Domain Experts, Design Novices: How Community Practitioners Enact Participatory Design Values

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ABSTRACT

There is a growing interest among researchers to define and promote equitable practices in participatory design (PD). Our work contributes to this research by exploring the values of facilitators with varying professional backgrounds. We conducted interviews with 15 facilitators who are novice in their design background but who possess a range of domain expertise and community memberships. The interviews focused on their experiences leading a series of PD sessions with rural educators, community college instructors, community organization members, and rural librarians. We identified five key values that facilitators saw as fundamental to their PD practice: community and shared culture, co-production of knowledge, respect and non-hierarchy, trust building, and creating practical and sustainable solutions. This study demonstrates how values that are core to PD are refracted through novice facilitators' professional expertise and community membership. We offer two strategies for novice facilitators as they strive to practice more equitable PD.

CCS CONCEPTS

• **Human-centered computing** → *Empirical studies in collaborative and social computing*; **Empirical studies in HCI**; *Participatory design*.

KEYWORDS

Participatory design, collaborative design, values, trust, interviews, expert knowledge

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1 INTRODUCTION

Participatory Design (PD) is a commonly used methodological approach among HCI researchers, and practicing it in an equitable way is an important ongoing conversation within the HCI community [15, 24]. Scholarship focused on practicing equitable PD emphasizes a reexamination of the power dynamics present in a PD session, the explicit centering of community needs, and a consideration of community history and reflexivity in the PD work [15, 24]. One approach that emphasizes community, for example, is Community Based Participatory Design (CBPD) [43, 47]. The CBPD approach emphasizes working *with* community value systems in its processes while highlighting the principles of participation, empowerment, and mutual benefit for both the designer and the community [3]. In CBPD, the role of the facilitator often shifts from traditional design experts to community members themselves, creating opportunities for more democratic and locally grounded design processes that challenge traditional power hierarchies in design practice while ensuring solutions are deeply rooted in community knowledge and values.

Currently, we lack an understanding of the facilitator's role when community expertise is foregrounded rather than design expertise in the PD process. Specifically examining the role of facilitators who are novice with respect to their design expertise is important as we attempt to equitably expand the reach of PD to diverse contexts. Insights gained will allow us to build supports for PD facilitators with varying levels of design expertise. Our work examines the role of facilitators who are community experts through the lens of the values they bring to the PD process. Throughout this work, we refer to these facilitators as *novice facilitators* to indicate that their expertise lies in community work rather than design practices. Focusing on and understanding the values that PD facilitators bring to the design process has shown valuable in the PD literature since values shape how facilitators make decisions around planning, structuring, and running PD sessions [28] and inevitably affect how equitably PD is enacted in different contexts. Therefore, our study focuses on uncovering the values of facilitators who possess community expertise but who are novice with respect to design expertise. The values that PD facilitators bring to the design process can stem

from their professional and personal backgrounds and lived experiences. For example, facilitators who have navigated marginalization may prioritize values like empathy and self-determination, while those grounded in indigenous knowledge may emphasize collective decision-making and ecological stewardship. These values, rooted in the facilitators' diverse backgrounds and perspectives, shape how they approach, structure, and facilitate the participatory design sessions. Through this exploration, we aim to better understand what equitable PD can look like when embedded in communities and across different contexts.

We explore these values to better understand how we can support and enable equitable PD in a wide variety of communities. We ask : **What are the values of PD facilitators who are novice in their design background but possess a range of domain expertise and community memberships when engaging in participatory design? How are those values reflected in the strategies they use to guide their PD practice?** We conducted interviews and observations involving 15 PD facilitators who were members of a large-scale project involving a broad range of community partners in the co-design of contextually relevant interventions concerning misinformation. The facilitators worked with four different community groups: instructors at an urban community college, members of am urban community-based organization, a group of rural K-12 educators, and a group of rural public librarians. In interviews that spanned the planning, implementation, and debrief stages of the PD process, we asked facilitators to reflect on their experiences and values. To complement these conversations, we observed some of the PD sessions directly.

Our qualitative analysis surfaced five values that facilitators saw as fundamental to their PD practice: community and shared culture, co-production of knowledge, respect and non-hierarchy, trust building, and creating practical and sustainable solutions. We contribute an analysis of these values against the backdrop of previous work [2, 13, 18, 23, 28, 29, 46] and show how values that are core to PD, such as trust building and respect and non-hierarchy, are refracted in distinct ways through design novice facilitators' professional expertise and community membership. Additionally, this work suggests two strategies for novice facilitators as they strive to practice more equitable PD: 1) embracing the imposter syndrome and 2) creating space for the participatory design process to look different. These recommendations emerge from the key challenges identified by participants, providing a starting point to expand the equitable PD landscape. In sum, we provide a nuanced understanding of the values novice facilitators bring to participatory design as well strategies to engage in PD equitably as researchers seek to broaden its reach.

2 BACKGROUND

2.1 Equity and Community in Participatory Design

PD methods were founded on the democratization of the design process in order to both produce knowledge and encourage activism (often political) [2]. In contrast to other approaches that emphasize the involvement of participants in the design process like Participatory Action Research and Community-Based Collaborative Co-Design, PD aims to democratize the design process by involving participants directly in the creation of solutions, often to ensure that the outcomes are more relevant and effective for the end-users. Both participants' lived expertise and designers' professional knowledge are held in the same regard as the design community works together to design towards a specific goal.

More recently, however, Harrington et al. [24] critiqued the implementation of PD practices, suggesting that certain techniques and approaches common to the method inadvertently exacerbate inequalities by utilizing design practices (like the design workshop) which can be exclusionary to communities that have historically faced systemic discrimination. Others point to the complexities that arise when trying to scale PD to larger and more complex projects, [50] and when trying to engage different audiences in the design processes [27].

When considering the diversity of contexts and communities that apply PD practices in their work, Harrington et al. [24] ask us to reflect on common PD techniques and reevaluate what equitable PD practices might look like in present day. Mitchell et al. [33] suggest equitable PD is a process that is conducted with a thorough consideration of social norms in a specific community, a prioritization of systematically excluded groups in the design process [19], and a consideration of the diversity among individuals in a design group [48]. In this work, we define equitable PD as a process that foregrounds and prioritizes outcomes and modes of participation the community *authentically* decides on [15, 24].

Community Based Participatory Design (CBPD) is one approach to PD that focuses on foregrounding a community's needs, goals, and preferred modes of participation. CBPD emphasizes creating spaces that encourage participants to express and design for their specific needs and aspirations as they engage in the design process [43, 47]. At its core, CBPD is community-centric and acknowledges that the design process cannot and does not exist in a vacuum outside the dynamic communities it designs for [39]. CBPD emphasizes working *with* community value systems in its processes while highlighting principles of participation, empowerment, and mutual benefit for both the designer and the community [3]. Examples of this approach are especially prevalent in work done with communities in the Global South [39, 43, 47]. CBPD sees design as a pragmatic and collective method that benefits the communities involved [15, 24] and is informed by the expertise of community members. These attributes of CBPD complement the prioritization of authentic and meaningful community engagement that Harrington et al. [24] point to as valuable in equitable PD. To better understand how to practice and support equitable PD, then, we must look towards PD facilitators who are deeply embedded in their communities. By surfacing the values of these facilitators who lead with community expertise rather than design expertise, the HCI community may begin to expand its understanding of what community-embedded equitable PD can look like.

The process of discovering and designing for authentic community needs is driven and shaped by the constant negotiation of the values that both the community and the PD facilitators hold [20]. The values of both the facilitators and the participants of a PD process surface throughout the design process [28] while engaging with and designing for community members. Therefore, further exploring what values are salient in CBPD practices is important if we

want to know more about implementing and supporting equitable PD processes.

2.2 Values in Design and Participatory Design

Values exist in every aspect of the PD process [20, 28], whether they are explicitly called out or not [20]. In our work, we draw on Iverson's definition of values, which states that values are "enduring beliefs that we hold concerning desirable modes of conduct or end-state of existence in different situations, societies and cultural contexts" [28]. Prior work has explored how intentionally thinking about and surfacing values shapes the ways designers negotiate design dilemmas, [28], leads to more meaningful design outcomes [30], and builds trust among community members [20]. Frameworks that urge designers to consider human values in the design process, such as Value Sensitive Design [17], Values in Design [35], and Values for Design [45] echo the belief that there is moral and practical significance in thinking explicitly about the values that are foregrounded while designing [17]. For example, Bannon, Bardzell, and Bødker [2] point to the significance of core concepts in PD (or values) such as public participation, sensitivity to social conflict, shared trust, mutual learning, security, and fairness as drivers of producing a significant design outcome.

Specifically in community-based design techniques, values are continuously negotiated with the community as a method of trust building [20, 28], much like the design practices themselves [43]. Understanding the values which lead the actions and decisions of each stakeholder in the design process is essential in CBPD, as groups of participants are not related by pre-defined structural, economic or political agendas [20]. In their work across different communities, Gronvall et al. [20] show how the constant surfacing of values within design groups is a driving force for the projects as well as a tool to allow a plurality of values to co-exist. While there has been extensive exploration of the values surfaced by facilitators who have design expertise, little work has explored what values are surfaced and negotiated when novice facilitators, or facilitators who foreground community expertise, engage in PD processes.

To further our understanding of how to best identify and support equity in CBPD, our work examines the negotiated values brought up in these spaces. Specifically, we turn our attention to the values surfaced by PD facilitators, recognizing that facilitators play an important role in the realization and practice of PD's values and end-goals [13]. Therefore, examining the values they bring to community-based PD processes may shed a particular and significant light on how equity can be defined and embedded within community focused PD spaces.

2.3 PD Facilitators

The role of the facilitator is an essential function in the PD process that has often been overlooked [12]. Facilitating participatory design engagements is a complex task, relying heavily on practitioners' prior knowledge and understanding of design [34], subject area knowledge, and an understanding of the relevant contexts. Facilitation has sometimes led to unintended frictions [9], raising questions about the nature of participation itself [11], and highlighting the often subtle and unanticipated ways that the actions of

the facilitator can affect the process and final product of the design activities [13].

Prior research exploring PD facilitation has surfaced the large impact facilitators' thinking and practice can have on both the design process and outcome. Dahl and Sharma [12] identified six facets that the facilitator role embodies, highlighting its complexity: (1) trust builder, (2) enabler, (3) inquirer, (4) direction setter, (5) value provider and (6) users' advocate. The authors argue that recognizing these facets is only the first step to support a reflective PD practice; building additional reflective tools for facilitators to work with is equally important and presently under explored in the literature. While their work seems to mention novice facilitators as potential benefactors from the identification of the complexity of the facilitator role, their findings are drawn from facilitators who have been practicing PD for a long time, and are intimately familiar with its workings and methods. The growing popularity of PD across disciplines and in diverse contexts, however, has led to an increase in facilitators with non-designer backgrounds taking up the task of collaboratively designing with communities on a variety of subjects [34].

There is currently little research exploring the the values that facilitators with non-designer backgrounds bring to the the PD process. In their recent work, Gu et al. [21], worked with what they called 'novice facilitators' to understand the core skill sets they saw as required for PD. Novice facilitators, as the authors defined them, referred to facilitators with a "strong educational foundation but limited professional experience" in practicing PD. We draw on this definition in our work, and refer to *novice* facilitators as those with limited design expertise but extensive community knowledge, pertinent to the community they are working with. Gu et al. [21] further explored core skill sets of novice PD facilitators, suggesting that this will grant us the ability to work collaboratively across disciplines with diverse stakeholders in the future [21]. They did not, however, explicitly mention the values these facilitators surface in their work. Studying the values surfaced by novice facilitators will help HCI scholarship in its ongoing efforts to expand and diversify PD in an equitable way, while paying close attention to the values and needs of the communities who participate in the design process. Our work addresses that gap; namely, exploring what values facilitators who are domain and community experts and who have strong ties to the communities with whom they work see as critical to their community-based PD practice and exploring how these values impact their PD practice.

3 METHODS

3.1 Research Context

To explore the values surfaced and enacted by facilitators working in CBPD settings with various domain expertise, we engaged with differing facilitator groups, each with their own domain expertise and community relationships. This work occurred in the context of a large-scale project that engaged a broad range of community partners in the co-design of contextually relevant interventions targeting misinformation in their communities. Community partners worked alongside researchers with design expertise to develop a suite of resources that addressed specific forms of misinformation encountered by partner communities and that could be easily

adapted by other communities. Accordingly, the project adopted a community-based approach to developing misinformation resources at scale. The project engaged four groups of community partners: (1) a group of rural public librarians, designing materials for their library patrons; (2) a group of urban community college faculty, librarians and students, designing pedagogical materials for community college classrooms; (3) a community organization based in a large metropolitan area, designing resources for their local Black community, and (4) K-12 teachers and librarians, designing pedagogical materials about misinformation for rural K-12 education setting.

3.2 Participants

The facilitators for each of the four teams were community members or leaders, or experts in misinformation topics. They came from diverse backgrounds such as researchers, professional librarians, graduate students, K-12 educators, and community organizers. Facilitators each had 5-20 years of professional experience and strong connections to the communities they worked with, bringing cultural knowledge and expertise. These characteristics, including their familiarity with the community and their professional skills, may be more salient than their "novice" status in participatory design methodologies. This is because their professional experience as librarians, educators, researchers, and community organizers overlapped in productive ways with the training and skills of professional design researchers. Their embeddedness within the community allowed for a collaborative approach that prioritized solutions that aligned with the workflows of target audiences (e.g., K-12 educators or librarians), social supports, incentives, and sustainable engagement strategies tailored to their specific audiences. This approach contrasts with the other professional facilitator perspective, which may focus on design expertise but lack the relational depth from extended professional and cultural experience with the community.

The novice facilitators, despite lacking formal design training or experience in PD methodologies, received substantial scaffolding from the larger project team. During all-team meetings, they were introduced to the definition and goals of PD within the research context. Each team had a key facilitator who had either completed a university-level course on participatory design or who had experience with PD. The key facilitators developed detailed facilitation guides tailored to their group's specific context. These guides provided instructions on engaging participants while emphasizing flexibility. For example, the community college group's guide encouraged facilitators to prioritize productive conversations and insights over rigid adherence to prompts or activities suggested in the guides. This approach also reminded facilitators to adopt a learning mindset, positioning facilitators as co-participants rather than instructors. Additionally, the guides included adaptable questions, prompts, activities, and online tools to support novice facilitators in leading sessions effectively.

Table 1 provides information about each facilitator's pseudonym, the community group they worked with, and their professional role and domain expertise. All facilitators approved participating in a series of in-depth interviews and observations of their PD

Affiliated Community Group	Facilitator Pseudonym	Profession
Community College	CC1, CC6	Reference Librarians
	CC2, CC3, CC4, CC5	Reference & Instruction Librarians
Community Organization	CO1	Community Organizer
	CO2	Research Director & Community Organizer
Rural K-12 Educators	E1	Program Coordinator
	E2	Educator
Rural Libraries	L1	Graduate Student
	L2, L4, L5	Researcher
	L3	Researcher & Professor

Table 1: Facilitator Information

workshops over the course of one year. All research activities were approved by the authors' university institutional review boards.

3.3 Overview of Community-Based Participatory Design Activities

Though the overarching large-scale project sought to engage varied communities in the co-design of contextually relevant interventions concerning misinformation, the way each community approached this task was different, based on their resources, preferences, and prior knowledge of misinformation and their familiarity with participatory design practices. The rural librarian group, for example, held eight PD sessions involving PD activities ranging from problem definition to creating prototypes. This process led to the development of a comprehensive youth program, including educational materials and interactive workshops, designed to help librarians teach misinformation awareness and digital literacy to young audiences. These sessions involved a cumulative total of over 50 rural librarians. In contrast, the community college group held eight workshop sessions focused on understanding how students and faculty deal with misinformation in their life and educational settings. These were followed by two PD sessions for designing classroom solutions to combat misinformation, involving a cumulative total of over 30 students, faculty, and librarians. These sessions produced assignments and modules for community college instructors to teach students about misinformation, such as a Canvas Commons module on evaluating sources. Further details of the co-design sessions and resulting artifacts are shown in Appendix B 2.

Although their PD sessions and workflows were structured differently, all groups shared a similar spirit of participatory design and focus on producing community-centered artifacts, which led

us to characterize all their efforts as a form of CBPD. By observing and interviewing facilitators about their PD experiences, we documented the values enacted by facilitators with varied domain expertise; examined how they performed these values; and identified the challenges they faced in upholding the values.

3.4   Data Collection

We conducted online interviews with facilitators and observations of virtual PD workshops from August 2022 to July 2023, mindful of the emergent and dynamic nature of values in PD [28]. At the start of data collection, each facilitator completed a brief survey asking them about their prior experience with and knowledge of PD. Then, the research team conducted several group interviews with the facilitators (one interview for each community group) before they began their PD workshops with community participants. We asked them to reflect on their understanding of PD; how they were approaching the planning of their PD sessions; and what they hoped to accomplish through their PD work with community members. Mid-way through the year, each facilitator team participated in a debrief interview after completing a majority of the workshops with their participants. All survey and interview questions are presented in Appendix A. In addition, one of the first authors of the research team also acted as an observer in one PD session for three of the four community groups. We drew on the field notes from these observations in our analyses. We did not participate as observers in the community organization team since the event was for community members, and having researchers attend as outside observers would have felt out of place.

3.5   Data Analysis

We drew on Braun and Clarke's [6, 7] reflexive thematic analysis (TA) to analyze the interview transcripts, surveys, and observation notes. We employed a reflexive TA approach as it is a flexible, iterative approach to qualitative data analysis compared to more post-positivist approaches to coding and theme development [4, 22].

Interview recordings were transcribed and imported into the qualitative analysis software Atlas.Ti [1] along with the observation notes and survey responses. In the first stage of analysis, lead coders (two first co-authors) immersed themselves in the data by reading through the entire data corpus and using open coding to capture responses and notes that addressed the study's two research questions. To create distance from the data [8], the researchers shared their emerging impressions and reflections with two additional researchers (authors five and six) in weekly meetings spanning three months. During these meetings, patterns across the data were discussed to create the initial codebook.

After the initial open coding phase, any new or overlapping codes were also addressed in these meetings, and updates were made as needed. Through this process, we identified 23 codes and 5 core values shared by facilitators, such as trust-building, respect, and non-hierarchy. Using affinity diagramming [26, 31], we visually analyzed how all codes related to the 5 core values, exploring facilitators' conceptualizations of the values, strategies for enacting these values in PD, and the challenges they faced and addressed in enacting the values during their work. These insights provided the framework for writing our results section.

3.6   Positionality Statement

We include a positionality statement to make the relationship of the authors to the data and its context explicit and to practice reflexivity [25]. We include this statement to highlight the process of reflection the authors engaged in while interpreting the results, which was inevitably shaped by our own experiences and interpretations of the data we collected. We hope the reader can see the value in our varied perspectives and levels of professional design expertise, as well as its overlap with that of our study participants.

Four of the study's authors were in charge of creating a participatory design playbook for the project. This playbook was intended to outline techniques and tips for communities outside of the project to use PD to address issues surrounding misinformation. Members of the research team held different roles throughout the data collection process. Two of the authors were Co-PIs on the project, three are professors, and two are graduate students working on the project. Much like our participants, the research team came from varying backgrounds (including Education and Information Science), and entered this project with varying levels of expertise in PD. Some authors had published several articles about the subject, while others (including the first authors) had not yet written about the methodology until the current work. This diversity of views and experiences represented in the research team shaped our research protocols and the data we collected. Furthermore, the varying levels of prior knowledge about participatory design among the team members contributed to a more participant-centered perspective, as it allowed us to ask more pointed follow-up questions without relying solely on prior knowledge of PD.

Additionally, it is important to acknowledge the socio-structural and economic practices and experiences that influenced our research. The research team occupied a privileged position in relation to the community facilitators and participants. Our academic and professional backgrounds provided us with resources, networks, and access that the community facilitators might not have had. Mindful of this privileged position, we strove to center the voices of the community facilitators and participants throughout our work.

4   RESULTS

Our analysis surfaced five common and interconnected values that novice facilitators consider integral to a successful PD session: community and shared culture, co-production of knowledge, respect and non-hierarchy, trust building, and creating practical and sustainable solutions. The values in the results section are ordered to reflect a logical progression in the PD process. The emphasis begins with establishing community and shared culture, co-production of knowledge, and respect and non-hierarchy as foundational for collective identity and understanding. This is followed by trust building, which naturally arises from these foundations, and culminates in the creation of practical and sustainable solutions. This order illustrates the interconnectedness of these values, showing how each step builds upon and reinforces the others. For each value, we describe (1) participants' grounded definitions and perceptions of the value, (2) the actions and strategies employed by facilitators to enact these values, and (3) the challenges associated with these values in the PD process, including facilitators' responses. In addition, we show how these values were refracted through facilitators'

domain expertise and community membership. In many cases, there is overlap among the values, including how they were enacted and the challenges they raised. However, there is sufficient distinction among them to warrant separate analyses.

4.1 Community and Shared Culture

Facilitators and participants came to their PD work with shared group identities, such as being librarians, K-12 educators, or members of the Black community. The value of this shared culture, along with the facilitators' knowledge of and membership in each community, allowed them to host PD sessions in a way that resonated with participants' identities, values, and experiences. At its core, "Community and Shared Culture" created an environment where participants share professional backgrounds, contextual experiences, and core values (particularly around community service and information access), while feeling safe to contribute their perspectives honestly, leading to more effective collaboration and locally-resonant solutions. L3, working with the rural libraries group, reflected on the value of facilitators and participants connecting through a shared librarian culture:

> "Our library participants all come from small and rural systems, so there is a shared sense of identity there. They perform very similar jobs in similar social contexts. And then, we've created a lot of spaces for the librarians to talk about their lived experiences and goals, and it's really highlighted the many values that we all share. For example, during kick-off...there was a lot of consensus around their desire to support their communities to get better access to good information and to heal from social divisions being amplified by misinformation...This shared sense of duty to community has been really important for the work, since it's created a feeling that we're all on the same team working towards the same goal. I think that it's made everyone feel comfortable to share their honest views, even when engaging with difficult or controversial topics. This, in turn, has allowed us to create interventions that resonate well with the communities from which our librarians come."

This quote demonstrates how a shared librarian culture helped facilitators create an environment where all participants felt respected and comfortable sharing their knowledge during the PD sessions.

Facilitators used their cultural knowledge to ensure that the PD work was community-driven and relevant, producing outcomes that were co-created by and tailored to the specific needs of the community. L2 described how the librarian facilitators sought to involve their librarian participants in a way that centered their knowledge and expertise: *"We had a good group who were very engaged...so how do we leverage them? How do we do this in the right way that truly looks collaborative, and it's coming from them?"* How the facilitators organized consecutive PD sessions revealed how they sought to utilize the librarians' shared expertise. Starting with the identification of their current issues related to misinformation, these PD sessions allowed librarians to share their problems and identify common themes. Then, participants and facilitators prioritized the main challenges to address. Once the problems were defined, the sessions moved towards brainstorming interventions

and creating prototypes. In the end, the focus shifted towards understanding how these newly conceived ideas could be seamlessly integrated into each librarian's particular context.

Facilitators used their cultural knowledge to integrate the subject matter of PD, in this case misinformation, into the existing practices and structures of the communities with which they worked. For example, K-12 group facilitators integrated educational materials on misinformation into existing curricula by incorporating these materials as topics for Advanced Placement (AP) courses' argumentative essays. Rather than creating a standalone product, facilitators used their understanding of participants' communities to guide the PD process toward the development of a product that could be integrated easily into the intended community. For instance, following two consecutive PD sessions focused on designing classroom solutions, the community college group developed a Canvas Commons module lesson on evaluating sources to prevent misinformation issues, which could be readily adopted by other educators through the Canvas learning management system. This integration into existing curricula and platforms was important as it allowed participants to see the tangible impact of their PD efforts in their communities.

There were times when facilitators' commitment to centering cultural relevance and shared community was in tension with the PD process. One way this tension manifested was in facilitators' struggle to model and encourage PD's embrace of new ways of thinking at the same time as they foregrounded participants' existing cultural practices and values. CO1 from the community organization group highlighted this tension:

> "We [Black people] need to be taught different things [in PD sessions], but we also are very set in our ways as a people, because people have tried to change our culture [Black community culture] so much that we stick to things... So the delivery [of a PD session] is very important."

This quote illustrates the challenge of striking a balance between upholding the values and processes of PD, on the one hand, and the desire to honor existing cultural practices within a community, on the other. In an effort to foster the community's culture, the community organization group paid careful attention to the arrangement of their PD sessions. They conducted the PD session in such a way that participants could feel at ease and connected to their cultural group by taking measures such as creating a welcoming environment, providing culturally reflective food and music, and prioritizing the establishment of trust and openness before diving into the sessions.

4.2 Co-Production of Knowledge

The sense of community and shared culture discussed in the previous section enabled facilitators to be able to co-produce knowledge with the participants. Facilitators identified co-production of knowledge as a key value during the implementation of PD sessions, emphasizing mutual learning and shared understanding between themselves and participants. L4 from the rural libraries group described the participants' engagement in shaping the PD sessions in partnership with the facilitators:

> "But they've [participants] also corrected me... which I think is just amazing that they know the problems. 'Hey, actually this is

like this. What about this?' you're... not just pushing back on each other's ideas, but to really question... The actual folks leading the project...is a really good sign for... co-production of knowledge."

To support the co-production of knowledge, facilitators focused on empowering participants by enabling them to express their ideas freely and contribute actively to discussions and the direction of the sessions. Specific strategies included collaborative testing and feedback, where participants were integral to prototype testing and feedback processes, as described by L4 from the rural libraries group: *"We ideate into the next workshop, then start to design and build together... we'll want the librarians to take that back either to their colleagues or to their patrons and kind of test some stuff out to get feedback so that we can iterate additionally on that."* Through this iterative prototype testing process, the librarian group created online quizzes intended to engage community members who might not typically show interest in digital literacy or misinformation. These quizzes included realistic interactive scenarios aimed at identifying and addressing misinformation, such as scenarios involving a scam related to buying a truck on Facebook Marketplace or determining whether a TikTok video provided a beauty tip or misinformation. The main objective of these quizzes was to provide a fun learning experience and guide individuals to the library for further learning. In their PD process, the library facilitators from various districts proposed ideas, and then the research team constructed a quiz based on these suggestions. The librarian participants shared the improved quiz with other staff in their libraries for additional feedback.

Another example from the rural libraries group further highlights the collective nature of the design process. L4 explained:*"[We consider together] which ideas are scalable, and all the participants probably are happy to go with not necessarily one idea... [but instead] looking at which ideas are liked by everybody, or is seen by everybody as workable."* In their regular PD sessions, the idea of creating a youth program was proposed by a library staff participant. This program aimed to engage teenagers in generating narratives related to misinformation, which could then be integrated into library programs. To expand this idea, the facilitators organized separate meetings with local teenagers outside the regular PD workshops. In a further effort to bolster specialized knowledge and enhance the project's transferability beyond that specific library setting, a youth librarian was also brought into the project. This approach underscores the collaborative and co-productive nature of their knowledge building process. Similarly, E1 from the rural educators group described how teachers worked together to iterate on assignments by taking all participants' feedback into account: *"Each session there will be like, a few new versions of the assignment coming out of it... people can prioritize like, here's all the things that people said like, what are the top three? If we're going to build it.""* These process exemplified how enabling participants to express their ideas and contribute to the testing and feedback can empower them in the knowledge co-production processes.

To support the collaborative design process, facilitators tailored PD sessions to meet the specific needs of participants, creating space to depart from original plans. CC2 from the community college group reflected on this continuous process of adaptation: *"A lot [of the ideas] came from the follow-up sessions where participants were designing things themselves. I initially thought about broad, open*

sessions where we learned a lot and then designed the next session based on what we learned. But it was also crucial to frame subsequent sessions as times for design."* This reflection illustrates how facilitators embraced flexibility in order to ensure that participants' ideas and priorities drove the design process throughout. Challenges associated with co-production included scoping issues and aligning individual sessions with overarching project goals. L4 from the rural libraries group reflected on the challenge of scoping ideas that could be pursued successfully within the time frame of the project:

"If we choose something [an idea] with a lot already built around it [preliminary work done prior to the current PD session], we could progress quickly. For instance, by workshop 5, we might have a prototype ready for testing in other libraries, followed by additional iterations, leading to a well-developed outcome by the end of the first year. Conversely, starting from scratch could significantly extend the process."

L4 expressed a tension between wanting to stay true to the value of co-production, on the one hand, while also recognizing that the project had a specific timeline, on the other. For example, K-12 educators decided to create readily adaptable lessons on identifying, understanding, and explaining why misleading information is harmful for students, using a game format. The facilitators realized that, given the limited time they had allocated - which turned out to be insufficient - the completion of a "final" resource relied on someone in the group dedicating time to it outside of the workshops. The facilitators mentioned some participants were eager and able to do this, while others were not. This experience demonstrates the challenge of balancing the co-productive process with meeting project deadlines.

Participant expertise and knowledge gaps were also concerns for some facilitators. CC4 from the community college group reflected on the fact that student participants may not bring prior experiences with participatory design or formal education related to the topic of misinformation which posed a challenge as it can hinder meaningful contributions and engagement in the design process. Accordingly, this facilitator emphasized hosting PD sessions that were accessible to participants, allowing them to engage fully in the co-production of knowledge: *"Let's get outside of the academic jargon as we frame our first workshop... one principle we're working with is trying to frame things in ways that are very accessible to our students."*

4.3 Respect and Non-Hierarchy

As we investigated the complexities of co-producing knowledge, respect and non-hierarchy emerged as another value shaping balanced facilitator-participant relationships during the implementation of PD sessions. This value reflected facilitators' commitment to ensuring that every participant's voice was heard and contributed to the PD results. One way that facilitators showed their respect for participants' efforts was through recognition and compensation for their time. L3 from the rural libraries group explained:

"I feel a little protective of [the librarian participants]. I know how hard they work and how little time they have. So if we're going to engage them, it better be worth their time... Showing them that you respect their time, that they're professionals, and you're going to pay them for their time... was a big thing."

L4 elaborated on the importance of respect in the PD process:

"Bring [librarians] into the project and say, 'Hey, you can trust these folks [facilitators].' We respect them by paying them, by including them in the proposal process, by making it clear here's what you get. Here's what you give to work with folks to understand their [participants'] life situation."

This approach was instrumental in creating an environment of equal voice and comfort, as L3 remarked: *"Where there's a lot of equality... This whole notion that there's no hierarchy or power structure. You're trying very hard to give everyone an equal voice and an equal comfort level with feeling they can contribute."*

Facilitators focused on participant engagement as a strategy to create a respectful and non-hierarchical environment. This strategy was particularly apparent within the community organization group. Community organization facilitators hosted PD sessions that looked quite different from the more traditional sessions found in the other three groups. For instance, one PD session was conducted within the context of a larger community event–Disinformation Day–in which there were vendors, performers, and food. CO1 explained that their approach to PD came from the desire to respect and acknowledge the cultural practices and knowledge found within the local Black community:

"The way that we wanted to set up the [PD] environment and the atmosphere was like, this is your place. This is where you can come. You will feel safe here to speak. Everybody around you looks like you. They didn't just receive this information in the [Zoom] breakout rooms. They received it from the vendors. They received it from the performers. They received it because the guy that came and did Yoga [with the participants]."

Within the librarian group, facilitators showed respect and a non-hierarchical approach to working with librarians by inviting them to take ownership of the designed product. L2 explained: *"So we kind of, to some extent, brought [the librarians] into the planning of the actual structure [of the product] and even asked them like, do you want to be more involved than you already are in designing out what we're doing?"* Facilitators also showed respect for librarians' knowledge and expertise through their readiness to change course based on librarians' understanding of how a design idea might be received in their library setting. For instance, L4 reflected: *"One of them [participating librarian] was like... programs [an idea suggested in the PD session] don't work for our library... you're using the wrong word. You need to be broader in your thinking about this stuff [programs]."*

Some of the challenges already discussed in relation to other values also applied to the value of respect and non-hierarchy. For instance, the struggle to balance time management and participant engagement affected the desire to show respect for participants in addition to building trust within the group. Despite the facilitators' intentions to incorporate participant feedback into the sessions, they often found themselves caught in a tension between the desire to create space for participants to reflect and share their feedback and the necessity to make progress within the limited time frame available. L2 articulated this dilemma of managing a tight schedule while striving to involve participants meaningfully: *"It's [PD session]... sort of compressed [in timeline]. We've got two weeks to plan it. They're doing this activity. How much feedback are we expecting from them, that sort of balance between keeping it moving?"*

4.4 Trust Building

The sense of respect and non-hierarchy discussed in the previous section enabled facilitators to establish trust quickly with their participants. This trust formed the basis for open, communicative, collaborative, and productive environments in which participants felt secure and valued. L5, from the rural libraries group, described how a high degree of trust contributed positively to the group's PD sessions:

"Something that went well in our small group is that we had an idea floated by somebody and everybody else was kind of riffing on it, excited about it. Then we had one person who had been very quiet, and all of a sudden, she pushed back a little bit, pointing out some very real limitations [to the idea]. This level of community and trust within the group, where she brought up those real issues, was a very good sign and helpful for framing our discussion."

This quote demonstrates how the trust that had been established in the librarian group allowed even quiet members to voice their opinions and concerns. Notably, the librarian group came to their PD work together with pre-existing relationships, which facilitators told us expedited trust-building within the PD sessions. L4 from the librarian group explained how prior connections facilitated both the recruitment and trust-building processes:

"The [facilitators] had both been in the library field forever... so they had a lot of existing professional relationships to draw upon. She [one of the facilitators] recruited most of our participants based on prior personal and professional relationships...the librarian participants themselves had prior relationships - most of them are library district directors and meet regularly with one another in that capacity. So, there was a lot of existing trust and rapport between them."

Across the groups, facilitators applied various strategies to nurture trust within PD sessions. For instance, they listened actively to participants, recognizing each individual's unique contributions and seeking to understand their backgrounds. For instance, when facilitating two consecutive PD sessions involving community college instructors, students, and librarians for designing classroom solutions, CC5, a community college group facilitator, emphasized acknowledging participants' existing knowledge as the basis of trust building: *"Recognizing that students already know about this [misinformation], and they're the only ones that can tell us about themselves in contexts of their communities."* Similarly, L4 in the rural libraries group pointed out: *"Acknowledging participants' unique knowledge and experiences, especially from specific occupational backgrounds or communities, can build design outcomes that truly reflect community needs."*

Facilitators' domain expertise and membership in the same community as participants supported their ability to nurture trust within PD sessions by enabling them to readily empathize and understand participants' experiences from an insider's perspective. For instance, the community organization group hosted a Disinformation Day event focused on addressing health misinformation. They included various vendors providing food and fun activities such as yoga to create a welcoming atmosphere where community members felt comfortable and connected. This event was intended to foster trust and openness among community members and facilitators about their experiences with health-related misinformation.

CO1 from the community organization group reflected on how this approach, as well as their personal connection to the community, made it easier for them to establish trust compared to someone perceived as an outsider:

> "You're traumatized with going into a clinical setting and sitting down with someone who you do think they know more than you do, and they're going to teach you about something instead of learning about your community and how you're really affected…I think that's where the event [Disinformation Day] just goes over. It's a feeling of family. It's a feeling of community. Who are you gonna listen to when they're talking to you about something that your community, your family, they can relate to you."

This quote showed that facilitators' ability to share community membership and common experiences aided trust-building during the PD sessions.

Despite these advantages with respect to building trust, facilitators described encountering some challenges in their use of PD facilitation techniques for trust-building, reflecting the complex dynamics of facilitator-participant interactions. These challenges included skillfully managing discussions to ensure every participant's voice was heard. Challenges associated with managing discussions involved balancing between in-depth exploration and a broad overview to ensure equal participation. E1 from the rural educators group shared her approach to ensuring inclusivity among participants: *"I shy away from getting too deep into any one idea because I wanted to make sure we were hearing all the ideas, not drilling down into one at the expense of others."* These challenges highlight the considerate and nuanced efforts required to navigate trust-building and inclusivity in participatory design sessions.

Another significant challenge was overcoming some facilitators' feelings of imposter syndrome. Some facilitators expressed concern about their ability to conduct PD sessions successfully due to their limited understanding of design and experience with participatory design. Especially during the planning phase of the PD sessions, several facilitators expressed uncertainty about whether they were *"doing it right"* when it came to planning and leading a series of PD sessions. Some facilitators used this uncertainty to establish rapport with participants and invite them to take equal ownership of the PD process. For instance, L4 from the rural libraries group reflected on how he made a mistake during the first PD session with librarians: *"At that kickoff, I apologized [for using the wrong term due to lack of understanding about community context], saying, 'Thank you, that shows I don't know what I'm talking about here. That's why we have all of you.' And then we pulled that in and had it really drive a future workshop activity."* This response showed how the facilitators' transparency towards their imposter syndrome helped them gain the trust of participants and encourage active participation.

4.5 Creating Practical and Sustainable Solutions for the Community

Rooted in values of community, trust, co-production of knowledge, and respect, the fifth core value focused on creating practical and sustainable solutions. An overarching goal of the project was to create curricular materials that were both culturally relevant to participating communities and also easily adaptable for use in other, similar communities. Facilitators strove for the designed solutions to serve participants' communities and have long-term impact and relevance beyond those communities. This goal required facilitators to take on multifaceted roles – as community advocates, empathetic leaders, and practical solution designers.

Facilitators focused on a design process that involved solution exploration and testing, with an emphasis on scalability and transferability. L4 from the rural libraries group noted the importance of developing resources that could be useful across a wide range of library settings: *"Probably in excess of 75% of public libraries in the United States serve less than 25,000 people...So if they can think of a resource, or help to develop a tool that will help those other libraries, they also feel that responsibility."* Similarly, L2 demonstrated facilitators' emphasis on creating practical, sustainable solutions by questioning the scalability of the rural librarian group's solutions:

> "What's the process that we guide...How do you think this [idea from the session] is going to scale?... What is it going to take? How do we measure that? And if you're saying…these are two equally good ideas, but this one has a much better chance of scaling? Is that the important thing? What are those criteria?"

Facilitators also emphasized the importance of solutions co-created by the community to ensure broad adoption. For instance, L2 from the rural libraries group explained: *"A lot of interventions developed now are not trusted by rural communities... they're more likely to trust things that they've helped or drove the production of."* This statement illustrates how this facilitator drew on their knowledge of rural libraries to consider factors likely to affect the adoption of the designed solution. For instance, when planning library youth programs for combating misinformation issues in society, the librarian group aimed for a greater impact by involving local teens in the design process. The discussions with teens sought to achieve a deeper understanding of youth's interests, priorities, and perspectives on misinformation narratives affecting them or other youth. This local youth group's input was then used to refine activities for potential adaptation in developing youth programs that can be applied in broader library settings. By crafting an outcome in collaboration with the target audience, the librarian group was able to increase the likelihood of broader adoption and greater impact. This approach reinforced the importance of co-creation in community-driven initiatives.

To aid the processes of scalability, transferability, and sustainability, facilitators sought to develop toolkits and other resources that could assist broader communities in their efforts to adapt materials in a way that resonated with their distinct cultural practices. For instance, the community college group facilitators aimed to create resources such as booklets and toolkits that could help facilitators at other community colleges adapt curricular materials for their specific context, recognizing that there would likely be some but not total overlap in the cultural practices across different community colleges. This adaptation work was grounded in a recognition that a core strength of the curricular materials being designed through PD was their grounding in a specific cultural context.

The K-12 educator groups also considered how their materials could be transferred to other educators' contexts. When creating lesson materials, they provided multiple entry points for teachers. This approach allowed teachers the flexibility to use the materials

as a complete module or to utilize individual activities as standalone lessons. Another way the K-12 educator group provided flexibility to adopt their materials was by explicitly linking their lessons to educational standards. For instance, when they developed lesson plans on the topic of misinformation (such as Social Media Rhetorical Analysis), they connected the learning outcomes to English Language Arts standards. This made it easier for other teachers to see how the lessons could fit into their existing curriculum, eliminating the need to find extra time for digital literacy.

Ensuring that session content remained relevant and aligned with the overarching project goals was a constant challenge to facilitators' efforts to create practical and sustainable solutions. Facilitators described how they sometimes struggled to ensure that ideas generated through the PD process directly addressed the project objective, which was to develop adaptable, community-based misinformation curricula. L4 from the rural libraries group highlighted this challenge by sharing an instance from a presentation a participant gave during a PD session:

> "One of the presentations today was about book clubs, and the idea, as presented, didn't really connect to misinformation [the topic of the PD session]. Similarly, we had a presentation on AI, which, while related to misinformation, isn't quite the same. It was interesting that one of our participants pointed out the lack of relevance in the book club idea to our workshop's focus, prompting the presenter to better align their idea with our theme."

This reflection illustrates how aligning individual PD sessions and discussions with the ultimate goal of the project was a challenging but important process. Facilitators' consideration of factors such as scalability, transferability, sustainability, and community ownership revealed their commitment to ensuring that outcomes from the PD sessions had a real and lasting impact in and beyond their communities.

5 DISCUSSION

5.1 How PD Values are Enacted by Novice Facilitators

The current study explored the values that 15 facilitators brought to a series of participatory design (PD) sessions focused on developing community-based misinformation curricula. The facilitators in this study were novice with respect to their design backgrounds, but they brought domain expertise and cultural knowledge of the communities with which they worked. These communities included a group of rural educators, instructors at a community college, members of a community-based organization, and a group of rural librarians. Our analysis surfaced five common and interconnected values that novice facilitators consider integral to a successful series of PD sessions: community and shared culture, co-production of knowledge, respect and non-hierarchy, trust building, and creating practical and sustainable solutions.

Of these values, co-production of knowledge, respect and non-hierarchy, trust building, and creating practical and sustainable solutions align with previous work exploring the role of values in PD [2, 13, 18, 23, 28, 29, 32, 41]. These studies have highlighted the importance of these PD values in fostering meaningful and equitable PD. Our findings build upon this work by demonstrating how these

values are enacted and prioritized by novice facilitators in distinct ways. Specifically, our work revealed that community and shared culture has been less explored as a value in the PD literature, with the exception of work focused on community-based participatory design (CBPD) [15, 24, 43, 47]. We extend the exploration into PD values by focusing on the underexplored role of novice facilitators [12, 21] and the values they bring to the PD process. Exploring the perspectives of novice facilitators was vital as we aimed to equitably expand the reach of PD to diverse contexts as the insights gained can support facilitators with varying levels of design expertise. Our analysis showed how community and shared culture functioned as a foundational value that permeated and influenced the other four values we identified. In this way, we contribute additional depth into how values that are core to PD, such as trust and respect, are refracted in distinct ways through novice facilitators' professional expertise and community membership.

For example, the librarian facilitators drew on their existing affiliation with the rural librarian community, and librarianship more generally, to establish a strong basis of trust from the first PD session. This pre-existing trust facilitated progress within the PD sessions by supporting open communication and effective collaboration. The librarian facilitators also drew on their deep professional knowledge of librarianship to understand and empathize with the experiences and perspectives that participants shared, which supported further trust building within PD sessions. Prior work on PD has discussed the value of recognizing and foregrounding what participants bring to a PD session [48]. Our analysis builds on this work by demonstrating how the facilitators in our study were uniquely equipped to support trust building due to their professional expertise and community membership.

In another example, the community organization facilitators enacted the value of respect and non-hierarchy by drawing on their knowledge of and membership in the community to design their PD sessions around existing cultural practices. The novice facilitators' deep embeddedness in the local community allowed them to enact "respect and non-hierarchy" in a more fluid, contextual way compared to non-novice facilitators. The resulting sessions, which included community-based vendors, entertainment, and food, may not have looked like traditional PD sessions, but this approach succeeded in engaging community members in a way that demonstrated respect for their cultural practices. By seamlessly navigating different social registers and leveraging their existing relationships and cultural understandings, these novice facilitators were able to challenge traditional power dynamics and create creative spaces where community members were empowered to contribute. As Harrington et al. observe, many existing design activities and the way they are implemented serve to widen the equity gap in participatory design [24]. They argue that supporting equitable PD in the context of community-based settings requires broadening how we think about the methods used in PD.

These examples from the current analysis illustrate how the value of community and shared culture provided an essential ingredient to the way facilitators approached PD. By foregrounding the value of community and shared culture, the facilitators in our study prioritized the use of flexible methods and community-defined outcomes in their PD work [15, 24]. In this way, our work demonstrates how domain expertise and cultural knowledge do not simply

compensate for facilitators' lack of design expertise; they are integral to enacting equitable PD that is defined by community-driven methods and mutually defined outcomes [15]. While the values we identified, such as co-production of knowledge, respect, and trust building, align with general principles associated with PD and CBPD, our analysis reveals how these values are refracted through the unique lens of novice facilitators. Novice facilitators' grounding in community and shared culture shapes the specific ways in which these core PD values are enacted, leading to distinct approaches and outcomes compared to other facilitators. This provides new insights into the nuanced role of facilitator expertise and community knowledge in shaping value-driven PD processes.

These empirical contributions can inform ongoing efforts to define and promote more equitable practices in participatory design. It is critical to expand who gets to meaningfully participate in PD and how outcomes are defined if the process is to accommodate the kinds of increasingly large-scale and interconnected technologies that the HCI field is concerned with. For instance, improving how our information and data are treated in the design of large-scale sociotechnical systems [15] can benefit from input from people possessing a variety of professional expertise, cultural knowledge, and community membership. By highlighting the pivotal role of novice facilitators and the values they bring to PD, our work contributes to the broader HCI discourse on enabling human-centered and inclusive design. The insights gained can inform the development of training and support structures to empower a diverse range of facilitators, ultimately expanding the reach and impact of participatory approaches. This aligns with the HCI field's commitment to democratizing technology development and ensuring that the voices of marginalized communities are elevated in the design process. Accordingly, the current study paves the way for future efforts to promote equitable PD practices by documenting how such professional expertise and cultural knowledge shape and contribute to design work.

5.2 Strategies for Equitable Participatory Design

Previous literature has illustrated that values matter and are a significant part of many design endeavors [18, 35, 46]. Further, Steen confirms there is an opacity that surrounds values [44], i.e., they are contingent upon the ultimate particulars of context. Our research provides empirical evidence demonstrating how values are refracted and dynamic in particular ways. While Iversen and Leong [28] provides practical guidance on the emergence of values in participatory design, there is less attention to sharing concrete strategies that complement and support these values in practice. However, more recent work is being done to provide facilitation strategies broadly for novice facilitators [21]. To expand the landscape on equitable PD, we contribute the five values as one facet of this construct but also highlight two concrete strategies that can be used by novice facilitators to support their PD practices: 1) make the imposter syndrome work for you and 2) create space for the participatory design process to look different. These strategies emerge from the key challenges identified by participants in the analysis. We noted that the challenges faced by our participants were, at times, related to their differing areas of domain expertise, but also broadly applicable to the PD process itself. This distinction

illuminated the need for tailored support and training for novice facilitators, while also providing valuable insights for improving the overall effectiveness of PD sessions. Moreover, the specific challenges faced by these novice facilitators provide unique insights for those aiming to democratize PD with a wider audience. These strategies provide a starting point by responding to the call posed by Harrington et al. [24] to expand the equitable landscape by reconfiguring the design space and empowering novice facilitators. Through these practical strategies to support novice facilitators in navigating value-driven PD, we inform the development of PD facilitation support and tools that empower a diverse range of PD practitioners, ultimately expanding the reach and impact of participatory approaches in the HCI domain.

5.2.1 Make the imposter syndrome work for you. In this study, the novice facilitators lacked higher levels of education as defined by scholarly applications of design thinking, which sometimes impacted their confidence in leading a PD session. While values are intangible, they are practice-oriented and allow novice facilitators to rely on their moral compass in uncertain situations, e.g., the design session. For instance, when the librarian facilitators struggled with imposter syndrome, they built rapport and established trust with the community through transparently discussing their novice status and related insecurities related to design practice.

We can understand this imposter syndrome as a site of identity work in participatory design sessions — i.e., a process through which participants construct, negotiate, and express their identities within the collaborative design context [5]. While the facilitators were novices, this was only as it related to design. They negotiated their roles and areas of expertise within the design process by drawing on their professional backgrounds, existing relationships, experiences, and the unique knowledge they brought to the collaborative setting. In other words, we witnessed novice facilitators reframe their imposter syndrome into a strength that allowed for creating an open space and true co-production with participant voices. This strength also allowed for the creation of an openness that led to more democratic PD session planning and building.

The facilitators' shared interest in mitigating misinformation through co-design supported their learning of participatory design, cultivating a community of practice. Harnessing their imposter syndrome led to facilitators' increased capacity over time. Specifically, in the brief survey administered prior to their PD work, facilitators reflected on their experiences with and understandings of participatory design. Most of them initially had no experience with PD and had only read about it; this fed into their initial experiences of awkwardly leading sessions. But as PD sessions and months went by, we saw real personal growth in their confidence and ability to lead and discuss design. There is an opportunity for future research to explore how the participatory design process facilitates self-development and education apart from the resultant artifact. By reframing novice facilitators' imposter syndrome as a source of strength and authenticity, we provide HCI practitioners a unique lens for empowering a diverse range of PD facilitators. This strategy can inform the design of training programs and facilitation tools that help novice practitioners leverage their personal experiences and community connections to foster more inclusive and equitable

participatory design processes, ultimately expanding the reach and impact of human-centered technology development.

5.2.2 Create space for the participatory design process to look different.
Despite HCI's commitment to PD approaches, we have long struggled to meaningfully and authentically engage with historically marginalized communities [24, 36, 49]. Many traditional PD practices inadvertently replicate similar power structures and biases that have historically excluded these communities, with professional designers and researchers maintaining authority over the design process [24]. This dynamic is particularly pronounced when working with novice facilitators from underrepresented backgrounds, whose community expertise and cultural knowledge may not be recognized or leveraged to its fullest potential. Progressing towards more equitable participatory design practices requires us to shift our understanding of the design session, as previous scholars have cited how certain HCI practices center the authority of design elitism [24], a bias that limits "social action initiatives beyond workshop participation." Scholars in the Global South have further noted that through the use of appropriate tools, methods, and design processes, knowledge gaps and socio-cultural differences between researchers and community members are bridged [39, 43]. Dearden [14] expands that technologies have often been designed for users who are knowledgeable or experienced, to embrace new interventions and designs for communities, we must embrace their connectedness and the differences in social aspects (e.g., race, ethnicity, culture and attitudes towards sociotechnical solutions) to foster inclusive design practices [38].

Particularly, we note this nuance with the community organization partners whose cultural and professional expertise with the local Black community allowed them to create events that showcased co-design and misinformation in novel ways. As researchers, we typically approach the participatory design session as a condensed session of engagement in which participants interact, build trust, and participate in collaborative group thinking through the various phases of PD (e.g., exploration, ideation, etc.). By acknowledging this community's historical contexts and cultural norms, the community organization partners situated their PD within a larger event that supported the community's long-term sustainability initiative of intergenerational communications. Community organization partners situated their participants with trusted community members to learn about misinformation. In these ways, the community organization partners were able to help displace the epistemic burden [37] that often surfaces when conducting community-based work with traditionally excluded populations.[1]

The community organization partners were able to create safe spaces for historically marginalized communities while yielding outcomes that truly reflected their needs. In this way, when researchers allow novice facilitators to leverage their professional expertise into

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[1]We use Pierre et al.'s definition of epistemic burden which describes "the actual burden (e.g., provide time and often resources to take part in collaborative research and are frequently asked to share intimate experiences about their lives; knowledge about their day-to-day practices; information about their families, friends, and community members; cultural and institutional knowledge; and other information that requires energy and effort to gather and provide) that participatory design research collaborations place on community organizations or community members, which should be identified and alleviated to prevent the next stages of exploitation, injustice, and extraction that can subsequently arise" [37]

participatory design engagements that meet the needs of the community, there is less chance of devaluing the lived experiences of those who may not have undergone higher levels of education or been exposed to "creativity" as defined by scholarly applications of design thinking [24, 44]. Similar to previous research, we highlight the importance of developing facilitators' and participants' capacity to participate and providing the opportunity to immerse themselves in thinking about the problem, learning about the creative process, and being given the tools with which to express ideas [10, 27, 40, 42]. By centering community solutions and creating space for authentic engagement during the participatory design sessions, facilitators could enact the values (e.g., community and shared culture, respect, and non-hierarchy) that they identified as central to their PD work while also broadening the design space for new and important voices.

Iversen and colleagues note that "the kind of values that emerge depends on how designers orchestrate the design process" [28], but they do not suggest any method to raise the designer's or facilitator's awareness of human values. As PD sees knowledge generation as a dialogic process mediated by values [16], more research is needed to help scaffold the concept of values and their applicability in practice. In future frameworks, we must avoid seeing ethical design work as one that yields the greatest good for the greatest number of people. Such approaches typically fail when designing for and with individuals from historically marginalized communities. This research presented how values were enacted in the context of designing misinformation interventions for rural and urban populations with novice facilitators. By centering the community's rhythms, values, and ways of coming together, the novice facilitators in our study demonstrated how the PD process can be reimagined to be more inclusive, relevant, and impactful for historically marginalized communities, offering a blueprint for HCI researchers and practitioners seeking to move beyond traditional expert-centered design. We present the strategies in this section as a starting point for researchers working with novice facilitators in efforts to achieve more equitable participation.

6 LIMITATIONS & FUTURE RESEARCH

A strength of the current work is its grounding in a community-based project, but this approach also surfaced challenges and limitations. For instance, the current analysis would have been strengthened by insights from the community partners who participated in the PD sessions; their perspectives could have provided a valuable source of triangulation. However, we could not include their voices due to a combination of logistical challenges and a desire to protect their limited time. Our direct observations of select PD sessions provided one source of triangulation, allowing us to observe how facilitators enacted in practice the values they spoke about during the interviews. As discussed in 3.4, we could not observe one of the community organization PD sessions, which limits the confirmability of our analysis. Overall, however, additional observations across all community groups would have strengthened our analysis. Future work should strive to incorporate the perspectives of both facilitators and participants and put them in dialogue with ongoing observations of their PD work.

Our analysis surfaced several challenges related to facilitators' efforts to enact their PD-related values during their participatory work with community partners. These challenges included struggling to align individual PD sessions with the project's overarching goals, balancing time management and participants' voices, and experiencing imposter syndrome in relation to design practice. Although the facilitators spoke briefly about their attempts to address these challenges, the current study provides limited insight into the resolution of these challenges. In future work, researchers could focus more explicitly on how novice facilitators address the challenges they confront in PD, thereby expanding on our strategies in 5.2.

We believe there is potential for the transferability of our findings to other community-based settings that involve novice facilitators engaging community partners in participatory design. The values and strategies for enacting them that our analysis surfaced likely would be relevant to design-based projects that tackle different sociotechnical challenges. However, we are mindful that the specific focus on addressing misinformation presents a possible constraint to transferability. Future research should explore how novice facilitators working in different communities and on different sociotechnical problems think about and incorporate values in their PD work.

7 CONCLUSION

HCI researchers are increasingly focusing on supporting equitable PD practices in community-based settings that address complex sociotechnical challenges. Equitable PD practices emphasize defining outcomes and participation modes that feel authentic to the specific community involved, meaning PD will naturally vary across different contexts and communities. Facilitators play a key role in shaping these efforts, yet their contributions remain underexplored in the literature. The current study addresses this gap by documenting the values that novice facilitators brought to a project focused on designing community-based interventions that address misinformation. Through our analysis, we demonstrated how values that are foundational to PD, such as trust and respect and non-hierarchy, were refracted in distinct ways by facilitators who were novices with respect to design expertise but who brought considerable professional expertise and cultural knowledge related to the communities they engaged. Drawing on this analysis, we discussed strategies to guide future work in HCI that seeks to promote equitable PD practices by expanding the facilitator role beyond professional designers. We believe that additional work with novice facilitators has the potential to highlight other important strategies, pointing to the need for a broader research agenda in this area. For instance, researchers might explore the potential for using the facilitator role as a fulcrum to balance the PD process, project goals, and participant ideas and priorities.

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A APPENDIX

A.1 Interview Protocols

A.2 Pre-Group Interview Survey Questions

- Define, in your own words, participatory design (PD).
- What do you see as the primary goal of PD?
- Tell us about a PD session you participated in/led in the past that you thought went GREAT
- Tell us about a PD session you participated in/led in the past that WASN'T SO GREAT
- Define the audience you will run most of your PD activities with.
- What is your primary goal for using PD with this group?

A.3 Pre-PD Workshops Group Interview

- Describe your team; who are you working with? What are your overarching goals?
- How do you see participatory design fitting into your work with the (relevant) community you're working with?
- What experiences and/or training are informing your PD work? How would you describe your background with participatory design?
- What was your experience filling out the questionnaire about PD we sent out?
- What are your current plans with regards to PD?
- What have you done so far?
- What is your general timeline for your team, and where are you currently in that timeline?
- Please walk us through one of your planned (either future or completed) PD session.
- Please elaborate on your process for developing your PD plan before a session.
- Are there any challenges you foresee coming up in your PD sessions? Why or why not?

A.4 Post-PD Workshops Debrief Group Interview

- Please describe your last PD session.
- Was the PD session you described one in a series of PD sessions? If so, how did it fit in the series? Are there compounding goals you were hoping to achieve with this session? What were they?
- What did the preparation for this session look like?
- Did you use previous sessions to guide your framing of this session?
- If you are comfortable sharing: did anyone in your group take the lead on the prep for this session specifically? Why were they chosen to do so?
- Please share with us something that went really well during the PD session?
- Were there any challenges in the PD session? If so, how did you deal with these challenges?
- Please share with us something that went unexpectedly during the PD session. How did you deal with it?
- Are there any takeaways you had from this session that you would like to bring to your next sessions?

- Is the approach to planning going to look any different for your next PD sessions?
- Are there any changes to future PD sessions you foresee because of lessons from this last session?

B CO-DESIGN SESSIONS DESCRIPTIONS

Group	Focus	Workshops	Prototypes	Participants	Number of Cumulative Participants in Workshops	Format
Community Organization	Combating misinformation in Black communities through PD sessions and events, creating tools like community expert facilitator guides, a board game, and a mobile app.	(1) 5 sessions on addressing misinformation and disinformation in Black community (2) Disinformation Day event addressing health misinformation, featuring solutions, discussions, and a healing component with yoga and food vendors for community support.	Facilitator guides for conducting PD sessions with communities, a board game to start conversations on misinformation, and a mobile app design to help communities combat misinformation.	Community organizers and members	40	in-person/online
Rural Educators	Developing digital skills and educational resources for K-12 schools to address misinformation, including media literacy modules and an educator guide.	(1) 5 workshops focusing on developing Digital Survival Skills (ex. Confirmation Bias, Social Media Algorithms, Investigating Claims & Sources) (2) 7 PD sessions for Designing New Resource to combat mis/disinfo that ranged from brainstorming ideas, design times, and presentation. (3) 2 workshops for addressing Misinformation in Rural Schools (4) MisinfoNight to share results of the PD sessions	Four K-12 class modules on media literacy to combat misinformation (e.g., Social Media Rhetorical Analysis) and an Educator Guide with classroom fact-checking activities.	Rural K-12 Educators	(1) 40 (2) 40 (3) 10 (4) 10	online
Rural Libraries	Creating educational materials, programs, and quizzes for librarians to enhance misinformation education through a library-based adults and youth programs.	8 PD sessions for developing library education materials for combatting misinfomation including problem definition, intervention idea sharing, idea prioritization, design quizzes, creating prototypes, and exploring convergence activities.	A youth program designed to help librarians conduct misinformation education, two quizzes for librarians to use as educational materials	Rural Librarians	50	online
Community College	Understanding and addressing misinformation in community college classroom settings. Created teaching modules and assignments to support community college instructors to tackle misinformation in classrooms.	(1) 8 sessions focused on understanding how students and faculties are dealing with misinformation in classrooms.	(2) 2 PD sessions for designing classroom solutions to combat mis & disinfo.	Assignments and modules for community college instructors to combat misinformation, such as a Canvas Commons module on evaluating sources.	Students, faculty, librarians	in-person/online

Table 2: Activities employed by the 4 teams involved in the project to design misinformation resources at scale for different community contexts. The number of participants is cumulative across sessions; some sessions may have overlapping participants, while others may not.