 2015). Social media plays a pivotal role in that communication infrastructure, facilitating the formation of ad hoc networks using features such as hashtags (Bruns and Burgess 2011). In 2011, with the Occupy Movement and the group of protests and revolts known as the Arab Spring, social media proved pivotal in mobilizing networks for collective action. Tasks once associated with an SMO were accomplished by volunteers with Twitter accounts and spreadsheets distributed around the world (Tufekci 2017).

Bennett and Segerberg theorize that the affordances of social media have shifted movements from collective action to "connective action," using features like hashtags to connect individual acts of personal expression (Bennett and Segerberg 2012). Connective action can be compared to other forms of crowdwork, where individuals make contributions while underlying mechanisms produce a coherent whole (Bennett, Segerberg, and Walker 2014). This is evidenced by how contemporary social movements can be referred to by a hashtag, e.g. #metoo or #BlackLivesMatter.

Researchers sometimes refer to a single hashtag, such as #ILookLikeAnEngineer, as a hashtag movement (Liu et al. 2017). However, Freelon et al. argue that movements like Black Lives Matter are more than a hashtag (Freelon, McIlwain, and Clark 2016). The Black Lives Matter movement encompasses both online and offline actions and multiple networks of individuals and organizations. Their study of the movement on Twitter covered 23 keywords and their corresponding hashtags (Freelon, McIlwain, and Clark 2016), illustrating its emergent and rhizomatic nature. In this study we distinguish between a single hashtag campaign (e.g. #ILookLikeAnEngineer) and a rhizomatic social movement such as Black Lives Matter that encompasses multiple hashtags, and online and offline actions and networks.

Emergence in Rhizomatic Movements Online social movements emerge from a group of likeminded individuals who often have existing relationships. Participants in Occupy Wall Street, for example, were found to be highly-interconnected on Twitter (through retweets and mentions) in the months prior to the start of the movement (Conover et al. 2013). Interviews with activists on the ground in Tunisia in the early days of the Arab Spring, suggested that a group of friends were converted into an activist network partially through the use of Facebook (Wulf et al. 2013). Similarly, the 2013 Gezi Uprising started with a small protest of 50

connected individuals. According to Budak and Watts, even as the protest grew to encompass diverse participants and opposing political parties, protesters were likely to have voiced support for opposing political parties on Twitter before Occupy Gezi (Budak and Watts 2015).

A movement on Twitter forms through network of highly interconnected users, but movement growth relies on actors at the periphery of the network who spread movements to new audiences (Bennett, Segerberg, and Yang 2018) (Barberá et al. 2015). While each individual in the periphery may be less committed to the movement, producing fewer tweets, in aggregate their participation is just as important as participation by the committed core because of their ability to increase the movement's reach (Barberá et al. 2015). Retweeting is the primary way peripheral actors spread a movement and connect likeminded users (Papacharissi and de Fatima Oliveira 2012). In a UK study, retweets accounted for an average of 72% of activist tweets (Potts et al. 2014).

While participants might be peripheral in a movement, they may be influential to other audiences (Bennett, Segerberg, and Yang 2018), spurring the growth of a new branch of a movement. Movements also spread through tweets by mainstream media, public figures, and celebrities. In some cases activists have successfully amplified their messages to and through legacy media (Freelon, McIlwain, and Clark 2018), but messages may be misrepresented or distorted by the mainstream (Bonilla and Rosa 2015). Despite gatekeeping efforts by activists (Meraz and Papacharissi 2013), celebrities and legacy media still have significant influence on how the public perceives movements (Bennett, Segerberg, and Yang 2018).

Storytelling and Narrative Processes Storytelling and narrative are important tools for learning, making sense of events, shaping identity, and motivating action (Ganz 2011). The social processes by which participants negotiate the language that shapes collective identity and action is referred to as collective action framing (Benford and Snow 2000). Individuals play a role in co-creating collective action frames (e.g. Occupy Wall Street's "We are the 99%!") through sharing their experiences and perspectives (Ganz 2011). Pappacharissi and de Fatima Oliveira's study of #Egypt found that Twitter users disseminated information alongside personal news, reflections and emotional responses, inserting their personal experience into the larger narrative (Papacharissi and de Fatima Oliveira 2012).

Activists also make sense of events by reporting them as they unfold (Al-Ani et al. 2012) (Bowman and Willis 2003). For example, roughly 146,000 tweets were published regarding Michael Brown's shooting death on the day it occurred in Ferguson, MO (Miners 2016), but it took two full days before cable news reported the incident. These tweets shaped the narrative, framed the problem of police brutality against Black Americans and set the stage for the protests to follow (Jackson and Foucault Welles 2016).

Often a small number of activists with expertise in social media have a significant influence on how movement narratives are framed (Costanza-Chock 2012). Marwick and boyd describe these users as crowdsourced elites, because

they are awarded elite status through retweets and gaining followers (Marwick and Boyd 2011a). Crowdsourced elites may emerge as de facto spokespersons or thought leaders for a movement; however, they lack the legitimacy that formal selection processes would grant them, sometimes leading to conflict within the movement (Tufekci 2017).

Identity in Social Movements

The goals of current social movements remain complex and far reaching, and social progress is notoriously slow and difficult to measure (Postmes and Brunsting 2002). In the U.S., for example, movements for civil rights, marriage equality, and equal pay for women have spanned generations. Therefore, ongoing voluntary participation in a movement is essential to achieving long-term goals (Snow, McAdam, and others 2000). Among the chief motivators of ongoing participation is the salience of a movement identity for individuals (Snow, McAdam, and others 2000).

Social movement theory draws from social identity theory to elaborate on identity construction processes of movements and their members (Postmes and Brunsting 2002). According to social identity theory, association with a group informs an individual's self-concept, the meaning and beliefs one holds about oneself. Individuals seek and benefit from the positive social identities derived from membership in groups (Reicher, Spears, and Postmes 1995), but also seek to differentiate themselves from the group in order to be recognized as a unique individual (Brewer and Gardner 1996). Through identity construction processes the movement identity becomes more salient, identification with the movement is strengthened, and the distinction between personal identity and collective identity becomes blurred (Snow, McAdam, and others 2000).

Identity in Online Movements Although social movements may pursue long-term goals and far-reaching social change, the study of identity in online movements has largely focused on specific hashtag campaigns. There is not consensus about whether online participation in a movement is sufficient for developing salient movement identities; or whether developing a collective identity is necessary for a successful networked movement (Bennett and Segerberg 2012). This may be because the relative importance of a movement identity to an individual's self-concept is difficult to study when looking at such short-term engagements.

In Li et al.'s study of the 2017 Disability March, they found that through participation in the virtual march on Facebook, participants amplified their identity as a person with disabilities and as an activist and suggested that participation led to identity transformation for some participants (Li et al. 2018). Liu et al.'s study of #ILooklikeAnEngineer discussed similar accounts of empowerment and strengthened affiliation amongst participants, but also found that some participants resisted identifying as an activist and felt that activism was a risk to their career (Liu et al. 2017).

Professional identity is the attributes, beliefs and values that make up one's professional self-concept (Ibarra 1999). On Twitter, professional identity construction occurs through information sharing, networking and developing ex-

pertise with professionals in the same field, but not necessarily the same organization (Gilpin 2010). Communities of practice develop on Twitter where professional jargon, rhetoric and practices are discussed and debated (Ross et al. 2011) and where grassroots professional development occurs (Forte, Humphreys, and Park 2012).

Research to date has not associated professional identity with participation in social movements online, except in reports that participants sometimes fear repercussions in the workplace for their activist involvement (e.g. (Liu et al. 2017)). Because Twitter flattens all of a user's followers into a single audience, users are forced to present a singular identity that reads to diverse audiences (Marwick and Boyd 2011b), including professional networks and movement networks. Therefore, to understand social justice activist roles as they play out on Twitter, it is necessary to also consider an activist's professional self-concept.

In traditional, offline organizations, roles are usually formally assigned, designated by job titles and accompanied by a set of socially constructed responsibilities and expectations (Ebaugh and Ebaugh 1988). In self-organizing online communities roles are emergent and self-selected (Yang et al. 2019). The boundaries of a movement are less well-defined than an "online community" as the literature defines it and activists are known to move from movement to movement (Roth 2000) (Costanza-Chock 2012), suggesting that, rather than emerging from a specific social context, roles develop based on an individual's own experiences and identities.

In this study, we investigate the identity-based roles that activists develop and carry with them from one hashtag campaign to the next. Previous literature has shown that the connection between personal and collective identity is fundamental to social movements; we consider the role of both personal and professional identity in shaping how activists participate in movements on Twitter, construct movement identities, and contribute to rhizomatic social movements.

Methods

In this study, we conducted and analyzed 12 semi-structured interviews with self-described social justice activists who use Twitter. To deepen our interview findings, we developed a corpus of tweets by or referencing 11 of the 12 interview participants (one interviewee was on a social media break).

Interviews

We recruited social justice activists who use Twitter through Facebook and Twitter posts and by asking activists within our personal networks to forward a recruitment email. Participants were at least 18, had a minimum of 1,000 Twitter followers, and reported using Twitter for activist purposes a minimum average of once a day. Our consent form specified that, while we would not disclose names, locations, usernames, or organizations, because they work in the public sphere, participants are potentially identifiable, and we could not guarantee anonymity. In an effort to protect participants' identity, all tweets quoted in this study are paraphrased.

One-hour phone or Skype interviews were audio recorded, transcribed and analyzed using a grounded theory

approach. The interview protocol included questions about the participant's identity, their definition of activism, their history of activism, how they enact activism on Twitter, and the challenges that they face.

Through a process of open iterative coding, 135 codes were collapsed into 9 categories: identity, goals and motivations, Twitter feature use, audience, community, rules guiding Twitter behavior, challenges, success and failure. Based on our coding, we developed a profile for each activist, including how they identify, their goals and motivations, their concepts of audience and community, and how they reported using Twitter. From these profiles, we noticed a relationship between the way participants described their activism, the metaphors they used to describe themselves, and their professional background or expertise. From the observable similarities, we developed three activist roles.

Tweet Corpus

The corpus of tweets began with the accounts of 11 of the 12 interview participants. We used the Tweepy Python library to access the Twitter API filter. From May 23-July 11, 2016 we accessed three types of Twitter data: 1) all tweets from the 11 activist accounts 2) all mentions of those users, and 3) each instance that a tweet from one of the 11 activists was retweeted (whether or not the tweet was original to the activist). In total, the corpus includes over 1 million tweets.

From all the tweets scraped we created two sets of data for closer analysis: the timelines of the 11 participants, totalling 5,598 tweets, and a set of 1,346 unique retweets of participant's original tweets (both with quotes and without).

Our interview analysis suggested that participants enact different activist roles. Therefore, in the tweet corpus we looked for observable differences in tweeting behavior, such as tweet frequency and feature use. We tested for independence of activist type and feature use with a contingency table analysis. To gain a fuller understanding of tweeting behavior, we also examined tweet and retweet frequency by each user over time, especially as related to major news events, and generated descriptors of the corpus such as the most retweeted tweets and popular hashtags.

Participants

Participants were self-identified social justice activists who use Twitter for activism. Ten participants were women; two were men. Ten lived in the US across 7 different cities, 1 in Canada, and 1 in the UK. Interviewees described themselves across a range of identities: 4 Asian, 3 Black, 2 Latinx, 2 White, 3 queer, and 2 disabled. (Not all participants identified along every dimension.) Many work for multiple causes and/or incorporate intersectional approaches in their activism. Their activism spans feminism, Asian-American issues, immigration, Muslim-American issues, Black issues, Latinx issues, disability rights, Black Lives Matter, racial justice, LGBTQ rights, the environment, international human rights and poverty. Participants had between 1K-41K followers, with a median of 3.5K followers, at the time.

Findings

Our data illustrate how activists' personal and professional identities affects the construction of movement identities and the roles that they enact in online movements. Participants amplify aspects of their identity to align with a movement; this manifests as expressions of authenticity and the sharing of personal experience. We describe three different activist roles that emerged from our interviews and analysis of the tweet corpus: storytellers, advocates and organizers. Each role enacts social justice activism and constructs movement identities differently online. Concurrently, their Twitter use reveals tactics shared across roles and the challenges and risks of doing social justice work on Twitter.

Identity Amplification

Study participants reported incorporating aspects of their personal identity (e.g. Asian American or person with a disability) into their activist tweets in an "authentic" way, allowing their unique perspective to shine through.

Identity amplification lends authenticity to activism. An experienced organizer, P7 works for an immigration rights organization. She realized that she could more convincingly tweet about immigration if others understood the importance of immigration to her:

I felt more like I had to talk (on Twitter) about being Jewish and how that connects me to my concerns about Syrian refugees. They sound like my grandparents, and it's the same shit that happened to my family when they weren't allowed to come here.

As a result, P7 now posts tweets on her personal account such as, "Waiting on papers got my family murdered by Nazis. I wish they came over undocumented." Participants expressed the belief that personalizing their activist tweets helped them stand out and gain visibility, while also helping them connect with others.

Study participants described Twitter as a tool to "build a personality" (P1) and reflected on how their Twitter personas represented their core values. P10, for example, described her Twitter persona as "diasporadical," a term she devised to reflect her uniquely radical dedication to inclusivity.

Authenticity was an emergent theme in the interviews. Most participants stated that they were "just themselves" on Twitter. Participants contrasted authenticity to strategies associated with self-marketing, such as having a "personal brand" (P11) or "platforming my voice" (P10). P11 asserted that authenticity was key to her success on Twitter, "I'm ME on my personal account...I'm not necessarily on message, but it's that authenticity that attracts people."

Identity-Based Activist Roles

Our data revealed commonalities in how participants approached and enacted activism on Twitter based on professional identities and experience. Participants described their activist goals and use of Twitter to further those goals in terms related to their professional identities and fields of expertise rather than in terms of the agendas of movements they are affiliated with, suggesting that they bring these practices and goals to whatever campaign they participate in.

	Story.	Adv.	Org.
Tweets per day	8.02	14.38	14.8
Follower count	7352	3065	6464
Friends	.268	.397	.658
Retweeted	.293	.135	.152

Table 1: Average tweets per day per, follower count, the ratio of followers that the participant follows back (“friends”), and the ratio of tweets that were retweeted at least once by another user per each role. N=11.

	Story.	Adv.	Org.
Retweets**	.316	.502	.469
Mentions**	.398	.38	.516
Hashtags*	.351	.29	.26
Url**	.383	.358	.214
Media**	.205	.236	.165
Text Only**	.412	.29	.192

Table 2: Description of feature use by activist role. Ratio of participant tweets that are retweets, that contain a mention, a hashtag or that are text only (containing no features, links or images). Using a chi-squared test for each row, the results show non-random differences in feature use among roles. N=5,998; df=2; *p<.0005, **p<.0001.

Based on the interviews, we found three different identity-based roles: organizers, those mobilizing others to take action (N=4); storytellers, those actively creating content to shape the broader narrative (N=5); and advocates, those focused on amplifying the voices of underrepresented people (N=3). Interviews indicated that different roles use Twitter for activism differently, leading us to expect them to use Twitter features differently. We analyzed tweet frequency, feature use, the percentage of followers they follow back, and the percentage of their tweets that are retweeted by others as seen in Tables 1 and 2. Although a small sample, the results support role-based differences in tweeting behavior. We describe each role in detail according to the professional identity and experience of the participants, how they enact their activist goals on Twitter, their observable Twitter behavior, and how they construct movement identities.

In order to compare how different activist roles engage with social justice hashtag campaigns, we looked at tweets in the corpus around three major events: the mass shooting at Pulse, a nightclub in Orlando, during an LGBTQ event, including the House of Representatives’ sit-in to force a vote on gun control legislation; Black Lives Matter protests in response to the shooting deaths of Alton Sterling and Philando Castille; and the Rohingya crisis in Myanmar. Ad hoc publics are known to form around acute events with the use of hashtags (Brunns et al. 2016). Ten of 11 participants tweeted in response to the Pulse shooting and Black Lives Matter, and the eleventh participant tweeted extensively about the Rohingya crisis. While the number of tweets by each activist varies across the three movements, the qualitative descriptions of their participation lends to an understanding of roles in social justice activism on Twitter.

Organizers: “The Social Arsonist”

Organizers play a pivotal role in social justice movements, building communities from the ground up based on shared and co-created values. Four participants in this study are professional organizers who bring the methods and values of organizing to their personal tweeting.

Organizers persuade others to act in their self-interest and for the common good, and create the conditions that allow for collective actions to have impact in the public arena. P7 describes it as, “Organizing is specifically about working with other people to get them to do things.” In describing their work, organizers referred to themselves as a “political organizer,” “union organizer,” and “social arsonist,” (a term used in organizer training materials (Ross 1989)). All four organizers run or are employed by SMOs. They all also either consult or volunteer for additional social justice organizations.

Inspiring Action Organizers described their role within movements on Twitter in the same terms they used to describe offline organizing—to inspire others to act. They compared Twitter to traditional organizing tools, as P6 explains:

The model that we were trained on...is you house visit people that are trying to organize a union, and you talk to them, and you always bring a flyer or something with you. But that’s only just to get in the door and to leave something with them so that they will remember you. I feel like the Twitter thing is now that flyer.

A tweet is the first interaction of an ongoing conversation. In response to the mass shooting at Pulse Nightclub, P7 tweeted “If you don’t take action in support of LGBTQ people, you’re against us.” She tweeted provocative quotes from Orlando’s LGBTQ community, such as this headline, “They’re killing us. Help us stop them.” These tweets did not link to a petition, fundraiser or protest event, yet they are intended to stir emotions and ignite action.

Building Community Organizers take a relational approach to Twitter. They follow back 65.8% (Table 1) of their followers. Organizers discussed building a community of “fairly likeminded people” by “propogat(ing) knowledge...along a certain set of themes or world view” (P2). To that end, 46.9% of their tweets are retweets and over half of their tweets mention other users (Table 2). They are less focused on composing original tweets or sharing off-Twitter content. Only 19.2% of their tweets are text only, containing no features, and only 21.4% contain urls.

Coordinating Hashtag Campaigns Organizers design, launch and monitor hashtag campaigns, which often requires a great deal of pre-planning and strategizing. To the casual Twitter user, the emergence of hashtag campaigns may appear organic. However, campaigns often require planning and coordination. P2 explains:

I think we can’t pretend that those things (campaigns like #sayhername) are all essentially coordinated, but I also think we can’t pretend that those things aren’t happening without the expertise of some very sharp organizers and concerted campaigns.

Organizers design, launch and monitor hashtag campaigns. All twelve participants reported starting their own hashtag or being involved in launching a hashtag campaign. The storytellers and advocates used hashtags to differentiate themselves or to position their work within broader conversations. Organizers, however, created hashtags that encouraged participation from other users, calling them to action and inviting them to join the conversation.

Both P2 and P12 reported using Twitter responses to suggest directions for campaign design. P2 described using Twitter "to test ideas [on race in America] out and see what gets traction and what doesn't." P2 openly discussed a past hashtag campaign for which she and her organization received blowback. The negative response helped her reframe the message and develop a more appropriate hashtag.

Another tactic for both community building and to testing ideas in a public forum are Twitter town halls. A town hall is a moderated discussion held at a specific time around a particular theme, sometimes featuring experts. Participants in the discussion use a hashtag allowing for the town hall to be found, read and archived. P12 and P7 discussed town halls as a tool to engage and educate the public on Twitter.

Strong Movement Affiliation During interviews organizers described themselves firstly by their movement affiliations, demonstrating the salience of movement identities. Their movement identities also expand into their non-activist networks. For example, P7, took on an organizer role in a comic book fan community, helping transform community outrage at a transphobic comic book scene into action by encouraging fans to organize and contacting people who could put pressure on the publisher: "I've worked in the movement long enough that I know who to call at GLAAD. I know who at the DNC cares about comics and stuff like that."

Organizers were least comfortable with the level of visibility that Twitter demands and were reluctant to reveal aspects of their personal identity. All four organizers recognized that revealing their personal experiences would lead to their success on Twitter, but to varying degrees had difficulty reconciling this with their training as an organizer. This discomfort stemmed from an understanding that organizing is inherently other-focused.

Storytellers: "The Town Crier"

Storytelling is creating narratives through journalism, blogging, essay writing, personal narrative, and other forms of creative writing and media production. The role of storytellers within a movement is to contribute to movement narratives and direct the public's attention to social issues. Storytellers use Twitter as a publishing tool to make sense of unfolding events, and influence movement narratives. They do not necessarily seek to represent a movement, but instead to shift the discussion and shape action through story.

Five participants in this study are professional writers who use Twitter for social justice movements in ways that closely align with their professional identity. They expand their movement identities to their writing and their self-presentation online; however, they also expressed a fierce independence, describing themselves with titles such as,

"provocateur" and "town crier."

Publishing Storytellers develop a voice on Twitter and through off-Twitter content, earning a reputation as an authority in a particular area. Storytellers use Twitter primarily to publish original content rather than retweet others. They have the lowest retweet rate of the three types at 31.6% and the highest percentage of text only, original tweets at 41.2% (Table 2). They often tweet links to articles written by themselves or others, which is reflected in the high percentage of tweets with urls (38.3%).

They use Twitter as a publishing platform, having fewer friends and retweeting others less often. They only follow back 26.8% of their followers (Table 1). Collectively, this suggests that storytellers use Twitter as a one-directional tool to amplify their stories, and they are rewarded for it: 29.3% of their tweets were retweeted at least once by others—a rate roughly twice that of organizers or storytellers. However, they use mentions and hashtags at rates comparable to the other roles. This may reflect practices described in the interviews of crediting others and using hashtags to contextualize their work as part of a broader narrative.

Meaning Making In response to unfolding events, storytellers work to make meaning and provide context, often through personal experience or reflection. They may or may not use movement hashtags in these tweets, which tend to be text heavy. Storytellers tweeting about Black Lives Matter included insights such as, "The responsibility to address these issues has fallen to black people, and it's not their problem to fix" (P9) and "When will we address racism and state violence?" (P3) and often included links to articles, blogs and think pieces that address these topics. P5 curated videos of people reading poems by Black authors to help contextualize Black Lives Matter within an ongoing African American literary tradition. Maintaining a blog and a cohesive Twitter timeline is another way of making meaning over time. P1 has been maintaining a blog since 2001 on Asian-American issues. Although he describes himself as a journalist first, he has evolved to think of himself as an activist, drawing attention to important issues for Asian-Americans and becoming increasingly involved in other forms of political action.

Influencing the Narrative P3 tweets about disability rights from the perspective of someone who is queer and disabled. He uses his personal experience to expand the conversation within disability rights movements:

We're always talking about disability from a very outside discussion. We're talking about access. We're talking about elevators and ramps and healthcare and funds in the medical system and blah, blah, all that stuff. No one's asking, 'How does disability feel? How does disability feel from the inside out?'

Because cultivating an audience sympathetic to the reality of living with a disability has the potential to change the narrative about disability, P3 also writes articles and hosts a podcast about dating and sex. P3 makes a point of tweeting openly about his own sexuality in an effort to counter the desexualization of people with disabilities.

Other factors influence the narratives that storytellers write. P9 uses her positions as a journalist to investigate issues that "highlight marginalized people who often don't get their stories told." However, both her Twitter persona and audience are somewhat shaped by the news site that she writes for and the beat that she covers. P9 laments that although she now has more followers, they are not as radical as the audience she had when she freelanced for a feminist blog, nor do they engage her in conversation about her work as often.

Personalized Movement Identity Storytellers personalize their activism, using their personal identity and experiences to shape movement narratives. Three of the five storytellers have usernames that describe themselves by their ethnicity, sexuality or ability, amplifying those aspects of their identity that align with social justice movements (and are the only three participants in the study who do so. They describe themselves as working independently from movements, giving them the freedom to take risks that would be dangerous or bad strategically for an organizer, and the distance to report with journalistic objectivity. P4, for example, holds on fiercely to her independence:

I'm a writer, and I expose things in my writing...social justice is a nice, comfortable word for the non-profit industrial complex. I'm not here to make you comfortable...I feel like I'm independent. I'm not part of that, and I don't want to be.

Advocates: "The Radical Witness"

Advocacy is supporting others to make their voices heard. Within a movement advocates focus on networking and building bridges to increase a movement's visibility. Advocacy does not translate as easily to single profession as the other two roles, but is associated with positions across industries in public relations, marketing and public policy. On Twitter, advocates amplify the voices of other by expanding their personal networks through retweeting and mentions and bridging affected communities to other networks.

Of the three advocates in our study, two have a background in marketing and are entrepreneurs and the third has worked in advocacy for education and human rights agencies for decades. Their current professions include promotions, public relations and social media strategist. They construct their identity through their expertise and the role that they play. They describe themselves as a "radical witness" and "someone who sticks their nose in." They do not associate with a single movement, but further a number of related causes, such as human rights issues in various countries, the environment or alternative economies.

Amplifying Voices In line with their mission to amplify others, advocates combine the one-directional behavior of storytellers with the relational behavior of organizers. Advocates make use of all Twitter features, with slightly higher rates of publishing retweets at 50.2% (Table 1).

Advocates build relationships and support by retweeting others. P10 is dedicated to promoting artists of color, especially those of Caribbean and Afro-Latino descent. She describes her role in amplifying other people's experiences on Twitter, which she connects specifically to retweeting:

I try to be a radical witness...I really try to honor that and witness people and not lurk, and not just favorite, you know. Whenever someone favorites me, I go and I retweet something of theirs.

Building Bridges When a movement aligns with their personal beliefs, advocates draw from their professional identities to bring attention to the issue, even if it does not overlap with their personal or cultural identity. P8, who is geographically and culturally removed from the events, tweeted frequently and passionately about the Rohingya crisis in Myanmar calling out "#Genocide! #Genocide!" and posting petitions. These actions serve as a bridge between affected groups and those with more access and agency.

Advocates also represent the needs of groups that they are a part of. P11 tweets regularly about state and local politics, especially as they concern a local water crisis. She described a tweet of hers about the water crisis that went viral, calling on the state to bring water to a particular location in need. She tweeted regularly about the crisis, wrote about it offline and was interviewed by local newspapers. She also became the lead class rep for a class action lawsuit against the state. The entirety of her tweets, which she described as "a real life timeline of a crisis," were read in the deposition.

Constructing Unique Movement Identities The advocates each framed their activism around their values and unique talents as opposed to their association with a particular social movement. They sometimes personalized their activism in innovative and ingenious ways. P11 gave herself the title of "social media senator" and set out to bridge the divide between residents of her region and state politicians through tweeting. As advocates often serve to bridge a movement to other networks, their movement identity may be constructed through interactions with both groups.

Cross-Role Tactics

Roles in rhizomatic movements are self-defined and based on a combination of identities and experiences particular to each activist. In our analysis, we found that personal and professional identity shaped activist participation, and we grouped participants into three roles—organizer, storyteller and advocate—based on these identities and their behavior on Twitter. Identity, even professional identity, is complex, and therefore, a single role could not account for Twitter use in all cases. Several of the participants had professional identities that straddled storyteller and organizer roles, and this informed their activism: organizers with storytelling experience reported sometimes using storytelling tactics to persuade others, and one storyteller with organizing experience used organizing tactics to create a moment of collective storytelling through a hashtag campaign. While some participants expressed a discomfort with self-promotion, participants in all three roles recognized its necessity on Twitter, reporting behavior we characterize as self-advocacy.

The Importance of Self-Advocacy Activists, especially those from marginalized groups, need to advocate for themselves. Participants in all three roles discussed the need

for self-advocacy, including posting about speaking engagements, interviews, publications and even soliciting work to make themselves heard. For example, P3 reported tweeting directly at magazine editors asking, "Hey, want to hire somebody cool with a disability?" P3 also developed relationships with celebrities to further his cause, persuading an adult film star to mention him and use his hashtag.

Challenges and Risks

Bringing aspects of one's professional, personal or cultural identity to Twitter for the potentially contentious work of activism makes activists especially vulnerable to harassment. All of the participants experienced some form of harassment, account hacking, death and rape threats, and even receiving threats of harm to one's child and experiencing a home break-in. Participants also encountered challenges around finding success on Twitter, engaging the right audience, and leveraging aspects of their personal identity to maintain authenticity and credibility.

Storytellers often reveal personal information in the course of reporting, making them vulnerable to attacks, but they also typically lack the institutional or social support of an activist who is more embedded in a movement. Storytellers expressed concern about journalists or editors from mainstream media outlets following them as they discuss social justice issues, then reporting on it as if it was their own, a process P10 called "getting scooped."

Organizers cautioned against over-emphasizing the role of Twitter in social movements. Even when a Twitter campaign is successful, it does not necessarily engage the group of people most affected by injustice. P6 discussed the problem of using Twitter to put pressure on a company to unionize. Their campaign was intended to draw media and public attention to the workers and by doing so put pressure on their employer to negotiate. However, the workers themselves were not necessarily participating in the Twitter campaign. They had to be engaged by more traditional means.

Credibility and authenticity were also difficult to maintain. Advocates and organizers reported that their credibility was often questioned (P2, P8, P10), especially when drawing attention to a community they were not a part of. Organizers, who were focused on others and not on their own experiences and accomplishments, felt the pressure to repeatedly prove their authenticity and credibility—what in Twitter-speak is sometimes called "receipts."

Discussion

Prior research on online social movements has primarily focused on hashtag campaigns or forums focused on a specific collective action, leaving a gap in our understanding of how activists use social media to achieve long-term goals. Contemporary social movements are rhizomatic, emerging and evolving over time with the help of communication technologies such as Twitter. Although social justice movement networks are emergent and dynamic, we find that activist roles are shaped by individuals' professional and personal identities, and, therefore, are relatively stable. Among participants, professional identity influences the activist roles that they play and how they construct movement identities.

In keeping with Snow and Benford's theory of movement identity construction, we find that activists amplify aspects of their personal identity on Twitter in order to align with a social movement. Participants described integrating aspects of their identity in their activist tweets as a way to be authentic or "just myself." Understood in the context of rhizomatic movements, personal identity expression also expands movement goals and identities. For example, P3 works to expand disability rights movements to include discussions of sexuality. Through tweeting P3 attracts other users with similar experiences and identities, representing an emerging lateral branch of the disability rights movement.

In online movements, it is tempting to think of participants as a "crowd," executing small, low-effort actions (Bennett, Segerberg, and Walker 2014). This masks the unique expertise, experience and networks that activists engage when doing movement work. Unlike previous studies that have found that participation in a hashtag movement may be a career risk (e.g. (Liu et al. 2017)), participants in this study have integrated their professional identities into their social justice activism and vice versa. Professional and movement identities and goals are often entangled. For example, P9's journalism is both a profession and a form of activism. This expands the theory of personalized action (Bennett and Segerberg 2012) to include professional identities, practices and career-minded goals.

Limitations

This is a relatively small study of 12 self-identified social justice activists. While further work is necessary to validate the roles and associated Twitter behaviours described, the insights gained by adopting the lens of identity-based roles adds to a generalizable understanding of activism on Twitter. The participants in this study represent a committed minority of social justice activists who have the potential to influence the emergence and growth of rhizomatic movements.

The roles of organizers, storyteller and advocate were developed through a ground-up analysis of our data; however, we do not claim that this list is exhaustive. There may be additional activist roles with distinct behaviors on Twitter.

Future Work

We find that each activist role uses Twitter differently to achieve their goals. Further research is necessary to develop a global understanding of how different roles interact and coordinate in a rhizomatic movement.

First, we can attempt to explain known tensions between activists using roles as a lens. Tensions between movement organizers and Twitter crowdsourced elites have been reported in mainstream media (e.g. (Howard 2015)), and is known to contribute to the misattribution of movement work (e.g. (Garcia 2017)). Analyzing this problem based on roles, we can see that behaviors associated with organizers, such as having more "friends" or mentioning others do not necessarily afford greater visibility or reach. Organizers, therefore, may struggle to gain influence on Twitter more than storytellers whose tweets are retweeted at roughly twice the

rate of organizers or advocates. This suggests the possibility of role-based design interventions to alleviate tensions.

Second, the salience of a social movement identity is key to ongoing voluntary participation (Snow, McAdam, and others 2000). We have demonstrated that individuals may be dedicated social justice activists, but not be strongly affiliated with a social movement, as seems to be true for storytellers, or, in the case of advocates, may retain a level of detachment in order to bridge multiple communities. This suggests different models of movement identity construction for different roles. Further research can explore how to develop infrastructure to capitalize on the unique contribution of each role and corresponding movement identities.

Third, to further validate the identified roles, we will look for behavior associated with each role among activists before, after and during a specific hashtag campaign. Network analysis will deepen our understanding of how roles function. We hypothesize that different roles serve different purposes within a social justice hashtag campaign on Twitter. Based on our findings, we would expect organizers to operate in the highly-connected network core, advocates to work at the periphery to join networks, and storytellers to operate either at the core or periphery, depending on their relationship to the movement and status as crowdsourced elites.

Understanding activist roles as identity-based, and therefore relatively stable, also suggests design interventions to increase awareness of roles at play within dynamic and growing rhizomatic movements, capitalize on the unique contributions of each role, and facilitate communication between them. New Twitter features could identify activists according to behaviors associated with activist roles and communicate their position within a movement network.

Increasing awareness of the network may alleviate tensions between different roles and facilitate coordination. For example, one might imagine that a "trending" list of highly connected users in a hashtag campaign might help give organizers needed attention. A network visualization that identifies dedicated activists and situates them in a dynamic network, may prevent misattribution and public misrepresentation. Such tools may open up communication channels between organizers, storytellers and advocates to execute coordinated actions and facilitate communication between branching identities and groups within a movement.

However, increasing the visibility of activists will make them more vulnerable to harassment and targeted attacks. Pseudo-anonymous approaches may reveal how roles operate over time without revealing individual activist identities. Engaging in community-based design practices is essential to co-designing tools that help movements take advantage of the affordances of social media while maintaining safety and autonomy. For example, Document the Now's community-based digital archiving workshops and tools help activists take control of their own narratives and security (www.docnow.io).

Conclusion

In this mixed methods study of self-identified social justice activists, we build on previous literature on identity in social movements to consider the role of personal and professional

identity in online movement participation. We find that professional identity shapes how activists participate in social movements on Twitter and identify three activist roles: organizer, storyteller and advocate. We use these roles as a lens to better understand how movement identities are constructed and how they might function together during a hashtag campaign. We then lay out an agenda for future research on roles in rhizomatic movements and suggest design directions.

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