

Youth Advocacy: Enabling Participatory Action Through Innovations in Social Computing

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ABSTRACT

Social computing technologies are frequently used by teens as a method of communication. This paper examines how social networking applications (SNAs) can be designed to empower youth in low-income and underrepresented minority groups to address health-related issues within the community. In a pilot study teens were recruited from a local organization that helps adolescents learn about health. Using participatory design methods, teen participants evaluated how well existing SNAs support youth in health advocacy and brainstormed how SNAs can provide better support in the future. Youth examined current features of social networks and expressed issues that could be enhanced, or changed. Preliminary findings show youth desire an application that is entertaining, relative to their everyday lives and contributes to balancing pressure from peers. Our results contribute to human-computer interaction (HCI) research by providing recommendations for technologies supporting youth advocacy.

Author Keywords

Advocacy; network; application; empower; low-income.

INTRODUCTION

Health advocacy is the process by which the actions of individuals or groups bring about change on behalf of a particular health goal, program, interest, or population [7]. Research has shown how youth have expressed a lack of opportunities to successfully participate in social change, allowing them to be more involved in civic affairs. If youth are instilled with advocacy skills and empowered by successful technological experiences, they may continue their community involvement throughout adulthood.

Racial, ethnic, and class-based gaps in civic engagement leave some low-income and minority youth without a key avenue for positive development [6]. Underrepresented minority groups are less likely to be involved in community issues due to lack of awareness. In order to give youth a voice and encourage young people to become involved in civic affairs and social change, it must be easy and convenient to participate [7]. In this paper we examine how social technology applications can be redesigned to effectively increase efficacy in low-income minority adolescents to advocate health. Young people are no longer finding meaning, or opportunities in traditional modes of participation in the community [2]. As the progression of technology builds, they seek advanced forms of promoting change. Engagement in community activism has an effect on individual and collective efficacy in relation

to social advocacy [1]. Previous research has shown teens appear to be disengaged in terms contemporary forms of health advocacy. However, this does not mean youth are uninterested in transforming the condition of their communities. It is evident that young people share common social concerns about their communities [2]. The frequency in which they promote these concerns stem from separation of traditional methods to promote them.

A social networking application (SNA) is a platform to build social networks or social relations among people who share similar interests, activities, backgrounds or real-life connections. SNAs have become a key source in raising awareness to societal problems [9]. Research has shown that seeking information via social networking sites is a "positive and significant predictor of peoples social capital and civic and political participatory behaviors, online and offline" [9].

In this study we use a participatory design approach to determine how these social networks can be modified, or recreated to promote health. The result of our approach leads to common themes expressed from youth for their ideal SNA. This work contributes to research in health technology by offering potential design directions for digital advocacy tools, highlighting that existing SNAs may be insufficient for meeting youth needs and desires.

RELATED WORK

The importance of civic engagement for adolescents requires gaining a sense of how involved they expect to be in their community and what this involvement may look like [6]. This sense of empowerment can have important impacts on youth, and eventually society as a whole. In HCI, previous work on digital tools to increase empowerment has yielded technologies to facilitate activism and shift users' attitudes regarding their role as advocates for health [5]

Health *activism* involves challenging the existing order and power relationships that are perceived to influence some aspects of health negatively or impede health promotion [8]. Investigations have studied methods for utilizing technology in advocacy work, from human rights to politics [4, 8]. HCI researchers have designed tools to promote wellness with the intent to solve issues for the general population. Our focus is advocating wellness in youth, specifically to low-income communities and ethnic minority groups.

METHOD

Participatory Design

Student	Age	Sex	Race	Grade	Neighborhood
1	15	F	AA	10	Hyde Park
2	15	F	AA	10	Hyde Park
3	15	F	W	10	Dorchester
4	15	M	AA	10	Roxbury
5	15	F	AA	10	Dorchester
6	15	F	AA	10	Dorchester
7	15	F	A	10	West Roxbury
8	15	F	H	10	East Boston

Table 1. Demographic information of the participants. AA = African-American/Black; W = White/Caucasian; A = Asian; H = Hispanic/Latino

Participatory design is an approach to actively involve users in the design procedure to ensure the result meets their needs. This user-centered development process was included in our research as a way to determine how youth prefer social applications to be designed. The idea of the process (displayed in Figure 1) is to have users generate a concrete account of existing products. Then participants are to think abstractly to produce new concepts and ideas geared towards a new product. The outcome is for participants to form a concrete prototype based on their ideas and evaluate the usefulness of the design.

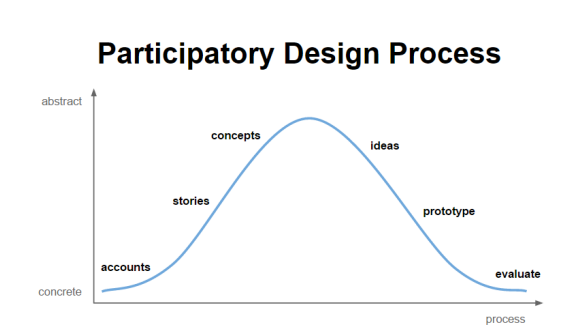


Figure 1. Participatory Design approach.

Recruitment

We established a partnership with the Boston Area Health Education Center (BAHEC), an organization that helps teens learn about public health and envision themselves as future leaders in the field. BAHEC youth are likely to be interested in addressing health-related problems, given their involvement in the BAHEC summer program. BAHEC staff provided participant access, and used their youth outreach expertise to provide critical assistance with study design and administration. 8 teens from BAHEC were recruited. Participating ethnic minority groups included African-American, Hispanic, White and Chinese (demographic information in table 1). Initial surveys revealed within a month prior to the start of the study, participants used SNAs: Twitter, SnapChat, Instagram, Facebook, Tumblr, Kik and Vine.

Study sessions

Throughout the 5-week summer program we held one session with the participants each week. The duration of each session was similar six hours, including a one-hour lunch break.

During the first session participants engaged in team-building exercises and were introduced to possible health disparities, as well as the overall project framework. All participants completed surveys assessing their current level of civic engagement, individual efficacy (confidence in their own ability) and collective efficacy (confidence in their community's ability) for addressing neighborhood problems. In a narrate activity participants wrote love/break-up letter to the SNA of their choice highlighting the health of their relationship. In the letter, they were to include what the SNA was doing right or wrong, and ways to improve the relationship. From the activity we learned of the participants needs, wants and desires from past experiences with SNAs. As homework, youth were tasked with posting media about health issues on a SNA of their choosing for the next week.

In session 2 participants reflected on reactions received from posts by their peers. Youth completed questions answering why they believed they received those reactions and also talked about it in a group discussion. We compiled the qualitative data from the narrate activity and the health posts. Students were given the data on note cards to organize in an affinity diagram. The purpose of the diagram was to have the participants organize their ideas about health posts on SNAs and the issues of how applications are currently designed. At the end of the session participants worked in groups to select 3 health disparities they were passionate about to advocate for. The topics selected were: obesity, physical activity and physical appearance.



Figure 2. Participants completing the affinity diagram during session 2.

In sessions 3 and 4, youth brainstormed ideas to create new SNAs better designed to meet teens needs when advocating for health. Working in groups, participants simulated paper prototypes of technology that could be used to help aid the promotion of health disparities in the community. They presented each of their models, demonstrating how the prototypes could be used effectively by their peers. Each group critiqued one another, adding ideas to enhance each others models. Following feedback from from one another, the youth redesigned their models to be implemented in a social networking application.

Throughout each session we conducted video and audio recordings of group discussions about the participatory design workshops. Based on the data from each the workshops and discussion, we formed 3 scenarios of a SNA experience that incorporated the common needs expressed by youth in



Figure 3. Participants designing prototypes of new technologies to advocate health.

prior sessions. In session 5, the scenarios were presented to the teens. Participants provided feedback on whether the SNA in each scenario would allow adolescents to advocate effectively. They also completed an assessment which consisted of questions based on the high school civic responsibility survey[3]. Using this method scores could range between 0-96, where high scores show a larger sense of civic responsibility.

RESULTS

Data yielded from the study included the design ideas, surveys, field notes, and audio recordings of the focus group discussions. Survey results based on civic awareness, civic engagement, and connection to the community yielded an average score of 60.88.. This score indicates a greater sense of civic responsibility among participants. We conducted a qualitative analysis on written responses and transcripts of the recordings from the participants to compose a list of common features youth expressed for in SNAs. Following the conclusion of our analysis we developed 3 themes: entertainment, relatable and empowerment. The themes were derived from consistent expression by participants to feature in SNAs. Preliminary results show youth desire an application that has

- A substantial source of **entertainment** that engages followers in a meaningful way
- Includes **relevant** posts and topics that express how youth are affected
- **Empowers** youth to feel less pressured, or judged by peers to get likes and followers, and
- Gives youth a voice to make changes with the **support** of others.

Our preliminary analysis of the data reveals youth prefer SNAs to be entertaining, relatable, empowering and allows gain support in their posts from peers. In order to effectively advocate health issues, youth believe applications should feature humorous posts that occupy their attention with quick, interesting media on their feeds. In discussion the youth often expressed the need to use an application that is fun for them. Otherwise they lose interest, and will ultimately stop using the SNA.

Relevancy is specific to youth age group, environment (city and neighborhood) and essentially everyday activities. To

promote issues adolescents need to see how they are affected through posts relevant to themselves. In the study youth often stated that the attitude of teens needs to be changed in order to advocate for health change. SNAs should include opportunities for them to be informed not only about worldly changes, but local changes also.

Youth feel empowered to advocate issues when they have the support of others, and wish not to receive backlash as a result of their posts. In the exercises participants expressed their worry for gaining and losing likes or followers based on application posts. They would like to feel socially accepted by their peers regardless of content shared in posts. Youth also expressed that they notice an impact because of their advocacy work. They feel empowered advocating for an issue and seeing it change as a result.

DISCUSSION

Prior work indicates the potential for digital tools to support youth advocacy is increased with strategic engagement on the part of all individuals [7]. We have expanded on this with our participatory design approach to involve users in developing new tools for promoting health among youth. Themes compiled from the data analysis can be used to rebuild applications in support of youth advocacy in health.

CONCLUSION

Previous HCI research has distinctively focused on technology in general methods of activism and increased efficacy among youth. In our study we used a participatory design approach to develop SNAs for underrepresented youth to promote health in the community. Based on our results we have provided recommendations to improve SNAs for supporting youth advocacy. This study has taken us one step forward in the HCI challenge of determining how computing scaffolds can be designed to help youth overcome disempowerment to address health concerns. Further analysis is needed to fully understand and implement these findings in future work.

ACKNOWLEDGMENTS

I want to thank Distributed Research Experiences for Undergraduates (DREU) for granting me the opportunity to conduct great research this summer. Next, Dr. Andrea Parker for being an outstanding mentor and introducing me to HCI research. Also, Herman S., Farnaz I., and Priscilla B. for being great partners throughout our research together.

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