Engaging the Discourse of Empowerment for Marginalized Communities Through Research and Design Participation

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ABSTRACT

This paper goes beyond the current empowerment discourse in the SIGCHI community to address how we primarily focus on research and design contexts and technological contributions. It argues that existing literature on empowerment does not fully account for the complexity of marginalized communities, including factors such as poverty, lack of digital literacy, or access to technology, which can affect a community's decision to participate in research and their effectiveness during participation. The paper presents two provocations: 1) research must adopt methods of partnership that empower the community, and 2) researchers must consider how empowerment is sustained both within and outside of research and design settings and technological contributions. The paper concludes with a call to action for a holistic empowerment strategy within HCI to stimulate further discussion on empowering marginalized communities beyond research and design.

CCS CONCEPTS

• **Human-centered computing** → *Human computer interaction (HCI)*.

KEYWORDS

Marginalized Communities, Empowerment, Research and Design

1 INTRODUCTION

The SIGCHI community has shown an increasing interest in the topic of empowerment for marginalized communities in recent years. Empowerment is a concept that has been defined in various ways. For example, Zimmerman emphasizes the process of individuals or groups gaining understanding and control to improve their lives [62], while Batliwala views empowerment as the redistribution of power between people, communities, or social groups [4]. According to Rappaport, empowerment is a process that enables people, organizations, and communities to have more influence over issues that matter to them [46]. All three definitions emphasize gaining agency and control to take action and effect positive change.

In line with this growing interest, there has been a focus on discussions of empowerment through participatory design research [20, 30], as well as the use of empowering frameworks such as assets-based design [59], value-sensitive design [23], design justice [13], and intersectionality theory [39]. These methods emphasize the importance of actively involving communities in shaping the design of technologies that address their needs, building upon their strengths and capabilities, and taking ethical considerations when collaborating with them. As such, researchers would commonly present their work as empowering by focusing on how their use of these methods improves the experience of marginalized groups during research and design activities [6], how the technology studied addresses the needs of these communities [32, 35, 58], or how the autonomy of these groups are supported [3, 30]. One example of research in this field is the work by Badillo-Urquiola [3], which highlights how researchers can empower teenagers by providing autonomy in the design of systems that support teen research; particularly given how adolescence is commonly associated with increased autonomy-seeking behavior.

However, we are concerned that current discussions surrounding the empowerment of marginalized communities are narrowly focused on research and design contexts and technology contributions. The manner in which we establish research partnerships with marginalized communities, for example, is crucial to achieving true empowerment, yet it is not given enough consideration. Additionally, due to their existing vulnerabilities (e.g., poverty, discrimination, lack of access to education or healthcare, among others), these communities often face external obstacles that can hinder effective research participation, highlighting the need for support beyond research and design settings. Therefore, we argue for a holistic empowerment approach incorporating empowering recruitment methods and tangible benefits for these communities. We propose that this strategy include opportunities for educating communities about the potential impacts of research on their communities in a way that gives them the power to decide whether or not to participate without being coerced.

We are currently working with organizations that offer social services in a mid-sized city in the Midwestern region of the United States. This city is struggling with significant issues related to poverty and marginalization within specific neighborhoods, and as a result, the demand for social services has increased substantially in recent years. However, non-profit organizations that provide these

services struggle to meet the demands due to internal infrastructure challenges such as funding, staff turnover, and technology use issues. With the goal of empowering marginalized communities and prioritizing long-term benefits in research collaborations, we are investigating ways to support and empower these organizations that provide social care services. Despite our efforts, we have found it challenging to establish effective research collaborations and identify effective methods for supporting and empowering our partners within the current HCI research context.

In light of these challenges and gaps in the HCI literature on empowerment, we aim to engage in a discourse about empowering marginalized communities. Our paper starts by reviewing existing research on the empowerment of marginalized communities. We then identify gaps in the literature and present two provocative arguments. The first argument stresses the importance of considering how research partnerships are established and ensuring these efforts are geared toward empowering the communities in question. The second argument posits that the needs of marginalized communities are complex and multifaceted and require a broader approach beyond standard research and design methodologies to support them effectively. Together, these provocations emphasize the need to prioritize the long-term benefits for marginalized communities outside of research and design efforts and technological contributions. Our paper concludes with a proposal for an inclusive and holistic empowerment strategy within HCI.

Our conceptual contribution to the literature is these two provocations that have emerged from our research. We hope to spark a conversation within the SIGCHI community about holistic support for marginalized communities through research and design.

2 RESEARCH CONTEXT, SETTINGS, AND PROJECT GOAL

This section delves into the background and history of South Bend, Indiana, USA, which is the focus of our research. We will summarize the social service provision problem in this city and describe our research objective. Furthermore, we will present details of our research with non-profit service provider organizations to enhance their capacity to deliver social services.

2.1 Our Community Context

South Bend, Indiana, is a city with a rich history as a hub of manufacturing and industry in the Midwest region of the United States. However, like many other Rust Belt cities, it has experienced economic decline and de-industrialization in recent years, which has led to high levels of poverty and marginalization within the community. Despite its diverse demographic and political makeup, South Bend has struggled to address these challenges and was labeled one of America's dying cities in 2011 [38]. According to data from the US Census Bureau, the poverty rate in South Bend was nearly 27% in 2019 [12], higher than the state average of 12% [10]. The Covid-19 pandemic in 2020 further worsened these issues, significantly impacting schools, families, businesses, and citizens in the area. In response to these challenges, South Bend has a social services network, including food banks, crisis centers, and shelters, which aim to support its marginalized citizens.

These social services, which non-profit organizations largely provide, have faced difficulties in meeting the community's needs, particularly given the increasing demand for their services due to employment loss and other issues related to the pandemic.

2.2 Non-Profits and Social Services Work

Non-profit social service providers offer services to communities in need without focusing primarily on making a profit [2, 24]. Services they provide may include support for individuals facing financial, emotional, or social challenges, such as homelessness, poverty, mental health issues, domestic abuse, or addiction [47]. However, some non-profits often face significant infrastructural challenges, including a lack of resources, high staff turnover rates, inadequate business management systems, and limited access to technology, particularly for those serving low-resource, high-need communities [53]. These challenges are multifaceted and can significantly impact their ability to provide support and assistance to those in need effectively. For instance, the reliance on donations and other forms of funding to sustain their operations can cause them to have limited resources, leading to a lack of technology access and making it challenging to deliver services effectively. Additionally, these organizations often rely on the unpaid labor of staff members (e.g., volunteers), often from the communities they serve [5, 16] and may face personal struggles. This reliance on volunteer labor can also present challenges for the organization in terms of meeting its goals and high demands for its services. Despite these challenges, these organizations remain committed to helping those in need. It is essential to address these challenges to ensure the most effective service delivery possible and empower the communities they serve.

2.3 Our Research Setting, Project Goal, and Current Challenges

Research Setting. Our research seeks to address the challenges confronting South Bend's marginalized populations by empowering the organizations that provide social services to these communities. To achieve this goal, we are collaborating with various non-profit organizations in South Bend that offer a range of social care services, including housing, food, employment, and legal assistance. In the summer of 2022, we extended an invitation to representatives from various non-profit organizations to participate in a workshop. The workshop's goal was to understand these organizations and the services they offer, identify their strengths and challenges and establish relationships. However, only six (6) organizations responded to our invitation. One of the issues that emerged consistently among the representatives who participated in this workshop was the challenge of managing knowledge within their organizations. These challenges were often linked to how the organization operated, as well as issues related to the technologies and resources available to them.

Research Goal. Our ongoing research focuses on understanding and addressing the challenges and knowledge needs of these organizations, as well as identifying strategies and technologies that can support their efforts to deliver high-quality social services to marginalized communities. Through this research, we hope to contribute to developing more effective and sustainable approaches to

social care delivery that can empower marginalized communities and promote social justice [18].

Current Challenges. Despite our attempts to support marginalized communities by empowering the organizations that serve them, we have encountered challenges in finding research partners with the flexibility and resources to engage outside of their day-to-day work responsibilities. In this paper, we will contextualize our challenges and research objectives within the current HCI literature, including our proposal for forming these partnerships and providing support for this community.

3 RESEARCH METHODS OF EMPOWERING MARGINALIZED COMMUNITIES IN HCI

Our focus on empowering marginalized communities led us to conduct a review of research articles in the SIGCHI literature that specifically addressed the empowerment of marginalized communities. This review explored the various approaches used in past studies to support and empower marginalized communities.

3.1 Active Involvement of Communities in Research and Design

> "*Empowerment refers to the process by which people* **gain control** *over the factors and decisions that shape their lives. It is the process by which they increase their* **assets** *and* **attributes** *and* **build capacities** *to gain access, partners, networks, and/or a voice to gain control.*"–World Health Organization, on Community Empowerment [43].

Marginalized communities are frequently excluded from the development and design of technology, perpetuating feelings of discrimination and disempowerment [20]. Participatory design and community-based participatory research have emerged as a response to this problem, seeking to involve these groups in the technology research and design process to empower them and ensure that their needs and perspectives are adequately reflected [20]. By treating members of these communities as active stakeholders in the research and design process, participatory approaches enable the vulnerable and marginalized in society to exert agency and control over the direction of the research, including input on research questions, data analysis methods, and research settings [52]. The literature suggests that such collaboration can be empowering, as it allows marginalized individuals to shape the design of technologies they use [29, 37, 55].

The origins of participatory design can be traced back to the Scandinavian action research movement of the 1980s, which sought to transform actively, rather than observe, social and technological systems [7, 28]. These early participatory design projects prioritized local accountability, recognizing the importance of addressing the specific needs and concerns of the community in which the research was conducted. This focus on supporting local actions and addressing local issues has remained central to participatory design and research in HCI, particularly when working with marginalized communities to develop systems that promote health [30, 31, 50], address systemic issues (e.g., discrimination) [17, 55], and address community-level challenges [42] (e.g., violence prevention [16]).

Researchers have emphasized the need to carefully consider the mode of engagement with communities while implementing participatory research and design methodologies [52]. While participatory design research holds the promise of empowerment, its effectiveness can be undermined if not used appropriately with sensitive groups such as immigrants [20] and individuals with disabilities [54]. To address this, the assets-based design approach has gained popularity in highlighting the strengths and resources within a community rather than just focusing on their challenges and needs [59, 60]. This approach has been observed to increase agency and willingness to share experiences among participants and to address the tension between personal aspirations and structural constraints.

3.2 Considerations of Ethics for Research and Design Collaborations

The discourse surrounding the empowerment of marginalized communities also emphasizes ethics. These communities, which are made up of people from a variety of identities, including race, ethnicity, religion, gender, sexual orientation, age, disability, and socioeconomic status, have their own unique experiences, values, and challenges [39–41, 61]. This raises the question of how researchers can engage with marginalized communities in a way that does not exacerbate their existing challenges. By ensuring ethical considerations are taken into account when working with marginalized communities, researchers can maximize the positive impact of their work and minimize any potential negative effects on these groups.

Common ethical considerations for empowering marginalized communities include ensuring that they are treated with respect [48], acknowledging the values and experiences of these communities [34], promoting their rights [1, 25, 45], and working to prevent harm and exploitation [16, 22, 29]. Researchers have highlighted the issue of exploitation in research, where individuals from marginalized groups are studied, used, and discarded without any practical benefits being offered to them [22]. To address these and other ethical considerations, frameworks such as Design Justice [13] and Value-sensitive design [23] have emerged as useful tools for researchers and designers seeking to empower marginalized communities. These frameworks promote the principles of justice, fairness, and non-discrimination while also protecting these groups from the potential negative effects of the research.

Design Justice, as proposed by Costanza-Chock [13], is a framework that recognizes the power of design to empower marginalized communities through collaborative and creative practices. Costanza-Chock argued that designers must engage with the experiences of marginalized individuals who are often rendered invisible or marginalized by systems of heteropatriarchy and capitalism, settler colonialism, racism, sexism, ableism, and other forms of structural inequality. Several aspects are emphasized in applying justice-oriented lenses to guide research and design engagements with marginalized communities. For one, it is important to avoid making assumptions or relying on stereotypes about these groups [44]. It is also necessary to address power imbalances between researchers and marginalized community members [16]. Sharing research outputs, including data, artifacts, software, and result slides, with community partners is another key aspect of design justice

processes (Costanza-Chock [13], p. 201). By taking these steps, researchers can better understand the needs and challenges faced by marginalized communities and work to address systemic issues that impact their lives. Dickinson et al. [16] utilized the design justice framework to partner with outreach workers from a low-resource community facing violence and security issues. Through this collaboration, they empowered the community by developing a tool for monitoring and addressing violence.

The VSD Framework is another useful tool for empowering marginalized communities from an ethical perspective. As Friedman [23] explains, values are *"what a person or group of people consider important in life."* This framework acknowledges that research participants bring unique experiences and beliefs to the research and design process. Also worth noting is that researchers and participants may not necessarily share the same values with their participants [34]. Therefore, an ethical research and design approach based on the VSD framework involves respecting research participants' values, beliefs, and goals when engaging with them. An example of a study in the HCI literature is the work by Kirabo et al. [36] where they leveraged the VSD framework to engage deeply with notions of culture, socio-economic differences and values in Uganda and incorporate those considerations into the development of assistive technologies for the Global South.

3.3 Facilitation of Empowering Experiences

> *"Empowerment refers to users'* **autonomy or self-esteem**. *Feeling empowered is the researchers' main focus."*– Schneider et al. [51].

The discourse of empowerment also emphasizes the facilitation of *feelings* of empowerment for marginalized communities. To achieve this, the research community has taken various measures, such as creating supportive environments that encourage the sharing of lived experiences [8, 56], allowing a support person to be involved in research and design sessions [14], and involving and representing marginalized communities in the design process [41]. For example, the research by Alexandra To et al. [56] and Neate et al. [41] utilize various methods, including narrative episodes, semi-structured interviews, and co-creation techniques, to empower participants and increase their sense of agency and control, ultimately resulting in feelings of empowerment. In addition, several studies have established that the technologies developed have benefited users and communities and led to a sense of empowerment. This empowerment is evident in the tools that enable individuals with disabilities to compete with non-disabled individuals in exergames [26] and tools that assist minorities in exploring their creative writing skills [27].

4 PROVOCATIONS

Our review of empowerment discussions for marginalized communities within the current state of HCI literature reveals significant gaps. Firstly, there is often an assumption that research partnerships with marginalized communities have already been established. However, how this is achieved is often not discussed, raising concerns about whether these partnerships are truly empowering for these groups. Secondly, empowerment for marginalized communities is frequently limited to the research and design setting and

the technological contributions that result from it. These communities are often required to invest significant time and resources, such as participating in interviews or surveys, providing feedback on research proposals, or collaborating on data analysis. This can pose challenges for communities already facing pressing social and economic issues. This is particularly relevant for non-profit organizations, whose members may need to balance their involvement in research with providing social services to community members.

We present two provocations in this section. These provocations are informed both by our own experiences with local non-profit organizations that provide social services (section 2.3) and observed gaps in the literature we reviewed on the topic of empowerment for marginalized groups. We recognize that some may not fully agree with these provocations, but we aim to highlight areas that should be considered when working toward the comprehensive empowerment of marginalized communities.

Is the method by which we establish research partnerships with marginalized communities in line with our empowerment objectives in HCI? Does it truly foster equity and empower the community's decision to participate? Our first premise addresses a pressing concern: how to establish research partnerships and obtain a commitment from community partners for research efforts. Recruiting research participants is a crucial step in any research project. Still, it can be particularly challenging in community-based research as it requires a significant level of commitment and ongoing partnership. Research partnerships can grow from months into years, depending on the amount of work to be done with these communities. Some examples of long-term community-based research partnerships are the works by Dickinson et al. [16] and O'Leary et al. [42]. As Dourish highlights, participatory research can be burdensome for participants as it requires their time and effort for research and design activities [19]. This can be particularly true for those already dedicating their time and efforts to the daily demands of providing social services, which are often unpaid for social service organizations. Therefore, two questions arise: are the methods used to establish partnerships with these communities consistent with our empowerment objectives in HCI? How can the process of establishing research partnerships be made empowering for potential participants?

Various strategies have been proposed in the HCI literature to empower marginalized individuals and communities during recruitment. These strategies focus on avoiding coercion or pressure to participate in research [9, 15] and protecting the privacy and safety of vulnerable participants [57]. However, there is a lack of discussion in HCI on how to support and empower these communities to make decisions about participating in research and design. We argue that there needs to be more emphasis on the empowerment aspect of research partnership building, focusing on providing relevant information to potential participants to enable them to make informed decisions about their participation and build trust in the research.

When reaching out to communities for partnerships, it is essential to effectively communicate the research goals and the practical benefits the partnership will provide beyond the technology being studied or proposed/developed. This can be achieved by emphasizing shared values and showcasing a track record of empowering
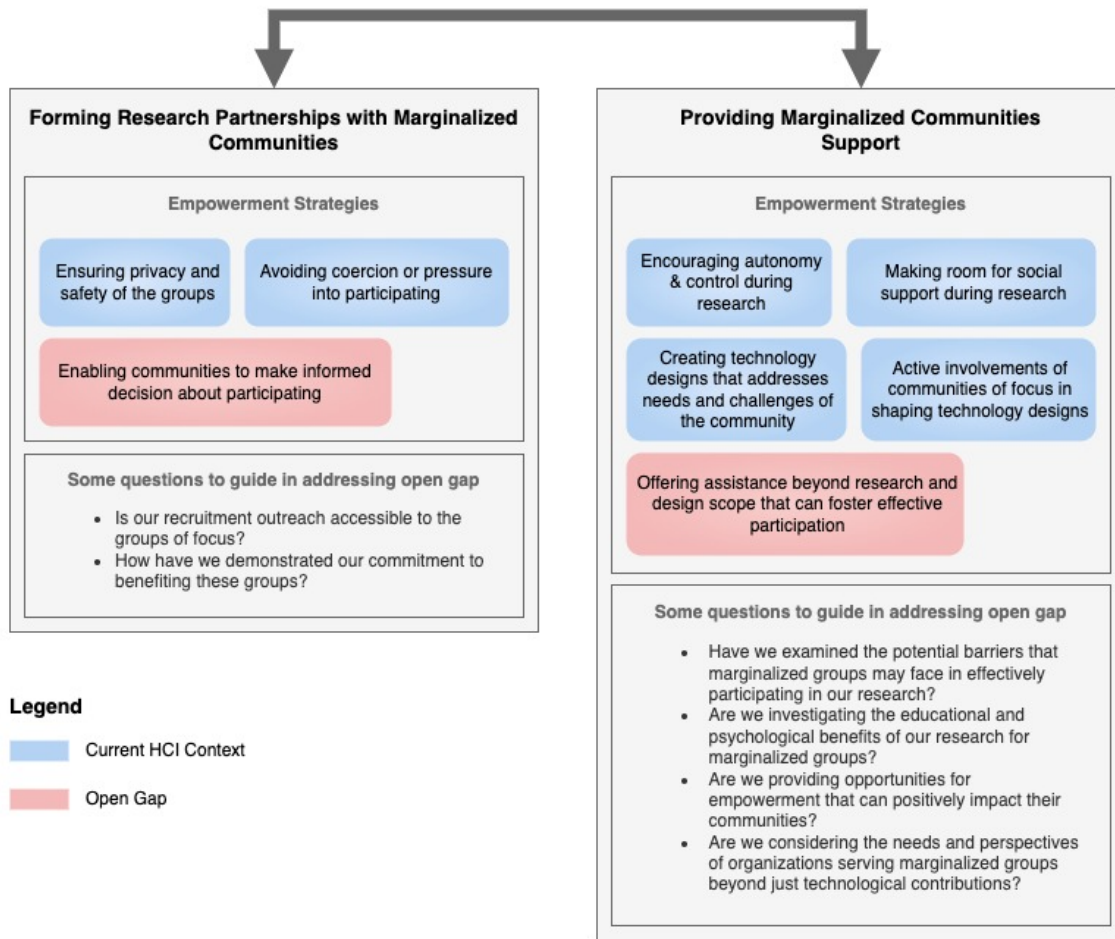
Figure 1: A holistic approach to empowering marginalized communities through technology research and design collaboration.

communities. It is also crucial to recognize the history of exploitation and marginalization of communities in research efforts, as highlighted by Costanza-Chock [13].

To ensure an empowering partnership, researchers should involve partners in suggesting ways to add value to the partnership and avoid any gestures that could be seen as coercive. For instance, offering high financial incentives to non-profit organizations to participate in research when experiencing financial difficulties may appear coercive. Similarly, providing material support to groups in need of resources (such as pregnant mothers in low-resource communities [11]) as a way to establish partnerships may make partners feel coerced into participating in the research solely for access to these resources.

Researchers can provide value that is not material or directly related to the research but enables partners to participate more fully. For example, to work with families, providing "childcare" may be a way to empower them to participate, even though it is not directly related to the research. Taking such an approach can help establish trust and mutual understanding, making the partnership more beneficial for both the researcher and the community being studied.

It is important for researchers to carefully consider how they establish and sustain partnerships with vulnerable and marginalized communities, ensuring they are empowering, and document this in their work. Satcher et al. [49] have provided various strategies for establishing research partnerships with communities, including assessing our capacities and strengths, as well as acknowledging our position of power [33].

What does effective support for marginalized communities through research collaboration entail? Our second premise delves into the importance of re-evaluating our approach to supporting marginalized communities in research. Marginalized communities often face a variety of complex and diverse challenges that exist beyond the research and design settings. These individuals may be affected by poverty, limited education, their existing disabilities, and limited access to technology in their daily lives, which can make it difficult for them to participate effectively in research. Additionally, organizations that serve these communities, such as those that provide social services, may face high demands, limited funding, and limited time to work, which can further hinder effective participation in research.

When considering ways to motivate and support marginalized communities, it is important to recognize that there is no one-size-fits-all solution. We, however, argue that true empowerment goes beyond just research and design settings and encompasses providing support outside of these contexts to ensure fair benefits for participation. Researchers must acknowledge and address barriers outside of research and design settings, such as providing digital literacy training, access to the necessary technology, and services for organizations that serve marginalized groups. It is important to note that for some individuals, participating in research studies may necessitate additional support beyond the scope of the research itself, including but not limited to digital literacy training and childcare support, to make participation possible. We have highlighted digital literacy as it is often the case that those marginalized due to their socioeconomic status may lack access to technology and the technical skills to participate in technology research and design actively [21]. Helping to address these needs and barriers could be particularly important for studies with long-term collaborations.

5 CONCLUDING REMARKS

This paper presents two arguments that propose that for marginalized communities to be truly empowered, research must adopt methods of partnership that empower the community and consider how empowerment is sustained both within and outside of research and design settings and technological contributions. We suggest that a holistic approach is necessary for our efforts to empower marginalized communities by considering all of these aspects in tandem. Our experience working with non-profit organizations that offer social services to marginalized communities in the USA has highlighted the need to empower these communities beyond the scope of research and design and technological contributions. Our holistic approach outlined in Figure 1 provides valuable insights for researchers seeking to empower marginalized communities. We plan to implement this approach in our ongoing research and continue to prioritize the empowerment of marginalized communities in our work.

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