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Bringing Our Full Selves Into Computing: Designing, Building, and Fostering Equitable Computing Education Communities

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ABSTRACT

A key problem in achieving access to and sustained presence in computing and computing education (CEd) in the United States is environments that are all too often designed in ways that are harmful and inequitable toward systemically minoritized communities. While various scholars have explored ways to design equitable spaces within differing contexts, often, equity is framed merely as an issue of access. This dismisses the lived experiences of minoritized communities and can lead to shallow perspectives of equity that fail to address community concerns and further push these communities out of sustained participation and presence in computing and CEd. Drawing from a critical and abolitionist lens, we argue that equitable spaces must nurture community: where healing, joy, and care are centered, and participants can bring their full selves into the space. In this experience report, we present three case narratives highlighting the spaces we designed to build community. The case narratives describe: (1) conference workshops on centering equity in CEd, (2) a workshop series enabling marginalized people to share stories of their experiences in CEd, and (3) a podcast inviting voices from varied contexts, experiences, and backgrounds to share their stories and perspectives on themes related to equity within CEd. The case narratives point to the value of designing spaces that go beyond granting access, emphasizing spaces that nurture community. Our approach fostered a sense of comfort, mutual trust, and the bravery to (re)imagine other possibilities, empowering participants to discuss issues of equity within the spaces they occupy.

CCS CONCEPTS

• **Social and professional topics** → **Computing education**; **Race and ethnicity**; **Cultural characteristics**.

KEYWORDS

computing education; equity; marginalized and minoritized communities; case narratives; broadening participation

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1 INTRODUCTION

Across all aspects of our life—work, play, social, home—we find ourselves entering a variety of *community* spaces, where we engage with and alongside others. While some communities may be more enjoyable than others due simply to shared interest, often, our engagement and comfort with our communities runs much deeper than this. Considering deeply the communities that you truly *enjoy* being a part of the most, you may find common threads of how you feel as a member of that community engaging with others. Often, we enjoy community spaces more when we feel a sense of comfort, trust, and care in how we treat each other, including how you yourself are treated by those within the space.

Computing fields (including computing education and its research) are themselves communities. There are large scale community norms of those "working in computing", as well as smaller scale community places for industries, institutions, classrooms, and research labs. Many factors, such as geographic location and our background, can be a part of building the constellation of communities that each of us are a part of. However, across computing spaces, far too often many individuals do not feel welcomed within these communities. Black, Indigenous, queer, disabled, and otherwise minoritized[1] groups often find a sense of community difficult to establish within computing spaces [21, 30, 42].

As minoritized individuals often face barriers to establishing a sense of community in computing spaces, equity gaps become apparent. Within the Cambridge Handbook of Computing Education Research [35], it is noted that *how we conceptualize equity issues* impacts the conduct of computing education research. Equity often becomes framed as merely an issue of access. This framing leaves gaps toward a deeper understanding of equity, such as examining community-based concerns for justice [50]. Similarly, working to

[1]Within this work, we use the term *minoritized* to reflect that the design of these spaces and actions within them are intentional. We chose this intentionally, but recognize that overarching labels can be problematic and must be used with care [51, 52]

design spaces which center equity within computing education (CEd) must think beyond access as the "only" equity concern. The presence and sustained participation of members is imperative, which can often be where minoritized individuals face obstacles. Caring for members and their "full selves" as people is of great importance to establishing a true sense of community. When in community, individuals may feel more comfortable, able to trust the members around them, and through that trust, find the bravery to (re)imagine their communities and the spaces they occupy. This sense of community allows members to grow, relate, and thrive, as well as establish fertile ground for progress through new ideas and perspectives being welcomed in and tended to.

With this work, we report on our journey and efforts to intentionally design spaces within CEd *for* minoritized individuals. We will share the frames, lenses, and theories underlying our approaches, and how we worked to enact them through the design of spaces—as well as our observations resulting from creating these spaces. Our efforts to design these intentional spaces are still ongoing and as we continue to learn and grow, we expect this journey's shape to continue to change. With this experience report, we work to reflect on aspects of our journey and to process what has worked so far. We hope that sharing our process, learning, and reflections from our efforts thus far will support continued forward progress within the space of intentional community design within CEd.

2 BACKGROUND

To provide appropriate context, we begin this section by briefly reviewing literature that characterizes typical computing and CEd spaces. We do this to critically reflect on how systems of power are often organized and structured within these spaces. This allows us to elucidate why these spaces can be harmful to minoritized communities and, therefore, discern what injustices to combat. We use Abolitionist and critical lenses to gain insight into designing equitable CEd spaces. Through these lenses, we offer background on the importance of community, define community as used in this experience report, and discuss the concept of *the full self*.

2.1 Typical Computing and CEd Spaces

Extensive ethnographies of CEd classrooms [2, 21, 46] and research on belonging in computing and CEd [4, 13, 38] characterize typical computing and CEd spaces as having defensive climates: they are competitive, individualistic, have no empathy, are judgemental, and comprise an exclusionary culture. The defensive climates are reflections of long-existing systemic violences of individualism, capitalism, coloniality, and white supremacy, within and outside of computing and CEd. By perpetuating systems of power and, consequently, inequitable practices, typical CEd spaces disembody and dehumanize individuals. These environments are mentally and emotionally harmful to everyone, conveying the message that everyone is disposable and individuals can and should only rely on themselves. In turn, this hinders the capacity to be in relation with each other, learn from and with one another, and collaborate. Moreover, research suggests that those who are minoritized assert that the only way to gain acceptance or to participate in typical computing and CEd spaces is to assimilate into dominant ideals or strip themselves of their culture and identities to fit in [17, 27, 42]. This is often a dehumanizing and costly strategy of survival.

Benjamin contends that systems of power are invisible and endemic [5, 6]. Spaces must be intentionally designed to combat systems of power; otherwise, they will perpetuate and reinforce existing power structures. As Takeuchi and Dadkhahfard state, "*Design of the environment is powerful—[it] can either challenge, perpetuate or create inequity*" [47]. CEd and the systems that influence its spaces are neither neutral nor objective; we must move beyond the belief that "learning environments are neutral" [30].

2.2 The Importance of Community

In hopes of seeding and creating just futures for the computing field, we dreamed of a CEd space where *everyone does more than survive; they thrive* [36]. We longed to design a space that, as the Abolitionist education scholar, Bettina Love, states, "*embodies the idea that no one is disposable. That diversity is strength. That being who we are as individuals helps us all flourish as a group*" [36]; a space that "*doesn't require us to change who we are, it requires us to be who we are.*" To design that space, we turned to the work of Abolitionist and critical scholars, teachers, and community members whose lived experiences include doing work *by and for* their communities. Central to much of their work is reimagining spaces to center equity, with a particular emphasis on nurturing community [1, 28, 39, 44].

Many Indigenous nations and scholars consistently emphasize the significance of community in ensuring that individuals' needs are met and that they are motivated to persist and thrive in various spaces. The Blackfoot Nation as one example underscores the importance of community. Maslow spent time with the Siksika (Blackfoot Nation) while developing his seminal theory of motivation: Maslow's Hierarchy of Needs [10, 37]. However, some argue that he misrepresented many of their values and ways of being in his theory, instead emphasizing Western and capitalist notions of the individual. The Siksika regarded self-actualization as innate, not something to be earned. They viewed individuals as inherently wise—trusting and giving them the space to express their true selves [9, 31]. The Siksika positioned the self at the bottom, prioritizing the community above the individual. According to this viewpoint, the community is responsible for ensuring basic needs are met, guaranteeing safety, and creating conditions for everyone to flourish [49]. Therefore, rather than framing belonging, navigating defensive climates, and learning as individual responsibilities, we move towards sharing the responsibility among the community.

2.3 Characterizing Community and the Full Self

Bettina Love uses the notion of *homeplace*, a vision articulated by bell hooks, to characterize communities [26, 36]. A homeplace is a community that serves as a site of resistance—where "*souls are nourished, comforted, and fed*" [36, 43]. It rejects the notion that people are disposable, fostering solidarity and mutual trust among people of various identities. In these communities, joy and liberation are protected and nurtured; the harm done by systems of power are healed by loving oneself and each other, embracing and recognizing one another, and restoring dignity.

Central to this framing of community is the importance of allowing individuals to show up as they are, bringing in their *full selves*. Entering the space or community as the full self is a recognition and acknowledgment that individuals are cultural and historical beings, each possessing unique intersecting identities, values, stories, and

capacities [47]. Some research in CEd and the learning sciences have thoughtfully explored ways to design spaces that encourage students to bring their full selves into the learning environment [29, 32, 45, 51]. These approaches aim to improve computing learning, motivate students, and broaden participation.

Emdin describes bringing in the *full self* as an embodied process that restores several rights to those "*who have been positioned as undeserving of them*" [16]. Among these, we describe three of these rights: (1) the right to be here as they are, expressing oneself in any chosen manner; (2) the right to speak, welcoming individuals to speak in their own "tongue," dialect, or accent, and "honoring this right even when the discourse of power differs"; and (3) the right to see, recognizing that people have the right to perceive things from diverse perspectives.

3 POSITIONALITY AND LABOR ACKNOWLEDGMENT

Our positionalities are a key motivation for our design of these spaces. The organizers of the community spaces, which include the authors of this paper and other CEd scholars, are comprised of early career scholars who organized into a collective, *The Papaya Project* [41]. The Papaya Project's mission works "*towards identifying and critically addressing inequities and bias in computing and computing education research, with the goal of transforming [CEd] and the broader computing discipline into a more inclusive and equitable field*" [41]. The theories inspiring us are largely those of minoritized thinkers and scholars (some of these works are described in Section 2), and we acknowledge the labor and deep contributions they have made to our thinking and in guiding our work.

Scholars within The Papaya Project are composed of graduate students, faculty, and researchers who possess a myriad of minoritized identities and come from various geographic, cultural, and academic backgrounds. A key lens that we draw from within our work of centering equity and justice in computing and CEd are our personal experiences in navigating barriers in computing and CEd due to racist, colonial, and white-centric structures that "othered" our identities. These personal stories and experiences, in tandem with the critical theories that guide and ground our mission, enable us to bring our full selves into our work and drives our commitment to creating spaces which can become catalysts for equitable change within computing and computing education research.

4 CASE NARRATIVES

In this section, we describe three spaces we organized that care for and center love among members in CEd spaces who are often forced to the margins. Our goal was to elicit and revalue their experiences and knowledge to render their stories, contributions, and aspirations visible. We intentionally cultivated environments that prevented harm and built community through acknowledging, respecting, and dignifying members' lives. These spaces were not teaching sessions; rather, they were designed for meaningful participation and engagement, critical discussion, and community interaction. Everyone, including the organizers, was encouraged to learn *with* and *from* each other. We encouraged the use of "*cite your momma*", a practice coined by learning scientist Leigh Patel, as a way of bringing in the members' own "*knowledge, and histories, and rejecting our miseducation*" [40]. Thinking about how we designed the spaces requires a meaningful reflection of our motivations and goals towards centering equity within those spaces and how to create sustaining communities for the marginalized and minoritized individuals that entered those spaces. As organizers, doing this work requires us to challenge our own beliefs and assumptions. That is, to create and nurture the spaces and communities we dream of requires a commitment to growing, learning, and unlearning.

To this end, we used a narrative approach [23, 25] to construct reflective and reflexive case narratives—*stories*—of each of the spaces we created: the conference workshops (Section 4.1), workshop series (Section 4.2), and podcast (Section 4.3). Narratives, including storytelling and counternarratives, have a rich history as a methodological approach to challenge dominant ideology by centering minoritized voices [14, 53]. Jones and melo used narratives in their work exploring how CEd supports systems that enable anti-Blackness [30], arguing that narratives "*unsettle the domination of empirical research*" and affirm individuals' lives and experiences as theory.

Each of our case narratives recount, demonstrate, and interrogate our design ideals, motivations, observations, and reflections about and within the spaces we created. We also describe the theoretical lenses and frameworks that inspired our design of these spaces, given the thematic motivations for our work (e.g., the themes of the conference workshops and podcast episodes), drawing on critical and abolitionist lenses from various scholars. As these spaces were designed for participants to be their full self, to be vulnerable and express their true feelings, we do not provide specific details of the discussions to protect them.

4.1 Conference Workshops on Equity-Centered Computing Education

4.1.1 Overview. Drawing from our own experiences of assimilating to belong in computing, we hosted two virtual workshops in 2021 to facilitate discussions on reimagining equitable CEd and computing education research (CER) spaces that value multiple ways of knowing, doing, and being. The workshops[2] were sparked by the wave of injustices happening across the United States, notably the tragic murder of George Floyd [3] and the far-reaching effects of the ongoing COVID-19 pandemic. During this time, people in computing and CEd wanted to gather and discuss the impacts of systems of power on minoritized communities.

4.1.2 Workshop Design. In the first workshop, hosted at the SIGCSE Technical Symposium on Computer Science Education (SIGCSE TS)[2], we facilitated group discussions to examine how systems of power permeate through our everyday lives and (un)intentionally into our research. We drew inspiration from a passage in Toni Morrison's novel *The Bluest Eye* [33], depicting a young Black girl's struggle to name the "thing" that made her feel "lesser" than a white woman, underscoring the significance of a shared language in combating injustices. Through various activities, participants and organizers explored the "thing" or named the systems of power impacting us and CEd. In one activity, a "name activity" (adapted from Ruha Benjamin's book, Race After Technology [6]), everyone shared the cultural and historical meaning of their names, reflecting on how systems of power have (un)knowingly impacted their lives. Stories emerged highlighting the cultural and ancestral significance

of some names, the agency and power in some individuals' decisions to rename themselves, and how names can function as strategies of survival or means for minoritized individuals to navigate and gain acceptance into white supremacist spaces.

The second workshop was hosted at the International Computing Education Research Conference (ICER). The focus of the ICER workshop[2] was to examine and reflect on the ways that CEd research centers or does not center equity. Through small and large group discussions, we examined how equity should be centered in our work and how that influences our research practices, methodologies, and byproducts. During the workshop, we conducted an activity in which participants think about the "bones" hidden underneath CEd. The metaphor of the "bones" was drawn from some academic institutions having a history built atop the literal bones of Black and Indigenous people [19], coupling this raw literal imagery with the connective metaphor of "skeletons in the closet" [15]. The workshop ended with a fireside chat with a panel of computing education researchers to talk about what equity should look like in computing education research.

4.1.3 Reflection. The conference workshops served as launching points for building up voices to discuss the current inequities in CEd and how we can reimagine safe and inclusive CEd spaces. The workshops brought together people from many different backgrounds, expertise, and experiences to share their stories of the discrimination and resistance faced in CEd spaces. What we learned from the workshops propelled us to look further into the narratives of those within this space to better understand how identities are intertwined with cultures and practices within computing and CEd.

4.2 Stories and Narratives Workshop Series

The conference workshops pointed to a critical "ingredient" that enabled participants to bring their full selves into the space as they discussed equity within CEd: personal narratives. Drawing from this, we designed a two-session workshop series[2] with the goal of expanding the definition of what "equity" means by centering the lived experiences of people from minoritized communities.

4.2.1 Workshop Series Design. The first workshop centered on personal narratives of current issues of equity that participants faced. Participants were each invited to share about personal experiences where they felt valued within CEd spaces and to think about how their experiences related to who they considered as their community and who they advocate for. Participants also shared about the ways in which their own CEd communities succeeded or failed in making them feel valued and supported and how communities can create and sustain valuing and supporting spaces. The second workshop invited participants to engage in imagining exercises where participants imagined scenarios of what equity may look like in CEd. Participants collaboratively imagined a "parallel utopian world" that is an idealized computing education world by naming and reflecting on values that shape the world and considering the ways that members of their communities can live liberated lives within the world. They then used their imagined utopian CEd world to craft guidelines and recommendations for the CEd community by thinking about how to align "realities" with the imagined utopian world through community practices, attitudes, and commitments.

1. Entering the space. We were intentional with creating a space that prevents harm and builds community through acknowledging, respecting, and dignifying each other. We began each workshop by discussing community guidelines for engagement and invited participants to challenge or add to the guidelines. Example guidelines included: (1) We listen and make space for one another and (2) We challenge the idea, not the person. We also discussed the importance of recognizing our personal responsibility to realize how one should enter the space. As everyone wields a form of power, it is important to acknowledge what you can do with your power and commit to being mindful of your power and to using your power to build and empower others.

2. Creating spaces of joy. Creating spaces where people can share personal stories requires critical reflection on what these spaces may mean for people and how people will engage within these spaces. In sharing their perspectives about equity, participants drew from their past experiences and may have had to relive uncomfortable experiences (e.g., recounting experiences of inequity). To mitigate this, we were intentional in emphasizing that the space the participants were in also invited them to relive and share experiences of joy—experiences that could help us think about how we could transform the realities we live in. Our workshops were also structured so that participants were provided the time and space to reflect individually before sharing and discussing collectively, enabling people to process and sit with their thoughts, especially when processing heavy topics and ideas. Participants were also reminded to only share what they are comfortable with, emphasizing that their bringing their whole selves and their humanness into the space is part of the overall process of imagining and creating spaces of joy.

3. Empowerment and transfer of control. In developing the workshops, we were intentional in empowering the participants to drive the space rather than the moderators. We set the tone and provided prompts to help participants engage, however, the participants carried the discussions amongst themselves with what they felt comfortable sharing. This *transfer of control* from moderators to participants resulted in free-flowing, deep, and thoughtful conversations. We learn from the literature on participatory design to empower stakeholders to be an active part of the discussions; to allow their voices to be the driving force. Participants willfully continued discussions toward their satisfaction, knowing we would not interject unless deemed absolutely necessary. We thus advocate for others looking to create similar spaces to (a) recognize your participants as experts in the domain, (b) give them control to dictate the flow and depth of conversations, and (c) to empower them to drive discussions by diminishing your own power.

4.3 The Recipes for Resistance Podcast

As we considered the design of community spaces, we also sought ways to amplify these voices and stories that have often gone unheard. We developed a podcast, the "Recipes for Resistance Podcast"[2] [20], which launched in late 2022, as a means to further develop our community and amplify minoritized voices.

[2]The ICER workshop ("*Examining and Redesigning Computing Education Research to Center Equity*") abstract is available at https://icer2021.acm.org/info/co-located-workshops. Details on the workshop series activities and materials are available at https://osf.io/3r628/. The podcast is at https://recipes4resistance.github.io/.

4.3.1 Podcast Design. In alignment with our mission, we sought to create our podcast in *multi-modal* fashion to invite community to form within this space. Each episode of the podcast's audio launched with a full edited text transcript to allow multiple modalities to engage with. Podcast episodes were launched in three "parts": in part one, we prepared a curated list of resource materials to help frame the conversation that would be coming up in the episode. In part two, the episode audio with full transcript was shared. Part three invited reflection and media created by listeners into the conversation, and provided additional resources to continue the conversations. This design intentionally creates an ongoing conversation, and invites the podcast hosts, interviewees, and listeners to all join in the conversation. The podcast episode design draws from "kitchen table talks"—a cultural tradition where the "kitchen table" (a place of gathering) becomes a space to engage in conversation and story with community and kin [11, 18, 22, 23]. Conversations are styled in this way to allow for a space where trust can be built through comfort, allowing a free flow of conversation. This format also provides a seat at our metaphorical "table" to minoritized scholars, who may often find their "seat at the table" denied.

4.3.2 Topics of Conversation. Broadly, the podcast provides a platform for discussing how to foster equity in computer science (CS) and CEd fields and research among minoritized voices. The goal is to elevate ideas, scholars, and perspectives that are not traditionally centered—including those "doing the work" by, for, and within their communities. In each episode, the conversation is passed to selected co-hosts from The Papaya Project. These co-hosts engage in a "kitchen table" style, free flowing dialogue with invited guests that centers the selected topic. To kick off the series, the first episode featured several members of The Papaya Project as "guests" in conversation. This allowed for The Papaya Project's members to bring their ideas, dreams, and intentions forward in this space to the broader community. The second episode discussed institution power structures, with guests committed to research on CEd equity. The third episode featured three K-12 CS educators discussing difficulties and lessons teaching in a pandemic has brought.

4.3.3 Reflections. Podcast episode development is still ongoing. Originally, we had anticipated that eight episodes would be developed in the course of a year, with each of the three episode parts being about a week in duration. As the process began, we quickly realized that the time frame to create, disseminate, and expect responses to material felt much too short. As organizers, we discussed and decided to lengthen the time frame between episode parts to a month. This set each episode to be part of a three month cycle. This pace allowed for the management of the podcast to be much less strained. More consideration could be put into guests and topics, as well as time into editing the transcripts and audio.

As organizers, we had also developed our own sense of community and comfort with each other. This was critical in allowing us to have the difficult but important conversation about the need to slow the work so we could best provide the desired experience within this space. Our podcast centered conversations of equity in CEd and we recognized that we would not be "practicing what we preached" if we did not create an equitable and sustainable workload ourselves. This extended as well to grace toward ourselves, our invited guests, and the project when "life happened". As needed, the podcast has taken breaks and on the back end, worked to move slated episodes and guests around, in order to allow us to create the best space possible to be in conversation with guests and listeners.

Within the podcast itself, a recurring theme across episodes was topics of resistance. Co-hosts and speakers discussed the need for resistance across spaces within computing education. They discussed what these areas of resistance look like from their experiences, and how they worked to sustain their (and their community's) efforts to resist. Through these conversations, we built community with the speakers. Their visions and experiences, especially through a lens of bravery and a common thread of resistance, folded a consistent theme into the podcast's framing and interactions: among organizers, with speakers, and in the broader community of listeners.

5 DISCUSSION

Our case narratives highlight the significance of intentionally designing CEd spaces to nurture community and encourage individuals to enter as their full selves. Our approach fostered a sense of comfort, mutual trust, and the bravery to (re)imagine possibilities, encouraging participants to discuss issues that matter to them.

To foster and nurture the CEd community, the full self, and beyond, we discuss three concepts characterized as intertwined pillars: (1) Recognizing, (2) Embracing, and (3) Healing & Restoring. These pillars combine lessons learned from our case narratives, and theories and lenses from minoritized scholars and individuals. In naming these pillars, we deliberately used verbs to signify the *actions* that we continuously work towards. We intentionally use the term "pillar" to imply that these concepts uphold the community and are dynamic, evolving as the community learns and unlearns. Of importance, these pillars can only exist through the living beings in the community who willingly embody them.

5.1 Pillar 1: Recognizing

To recognize in the community means to acknowledge, communicate, and amplify the presence, voices, concerns, and labor of members of systemically minoritized identities. Recognizing restores "the right to be here, as you are" [16]. It encourages people to bring their full selves into a space by making them feel that their presence is welcome. The goal for each designed space was to empower attendees from minoritized populations to detail their narratives of thriving in hostile territories. As the organizers, it was our intent to offer space for people to challenge harmful politics—especially from those in positions of power and from organizations who often do not recognize the biases within their processes. Those in power who decide who has a seat at the table in making important changes affecting the CEd community should, with pure intentions, engage in the active listening of and amplifying the ideas of Black, Disabled, Indigenous, and otherwise historically minoritized peoples, whose thoughts are often pushed to the margins. For example, practicing citational justice [34] by referencing the voices and work historically sidelined by mainstream scholarship. Those in positions of power can amplify minoritized voices by providing opportunities for them to speak and be heard within and beyond the community.

To recognize requires accountability; a commitment to self-reflection by understanding one's role in structural harms. As Jones and melo state, "*We are all (un)learners; and have knowingly and unknowingly*

been complicit in upholding systems of oppression and causing harm and to consider what ideologies we prioritize in our work" [30].

This may look like: committing to take in feedback, sit with uncomfortable feelings, acknowledge harm, and reflect on why and how harm was committed. Of importance, this includes actively listening to, believing in, and addressing people of minoritized identities when they share that they have been harmed by someone or their work. Adopting a practice from Jones and melo [30], we invite the reader to self-reflect: *How do you want to be recognized? What else does a community that recognizes look and feel like?*

5.2 Pillar 2: Embracing

To embrace is to commit to being in relation with the community by understanding one's responsibilities to the community. In designing these spaces, we wanted to build communities that would embrace, care, and support people from all backgrounds and demographics. By doing so, members of historically minoritized and marginalized identities can bring their full selves, their knowledge, experiences, and liveliness and are loved for it; restoring their "right to see" from a different perspective [16]. However, creating a community of embracing is more than simply acknowledging the voices of those marginalized. Just as important, a community should enact care towards the livelihoods of all beings. For example, taking time to understand—not co-opt—knowledge, cultures, experiences, and (hi)stories, as well as making room to learn from and with each other. Building an embracing community also involves acting in public solidarity with, not solely for, others. As an example, hearing the concerns of vulnerable members within and outside the academy and using one's privileges as a tenured faculty member to actively and publicly advocate with and for them. Lastly, an embracing community not only supports but also assumes responsibility for past harm and actions that have negatively impacted the marginalized voices within, making amends, and making shifts to stop harm. For example, CEd organizations acknowledge and take action against patterns of exclusion by intentionally and meaningfully increasing the diversity of leadership through policy and recruitment changes, to especially center the ideas of Black and Indigenous women and gender-expansive peoples.

We must continuously encourage minoritized individuals to "tell us who they are; how what they have experienced informs how they exist in the world, how it informs what feeling safe, joyful, fulfilled, valued, and represented means to them" [48].

This may look like: designing beyond "surface" icebreakers, introductions, and prompts to find approaches which encourage participants to share perspectives and ideas rooted in their experiences [7], and ensuring that the space is welcoming and affirming so that participants truly feel seen, heard, and understood. Critical questions to reflect on include: *What makes you feel loved and embraced? How can that be incorporated within the CEd community?*

5.3 Pillar 3: Healing and Restoring

Healing and restoring involves nurturing the community by recognizing one's ongoing commitment to its well-being. Systems of power, along with spaces that perpetuate these systems, often deprive and exhaust individuals, pressuring them to produce work and give more labor. Individuals deserve a space to heal, rest, and recover: from work, from school, from receiving harm, and even from committing harm in order to be able to (un)learn and flourish. We stress the importance of caring for, loving, and forgiving ourselves as imperfect beings while maintaining a standard of responsibility to our community. To heal and restore requires fostering a space that expects, encourages, and promotes rest, both from ourselves and others. Healing and restoring are liberatory practices that creates space to nourish our bodies, minds, and spirit. Healing and restoring go beyond rest [24]. They also include dreaming, reimagining, and speculating new futures and possibilities. For example, the reimagining of CS by de-weaponizing it and considering it as a space for opportunities, innovation, progress, and inclusion, and not simply as a tool for capitalism [8, 50].

This may look like: adopting activities that encourage imagination, especially reimagining outside of the existing computing education landscape of tools and approaches [12]. We must reflect on how we allow ourselves to heal and rest: *How can we grow and learn from the harms committed within and by our community?*

6 CONCLUSION AND FUTURE WORK

As individuals seeking equity and justice, we dreamed of CEd spaces that prevent harm and celebrate diverse identities by centering healing, joy, and love. As we asserted earlier in this experience report, the design of a space is powerful. It can either (un)intentionally cause harm or be a place where individuals survive and thrive. We used this experience report to reflect on our journey and efforts to intentionally design spaces within CEd *for* minoritized individuals. We emphasize that although our current work was conducted in the United States, white supremacy and other systems of power are pervasive globally due to the historical impacts of European colonialism. In alignment with our pillars, the CEd community should hold itself and individuals accountable, dedicated to (un)learning and preventing further harm. This includes understanding how systems of power are constructed and operate in different sociohistorical contexts. We plan to continue to embody our three pillars, refining and adapting them as we grow. We will continue, and we invite the reader to join us as we constantly challenge ourselves to (re)imagine CEd and its spaces differently [16].

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