

Collaborating Online Through a Pandemic: Designing Virtual Spaces for Rightful Presence

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Abstract: Since spring of 2020, our ‘new normal’ world pivoted towards online spaces. This changed *where* formal teaching and learning interactions unfolded, and also shifted the conditions for participation in teaching, learning and research activities calling into question how and where inequitable power dynamics are (re)produced in these ‘new’ spaces. In this paper, we reflect on the affordances and constraints of community-engaged research with middle school youth in online virtual design meeting ‘rooms.’ Drawing on critical postmodern and queer feminist constructions of space, the university researchers explicitly worked towards Rightful Presence when structuring and facilitating the online design meeting room. We argue that virtual spaces are not neutral and are shaped through settled power dynamics that can further (re)produce inequitable conditions for participating and/or open new possibilities for disrupting settled adult-youth powered relations by both youth and adults.

Introduction

Since the spring of 2020, the COVID-19 pandemic has required that schooling, research, and most in-person interactions pivot to virtual environments. Re-orienting towards online and remote learning changed the spaces within which we interacted; in-person classrooms and afterschool spaces were replaced with virtual Zoom ‘rooms.’ This not only shifted the conditions for participation in school-based teaching and learning interactions (Morales-Doyle et al., 2020) but called into question the ethical and pedagogical considerations for community-based research practice partnerships (Switzer et al., 2021). How, with whom, and with what trade-offs might different kinds of education research encounter, during such a pivot? This conundrum is especially pertinent for community-engaged research projects involving historically minoritized youth.

Community-engaged research informed by a critical participatory design (Bang & Vossoughi, 2016) and the Rightful Presence (Calabrese Barton & Tan, 2020) justice-oriented framework necessitates challenging settled adult-youth power dynamics by explicitly supporting youth agency and voice towards recognizing and positioning youth as experts (Druin, 2002; Pinkard et al., 2017). To do so requires that researchers both pay close attention to pedagogical considerations when facilitating the design process and consider how the spaces within which we collaborate shape the conditions for and forms of participation that are legitimated by the group (Gutiérrez, 2021). The larger project within which this study is based is aimed at creating a 7th grade biology curriculum unit centered around a community-identified health concern. To build the unit, a design team of middle school youth, science teachers, and university researchers met virtually using multiple spaces such as Zoom, Padlet, Discord etc.

In this paper we examine the ways in which virtual learning spaces present opportunities to disrupt settled inequitable power dynamics while also reproducing injustices, when collaborating with youth in critical and participatory community-engaged research. *We explore the ways in which our curated virtual room for collaborative design shaped affordances and constraints for disrupting guest-host power dynamics, in ways that supported (or not) youth designers’ rightful presence.* Our aim is to expand and nuance how we might work towards Rightful Presence through designing more equitable virtual learning and collaboration spaces.

Theoretical Frameworks that Inform this Work

In this work we designed and facilitated virtual community-engaged collaborative design team meetings with youth, informed by theories including: 1) the Rightful Presence framework (Calabrese Barton & Tan, 2020) that explicitly works towards centering youth voice and agency, and 2) critical postmodern (Soja, 2010) and queer feminist (Ahmed, 2010) theories that recognize ‘space’ as the non-neutral and non-static background, implicated in shaping the conditions for participation in the design process (Gutiérrez, 2021).

Rightful Presence (Calabrese Barton & Tan, 2020) posits that (in)visible inequities are (re)produced through the practiced repetition of settled power dynamics in everyday teaching and learning interactions and that

within schools, teachers/adults serve as the *hosts* extending student *guests* rights to learning spaces. As hosts, teachers/adults along with institutions, hold power over how learning spaces are designed, pedagogies are enacted, resources are available for youth participation, and the conditions for participation. Extending rights to youth as *guests* (re)produces powered relations that position teachers/adults as not only in control of access to resources but also the power to *rescind* youths' rights in the space. Rightful Presence requires explicitly dismantling oppressive guest-host-youth-adult powered relations within learning spaces (Calabrese Barton & Tan, 2020).

Designing for Rightful Presence in virtual meeting 'rooms' requires examining the contours and boundaries of the space within which the interactions unfold. Rather than consider space as the neutral and static background upon which life unfolds, we draw on critical postmodern (Soja, 2010) and queer feminist (Ahmed, 2010) theories to nuance how social life is shaped by and shapes the spaces within which we interact. Importantly, this "socio-spatial dialectic" is not neutral but undergirded by power dynamics from the larger social world - such as settled guest-host-student-teacher relations (Soja, 2010). Indeed, as Ahmed (2010) argues, our orientations to, in and with the world, shape the spaces in which we exist by affecting "what is near or proximate to the body, those objects that we do things with" (p. 235). Settled powered relations shape which objects come to matter as important in the space. That is, the contours of the classroom space changed such that knowledge objects emerge as matter that is valued by the students and teachers (Krishnamoorthy, 2021).

In this paper we contend that virtual spaces or 'rooms' are non-neutral and shaped through power dynamics that can (re)produce (in)justices while also creating possibilities to resist these (in)justices (Switzer et al., 2021). The virtual design team meetings - hosted on Zoom - created a new space and mode for communication that changed the conditions for participation expected of all team members (Switzer et al., 2021). As we illustrate through the analysis, the contours of the virtual meeting room designed by the university researcher hosts - oriented explicitly towards disrupting guest-host youth-adult powered relations - shaped the possibilities for social interactions that unfolded in the meetings.

Methods

Design team context

Drawing on critical and participatory design research methods (Bang & Vossoughi, 2016) to collaborate with youth (Druin, 2002; Pinkard et. al., 2017), we began co-constructing the curriculum unit in the spring of 2021 with a design team that comprised eight youth from two local middle schools, a science teacher from each school and eight university researchers. The schools were located in South Lancaster (SL) (pseudonym) - a Northeastern U.S city. University researchers included individuals from diverse ethnic, racial, gender, and socioeconomic backgrounds. The youth on the design team broadly reflected the majority Hispanic demographics of SL (77% percent of families who attend SL public schools are socioeconomically marginalized). The virtual design meeting room was not a static space, rather it encompassed multiple spaces including whole-group Zoom rooms with slides shared to the group, virtual breakout rooms with 6 - 7 participants per room, as well as additional applications that support the design work for that meeting such as: Padlet, Discord, Spotify, Sketchpad, etc. The boundaries of our virtual meeting room were constructed by university researchers each meeting and included for example, Spotify, Zoom and a Sketchpad one week, and Zoom, Spotify and Padlet another. At the same time, as hosts, university researchers actively shifted the boundaries of the virtual meeting room in response to how youth participated.

Data and Analysis

We draw on data that included university researchers' planning and debriefing meeting notes (105 pages), reflective field-notes after each design team meeting (110 pages), along with artifacts (Google slides etc.) created during the design team meetings over eight months (i.e., 16 team meetings). The analysis of this data corpus was rooted in a grounded theory constant comparative approach (Strauss & Corbin, 1998) to (a) identify moments when the boundaries of the virtual room were made visible and/or changed, through a shift in how adults and youth participated in the meeting and (b) tracing the powered relations (e.g., adult-youth-guest-host relations etc.) that were disrupted and/or (re)produced in those moments. The analysis yielded narratives of episodes that illustrated the ways adult-youth-host-guest powered relations were shaped by and shaped the contours and boundaries of the virtual meeting room.

Results

We present two episodes that illustrate two emerging themes of when (a) the contours of the virtual room were shaped by youth designers' orientations, (b) the boundaries of the virtual room shifted when youth and adults disrupted settled adult-youth powered relations.

(a) Youth designers' orientations shape what 'matters' in the virtual room

In beginning the design process, university researcher hosts structured the virtual design meeting rooms in ways that relied on youth participating by unmuting their microphones and turning on their cameras. However, youth designers resisted invitations to turn on their cameras and chose to type their responses in the Zoom chat instead of unmuting their microphones and speaking. Initially the university researchers struggled with not being able to 'see' or "hear" youth. Although youth participated through the chat function on Zoom, the sedimented expectations informed by in-person teacher-student guest-host power dynamics shaped the university researchers' understandings of youths' participation. Unlike in-person interactions, the virtual room we inhabited allowed for youth to choose how they were visually present despite the adults discomfort and expectations.

Youth designers' choice to not participate in ways expected by university researcher hosts was an act towards authoring their (the youths') Rightful Presence in the space, and informed subsequent changes to the boundaries of the design meeting room in ways that support youths' preferred participation modes. In subsequent meetings, university researchers re-structured the virtual room so that virtual objects such as the Zoom chat box came to 'matter' and were brought into proximity (Ahmed, 2010). That is, the contours of the virtual room changed because of the youths' collective orientation towards the chat box as an object of importance when communicating ideas in the space. Recognizing youths' non-participation (Switzer, 2020) as an agentic disruption of powered adult-youth host-guest relations settled through in-person interactions (i.e., where youth are not offered the choice to show their face or not) was critical towards the adult hosts and youth guests reauthoring rights that defined how designers could participate in the meetings. Shifting the contours of the virtual room - when informed by youths' orientations to virtual objects such as the Zoom chat - better supported youth to participate in ways they preferred and chose.

(b) Collectively shift the boundaries of the virtual room towards Rightful Presence

Seven months into the design team's collaboration, university researchers invited youth designers to create a logo for the project to be attached to curricular materials and websites connected with the project. As part of the design meeting, participants were invited to draw a logo in any of three spaces within the virtual design room: on Sketchpad – an online sketching app, through searching for images and posting them on Padlet, or by drawing them on a piece of paper and sharing by turning on the camera. One youth asked the hosts for permission to use a different app to sketch her logo. The space in which the youth drew her logo was outside the boundaries of the virtual room designed by the university researchers. The youth's move to ask for permission to use a different space made visible the powered guest-host relations whereby the youth guests changed the boundaries of the virtual room during the design meeting, in this case, with permission from the university researchers.

When it came time for designers to share their logos, team members took turns describing the logo they created, through the various spaces within the virtual room. However, another youth asked the university researcher hosts if they could share their designs in the Discord app – a space that was not within the boundaries of the virtual meeting room that day. As the next few minutes of the meeting unfolded, the boundaries of the meeting room shifted again, to include the Discord chat where the youth shared her design. In this moment, participants were collectively oriented towards the Discord app space, engaging through the Discord chat, while continuing to 'sit' in the Zoom room. As a result, the non-static boundaries of the virtual meeting room changed based on the youth designer's orientations to include the Discord app, thereby disrupting guest-host relations and re-authoring her rights in the space. That is, unlike moments when university researcher *hosts* restructured the virtual room in response to youth designer *guests'* non-participation, in this episode the youth designer *guests* initiated changes to the boundaries of the virtual room, re-authoring their rights in the space.

Discussion

The global pivot to online learning has forced researchers and educators alike to adapt to the 'new normal' - a world in which virtual spaces dominate human interactions. However, the design and contours of these virtual environments are not neutral, shaped through settled power dynamics from the larger social world that can work to further (re)produce inequitable conditions for participating in online activities (Benjamin, 2019). Considering how and where power is enacted in ways that (re)produce inequities online is especially pertinent for researchers involved in community-engaged research with youth collaborators.

Rather than assuming a neutral background within which collaboration occurs, we illustrated the ways in which virtual spaces - or 'rooms' - were shaped and continue to be shaped by settled power dynamics, even as newer, more just dynamics are being provoked. Collaborating in a virtual environment offered youth *guests* new possibilities for participating in knowledge creation interactions. However, designing the online environment in

ways that better supported equitable ways of knowing and being required that university researcher *hosts* were grounded in a social justice approach (i.e., Rightful Presence framework) that explicitly works in collaboration with youth *guests* towards disrupting guest-host relations. That is, hosts are responsible for being attuned to the ways in which youth choose to participate in-the-moment, such that youths' acts of non-participation (i.e., episode (a)) and their movement to spaces outside the boundaries of the virtual room (i.e., episode (b)) are welcomed as a necessary disruption of settled guest-host powered relations.

As researchers and educators committed to justice, we maintain that engaging in collective, allied political struggles towards Rightful Presence for minoritized youth in critical participatory design is a necessary and overdue undertaking. This entails a commitment to positioning youth as experts in our design work through enacting youth-centered practices. We work to cede power to the youth by intentionally and continuously minding how we might be reproducing injustices that we are wont to do, when operating from the "norm". The challenge inherent in allied political struggles is that injustices are difficult to identify, not least because powered stakeholders (i.e., university researchers in our case) are entrenched and benefit from, these historical, unjust power structures. We endeavor to hold one another accountable and continue to seek for consequential ways to seed Rightful Presence for youth in STEM teaching and learning.

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Acknowledgments

This research is supported by the National Science Foundation under Grant No. 2000515. Any opinions, findings, or recommendations expressed are of the author(s) and do not necessarily reflect the views of NSF.