

Volume 2, Issue 2, pp 59-84 Copyright ©2022 Victor Udoewa https://doi.org/10.47061/jasc.v2i2.3816 www.jabsc.org

Peer Review Article

Radical Participatory Design:

Awareness of Participation

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Abstract

Design has been a massive failure. It has functioned in the service of industry and capitalism, leaving us a world with several crises which we are failing to resolve. The onto-epistemic framework out of which this type of design injustice emerges is coloniality, highlighting a trans-locally experienced truth: our ontologies are our epistemologies. And our onto-epistemologies are our namologies-studies, perspectives, types, or ways of designing. If we instead embody an onto-epistemic framework of relationality, our design process becomes radically participatory. Radical Participatory Design (RPD) is meta-methodology that is participatory to the root or core. Using the models "designer as community member," "community member as designer," and "community member as facilitator," RPD prioritizes relational, cultural, and spiritual knowledge, as well as lived experiential knowledge, over mainstream, institutional knowledge. Based on the experiential knowledge of employing radical participatory design over many years, we have induced a characteristic definition of RPD. Through an awareness of participation, we discuss the various benefits of RPD including genuine inclusion, true human-centeredness, moving beyond human-centeredness, embedded empathy, trauma-responsive design,

and systemic action. We discuss the ethics of Radical Participatory design from both an equality and equity perspective. We offer ways of evaluating the success of the radically participatory design process. Lastly, we discuss the barriers and ways we have overcome them in our projects.

Keywords

participatory design, participatory research, decolonizing design, research justice, design justice, critical design, (relational) action research, relational ontology, relational epistemology, community-based action research, action research

Introduction

As a human animal, a part of nature, I inhabit multiple spaces of privilege and lack of privilege. I am a cisgender, heterosexual, Christian, male, U.S. American human. Simultaneously, I am a Black, disabled Nigerian in the U.S. from an immigrant family. I am a member of the indigenous Ibibio people group, and my name, Anietie, is a shortened version of the phrase "Who is like God?" When I write, I tend to write from a perspective of African indigeneity, different from indigenous perspectives in the Americas or Australia. There are many other parts of my background that place me in positions of privilege or disadvantage country of residence, education, income, etc. Many of those have changed throughout my life.

One influential privilege I hold is the position of designer. I have practiced design in communities around the world. Despite my highest hopes, design has not risen to the challenge of resolving our current, growing crises. We face an economic crisis locking some people, groups, and nations in cycles of poverty with fewer people controlling greater shares of the wealth; a climate and environmental crisis of ever worsening ecocidal devastation; a conflict crisis where entrenched casteism, xenophobia, jingoism, and ethnocentrism fuel ongoing disputes; and a spiritual crisis where none of our best faith traditions have been able to address any of the previous three crises. This crisis-bound world is a world of our monohumanistic design, creating a one-world world, in the service of industry and capitalism (Escobar, 2018; Law, 2015; Wynter, 2003; Wynter & McKittrick, 2015).

Awareness-based system change agents recognize that we cannot solve our crises only with external methods, or methods focused on creating change outside of ourselves. We must pay attention and nurture our inner life and interiority that provide the source conditions fueling our actions (Scharmer, 2009). However, it is not enough to do this on an individual level. It is difficult for social change to happen if I only nurture my interiority and no one else does, or if we each do it individually. We must also pay attention and nurture our communal interiority, directing our collective decision-making and actions. Participatory design (PD) attempts to focus on communal interiority. Instead of focusing on the external methods, methodologies, or what we do, it focuses on how we do what we do, the interior dynamics, ecology, and positionality of a living community.

If design has failed at creating a pluralistic, flourishing world, PD has experienced a type of stillbirth, never truly beginning to bring about the emancipatory democracy promised as one of its goals (Geppert & Forlano, 2022), struggling to rid itself from its inherent coloniality (Cooke & Kothari, 2001). This makes sense as our namologies—studies, types, or ways of designing—are simply a reflection of our ways of knowing which are a reflection of our ways of being (Ibibio, Generations). Our ontologies are our epistemologies and our ontoepistemologies are our namologies. Thus, there is a need to decolonize decolonization, or more specifically, decolonize PD. By embodying an ontoepistemic framework of relationality, the design process can become radically participatory. To embody relationality, designers need an awareness of participation, and, from awareness, can take action.

The first purpose of this paper is to go beyond critique, to decolonize and refuture PD. Secondly, I aim to holistically describe the PD I have experienced, as many PD researchers and writers do not often explain fully how, when, and what PD was implemented on a project. Third, through a holistic description, I want to place the PD I have experienced in comparison and conversation with what others mean or practice when they use the term PD. Lastly, I hope to encourage participatory designers to go further, fully radicalizing participation while encouraging non-participatory designers to begin the PD journey with a radical approach or goal. Communities, the people for whom professional designers design or the people who will use what is being designed, can and have always practiced radical versions of PD without professional designers. The problem occurs with the colonizing presence of professional designers. This paper presents not just insights but expertise from community practice that is not synthesized through mainstream, academic, institutional knowledge-based understandings of research rigor, but through indigenous, practical synthesis which is incarnationally and relationally codified by traditionalizing certain community practices and discarding other community practice, utilizing learning circles, storytelling, oral histories, art, ceremony, and more (Ellison, 2014; Smith, 2021; Suaalii-Sauni & Fulu-Aiolupotea, 2014).

In the rest of the paper, I share an awareness of the typology of participation and a description of Radical Participatory Design (RPD), the participatory metamethodology this paper describes. Different from a methodology which is a collection of methods or guiding philosophies or principles that help one to choose a method at a particular point in a process, a meta-methodology is a way of doing a methodology, an approach or orientation that can be used with any methodology. Because RPD teams tend to gravitate towards certain methodologies over others, it can be considered an approach, orientation, or philosophy that guides one in choosing a particular methodology.

After introducing RPD, I discuss the ethics of RPD focusing on remuneration through the lens of equality and equity, dissemination of knowledge, and

community accountability. I then discuss the evaluation of RPD to determine if the process was truly and critically radically participatory. This is helpful due to the invisibility of coloniality that may lead us to believe we, design team members, are practicing RPD when we are practicing colonial participatory design (CPD), conventional participatory design in which designers lead the process and participation is not fully through the design process. Next, I discuss the benefits of RPD, how it opens up pathways to other types of design such as society-centered, futures, systems, or planet-centered design. I share how it relates to empathy, comparing it to other design awareness-based systems change practices. I then discuss the difficulties of practicing RPD and provide tips to minimize the difficulties based on experiential knowledge. Lastly, I provide insights on addressing and overcoming organizational barriers to the practice of RPD.

The Awareness and Typology of Participation

To compare various PD practices, I use a typology of participation based on three spectra or questions (Figure 1). Who initiates? Who participates? Who leads? There is a temporal distinction between initiation, on one hand, and participation and leadership, on the other hand. Even though initiation only occurs at the beginning of a project while participation and leadership occur throughout, the effects of initiation can be experienced throughout the project, and initiation can even affect participation and leadership.

On the spectra, I locate: community design when only the community is involved; community-driven design when the community may invite professional designers for at least a little help, up to equal participation; CPD where designers fully lead and participate, never reaching equitable leadership with the community; and RPD in which the community fully or equally participates and fully or equitably leads. Visualizations for each type of design can be viewed elsewhere (Udoewa, 2022b in press). Radical comes from the Latin word "radix" meaning root. Radical Participatory Design is a design that is participatory to the root, all the way down, from top to bottom, beginning to end.

Thus I introduce Radical Participatory Design as having three defining characteristics.

> 1. Community members are full, equal members of the research and design team from the beginning of the project to the end. There are no design team meetings, communications, and planning apart from community members. They are always there at every step and between steps because they are full and equal design team members.

Communities are not homogenous. In RPD, we, the design team members, form qualitatively representative samples of the community in a way that honors cultural understandings of leadership and participation. We also drop designerdominated notions of time, and move at the pace of community relationships, availability, and desire.

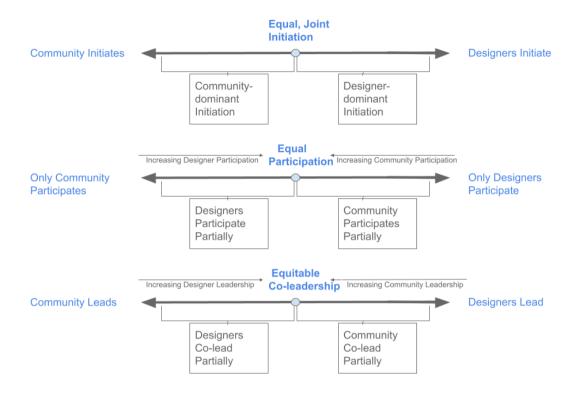


Figure 1: Three axes of participation: initiation, participation, and leadership.

2. Community members outnumber non-community, professional designers on the design team.

When a person is both a community member and designer, and she leads the process, choosing methodologies, she is practicing CPD. In RPD, when a person is both a designer and community member, she primarily embodies the community member role, offering design skills alongside all other community skills, while the community facilitates and leads the process. Because an organization may refuse to implement community ideas or prototypes during a PD project, there is a third characteristic.

> 3. Community members retain and maintain accountability, leadership, and ownership of design outcomes and narratives about the design artifacts and work.

Characteristic 2 is a guideline, not a requirement. However, RPD projects tend to be more successful when they embody that characteristic. The goal of RPD is transformational justice, though RPD retains the benefits of multidirectional learning, inclusion of community perspectives, better design outcomes, and increased ownership over the outcomes.

In RPD, professional designers do not empower since empowering reinforces the hierarchy participatory designers seek to subvert with PD. Instead, in RPD, professional designers divest of power, and the community assumes it. The RPD process naturally becomes an educational one in which learning is embedded in every phase and activity, not just in research phases, due to the experiential, cultural, and spiritual knowledge the community embodies and their presence at every step in the process. Unlike research justice which views experiential, mainstream institutional, and cultural/spiritual knowledge as equal, RPD views experiential, cultural, spiritual, and embodied knowledge as greater or more important than mainstream institutional knowledge for system change.

Instead of the "designer as facilitator" model, we, RPD team members, move to a model of "community member as facilitator," "designer as community member," "community member as designer." "Community member as designer" means they are full-members of the team, researching and designing. "Community member as facilitator" recognizes that no matter how much designers try to neutralize our facilitation work, facilitation is power, and the power should be wielded and held by the community on whose behalf we are designing. So community members facilitate the process. Lastly, "designer as community member" signifies that the designer sits equal to and alongside all the other community members on the team, offering her skills (design and research) as equal to and alongside all other skills, assets, talents, and gifts of all other community members.

Through these models, RPD creates suspended space with an alternate social field. A social field is the structure of the social relationships between individuals, groups, organizations, and systems (Scharmer, 2009). Suspended space is a space where the social rules, norms, and relationships, governed by the larger society, are suspended in the subset space or small-group space within the society (Rollins, 2006). Because those social norms, rules, and relationships are different, an alternate social (sub)field emerges. Radical Participatory Design creates an alternate social field which aims to move across 3 stages. In the first stage, intrapenetration, the colonial logics of the macro-social field of the societal system naturally enter into the micro-social field of the design process. In the second stage, interpenetration, the micro-social field of the design process also begins to affect the macro-social field of the system and some of the new relationships held or suspended in the design process begin to carry over into societal interactions outside the design process. In the last stage, extrapenetration, only the design process's social field is affecting the larger system's social field. The more RPD is practiced the longer the design team is able to sustain the suspended space naturally outside the design process or in other projects.

There is still more work to do to decolonize awareness-based systems change methods which are not yet or not necessarily radically participatory. The MAPA innovation lab (Sbardelini et al., 2022), social field action research (Pomeroy et al., 2021; Wilson, 2021), systemic constellations (Ritter & Zamierowski, 2021), and social field pattern development, including social presencing theater work

(Gonçalves & Hayashi, 2021), still maintain a difference between participants and researchers, researchers who planned or analyzed alone or chose methodologies for participants. Even Global Social Witnessing (GSW), a contemplative social cognition practice that facilitates mindful witnessing of critical events, is not necessarily participatory and can even be done alone without a community (Matoba, 2021).

Ethics of Radical Participatory Design

In order to explicate the ethics, evaluation, and benefits of RPD, I will highlight two projects specifically, while mentioning others. The first was a digital literacy project done under the auspices of a multinational technology company. It was a special project for a vice-president (VP) who wanted a global certification with multiple tracks—a system admin/devOps track, a mobile and web application development track, and a digital literacy track. I will focus on the digital literacy track. Three times, the project failed to reach not just literacy targets but even registration targets. The VP left the organization, and the project lead moved to another project. I was allowed to run the project in any way I chose with the budget. I recruited a team of 12 people mostly from north, central India and participated in an RPD experience to redesign the educational service in a way that would improve digital literacy levels in north-central India to start before expanding to other regions (Udoewa et al., 2016; Udoewa et al., 2017). The digital literacy project is an example of a successful RPD project, in which the team experienced sustained and sustainable shifts in power.

I also participated in the redesign of an international summer service-learning program for high school students, in which Washington, DC high school students traveled abroad during the summer doing service-learning projects and then returned home to complete social entrepreneurship projects in DC (Udoewa, 2018, 2022a). This project was completed under the auspices of a nonprofit in collaboration with the local DC public schools district (DCPS). The project to redesign the international summer service-learning program and curriculum is an example of a failed RPD project due to the program's refusal to give up power. I will use both projects to talk about the ethics and evaluation of RPD.

The ethics of general design work apply to RPD, including: confidentiality, anonymity, data disclosures (what, why, and how long data is collected, and when it will be destroyed); transparency and communication of the work and goals; IRB reviews; and research participant referrals when issues come up beyond the skillset and purpose of the designers including trauma issues, etc. Informing the community of the progress, status, and outcomes is also important, though the focus in RPD is informing the wider community since community members are full members of the design team.

Similar to indigenous methodologies, the community leads and decides not just what research is done but also if, what, and how research is shared (Smith, 2021). Usually, RPD communities do not have a preference for the written word. However, when projects are shared in writing, RPD practitioners recognize

collaborative and community authorship in two ways. First, all community members who want to co-author a paper can do so (Udoewa et al., 2016; Udoewa, et al., 2017). Secondly, in non-project papers written alone like this one, I try to cite cultural and community knowledge as a reference equal to other 3rd-personknowing, academic author references, not just as a footnote.

Radical Participatory Design requires the addition of remuneration as an ethical concern. It is unjust for a designer to be paid for design work while community members, who are equal designers doing the same work, are unpaid (equality). The injustice is more apparent when we consider that the designer does the work as part of the job while community members must do the work in addition to their normal livelihoods and routines. In cases where community members are jobless or the RPD work takes community members away from their jobs, the offense is greater. Because the design work is not the job of the community member, it costs the community member more to participate in RPD and therefore they should be paid even more (equity).

In the international summer service-learning project, the student community members of the design and research team were not paid for their time. It is possible to say we, the design team, did have equality because the two professional designers, including myself, were also not paid. However, from the standpoint of RPD, ethically, it was still poor practice to fail to compensate the students for their time. Moreover, we did not achieve equity, because failure to compensate design team members had a bigger impact on the students than the impact on the professional designers. The project failed ethically from the standpoint of RPD.

In contrast is the example of a current systems practice RPD project, focused on generational, racialized trauma in the rural U.S. South, the sponsoring nonprofit pays team members (professional designer or community designer) equally according to hours of work. In cases where it is difficult to get approval to pay community members equitably, there are numerous, creative ways to compensate community members. In the digital literacy project in India, I paid for breakfast and lunch each day, a few dinners when it was late in the day, all equipment needed, all travel expenses to work locations, and full room and board for overnight travel and experiential homestay research. I gave references, referrals, recommendations, and certificates of completion to team members to use in job hunting, made the project an internship for resumes, and encouraged team members to publish our work so that they became published authors of two papers.

Community review boards (CRBs) are not a replacement for participation or leadership by the community. They can provide an extra check to prevent unethical, unsafe, inequitable, exclusive research or design from being implemented. Still it is possible for a CRB to become a gatekeeper, setting up a hierarchy filled with the same logics of coloniality. For CRBs to work well, they must be radically participatory and radically representative, like an RPD team. However, they are not a requirement, as an RPD project brings the ethical

community checks into the actual research and design process due to the presence of community members. Most RPD projects do not use them.

Evaluation of Radical Participatory Design Processes

The examples of remuneration hint at the way to evaluate the success of the RPD process, which is distinct from the success of the design outcome (Drain et al., 2021). An RPD process is successful when a majority of the community designers on the design team experience a sustained and sustainable shift in power. The purpose and goal of RPD is transformation and power exchange. If the power exchange does not occur or is not sustained beyond the work, the RPD process was not successful.

In the international summer service-learning program, I formed an RPD team with students in the program (2018). Though the project had all three RPD characteristics, the organization who initiated the project switched the project to a CPD project when they rejected the student designers' decisions and would not implement them. The students left the experience discouraged, with the same amount of power they had at the beginning of the project. Nothing changed for them. The RPD process was not successful, not radically participatory.

My digital literacy project was the opposite (Udoewa et al., 2016; Udoewa et al., 2017). My organization fully relinquished control and implemented what the community designers created. The community owned the narratives of the work and pointed proudly to the outcomes in the news claiming: "We did this. Look what we did!" As a result of the work, they gained experience that helped five of seven community members gain a job. A sixth community member, who was employed, received a promotion. The seventh community member improved his floral business. All became first time authors with two publications. Additionally, our team included three non-designers from within our organization who took a break from their marketing and sales work to do community projects on the ground. All three employees quit their jobs within a year of the experience to focus on similar social impact work because they could not go back, divesting of their power in a multinational company. I did the same. One hundred percent of team members' positions of power at the beginning of the project were transformed and remain that way to this day.

Some of these examples of transformational power exchanges are still within the system of values of those with power, leaving the system unchanged. For example, publishing in a peer-reviewed journal is an achievement that conveys authority and increased power in our current social hierarchy. However, research justice tells us that experiential and cultural knowledge is just as important as published, institutional knowledge. The community may or may not value increased power within an unchanged, oppressive system. Though RPD designers value and fight for increased representation of underutilized communities in traditional seats of power like journal authorship, a higher goal of RPD beyond individual and group power exchanges within the same system is the creation of alternative systems based on community values; this is the goal of

pluriversal design. Radical Participatory Design most successfully creates alternative modes of living in the world. Power exchanges for a majority of community members on an RPD design team are still a success because such power exchanges are necessary systemic steps towards pluriversal goals of alternative systems.

Benefits of Radical Participatory Design

The benefits of RPD include more successful and effective design outcomes, mutual learning, and power exchanges. Additionally, community members conduct research among other community members. When doing interviews or observation, the familiar community faces help to reduce anxiety. Often, interviewees are more willing to talk and be open with other members of the community. In cross-cultural design and international design projects when professional designers speak a different language from the community, translation is usually needed. In RPD projects, interviews can be conducted in the primary language of the interviewees because design team members speak the language. The ultimate benefit of RPD is embedded local, experiential knowledge in the design team.

Beyond Inclusive and Human Centered Design

Radical participatory design facilitates inclusive design and moves beyond it. Instead of only including marginalized community members in research recruitment, RPD places community members as full, equal members of the research and design team. Designers and community members benefit from mutual learning, and the community benefits from a design outcome that is based on their lived, experiential, relational, cultural knowledge. Moving beyond inclusive design, RPD focuses on an inclusive design team. An inclusive team, then, aids in inclusive research recruitment because the team can use their community connections, networks, and lifelong relationships to expedite and facilitate the recruitment process, reducing anxiety more quickly with research participants who recognize the researchers and designers as people from their own community. In the digital literacy project, the design team did not need translators and could go into communities and immediately reduce anxiety by using the local language and building on networks, connections, and relationships the design team members already had (Udoewa et al., 2016; Udoewa et al., 2017). In RPD, the community benefits from better design outcomes due to the inclusion and greater willingness of research participants to offer experiential knowledge and expertise.

The only way to truly achieve a Human-centered Design (HCD) process is through RPD. Human-centered design is a methodology that centers every part of the design process on the community for whom designers are designing. When doing design injustice or CPD, there may be an activity or a phase centered on the community, but the process always moves back to a phase or activity or

interactivity work that is not centered on and apart from the community. In an RPD process, every activity of every phase, including interactivity work, is centered on the community because the community is always there, co-leading the design work, driving it forward, and often initiating the work. In cases when the community does not initiate the work, it can still be an RPD approach if the professional designers, who initiate, give up control and power and the community both participates and assumes leadership including leadership that has the power to stop the project.

Ultimately, when conducting RPD, it is common to move away from HCD towards society-centered, community-centered, life-centered, or planet-centered design, methodologies centered on society, community, all life, and the planet at every phase in the process. If a community is truly centered in a design process so radically that they are full-fledged, equal, and equitable team members, then their expertise and desires lead the process. When their expertise leads the process their expertise brings out two dynamics. First, due to the relational nature of existence, to truly care for a group of humans, one must care for the entire ecosystem that nourishes those humans, an ecosystem in which those humans sit. Second, communities care about more than human individuals. They care about their community, society, land stewardship, water resource stewardship systems, etc. Centering the community means centering the cares and priorities of the community which naturally broadens design.

Such a shift benefits not just a specific group, as in HCD, but rather an entire community, society, non-human life like animals and plants, and ecosystems including non-living things such as rivers. Ultimately communities benefit because they have healthier environments and ecosystems, and the design team benefits from learning how to design eco-systematically, relationally, and holistically. Communities near the bottom of social hierarchies tend to be more in tune with the system in which they sit and the various competing needs of both life and non-life in the environment (Gurung, 2020). They bring that knowledge into the process. For example, in a translocal, community design project on water, the community chose this challenge: Ensure a safe, sustainable, equitable, and affordable drinking water future (Roberts, 2017). This design challenge is not anthropocentric, but life-centered. In a current, local, community project where we, the design team, are designing a racially just school community, in addition to human needs, we are looking at the building needs, plant needs, compost needs, and more.

One principle of feminist standpoint theory is that people at the bottom of a social hierarchy tend to have a more accurate or holistic picture of reality (Gurung, 2020), which oppressed communities have always known. Since awareness-based methods entered design through Liberatory Design, Equitycentered Design, and more, reflective activities have been added to design processes (Anaissie et al., 2021; Creative Reaction Lab, 2018). However, the focus of awareness-based methods is on people higher in the social hierarchy who do not see parts of the system due to their location in the social field and system.

The awareness of the field is generally more communally known to groups at the bottom of the social hierarchy. Instead of expending so much energy to encourage powerful people to reflect on their positionality and the field dynamics, becoming reflexive but not necessarily reflexible—moving towards flexible change—it can be more efficient to simply engage in RPD, shifting the leadership and participation spectra to the community and letting awareness result as a product of the process (Arnold & Schön, 2021).

In contrast to general needs-based design injustice methodologies, RPD brings the benefit of pluriversal design and futures design. Futures design can be considered an asset based approach where the aspirational asset is the shared vision of the future. Pluriversal design seeks to create alternative and multiple modes and ways of being and living in the world according to the values and identities of various communities (Escobar, 2018; Leitão, 2020). Pluriversal design is "a desire-based approach" that opens up the pluriverse, a multiplicity of possibilities, or a world of many worlds which can all be good and different (Escobar, 2018; Leitão, 2020). It is much harder to move from a damage-centered or conventional needs-based approach to a pluriversal, desire-based approach or a future vision, asset-based approach when the community's desires and vision of the future are not represented and voiced in every activity, phase, and interactivity moment of planning and decision-making.

Radical Participatory Design provides a platform to converge the desires and visions of the designers and the desires and visions of the community because of the power-exchanging models of "community member as designer" and "designer as community member." This exchange during RPD allows for the visions, desires, values, expertise, and identities of the community to be present and voiced on the design team during the design process, increasing the likelihood that the design process moves to a pluriversal approach, outcome, and a shared vision of the future, if the community is truly leading the process. Thus, RPD is not neutral, but represents a pluriversal bias towards the identities, values, desires, and shared future visions of the community leading the process. For example, in the international summer service-learning project, students mapped out pathways through a future program, not based on problems they experienced, but based on who they wanted to be and what they wanted to become (Udoewa 2018). Thus, in RPD, communities benefit, then, from a design that embodies their local, specific, future vision. This benefit highlights the relationship between decolonization, anticolonialism, and postcolonialism. Decolonization is not the goal. In a postcolonial and neocolonial world, decolonization is the first step on the anticolonial road to a pluralistic multiverse—the pluriverse.

Sustained Embodied, Embedded, and Auto-Empathy

One way to hold empathy for community members throughout the entire design process is through RPD. Empathy is one of the primary mindsets and an ideology of HCD (Heylighen & Dong, 2019; Kolawole, 2016). Designers try to gain and

keep empathy by researching with community members and carrying the results of that research and the community perspectives into the design stage through qualitative data and design artifacts like personas and empathy maps. But what is empathy? If empathy is understanding and sharing the feelings of another person, we may realize that achieving empathy through a generic design injustice or CPD project is an impossibility.

When viewing empathy through the Global Social Witnessing (GSW) perspective, there are three stages: the witnessing stage in which the observer still feels separate, the sensing stage in which the observer experiences empathy and connectedness with the observed, and the witnessing stage in which the observer experiences oneness with the observed "through mental, affective, and bodily responses" (Matoba, 2021). After the GSW practice, the observer hopefully takes action based on the global empathy gained (Bachen, et al., 2012).

In contrast, Goleman and Ekman identify three components of empathy (Vlismas, 2020). Cognitive empathy is understanding what someone is experiencing, but there still is a distance between the empathizer and the subject of the empathy. Cognitive empathy maps to the observing stage of GSW and the research stage of HCD. The second component of empathy is emotional empathy. Emotional empathy is feeling with someone, experiencing the same feelings and sharing in that experience. The empathizer has now put themself in the same emotional space as the subject of the empathy, walking alongside the subject through their emotional journey. Emotional empathy can extend to physical sensations as well, and maps to the sensing stage of GSW and the synthesis and define stage of HCD. Lastly, there is compassionate empathy. Compassionate empathy is being moved to help. It is a balance between cognitive and emotional empathy, where the empathizer is not overwhelmed and paralyzed by emotion (emotional empathy) and simultaneously does not immediately jump into problem solving based on understanding (cognitive empathy). Compassionate empathy maps to the last witnessing stage of GSW, in which the observer experiences oneness with the observed through responses, and to the design and delivery stage of HCD.

When we understand empathy, not as one type or another, but as the summation, co-mingling, or relation of all empathic components, we know that empathy is not required for designers to engage in a design injustice or CPD project. Most designers work with an intellectual understanding of community members' experiences, and then work to change the situation or design a solution. It is clear that one component, cognitive empathy, can be temporarily achieved through research. The difficulty is maintaining the cognitive empathy initially achieved, and achieving emotional empathy and compassionate empathy.

In work with experienced senior designers, cognitive bias slips into the design process blocking cognitive empathy. The further away in time designers are from the research that informs the design, the less cognitive empathy the design team has. Cognitive biases even appear directly after research in the

awareness-based sense-making and synthesis phase, when experienced designers and design researchers make claims or extract insights that are not based on patterns but rather the last piece of information they read, the most recent interview debrief, or one interview, observation, activity, or report that they remembered quite well. When I ask what data the claim is based on, I discover that it is scant or not there. Even artifacts, like personas, that are meant to carry cognitive empathy into later stages of the design process can falter due to various reasons: irrelevant information included in personas that designers implicitly and cognitively interpret as important, persona photos or images whose demographics and physical appearances are erroneously associated with subcommunity members introducing more bias, obsolete personas which are incorrectly treated as current because designers do not continuously update them, and the complete lack of use of a persona in the design process after its creation as if the simple act of creation is enough to generate empathetic fitness or empathetic endurance (Farai, 2020). The same analysis can be applied to other design artifacts like empathy maps, days-in-the-life, etc.

In addition to the fleeting nature of cognitive empathy, it is rare for designers to create emotional empathy. Because it is not required in the design process, it is not measured, captured, or evaluated. There may be designers who achieve it and others who do not. Anecdotally, emotional empathy is rare from my experience; most designers are referring to cognitive empathy when they use the term empathy. Additionally, a large barrier to emotional empathy is the lack of sufficient relational time in the context of the power hierarchy between the designer and research participant. Though designers could utilize more longitudinal studies interacting with the same participant over time, most design studies involve a single interaction with a community member during a research phase. Compare a single design interview to the repeated interaction over months that a clinical psychologist or therapist has with a patient. Even in the therapeutic context, MacNaughton (2009) argues that empathy is impossible due to the imbalance in the relationship. Over time, the building of relationship and psychological trust can reduce or temporarily suspend the power imbalance enough to allow the possibility of empathic transfer; however a single design research interview is insufficient to achieve this. Another obstacle to emotional empathy is the lack of experiential research in many projects. It is difficult to gain emotional empathy through interviews alone without actual experiences. Simulations and experiential methods like mystery shopping, mystery working, homestays, participant observation, work-alongs, etc. are much more powerful at evoking or provoking designers emotionally to move towards emotional empathy (Stickdorn et al., 2018; Woodcock et al., 2019). However, they are not used as much as the interview method. Finally, what happens when one has a strong aversion to the lifestyle or values of the community members one is researching? One might have cognitive empathy but emotional empathy may be an impossibility due to conflicting values and worldviews. This situation leads to critical empathy which is not emotional empathy (de Coning, 2021).

However, designers do respond to the community needs which would seemingly qualify as compassionate empathy. The difficulty is that compassionate empathy is not simply responding to help or acting, it is being moved to respond to help, and then helping. Compassionate empathy necessarily requires emotional empathy. Even if emotional empathy were not required, the motivation for compassionate empathy must be compassion. It is impossible to achieve this in the case of a professional designer because the financial incentives, wages, or salary make such compassionate motivation impossible. With or without compassion, the designer's job and goal is to act and receive compensation. Even when designers conduct pro bono or volunteer work, the framing of the work or the agreement is that the designer will conduct research, uncover important insights, and create something. This framing or prior agreement makes compassionate empathy an impossibility. We can never know if the designer would have been moved to act and then act, outside of an agreement that dictates they will act.

If not an impossibility, empathy is rare (Macnaughton, 2009; Nathanson, 2003; Watson, 2009). How can we ever truly, experientially know what someone else is going through (Heylighen & Dong, 2019)? It is much better to avoid the problem of gaining empathy. For example, in the international summer servicelearning project, instead of the designers building personas to create empathy, the students built auto-personas of themselves (Udoewa, 2018). Radical participatory design avoids the problem of gaining empathy by simply embedding empathy through lived, communal, embodied, cultural, and spiritual experience and experienced emotional journeys, into the design team for the entirety of the design process. Instead of relying on transcripts and research artifacts to create empathy and hold the community needs in the forefront of the minds of the designers throughout implementation, the presence of community members on the team brings their lived experience into all conversations, decisions, explanations, and implementations. That lived experience can check a process, encourage, cajole, explain, remind, expand, teach, and familiarize. This converts the design process not only into a power exchange but also an emotional exchange between team members as the professional designers on the team relate to, engage with, connect to, and learn from their community member teammates and designers. Such an empathic exchange benefits communities by creating a design outcome fully driven by and embedded in their experience. Designers benefit through mutual learning and the gift of relationship.

Systemic Action

Radical participatory design has a higher likelihood of creating systemic action or active non-action (refusing to act unjustly) than other awareness-based methodologies. While awareness-based methodologies and methods can and have led to some kind of action, two difficulties with action arise. First, in my lived experience, often they do not lead to action. This is due to the fact that postawareness action is always a choice. Similar to the bystander in GSW or the

"white moderates" to whom Dr. King wrote from prison, a person can become aware of a situation or the plight of another and choose not to act due to fear, very high costs, fragility, system-reinforcing punishment of anti-systemic behavior, etc. (DiAngelo, 2018; King, 2018; Matoba, 2021). There can be a disconnection and stagnant absencing between the presencing steps of open heart and open will (Scharmer, 2009). In some situations, people who are aware of social injustice pretend to be unaware or do not acknowledge it at the conscious level even when their subconscious knows it to be true (Gilson, 2022; Pohlhaus, 2012). Pomeroy et al. ask: "what are the methods that best serve action" as an open question (2021, p. 115). Radical participatory design moves from awareness to social action; it is a design meta-methodology. Action is often a result of design processes that implement something. Radical participatory design goes further because it moves to social action. Cunningham reflects that awareness-based methodologies "don't unmake centuries of injustice and violence by being generative in a room, but [they] do help the social body in the room become more effective at the thing they are trying to do" (Cunningham, 2021, p. 12). Awareness-based methods are more focused on making people more effective at the work they are already doing with some level of awareness, while RPD actually creates new work and actions by the very nature of being a design metamethodology. The new work can be considered a trivial outcome because design, by definition, usually creates new things. Still, any system-oriented design, especially one like RPD that changes the structure of relationships and connections in a system, has an advantage over awareness processes that may not lead to new work or actions. RPD creates new actions and work for professional designers who may be completely unaware, thrust into an environment of relational knowledge, or for newly self-empowered community members due to the active divestment of power by professional designers. Second, often contemplative and awareness-based methods lead to personal or insular change and never transition to change for social justice. I had this conversation with participants while participating in a contemplative dance workshop that moves from emotions to art, from art to awareness, and from awareness to action. Often the change or action is personal and there can be a disconnection to larger, needed social change and actions. Because of the shift of the leadership spectrum to the community, RPD often leads to social change, evidenced in various movements such as U.S. civil rights and labor rights (Udoewa, 2022a, 2022b in press).

Radical participatory design tends to create more systemic action by inviting new entrants into systems change. As Cunningham notes, awareness-based methods improve the effectiveness of what change agents are already trying to do (2021). They do not necessarily invite more people into the work. If the fundamental work required for systems change is to align the purposes and awareness of all system actors, awareness needs to spread to people who do not practice awareness-based methods. However, there are people who are not willing to participate in contemplative or awareness-based practices as they are not comfortable or accustomed to operating from that emotional or spiritual

center. However, participatory design is often defined and viewed as a participatory way of practicing design, and a person may not realize the awareness-based dimensions of the practice. Designers new to systems change may practice RPD with less trepidation than an explicit awareness-based practice.

Lastly, RPD more naturally leads to systems practice (a practice focused on improving the health of a system), futures design (the use of longer-term forecasting or visioning to drive design choices in the present), and other assetbased methodologies. Due to the shift of the leadership spectrum to the community, the community chooses the methodology instead of the professional designer, opening up a variety of possibilities. When conducting RPD, it is quite natural for the work to become asset-based because community members naturally define themselves by what they offer and what gifts they bring, not by what they lack. I view systems practice and futures design as asset-based methodologies because instead of focusing on the problem, they focus on assets: the system dynamics and health, and a shared vision of the future, respectively. Community members know, implicitly or explicitly, the dynamics of the system in which they sit and often highlight the system concerns and the interconnectedness of the system components when the design team is considering the plausibility of a particular option. Communities contain deep experiential and cultural wisdom that understands the system and underscores needs outside of human needs. For example, I work on a community project where the team has designed several system interventions based on high-impact leverage points found while analyzing a system map the team created based on their systems research of generational racialized trauma in the rural south (Jagannathan & Seugling, 2018). Through RPD, communities, society, and the environment benefit from more systemic solutions, avoiding HCD solutions that leave the problem unaddressed, make it worse, or only temporarily resolve it. Designers benefit from learning systems practice skills.

Trauma-responsive Design

Radical participatory design is a more effective approach to practice traumainformed and trauma-responsive design than trauma-informed design based only on mainstream institutional knowledge (Jackson et al., 2020). All designers, including RPD designers, should practice trauma-informed design because it is not possible to know if a particular community member, interacting with researchers or their designs, has experienced trauma. One 2016 epidemiological study, conducted in twenty-four countries, found that over 70% of research respondents had experienced at least one trauma event and 30.5 per cent had experienced four or more trauma events (Benjet et al., 2015). When working among historically and presently marginalized, colonized, and oppressed communities, the percentage of people experiencing trauma can be even higher.

Trauma-informed design is design that involves three components. First, trauma-informed design is design that recognizes that people can have many different traumas in their lives including past traumatic events whose adverse effects can still be present today, as well as the possible paths to recovery. Second, trauma-informed design involves designers who recognize the signs and symptoms of trauma in participants, researchers, and societal systems. Third, and most importantly, trauma-informed design is designing in ways to avoid triggering and to resist retraumatizing participants through research and design work and interactions.

The US Substance Abuse and Mental Health Services Administration (SAMHSA) defines six principles of a trauma-informed approach (SAMHSA, 2014).

- 1. Safety.
- 2. Trustworthiness and Transparency.
- 3. Peer Support.
- 4. Collaboration and Mutuality.
- 5. Empowerment, Voice and Choice.
- 6. Cultural, Historical, and Gender Issues.

Instead of the designer having to carry the weight of ensuring these six principles, RPD bypasses this work. In the RPD approach, peer support, collaboration, mutuality, empowerment, voice, and choice are more naturally a part of the process because the community is participating, leading, and driving the process. The community brings its cultural and historical knowledge and lived experience including gender identities and issues. Because their presence is welcome and their voices are heard and they see other community members leading, safety is increased and anxiety is reduced both in the research and design process and in interacting with designs created by the design team. Trust is increased and community design members offer transparency and communication to the broader community about the work they are doing. In other words, the SAMHSA principles are built into the RPD framework naturally as the community is embedded on the design team as equal, full members with leading voices.

Of course, in general life, traumatized people can traumatize other people. In a design process, a trauma-informed design team may be at a disadvantage if their practices are only based on mainstream, institutional, social work knowledge. Because mainstream, institutional knowledge or 3rd-person knowing is studying lives, bodies, experiences, cultures, communities, and more, it is always behind the lived, experiential, embodied, intuitive, relational, communal, cultural, and spiritual knowledge itself. Through the RPD meta-methodology, the team is better able to be trauma-responsive due to a greater array of epistemologies providing and embedding more current trauma information and updated care practices. For instance, in the digital literacy project, the design team was able to avoid triggering and retraumatizing often forgotten people in temporary housing because the design team was composed of community

members who knew what it was like to be in such a situation (Udoewa, Mathew, Al-Hafidh, et al., 2016; Udoewa, Mathew, Gupta, et al., 2017). Through RPD, designers benefit from experiential knowledge-based and skill-based traumaresponsive practices, and community members and designers benefit from reduced triggers and harm, as well as an increased sense of care and belonging.

Challenges and Barriers to Radical Participatory Design

The fundamental and most dangerous difficulty of RPD is the tendency for an RPD process to stop being critically and radically participatory. This can be mediated by the second characteristic of RDP: community members outnumber the designers.

In designer-initiated projects, an RPD process may flip to CPD, as well, because the designer or the design organization decides to usurp or regain control, rejecting the work of the community. Perhaps the community members were only invited for a short period of time so the project reverts back to an organizational design injustice process. Or the designers and the organization never made plans for the critical involvement past the design phase into the implementation phase. To address these pitfalls, I have learned several lessons from experience. Strategically work to institutionalize RPD in the organization so that an RPD project is not simply a one-time event or an approval process each time. Secure resources, such as funding, to make RPD a continual part of the project work. Contract community members throughout the lifecycle of the product or service. Create transition plans so that community members can retire from the RPD work and new community members can join and take the place of the retiring members. Practice relinquishing power daily. Due to the structure of society and the continued aggregation and consolidation of power in certain organizations and people, it is important that the divestment of power be a continual practice. The designers and the design organization should continue to divest of power while the community members assume power even in the implementation stage. When the divestment of power is done to the core, even if a design organization wanted to take control and run the project differently, the organization could not do this. The design artifacts, the narratives, and the resources are all within the control of community members. If these resources are not within the control of the community, the designers and design organization did not truly give up all power. In the following section, I will give advice on how to choose projects where the organization is more likely to give up power.

Another challenge for designers in the RPD process is privileging the process and their expertise over the lived experience of the community members. The nonlinearity of the process should not come from a designer's power as facilitator, making decisions and planning apart from the community between design activities. The nonlinearity in the design process should come from the insight, inclination, needs, desires, and even disruption of the community member designers on the team (Knutz & Markussen, 2020). In the recent digital literacy

project, the design team implemented a positive deviance research method in the middle of prototyping because the community member designers were feeling uninspired (Udoewa, Mathew, Al-Hafidh, et al., 2016; Udoewa, Mathew, Gupta, et al., 2017). Likewise, in the same project, I, a professional designer, did not "correct" their designs from a Western Anglocentric design perspective, but watched them aesthetically design what was most pleasing to them, based on their experiences and values. We were practicing pluriversal design.

Keeping in mind that the design team may be more heterogeneous as a result of the RPD process, one must pay more attention to team dynamics (Huybrechts et al., 2020). Mixing community members with designers of largely homogenous backgrounds juxtaposes multiple subcultures together. The team must work to establish a strong foundation of trust and safety, and then, upon that foundation, cultivate a culture that mines for conflicting ideas in order to get to the best ideas (Lencioni, 2012). This type of culture is not automatic and must be built on any team, especially and including an RPD team which may have designers who have never worked with community members and vice versa.

Making decisions in ways that do not privilege the designers can be difficult. There is no one way RPD teams make decisions because, generally, design team members try to use culturally appropriate ways of making decisions. Usually, we, design team members, decide as a group how to make decisions in such a way that everyone will support the decision, even if the decision was not their personal choice. In order for the support to be present when decisions are made, we decide how to decide, using either unanimity, consensus, or consent-based decision making (Bockelbrink et al., 2022). Once a particular choice is unanimous or we have a consensus or complete consent, we can proceed to make decisions using the chosen decision making process. In some RPD, there is also an ecorelational approach to the politics of decision making in which people do not voice individual desires but simply carry out tasks with aligned purpose, like parts of the human body. The ecological system of people makes decisions based on the collective purpose (similar to the way that blood might rush the limbs during a flight, fight, or freeze response without any part of the body making an explicit conscious decision).

Due to the educational nature of the RPD process, decolonial concepts of time, and lives of community members, RPD may take longer than design injustice or CPD because of availability, pace of community life, decentering white-supremacist sense of urgency, and the many learning and practicing sessions (Smith, 2021; Mowris, 2020; Creative Reaction Labs, n.d.). When compared to CPD outcomes over shorter project timelines, communities alongside whom I have worked value the RPD outcomes over the longer time. It is helpful to plan for this time and flexibility from the start and communicate the flexibility and timelines to stakeholders and community members.

Lastly, RPD does not avoid the problem of bias on the design team. In fact, the participating community members may represent a biased portion of the community and their biased lived experience can shift the work the design team does, creating designs that do not serve other portions of the community (Taoka et al., 2018). To counteract this effect, choose a qualitatively representative sample, when possible. Avoid looking for a representative from every family in a community or subgroup. Rather, list all the attributes of community members that might alter how one would design for them. Then make sure the design team has community members from different parts of each attribute spectrum (IDEO.org, 2016). Any bias or limited knowledge on the design team should be addressed by recruiting a qualitatively representative sample of the community as research participants. The bias of the community members on the design team can still affect the process. Conduct "Beginner's Mindset," "Observing vs Interpreting," and other bias awareness training like bias journaling for the entire team (IDEO.org, 2007). I usually repeat bias journaling weekly and review my writings ahead of each research session. Ideally, conduct the training sessions before the research and interview and observation guide creation. The training does not eliminate bias, but serves to make the entire design team more aware of their bias and, thereby, to limit its adverse impact.

Organizations can still pose a barrier. It is unnatural for those with power to surrender it, a requirement for the success of the RPD process which involves a power exchange. Organizational leaders often prohibit RPD work because they do not want to invest the time or resources. Others do not want to invest in proper ethical treatment of external community members. Others do not understand what purpose designers have if design can be done by anyone. Many are afraid of anything new, and are change-averse. If the organization and its methods are successful by some measure, they do not want to change it. Others do not trust community members and want to retain control.

Conclusion

There are many challenges when participating in RPD work. The design team must take care to plan for a longer, educational process, working to reduce bias on the design team, and specifically working to prevent the RPD process from switching to a CPD process. The act of divesting of power is a continual act into which the designers and design organization must repeatedly enter. Ultimately, an RPD process is most successful when alternative systems of value and ways of living in the world are created.

Organizations resist giving up power. One barrier is not understanding the purpose of designers and paying for design services if the community can design. Designers have honed a craft that can be helpful to the RPD process. Their knowledge is not privileged above community experiential and cultural knowledge. Designer knowledge is still useful and especially powerful when combined with community knowledge. For example, a community, practicing community-driven design, might call a structural engineer to validate their building design. I have worked on a learning design project in which the community unearthed learning design principles and created designs based on

learner needs without a learning designer. Still, if needed, communities may invite designers at any stage such as research, design, or implementation.

Ultimately, the invitation to divest of power, as a designer, can still be accepted even if the organization refuses to do so. One can divest of one's power by leaving such organizations. The best way to engage in RPD work is not to fight unwilling organizations, though important, but to work with fellow community members in the local community on local problems. This work will automatically be RPD because one is a community member, not an outside designer. The designer's design skills are a benefit to the community just as the skills of the other members are a benefit to the community. Foremost, the designer's lived experience in the community makes the designer a member and positioned to co-lead and drive the work alongside other members.

In future work, I will go beyond general relational design which includes RPD and elaborate on a subset of RPD that I call Relational Design. In Relational Design, design team members do not only design relationally, or alongside community members. Design team members also replace various extractive and transactional steps in the generic design process with explicitly dialogic and relationship methodologies and activities. Secondly, I want to elaborate more on the decision-making process and options in an RPD project. I will show what RPD decision-making looks like, highlight a relational and biosystems approach to decision making, and share how to make decisions in a way to minimize the likelihood that an RPD project flips to a CPD project.

References

- Anaissie, T., Cary, V., Clifford, D., Malarkey, T., & Wise, S. (2021). Liberatory design. https://www.liberatorydesign.com
- Arnold, R., & Schön, M. (2021). The reflexible person: Toward an epistemological learning culture. Journal of Awareness-Based Systems Change, 1(2), 51-71. https://doi.org/10.47061/jabsc.v1i2.971
- Bachen, C., Hernández-Ramos, P. F., & Raphael, C. (2012). Simulating real lives: Promoting global empathy and interest in learning through simulation games. Simulation & Gaming, 43(4), 437–460. https://doi.org/10.1177/1046878111432108
- Benjet, C., Bromet, E., Karam, E. G., Kessler, R. C., McLaughlin, K. A., Ruscio, A. M., Shahly, V., Stein, D. J., Petukhova, M., Hill, E., Alonso, J., Atwoli, L., Bunting, B., Bruffaerts, R., Caldas-de-Almeida, J. M., de Girolamo, G., Florescu, S., Gureje, O., Huang, Y., Lepine, Kawakami, N., Kovess-Masfety, V., Medina-Mora, M. E., Piazza, M., Posada-Villa, J., Scott, K. M., Shalev, A., Slade, T., ten Have, M., Torres, Y., Viana, M. C., Zarkov, Z. & Koenen, K. C. (2015). The epidemiology of traumatic event exposure worldwide: Results from the World Mental Health Survey Consortium. Psychological Medicine, 46(2), 327-343. https://doi.org/10.1017/s0033291715001981
- Bockelbrink, B., Priest, J., & David, L. (2022, April 24). Consent Decision-Making. A Practical Guide to Sociocracy 3.0. https://patterns.sociocracy30.org/consent-decisionmaking.html

- de Coning, A. (2021). Seven theses on critical empathy: A methodological framework for 'unsavory' populations. *Qualitative Research*. Advance online publication. https://doi.org/10.1177/14687941211019563
- Cooke, B., & Kothari, U. (Eds.). (2001). Participation: The new tyranny? Zed Books.
- Costanza-Chock, S. (2020). Design justice: Community-led practices to build the worlds we need. The MIT Press.
- Creative Reaction Lab. (2018). Equity-centered community design field guide. Creative Reaction Lab. https://static1.squarespace.com/static/5e3b20447d777f2b32c1bc1c/t/5e667103feb2830f1b1b68d4/1583771908636/ECCD+FIELD+GUIDE+-+DOWNLOAD.pdf
- Creative Reaction Lab (n.d.). *How Design Thinking Protects White Supremacy*. Creative Reaction Lab. https://crxlab.org/webinar-series
- Cunningham, D. (2021). Awareness based systems change and racial justice. *Journal of Awareness-Based Systems Change*, 1(2), 9–13. https://doi.org/10.47061/jabsc.v1i2.1590
- DiAngelo, R. (2018). White fragility: Why it's so hard for white people to talk about racism. Beacon Press.
- Drain, A., Shekar, A., & Grigg, N. (2021). Insights, solutions and empowerment: A framework for evaluating participatory design. *CoDesign*, 17(1), 1–21. https://doi.org/10.1080/15710882.2018.1540641
- Ellison, C. (2014). *Indigenous knowledge and knowledge synthesis, translation and exchange (KSTE)*. National Collaborating Center for Aboriginal Health.
- Escobar, A. (2018). *Designs for the Pluriverse*. Duke University Press. https://doi.org/10.1215/9780822371816
- Farai, S. (2020, Jun. 28). The Impossibility and Irrelevance of Empathy [lecture]. Learners. https://joinlearners.com/talk/the-impossibility-and-irrelevance-of-empathy
- Geppert, A. A., & Forlano, L. E. (2022). Design for equivalence: Agonism for collective emancipation in participatory design. In V. Vlachokyriakos, J. Yee, E. Grönvall, R. Noronha, A. Botero, C. Del Gaudio, Y. Akama, R. Clarke & J. Vines (Eds.), *PDC '22: Proceedings of the Participatory Design Conference 2022 Volume 1* (pp. 158–168). https://doi.org/10.1145/3536169.3537790
- Gilson, E. (2022) Sexual injustice and willful ignorance. In M. Gross & L. McGoey (Eds.), Routledge International Handbook of Ignorance Studies (pp. 257–268). Routledge. https://doi.org/10.4324/9781003100607-29
- Gonçalves, R. D., & Hayashi, A. (2021). A pattern language for social field shifts: cultivating embodied and perceptual capacities of social groups through aesthetics, and social field archetypes. *Journal of Awareness-Based Systems Change*, 1(1), 35–57. https://doi.org/10.47061/jabsc.v1i1.478
- Gurung, L. (2020). Feminist standpoint theory: Conceptualization and utility. *Dhaulagiri Journal of Sociology and Anthropology*, 14, 106–115. https://doi.org/10.3126/dsaj.v14i0.27357
- Heylighen, A., & Dong, A. (2019). To empathise or not to empathise? Empathy and its limits in design. *Design Studies*, 65, 107–124. https://doi.org/10.1016/j.destud.2019.10.007
- Hill, D. (2012). Dark matter and trojan horses: A strategic design vocabulary. Strelka.

- Huybrechts, L., Teli, M., Zuljevic, M., & Bettega, M. (2020). Visions that change. Articulating the politics of participatory design, CoDesign, 16(1), 3–16. https://doi.org/10.1080/15710882.2020.1728907
- IDEO.org. (2007). Human-centered design toolkit. IDEO. https://www.ideo.com/post/design-kit
- IDEO.org. (2016). Extremes and mainstream. Design Kit. IDEO. https://www.designkit.org/methods/45.
- Ibibio (Generations). Nam means make, create, or design in Ibibio.
- Jackson, D., Kim, M., & Sievert, J. R. (2020). The rapid embrace of legal design and the use of co-design to avoid enshrining systemic bias. Design Issues, 36(3), 16–30. https://doi.org/10.1162/desi a 00601
- Jagannathan, V., & Seugling, S. (2018, March 7). A systems map of generational trauma in the rural South [Prezi presentation] Kumu. https://bailey.kumu.io/a-systems-mapof-generational-trauma-in-the-rural-south
- King, M. L., Jr. (2018). Letter from Birmingham jail. Penguin Books.
- Knutz, E., & Markussen, T. (2020). Politics of participation in design research: Learning from participatory art. Design Issues, 36(1), 59–76.
- Kohtala, C., Hyysalo, S., & Whalen, J. (2020). A taxonomy of users' active design engagement in the 21st century. Design Studies, 67, 27–54. https://doi.org/10.1016/j.destud.2019.11.008
- Kolawole, E. (2016). Empathy. Design Kit. https://www.designkit.org/mindsets/4
- Law, J. (2015). What's wrong with a one-world world? Distinktion: Scandinavian Journal of Social Theory, 16(1), 126-139. https://doi.org/10.1080/1600910x.2015.1020066
- Leitão, R. (2020). Pluriversal design and desire-based design: Desire as the impulse for human flourishing. In R. Leitão, L. Noel, & L. Murphy (Eds.), Pivot 2020 Conference Proceedings. https://doi.org/10.21606/pluriversal.2020.011
- Lencioni, P. M. (2012). The five dysfunctions of a team: Team assessment. John Wiley & Sons.
- Macnaughton, J. (2009). The dangerous practice of empathy. The Lancet, 373(9679), 1940–1941. https://doi.org/10.1016/S0140-6736(09)61055-2
- Matoba, K. (2021). Global social witnessing: An educational tool for awareness-based systems change in the era of global humanitarian and planetary crisis. Journal of Awareness-Based Systems Change, 1(1), 59–74. https://doi.org/10.47061/jabsc.v1i1.548
- Mowris, L. G. (2020). Dismantling white supremacy culture: Developing shared language for the poison and the antidote. Lenspeace.
- Nathanson, A. I. (2003). Rethinking empathy. In J. Bryant, D. R. Roskos-Ewoldsen & J. Cantor (Eds.), Communication and emotion (pp. 115–138). Routledge. https://doi.org/10.4324/9781410607584-11
- Pohlhaus, G. (2012). Relational knowing and epistemic injustice: Toward a theory of willful hermeneutical ignorance. Hypatia, 27(4), 715–735. https://doi.org/10.1111/j.1527-2001.2011.01222.x
- Pomeroy, E., Herrmann, L., Jung, S., Laenens, E., Pastorini, L., & Ruiter, A. (2021). Exploring action research from a social field perspective. Journal of Awareness-Based Systems Change, 1(1), 105-117. https://doi.org/10.47061/jabsc.v1i1.676

- Roberts, M. (2017). Emerging leaders in science and society: 2016 annual report.

 American Association for the Advancement of Science.

 https://www.aaas.org/sites/default/files/ELISS-Annual-Report-2016-1.pdf
- Rollins, P. (2006). How (not) to speak of God. Paraclete Press.
- Substance Abuse and Mental Health Services Administration. (2014). SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach. HHS Publication No. (SMA) 14-4884. https://ncsacw.samhsa.gov/userfiles/files/SAMHSA Trauma.pdf.
- Sanders, E. B. N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. Co-design, 4(1), 5–18. https://doi.org/10.1080/15710880701875068
- Suaalii-Sauni, T., & Fulu-Aiolupotea, S. M. (2014). Decolonising Pacific research, building Pacific research communities and developing Pacific research tools: The case of the talanoa and the faafaletui in Samoa. *Asia Pacific Viewpoint*, 55(3), 331–344. https://doi.org/10.1111/apv.12061
- Sbardelini, R., Almeida, D., & Ramos, L. M. (2022). MAPA: Co-creating new narratives for the 21st century. *Journal of Awareness-Based Systems Change*, 2(1), 101–118. https://doi.org/10.47061/jabsc.v2i1.2727
- Scharmer, C. O. (2009). Theory U: Learning from the future as it emerges. Berrett-Koehler Publishers.
- Smith, L. T. (2021). *Decolonizing methodologies: Research and indigenous peoples*. Bloomsbury Publishing.
- Stickdorn, M., Hormess, M. E., Lawrence, A., & Schneider, J. (2018). This is service design doing: Applying service design thinking in the real world. O'Reilly Media.
- Taoka, Y., Kagohashi, K., & Mougenot, C. (2018). A cross-cultural study of co-design: The impact of power distance on group dynamics in Japan. *CoDesign*, 17(1), 22–49. https://doi.org/10.1080/15710882.2018.1546321
- Udoewa, V., Mathew, N., Al-Hafidh, L., Bhog, L., Gupta, A., Patel, P., Prabhakar, B.,
 Kaushik, S., Bauer, L., & Humar, V. (2016). Helping the next 4 billion go online part
 I: Design research for digital literacy education. International Journal for Service
 Learning in Engineering, Humanitarian Engineering and Social Entrepreneurship,
 11(2), 18–37. https://doi.org/10.24908/ijsle.v11i2.6393
- Udoewa, V., Mathew, N., Gupta, A., Bauer, L., Bhog, L., Prabhakar, B., Patel, P. & Al-Hafidh, L. (2017). Helping the next 4 billion go online part II: Prototyping solutions for digital literacy education. *International Journal for Service Learning in Engineering, Humanitarian Engineering and Social Entrepreneurship*, 12(1), 13–40. https://doi.org/10.24908/ijsle.v12i1.6665
- Udoewa, V. (2018). Redesign of a service-learning social entrepreneurship program for high school students Part I. *International Journal for Service Learning in Engineering, Humanitarian Engineering and Social Entrepreneurship, 13*(2), 79–92. https://doi.org/10.24908/ijsle.v13i2.11492
- Udoewa, V. (2022a). Hybrid expeditionary service learning model. *International Journal for Service Learning in Engineering, Humanitarian Engineering and Social Entrepreneurship*, 17(1), 20–36. https://doi.org/10.24908/ijsle.v17i1.14810

- Udoewa, V. (2022b in press). An Introduction to radical participatory design: decolonizing participatory design processes. Design Science, 8.
- Vlismas, T. (2020, June 24). What is empathy? Learn about 3 types of empathy [web log]. Altus Suite. https://takealtus.com/2020/06/empathy-1/#:~:text=Renowned%20psychologists%20Daniel%20Goleman%20and,%3A%20Cogni tive%2C%20Emotional%20and%20Compassionate
- Watson, C. (2009). The 'impossible vanity': Uses and abuses of empathy in qualitative inquiry. Qualitative Research, 9(1), 105–117. https://doi.org/10.1177/1468794108098033
- Wilson, P. (2021). Sensing the Social Field through Action Research: What's important, what's valid. Journal of Awareness-Based Systems Change, 1(1), 119-124. https://doi.org/10.47061/jabsc.v1i1.679
- Woodcock, A., Osmond, J., Tovey, M., & McDonagh, D. (2019). Empathy thresholds in transport design students. Design and Technology Education, 24(1), 65–78.
- Wynter, S. (2003). Unsettling the coloniality of being/power/truth/freedom: Towards the human, after man, its overrepresentation—An argument. CR: The new centennial review, 3(3), 257-337. https://doi.org/10.1353/ncr.2004.0015
- Wynter, S., & McKittrick, K. (2015). Unparalleled catastrophe for our species? Or, to give humanness a different future: Conversations. In K. McKittrick (Ed.), Sylvia Wynter: On being human as praxis (pp. 9–89). Duke University Press. https://doi.org/10.1515/9780822375852-003