

Social Computing-Driven Activism in Youth Empowerment Organizations: Challenges and Opportunities

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ABSTRACT

Throughout the world, organizations empower youth to participate in civic engagement to impact social change, and adult-youth collaborations are instrumental to the success of such initiatives. However, little is known about how technology supports this activism work, despite the fact that tools such as Social Networking Applications (SNAs) are increasingly being leveraged in such contexts. We report results from a qualitative study of SNA use within a youth empowerment organization. Using the analytical lens of *object-oriented publics*, our findings reveal opportunities and challenges that youth and staff face when they use SNAs. We describe the illegibility of youth outreach efforts on SNAs, and how this illegibility complicated staff attempts to hold youth accountable. We also characterize how youth and staff differed in what they felt were socially appropriate uses of SNA features, and tensions that arose in the co-use of these tools. We conclude with implications for the design of collaborative technologies that support youth-led activism in organizational contexts.

Author Keywords

Youth activism; civic technology; youth-adult partnerships; social networking applications; empowerment.

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

INTRODUCTION

Low-socioeconomic status (SES) neighborhoods face increased social, economic, and structural barriers to wellness (e.g., limited access to healthy foods), and

significantly higher rates of health problems (e.g., diabetes) than more affluent communities [17,29,44]. Previous work has examined how youth-led activism can be effective in addressing these challenges and affecting social change [9,47]. In fact, throughout the world, many organizations have created youth-led programs with the goals of solving community problems and empowering youth to educate their peers about issues of concern [33]. These organizations provide youth with resources needed to run social action initiatives (e.g., support for collective organizing). As adult staff work together with youth, they create an environment that nurtures youth's confidence that they can take on social problems. Prior work has demonstrated the importance of youth civic engagement for creating community-level change [47]. Communities benefit as youth help solve community issues, and youth gain social and psychological benefits as they engage in social action (e.g., enhanced self-efficacy) [35]. However, little is known about how technology can advance the work that happens in these organizations.

Researchers within Human Computer Interaction (HCI) and related disciplines have explored the potential of using technology to catalyze activism [4,5,14,39], and youth participation in social and political matters. For example, some youth are using Social Networking Applications (SNAs) to share ideas around social issues [40]. However, little research has explored how youth and adults within youth empowerment organizations collaboratively use information and communication technologies (ICTs). This research gap is striking, given that a hallmark of youth empowerment organizations is the collaborative adult staff-youth relationship [34]. Research is sorely needed to examine how ICTs mediate these relationships, help youth and staff advance their missions, and tensions that arise in their use. This empirical and design work will help the HCI community to catalyze the creation of tools that effectively support social action.

To address this research gap, we conducted a study of a youth empowerment organization in a metropolitan city in the Northeastern United States. The goal of our empirical work was to characterize how, within a youth empowerment organizational context, technology is

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leveraged to facilitate youth activism. Accordingly, our fieldwork was guided by the following research questions:

RQ1: *How do youth and adults compare in how they perceive technology's role in supporting activism?* **RQ2:** *How do youth and adults collaboratively use technology to pursue activism, and what opportunities and challenges arise from such use?*

To answer these questions, we conducted interviews with staff members and focus groups with youth community organizers (YCOs). Our findings provide a rich picture of how youth and adult staff members collaboratively and independently utilized online platforms to address community issues. We used an *object-oriented publics* theoretical lens to guide our data analysis [28]. *Publics* are collectives of people who are united in their shared social conditions and desire to address issues of shared concern [21]. An *object-oriented publics* theoretical lens examines human and non-human actors (e.g., technology) that contribute to the creation of, action within, and interactions between publics. Our work sheds light on the ways in which SNAs such as Twitter and Facebook act with the members of youth empowerment organizations to constitute, challenge, and mediate the adult staff and YCO publics.

We will discuss how youth deployed visual content online to invite the community into their public. We will also describe how youth and staff collaboratively used ICTs, their differing perspectives on how these tools should be used to communicate with people in their outreach work, and how staff leveraged these tools for accountability. Our findings illustrate how SNAs were instrumental in enacting and shifting the relationships between the youth and staff.

Our work contributes new knowledge around technology-mediated civic engagement, namely, challenges and opportunities that ICTs present for youth-led activism. Our results and recommendations for future work help inform HCI research on activism broadly, and *civic technology* specifically—systems that facilitate engagement with matters of public and community interest [10,27,43,46].

RELATED WORK

To contextualize our research, we next overview prior HCI work on activism. We then discuss research on SNAs, including how they support youth activism and how youth and adults engage with SNAs together.

Activism Research in HCI

Activism has been defined as efforts with the goal of creating social, environmental or political change [22]. HCI research on activism has spanned a variety of areas, including health promotion, environmental issues, and neighborhood crime prevention [26,37,42]. Activism as a response to societal problems is grounded in the fact that individuals are embedded in social and cultural systems that act to constrain or facilitate access to resources and opportunities. Activism seeks to empower people to

confront these social and cultural systems and create change. Researchers have studied how technology can enhance the work of activist groups and civic engagement more broadly [6]. For instance, researchers have studied how non-profits and civic organizations adopt technology for their organizational practices (e.g., information management [45] and volunteer coordination [24,46]).

Various frameworks—such as *publics*—have emerged to guide the design and study of technologies that enable activism. *Publics* are composed of stakeholders who are bound by an interest in addressing shared issues, and who struggle with the same social conditions [31]. The publics frame has helped shift the approach of designing technology from creating solutions for specific problems towards an approach in which technologies empower individuals to identify evolving issues [20].

Our study focuses specifically on activism amongst youth, who are less involved in traditional forms of civic engagement than older adults [15]. Catalyzing youth participation in civic life is crucial, in part, because adolescents who are civically engaged are more likely to become civically active adults [3]. Still, such engagement is challenging. While youth are impacted by many policies, they often have less of a voice than adults (e.g., restricted voting rights) [30]. Activism not only gives youth a voice to influence change; it can also help foster leadership skills [2,36]. Traditionally, youth civic engagement has been fostered through participation in youth organizations. However, the emergence of the Internet and SNAs has changed how youth participate in civic matters. For instance, youth use SNAs as a source of news more often than they use traditional sources such as newspapers [13]. Furthermore, youth's particular digital practices and perspectives can impact how they respond to civic technology [27]. Our study contributes to activism research in HCI by characterizing specific practices that youth employ in online activism, and comparing such practices to those of adults.

Youth Activism & Social Networking Applications

Our research primarily builds on a body of research seeking to unpack the possibilities and challenges of using SNAs for youth activists. Early research in this area presented the benefits of using such tools for youth activists, such as providing youth a voice to express their opinions through online blogging [8]. Researchers have posited that the myriad of social software and media platforms can enable youth to produce and distribute their ideas, resulting in public deliberation. Youth activists employ various practices when using Facebook and Twitter, such as information circulation, the production of civic content, and mobilizing action [40]. At the same time, researchers have described barriers to using SNAs for advocacy [1,27]. For instance, Irannejad Bisafar et al. [27] described barriers that youth face when trying to engage their peers on SNAs. Participants reported feeling judged by others when they

post about societal issues, and that posting such content conflicts with youth expectations for how SNAs should be used (e.g., that platforms like Instagram and Facebook are spaces for entertainment and fun, not “serious” issues).

Our work focuses more specifically on the role that SNAs can play in civic organizations, specifically those focused on youth empowerment. Such research is critical, given the challenges we identified in the previous paragraph, how actively youth participate in SNAs, and how SNAs are helping to catalyze youth civic engagement. *Peer-oriented* civic engagement is one civic action approach, whereby youth try to engage their peers in activism [13]. We contribute an investigation of the nuanced ways in which technology mediates such forms of civic action, through our analysis of youth and adults’ use of SNAs within a civic organization that prioritizes peer-oriented activism.

Youth-Adult Partnerships

Our focus on youth and adult collaborative work in empowerment organizations is motivated by the fact that such civic organizations are one avenue through which many youth become involved in activism. Youth-adult interaction in such organizations is critical for helping nurture youth leadership and development.

Given our interest in collaborative technology use within empowerment organizations, our work is further motivated by research that has explored, broadly, the challenges and opportunities introduced when youth and adults use SNAs together. Such studies have identified how teens manage their privacy in the presence of adults (e.g., their parents) and within the context of their public life on SNAs [32]. Researchers have also reported tensions that arise when boundaries are crossed between personal and work space [25,41]. For instance, Hewitt et al. [25] found that many undergraduate students were not in favor of having their professors on their Facebook because of identity management and privacy issues. Students thought that their professors’ presence on Facebook would change their professors’ perception of them. Such tensions are not specific to youth. In fact, Skeels and Grudin [41] reported that similar tensions can arise when co-workers are friends on Facebook (e.g. being judged based on what posts or interests they have in their social life).

While the aforementioned studies have unpacked how the co-presence of youth, adults, and co-workers on SNAs can introduce tensions, few studies have investigated how youth and adults might better collaboratively leverage SNAs within civic organizations [46]. One notable study in this area reports on organizations that hired youth to their editorial team to create a sense of identification among the organization’s audience [12]. The authors emphasize the importance of creating intergenerational platforms to facilitate collaboration among youth and adults. Our research seeks to inform the design of future systems by deepening our understanding of the opportunities and challenges introduced by such collaborations.

METHOD

Our study examines how technology helps to advance the mission of a youth empowerment organization and the tensions that arise with its use. The organization we studied empowers low-income youth (aged 14-21) by employing them to identify social issues in their communities and to address these challenges head-on. This organization has multiple sites—our research focused on three sites in a Northeastern metropolitan area. The youth at these sites have focused on various social issues, from developing trust between police and youth, to mental health and racism.

At each site, approximately 12-15 youth partner with 2-3 staff members to develop initiatives to engage their broader communities. For example, youth have led the planning and execution of a yearly conference that convenes youth from the city to discuss local issues through creative formats (e.g., theatre, and music). Other events have included dialogues on how to address racism. The organization has also sponsored workshops to help youth learn what rights they have when interacting with law enforcement.

To understand how technology supports the achievement of the organization’s goals, we first conducted semi-structured interviews with seven staff members. Staff discussed what technological resources the organization uses to carry out their work and the challenges that arose when using them. The interviews also explored how staff felt technology could help the organization to better achieve its goals, including opportunities they foresaw for the adoption of future technology and potential limitations.

We then conducted two focus groups at two different sites with 10 youth advocates from each site. The discussions in these focus groups centered on ways in which youth currently use SNAs in their work as youth advocates. During the focus group, we asked youth to provide their SNA handles (allowing access to publicly available data) and posts from their SNAs if they felt comfortable doing so. The posts youth shared with us were used as prompts for the focus group discussions. In a final round of data collection, we conducted two additional 2-part follow-up focus groups with total 17 youth. In this paper, we report on data from the second part of these follow-up focus groups, in which youth discussed how technology could help them to better communicate with their desired audiences.

Each focus group was led by two researchers (one of the authors and another facilitator), and interviews were conducted by one author. All sessions were audio recorded and transcribed. We used open coding [19] to inductively characterize concepts in the qualitative data. After the staff interviews, a preliminary analysis of the data was performed. Based on our early findings, we conducted four focus groups with the youth and inductively analyzed their transcripts. During each step, two researchers separately coded and later consolidated the codes. The main researcher later re-analyzed all the data, following an inductive process. We used this iterative process, conducting multiple

passes of data coding, to derive richer themes and integrate the evolving insights we obtained through our additional interactions with youth and staff. The resulting codes were iteratively clustered to higher-level themes.

OBJECT-ORIENTED PUBLICS: A THEORETICAL LENS

By employing an object-oriented publics analytical lens [28], we identified the two publics: *YCO* and *adult staff*. These publics were not only made up of people. The SNA platforms and the content shared on them also exhibit agency—they play an instrumental role in constituting (defining and establishing) the publics and enabling action within them.

Publics are dynamic collectives who pursue shared social problems [20]. Members of a public have *attachments* (which are defined as commitments and dependencies) to one another and to shared issues. In our study, one might argue that because both youth and staff seek to resolve the same societal issues, they could be actors comprising the same public. The staff and youth publics are in fact interrelated. However, we define the YCOs and staff as their own publics, given that they operate within different social conditions and have distinct goals.

For youth, a primary goal is choosing a shared social issue to confront and creating and executing plans to address the issue. Youth share a set of social conditions, including their status as young people seeking to establish their influence on personal and local matters. Youth also participate in an online culture with their peers that both catalyze and challenge their activist efforts.

The staff represent a second public, in that they share the goals of training youth to become leaders in creating social change. They also share social conditions. For example, staff interactions with youth are nuanced in that they simultaneously seek to fulfill multiple roles: a *partner* relationship as they work alongside youth; a *supporting* role, elevating youth to a higher position of decision making; and a *supervising* relationship while they evaluate youth in their role as employees.

Digital Actors

Both publics employ a variety of ICTs in their work; these *digital actors* played a key role in constituting action within the youth and staff publics. First, at the time this paper was written, the organization we studied had a Twitter account with over 1500 followers and a primary Facebook page with over 2000 people who like the page. The primary Facebook page includes posts promoting events (e.g., sharing flyers), posts regarding fundraising for the organization (e.g., sharing Change.org links), and posts sharing articles about the organizations' achievements (e.g., appearing on the news).

Youth also use their personal Facebook and Twitter accounts to post content that is related to their work at the organization. They often post pictures, videos or flyers to call attention to events. Youth leveraged various SNAs

differently. For example, youth used Facebook for reaching out to large audiences, whereas they used Snapchat and Instagram for more personal communication.

FINDINGS

Our findings highlight how the digital actors within the youth and staff publics were not simply information conduits—they also acted to affirm and challenge the goals of the publics, and the relationships between them. Our findings demonstrate ways in which these publics were configured, the values driving these configurations, and the tensions that ensued. Throughout this paper, pseudonyms are used to preserve participants' anonymity.

Expanding the Public: Inviting Peers into the Public

Beyond presenting an image to the community, both publics desired to catalyze community involvement. Youth were expected to nurture *attachments* to the organization's issues—developing an excitement about and commitment to pursuing social justice issues amongst their peers in the community, and in so doing expanding the youth public.

One way in which youth seek to increase peer participation is by enticing others to attend the events they organized. To achieve this goal, youth emphasized the value of short videos—*previews* of events they were planning—that they shared on SNAs. Youth referred to these short videos as a way to “bring in” their peers to their physical space and creating attachments to issues among their peers.

Youth discussed the temporality and brevity of the videos they shared as characteristics that helped them to engage their peers. For example, one youth participant mentioned that it is important to use the Facebook Live feature (“going live”) the same day that the event is happening:

I'll go live [...] before the show, so that when I go live, everybody's like [...] “I want to come.” They always do that. The same day though, that's the thing. [...] If I go live about an event, but the day before, they don't really care. But, it's the day of an event [...], they'll be like, “Oh, what's that? I want to go.”

This quote demonstrates the importance of temporality—situating their live broadcasts close enough to the start of the event to stimulate interest. Youth typically spend weeks, or even months planning for events. However, instead of gradually building up anticipation for the event by going live throughout this preparation period, they discussed saving this strategy until the final hours before an event. Previous researchers have discussed how youth are drawn to more spontaneous and informal forms of collective action [11]. That YCOs are deliberate in how they time their posts—delaying this content until just before an event to evoke a sense of spontaneity—reflects an inherent sense of how to leverage youth culture to accomplish their goals.

To create the urge to attend, teens also thought it was important to limit the duration of the videos. As mentioned earlier, most teens discussed creating brief videos as opposed to long elaborate ones. For example, one participant discussed how he uses Instagram for his work:

At the time, you could only do like 15 seconds of videos. Now you can do a minute. But I would post like little 15 second videos just to like not put so much out there, but just enough so people can [...] know about it and [...] to catch their eye then be like, “Oh, like that sounds pretty dope. That sounds pretty nasty. I kind of want to check that out.” Or they’ll message me

Despite the recent feature offered by Instagram for creating longer videos, this teen discusses the importance of shorter video content—just enough to pique his audience’s interest. Our findings build upon the work of Brandtzaeg et al. [12], who discuss the prevalence of visual communication online amongst youth. Given the highly visual nature of youth online practices (e.g., sharing of photos and videos on Snapchat, Instagram), Brandtzaeg et al. discuss the importance of leveraging such content in organizations seeking to catalyze youth civic engagement. For example, they discussed how online news organizations that use brief videos to communicate news are very popular amongst youth. Brandtzaeg et al. further argue that when sharing news content with youth online, it is important to share *portions* of news stories (e.g., using quotes and photos)—not simply the whole news story—to create engagement.

We build upon this prior work by demonstrating how this form of restricted content sharing was also an important strategy for youth. They similarly restrained themselves from sharing their whole “story” (*i.e.*, extensive details regarding their work), providing a limited glimpse into their work (e.g., creating a 15 second Instagram video highlighting an event despite the fact that they can share up to 60 seconds of content). We further show how they purposefully-timed their SNA content sharing to entice their peers to engage with the organization (e.g., not sharing videos until right before an event). Our findings speak to a form of agency exhibited by youth-created videos—this digital content acted together with youth to encourage excitement about upcoming events. Catalyzing such participation is one vital way of expanding the youth public.

Despite using the aforementioned strategies, youth faced challenges in engaging their peers with their civic goals. YCOs discussed how they felt stereotyped by their peers. For example, as YCOs worked with police to create better youth-police relationships, their peers sometimes labeled youth as “snitches” for partnering with the police. Youth expressed how hard it was to attract their peers to their events when YCOs were labeled as “goody-goody” and “not fun” among their peers.

The disconnect between YCOs and their peers suggests a gap in the attachment to issues amongst the YCO public and the broader community youth public. Yet, youth are initially recruited into the YCO public, such that the public reflects the composition of the communities from which youth are drawn. Therefore, YCOs presumably begin with many of the same attachments as their peers. In the discussion section, we will highlight how, as YCOs’ attachments change, the youth public evolves into two

different publics (the YCO public and the broader community youth public with which they engage).

Digital Actors Among Interrelated Publics

In addition to the strategies youth employ on their own, youth and staff collaborate to advance their social justice goals. In this section, we discuss complexities that arose in these collaborative efforts; that is, the illegibility of youth’s efforts on SNAs, existing online social norms that impacted youth’s attitudes towards using certain SNA features, and lastly, the colliding interests of various configurations among the youth and adult publics. While previous researchers have mostly studied adult-youth asymmetry in the context of families and schools [15,16,18], our results highlight the unique challenges introduced by adult-youth collaboration in the context of youth empowerment organizations.

Illegible Accountability

In this section, we discuss the notion of *illegibility*, that is, how youth’s outreach efforts within SNAs were not made fully visible to staff. We highlight the importance of staff holding youth accountable for their activism work. We then describe how staff leverage SNA features for accountability and illustrate how the issue of illegibility arose.

In the civic organization we studied, staff believe in youth’s capacity to be effective agents of change, and want to help youth own this quality in themselves. In this way, the staff-youth publics are configured in such a way that the staff public seeks to play a supporting role to the youth public. However, staff members also needed to hold youth accountable, to ensure that youth are accomplishing their objectives. In this way, the staff-youth publics configuration shifts from the staff-as-youth supporter to a staff-as-youth supervisor configuration. Staff believe that empowerment does not simply entail giving youth increased responsibilities, but also helping them reach their potential by keeping them accountable for their actions.

Various SNA features helped facilitate this shifting configuration. As mentioned in the previous section, YCOs are responsible for recruiting other youth to their events. Staff leverage various artifacts to both support and supervise youth in this recruitment process. Sign-in sheets are used to collect information from event attendees (which is later transferred to shared digital documents), including how they heard about the event. The list of people who have RSVP’ed on Facebook event pages are also leveraged to assess expected event attendance. At first glance, the sign-in sheets and the RSVP lists are computational artifacts shared among both publics, acting as tools to augment human action (in this case, recruitment efforts). However, these artifacts participated in another way by raising the issue of youth accountability in the staff-as-youth supervisor publics configuration. David, a staff member, described how the sign-in sheets help him to identify which youth are leveraging SNAs to increase event attendance and how successful they are. When event

attendees indicate that they heard about the event through specific YCOs' outreach on Facebook, for example, adults are able to assess which youth are "doing their job". Similarly, Emma (a staff) described an event that the organization had held, in which they had expected youth to engage in more event promotion. The staff assessed youth's efforts by looking into the number of people who had RSVP'd on Facebook:

All the adult staff were like the people going to the event, and like our peers. Like no young people. And it's like, "Guys! Like no one's gonna want to come to this event if it's like 30-something year olds like as the RSVPs. Like help us out." [...] I was like, "Guys, there are like 16 people RSVP'd and it's like me and you. Come on." Um, so I think we need to do better.

Emma's quote conveys the value that staff place in the RSVP lists as indicators of how well youth are recruiting event attendees. A lack of youth RSVP'ing "yes" to an event led Emma to feel that they needed to "do better"—suggesting the trust placed in such information as reliable indicators of youth's recruitment efforts.

Emma went on to speculate about the reasons why youth excitement about their work offline did not translate online:

Young people and their presence on social media is often different from who they present [among members at the organization] [...] Some young people will be in here being like super excited about the event and then they won't talk about it on their Facebook Page. [...] Like where's the disconnect?

Similar hesitations to using personal pages for civic goals have been documented in prior work. Researchers have studied the role of social norms on SNAs and how the importance of conforming to those norms affects youths' willingness to present their identities as advocates on SNAs [27]. Our findings also mirror these findings.

However, our data reveals how sometimes there is more to the story than youth not being willing to use SNAs for activism. Our findings show that at times, youth's efforts are *illegible*, that is, not made fully visible online. For instance, Kathy—a YCO who used Snapchat to promote events—discussed outreach work done for an annual event:

I like would like take little clips and like videos while we were like preparing for it [...]. And then [...] while they're watching your story, they can just slide up on your story and just like write a comment [...] I got a lot of people hitting me up talking about it. Not many who actually showed up [...] But like a lot of people were like talking about, "Oh, that looks cool. [...] I'm gonna come." So, like it kind of got like some stuff out there.

Despite the fact that Kathy made an effort at engaging her audience, her efforts were only successful at evoking online reactions and did not translate into offline attendance. Molly had a similar experience in which she was dissatisfied with the outcome of using Snapchat for her job:

A lot of people were snapping me [...] but I don't know like if they signed up [...]. But I told them like to call and like you

could come meet me. I'll like sign you up [...] so I probably got like all together like probably like 4 or 5. Not much.

In the above quote, Molly describes how she tried to take a step beyond Snapchat posts, by asking her audience to call and physically meet her. However, she was still dissatisfied with the actual response to her outreach efforts. These quotes from Kathy and Molly characterize how many times, it is not just that youth did not want to post online. In some cases, youth find it hard to transform their online audience to an offline audience who actually attends events.

Our findings highlight the challenge of SNAs serving as brokers of accountability. SNAs make visible what youth have posted publically, but they do not provide a picture of the extent to which the audience has seen or considered this information. These platforms do not make it apparent how difficult it can be to convert online exposure to content into offline participation. In this way, SNAs provide only a partial view of how well youth are conducting their work. Illegibility complicates the staff-as-youth supervisor publics configuration. While staff utilize SNAs to hold youth accountable, the SNAs are not presenting a full picture of the work youth are doing and the inherent challenges.

Staff Expectations vs. Youth's Reality

Our findings highlight the friction between adult and youth perspectives on how SNAs should be used to communicate with one's audience. To promote events and raise awareness about local issues, staff members value the power of directly contacting individuals as opposed to broadcasting messages to a more generalized audience. By directly contacting individuals, we mean contacting people that youth may know or may not know, in a way that directly targets the receiver of the message. In this section, we discuss staff and youth perspectives on direct communication as one example of the gap between adult and youth perspectives on the role of SNAs in the context of civic engagement.

Staff members believed that personalized and direct channels could better engage people and create attachments to issues among youth in the community. For instance, David mentioned that:

We are big on sending a personal message saying, "hey I want you to come [and] this is what's going on." People get six of them [messages from people] a day. So how [can we] figure out a way to really pull them in. Like, "hey I want you here." Personal messages go a long way.

In contrast to this preferred form of communication, Susan, who is a staff member, felt that youth put less value in sending personalized messages and went on to discuss the weaknesses of broadcast messages:

What is missing still is that [...] some of them [YCOs] don't write messages anymore [...] It's more so like, "I'm just gonna write this status and whoever likes it will probably come." [...] But then where's the part where people actually, like they really are aware [...] that people want them to be there. [...] It's just

like everyone is just generally invited, so I [the person who's invited] don't really feel that special anymore.

Susan's description of how she expected youth to do outreach reflects her expectation that youth should engage in *purposeful* civic media practices—online civic action in which people consider their audience when crafting and sharing content [40]. With such practices, people strategically leverage “technical affordances of digital media for action” [40]. In this case, Susan explains how she thinks that youth could use a more purposeful approach by using more direct messages to address other youth.

Prior research has similarly reported on adults' concerns about technology hindering traditional direct interactions [38]. However, our analysis surfaced various challenges that inhibit youth from sending more purposeful and personalized messages. First, youth simply did not find such interaction to be socially appropriate, especially with people they might not know. In fact, when asked whether they would message people that might be influential, Lily, who is a YCO, said:

Messaging people like, like I don't know. It's like creepy. Like weird, kind of weird [...]

Another YCO, Kathy, also said:

It's like hard because like, I don't like, I wouldn't really want someone trying to “dm” [direct message] me, talking about an event [...]. Because I'm gonna feel some type of way [...]. Or if I dm someone, they might take it the wrong way [...]

Beyond direct messaging, SNA platforms offer additional mechanisms for directly contacting people. For instance, when asked how youth felt about tagging specific people in their posts (e.g., via “mentions” in posts), Kathy said:

Some people aren't as open about like doing this work [...] I feel like we don't want to step over that boundary and make a decision for them. [...] If they want to share it then they should share it on their own. [...] I'm talking about other people, “mentioning” other people [on SNAs]. [...] Let's say like my brother came to the event. I'm not gonna mention my brother coming to [the event], because like that might not be good for him [...]. Like if my brother was to probably put [online] that he was [at an event with police] [...] he would get in trouble with the people that he knows.

This quote illustrates another instance in which youth did not find such targeting to be socially appropriate. The organization hosts events that attempt to reduce youth-police tensions, building more positive relationships and communication channels. However, Kathy describes how it would be problematic for her brother to be associated with such an event. As such, Kathy does not feel comfortable mentioning him in posts as a way to let him and others know about the event.

Previous researchers have reported privacy as one of the main barriers to youth civic participation on SNAs. For instance, Brandtzaeg et al. [11] discussed how young people are usually concerned about liking certain civic

organization's pages, because they do not want others to know that they are following such organizations. Our study not only echoes the findings from prior work, but also reveals new layers of complexity when youth activists engage the crowd on SNAs. Specifically, the youth we studied were not only worried about how they would be viewed by their peers, but also how their actions online could influence *the way their peers are viewed by others*.

In fact, youth's reluctance to use certain features does more than reveal the underlying social norms pertaining to youth culture. More significantly, their reluctance reveals how perceived social norms can make it harder for youth to use SNAs to engage a broader audience and nurture their audience's attachments to issues. Understanding such complexities could potentially help staff nurture youth's capacity for dealing with such situations.

The Collision of Shifting Publics Configurations

The preceding discussions showed ways in which the youth and staff publics interface. Using an object-oriented publics analytical lens, our findings highlight the central role of SNAs in enabling and complicating these configurations.

As we have discussed, staff seek a *partner* relationship with youth—staff utilize SNAs to become a part of youth's online networks to enable their collaborative work. Staff also seek a *supporting* relationship in which they elevate youth to positions of power where youth are involved in key decision-making processes in the organization. Lastly, staff seek a *supervising* relationship, as they oversee the work that youth do online and offline, as a means of holding them accountable. Both publics shift dynamically in and out of each of these relationships, with SNAs playing a central role in defining each configuration. SNAs both enable these various configurations and complicate them. For example, given that SNAs do not convey the decisions behind youth's online outreach practices (as discussed earlier), SNAs obfuscate this rationale, challenging staff understanding of youth participation in the organization.

Beyond the challenges inherent in each individual youth-staff public configuration, additional tensions arise from the fluid movement between these configurations. For example, in-line with a *partner* publics configuration, youth and staff sometimes decided to be part of each other's SNA networks to collaboratively utilize features for their work (e.g., friending each other for the purpose of outreach on Facebook). When this happened, staff became exposed to youth's activities as they gained access to their SNA feeds. Staff members reported that in some situations, seeing these feeds enabled them to hold YCOs accountable—representing a shift into a supervising relationship. For instance, Cristina described how staff use SNAs as:

...a pretty powerful tool to check in on the [...] YO's [YCOs]. [...] I think [...] there's a gray area. I think that they don't [...] try to be friends, but [...] if someone calls up sick. And then you look at their Facebook and they've actually been out.

Cristina discusses how while staff try not to be friends with youth online, such connections present the ability to determine whether they have been truthful about why they are missing work. David elaborates on this *boundary work*, discussing how he intentionally decided to use SNAs to help him collaborate with youth, while also trying to limit his exposure to youth's personal content. The following quote best captures how David deals with this situation:

I used not accept the kids on my Facebook unless they were over 18 or out of the program. It gets them in so much problem cause hey you are posting on Facebook that you are waiting at home for a videogame when you are supposed to be at work. [...] you are on a contract here, so sometimes you guys don't want to be my FB friends. So I un-follow them now, I will be their friend so I can invite them to events. It works really great for events.

David's updated approach was to shift in and out of online connections with youth, following them only to facilitate their advocacy work (e.g., inviting them to events) and then unfollowing them so he is no longer exposed to their feeds. David's boundary work to dynamically expand and restrict his SNA networks to include and exclude youth reflects his deliberate attempts to mitigate *context collapse*.

The phenomenon of context collapse is not new. Boyd [32] has identified *context collapse* as a phenomenon in which people have various audiences on SNAs, but are not able to present customized identities to each audience. Context collapse has mostly been discussed from the perspective of individuals who experience it (e.g., challenges faced when trying to control one's privacy). What is interesting in our findings, however, is how the youth's audience (the staff members) were the party to respond to this exposure and decides to control what they view. In fact, Cristina's use of the term "gray area" captures the dilemma staff members experience as they confront their interest in accessing information to hold youth accountable (supervising relationship) and to collaborate (partner relationship), and their reluctance to access such information.

The findings presented in this section and throughout the paper show how SNAs were instrumental in enabling youth and staff publics to shift in their relationship to one another. At the same time, active work was required to make sense of how these SNAs were being used in each youth-staff publics configuration. Deliberate work was also required to navigate the colliding interests of each publics configuration, which were exposed as youth and staff jointly use SNAs (e.g., the desire to connect with youth online within a partner relationship exposes staff to additional information about youth's lives, shifting them into a supervising relationship).

DISCUSSION

Youth-led empowerment programs that support activism create youth-adult collaborations that are crucial for addressing persistent and serious community issues, and for the personal development of youth involved. Given the pervasive use of ICTs amongst youth and the power of

technology to help youth engage in civic action [40], HCI research is needed to identify how ICTs can support youth activism in organizational contexts.

Our findings characterized the collaborative use of SNAs amongst adults and youth in the organization we studied, and the complications that arise from such practices. Building upon these findings, we discuss implications for the design of collaborative technologies that support the work of youth-led activism in organizational contexts. Given the importance of adult-youth partnerships in such organizations, we discuss implications for design that prioritizes these two publics. With these directions for future research, we contribute to the growing body of work on activism within HCI [4,14,39].

Towards Design for Critical Reflection

HCI research has uncovered factors that can cause failure in cooperative systems that require everyone involved to use the system. For example, Grudin [23] highlights the problematic disparities between two types of users: users who directly benefit from a system, and users who must engage with the system for it to work, but who cannot see the direct benefit from using it. Grudin's argument is that users who benefit from using the system may not see the additional work that is needed from others. When users have to do this additional work, being able to see how they will personally benefit from using the system is critical to sustaining their motivation to use the system. Therefore, as the success of implementation of such systems requires all users to operate it, he argues that such systems might fail.

Grudin's analysis is helpful for unpacking our findings. First, both publics see value in using SNAs for their work, accruing benefits as these platforms are leveraged to engage the community in activism and build their online presence. Both publics also put in work to leverage these platforms for their efforts, for example, by creating posts describing upcoming events. However, staff were not able to fully assess the underlying complexities that arise as youth use SNAs for their work, given the illegibility of youth's efforts. Moreover, as youth use their personal accounts for outreach, they may incur *social costs* (e.g., when engaging in direct communication that is not socially acceptable online). Therefore, we find a parallel between our work and Grudin's by extending his notion of what *benefiting* looks like in a collaborative system—from benefits as *the value accrued through system use* to benefits as *the value accrued through system use as weighed against the cost incurred*. In our work, we found that both staff and youth find value in using SNAs for their work, yet each group incurs costs as well—complicating the analysis of who benefits and who is burdened in the collaborative use of SNAs.

Grudin suggests that when there is a gap between users who benefit and those who do the work in a collaborative system, it is important to design systems that reward and minimize the extra work that users have to engage in. Our findings highlight that in many cases, staff members were

not aware of the additional work and complexity that youth face. However, if staff were aware of these complexities, a space could have been created for staff and youth to critically reflect on solutions that maximize the benefit and minimize the cost of using SNAs for youth. We therefore suggest that designing for critical reflection upon such complexity is crucial when creating systems that support collaborative work in youth empowerment contexts. Such a design agenda will require empirical work to answer open research questions such as: How can collaborative systems support critical reflection, understanding, and discussion of users' efforts on SNAs, including the challenges that youth face and opportunities for addressing these challenges?

This question is specifically important to address as youth empowerment organizations seek to support equitable power-sharing amongst youth and adults. In the organization we studied, we observed an incremental transition of power: adults are considered experts and power is transferred to youth as youth build capacity. In this power transfer adults are expected to provide guidance and support when needed. However, this power transfer becomes complicated when using SNAs for their work: adults are not necessarily SNA experts, nor are they fully aware of the complexities and norms of using SNAs among youth. Therefore, adults can not fully play their supportive role and facilitate the process of using SNAs.

Additional challenges arise as staff seek balance between power-sharing and holding youth accountable. In the section on illegible accountability, we discussed how RSVPs and sign-up sheets helped "reveal" youth who had "done their job". We argue that this dichotomization belies the reality that recruitment is nuanced for youth. Within HCI, *seamful design* has been a productive design orientation by which researchers have considered the implications of purposefully exposing the underlying algorithms, and other infrastructural features of software systems [7]. Employing the notion of seamful design here, one can see that revealing the algorithms behind SNAs could be one way to reveal underlying complexities of youth's efforts and encourage a more nuanced interpretation of accountability (e.g., SNA extensions that make more visible which content youth's audiences have been exposed to, or historical visualizations of how online efforts have translated into offline engagement).

Integration as a Solution to Crossing Boundaries

The youth public we studied not only interfaces with their peers in the community, but also with the public of adults who help facilitate the empowerment program. As mentioned in the related work and findings sections, when youth and adults use SNAs together, boundaries may be crossed in ways that introduce both challenges and benefits. Previous researchers have shown that when using personal SNA accounts, people are able to better leverage their own social network for their work [46]. On the other hand, having work colleagues in one's friend list can create

tensions by exposing too much of one's social life to co-workers [41]. Prior work has suggested mechanisms to prevent boundary blurring problems. For example, in when co-workers add each other as their connections on SNAs, improved friend grouping features may help prevent unintended disclosure of information [41].

Given the strengths and weaknesses of youth and staff having access to one another's SNA accounts, we suggest *integration* as a design strategy for accomplishing the joint goals of maximum collaboration and minimum intrusion on privacy. Such an approach entails gleaning data and content from across SNA platforms, creating an online experience that conforms with the needs and preferences of the publics within the organization. To illustrate this design recommendation, consider a system in which youth and adults integrate their data from different SNAs into one meta-SNA platform for organization members. The content in such a meta-interface could be limited to what is relevant to both adults and youth. For example, such a tool could only display data that youth share when it is related to work done through the organization.

One benefit of this approach would be the level of transparency that could be introduced. For example, recall our discussion of David who decided to stop following youth on SNAs and to mitigate his access to youth's personal information. Yet, staff also valued being aware of what youth post online, and get a sense of how well youth are doing their jobs—indeed, youth were paid to engage in community organizing. Even beyond the contractual element of their participation in the organization, youth outreach efforts are necessary for the organization to achieve its mission of addressing the significant social problems affecting local communities. An integrated SNA that is comprised of data from youth and staff's personal accounts could help redefine accountability in a manner that helps youth and staff feel more comfortable about the level of access they have to one another's personal accounts.

Related to our work is research by Volda et al. [46], who identified three ways in which social computing is deployed for the work of non-profit organizations (more specifically, the work of volunteer coordinators): *transposing* (social computing tools that are designed specifically for the work of organizations), *translating* (tailoring information from public social computing platforms such as Facebook to meet the organization's goals and needs), and *blurring of boundaries* (when people use social computing in a way that the boundaries between their personal and professional spaces are crossed). Earlier in this section, we described how blurred boundaries arose when youth tried to use their personal accounts for their work. We also presented a fourth direction for how social computing can be deployed within organizations: the idea of integration. This concept would combine the benefits of transposition (e.g., a specialized tool could help youth and adults to critically reflect on their social action pursuits online, identifying

more focused and purposeful solutions for extending youth publics), blurring of boundaries (youth's efforts on SNAs would be made more visible to staff members, while enabling them to adjust the level of privacy based on the youth-staff configuration) and translation (e.g., data from SNAs could be used to create a historical account of what strategies do and do not help them achieve their goals).

Researchers should explore how designing for integration impacts the complexities that arise within staff-youth collaborations, and whether integrated interfaces present opportunities for improved collaboration. Researchers could explore how integration impacts staff perceptions of the online outreach youth are doing—does more insight into their work help or further staff interpretations of youth activities online? Research could examine how integrated SNA interfaces impact group dynamics within and between both publics. For example, does limiting access to one's SNA posts have any unintended consequences for bond formation amongst organization members, as they have less exposure to the multifaceted aspects of each other's lives that are typically displayed on personal SNAs?

Of course, integration is limited by how much information is made available by SNAs. For example, some SNAs have more open API than others. Public platforms change access levels and methods of accessing to their data based on their evolving policies. SNA platforms also vary in popularity amongst youth over time. Therefore, when designing for SNA integration, it is important to design for the dynamic and sometimes restrictive nature of such SNA platforms.

Shifting Attachments to Issues

In the organization we studied, youth are recruited to reflect the composition and concerns of their community. When YCOs enter the organization, they often come with a history of experiencing many of the same issues as peers within their community. As part of their job, YCOs try to bring their peers into their YCO public, in part by engaging them in their events. We use a publics lens to discuss how YCOs' evolving perspective on social issues creates a disconnect with their peers. These *shifting attachments* to issues is a key attribute of publics (i.e., their evolving perspectives on and action around social problems).

YCOs identify community issues and try to bring about change within their communities. Through this process, they create relationships with people and resources, with the hope of creating social change. YCOs evolve as part of this process; so too do their attachments to the shared social issues that they are addressing. For instance, in the case of improving relationships between youth and police, youth hold dialogues and other events with police officers in an attempt to create positive relationships with them. Through these engagements, youth attachment to the issue of youth-police relationships evolves, shifting their perspectives on an issue they originally shared with community peers. Yet, their peers outside the organization may still have the same attachments to the issue (e.g., maintaining a fraught

relationship with police). Therefore, there is a disconnect in the attachment to issues experienced by YCOs—who have gone through the aforementioned process of involvement—and their peers within the community.

This gap was illustrated in the case of Kathy who did not want to “mention” her brother in her SNA posts for fear of the negative social ramifications it might have for him. While Kathy was comfortable with discussing the issue of police relations, she knows that her brother's peers might not be so comfortable. In fact, the feature of “mentioning” on SNAs highlights this disconnect between the YCO public and peers and the challenges that arise as youth seek ways to bring their peers into their public.

Using a *publics* lens, we are able to see how technology can help illustrate such a disconnect. Future work should explore how this theoretical orientation can help illuminate the processes and actors (human and digital) at play in youth activism. We encourage future work to explore how novel technological solutions can help youth manage their shifting attachments. An important question is: *how can technology help youth, who are embedded within empowerment organizations, to evolve together with their peers in the community?* Systems that increase the visibility of the processes at play within the organization to youth's peers (i.e., the ways in which, and reasons why YCOs' mindsets around issues are changing), could be one step towards addressing this complex challenge.

Moreover, it is critical to provide tools for YCOs to more effectively determine their peer's mindset and where they are at in the process of change. One approach could be to systematically analyze YCO's SNA posts. In our study, youth expressed that their online efforts often provoked online reactions, but not offline attendance. One direction could be to explore how the types of content they share (e.g., the tone of the posts) correlates with the type of engagement (online or offline) they get from their audience.

CONCLUSION

Through a qualitative study, we investigated the practices of an organization engaged in youth-led community organizing. Our findings shed light on the ways in which SNAs mediated the work that youth and adults did, as well as their relationships with one another. We further discussed challenges that arose as staff strove to hold youth accountable for their outreach work. Additional tensions resulted from the gap between adults' perception of how youth (should) use SNAs for their work and the actual challenges that youth face. Using our findings, we present recommendations for how new ICTs could be designed to support youth-adult collaborations and the shifting attachments to issues amongst youth and their peers.

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