Tilling the Soil: Vignettes from Four Instructional Designers Working Toward Critical Instructional Design

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The instructional design (ID) discipline is in transition. Critical ID scholars acknowledge a social justice gap in ID paradigms, challenging ID practitioners to examine their design processes through an equity and justice lens. ID professionals are negotiating ways to shift their established ID routines informed by critical theories. Through vignettes, four ID professionals use Freire's praxis framework to critically reflect on their ID processes and embrace Costanza-Chock's design justice principles.

Introduction

In this article, four instructional design (ID) leader-practitioners examine their ID practices using critical education scholar Paulo Freire's (1970) conceptual praxis framework to guide our reflections and struggle to become critical instructional designers. We engage with critical ID scholars Sasha Costanza-Chock's (2020) design justice principles and Amy Bradshaw's (2017) critical analysis of instructional design and technology (IDT) to raise our critical awareness of social justice gaps embedded broadly in the field and our internal ID processes. In this paper, we aim to share our reflective inquiries that situate our ID routines within critical pedagogy and engage in ongoing scholarly discourse to conceptualize critical ID praxis. We use the term "pedagogy" broadly to refer to design, teaching and learning, but we acknowledge that higher education scholars use the term "andragogy" to describe the art and science of teaching adults and how adult learners differ from children. This paper represents the effort of four multidisciplinary ID practitioners to make the critical ID process transparent through a series of design vignettes touching on the fields of Education, Health Sciences, and Library Sciences. The next section of this paper includes a summary of Freire's praxis framework and its application to ID.

Theoretical Framing: Freirean Praxis Framework

Freire's praxis framework consists of three interconnected elements: naming, critical reflection, and action. The praxis framework recognizes the relationship between reflection and action – it teaches us critical reflection is necessary to facilitate impactful action and change. Bradshaw (2018) offers insights into how ID practitioners can engage in this inquiry by applying Freire's concept of praxis to ID. Naming is a dialogic process that embraces "learning and action" (p. 90) in ways that seek to understand and raise awareness of the complexities of processes and pay authentic attention to the "contribution of others" (p. 90). Applying this element to ID, Bradshaw (2017) proposes that IDs participate in open and honest discourses which interrogate oppressive and unjust systems in ID work and take action to disrupt them (Freire, 1970; Tobolowsky, 2014). Naming enables IDs to develop their collective critical consciousness and question how existing ID paradigms marginalize and exclude people based on their intersectional cultural identities.

Naming Instructional Design

ID is the systematic design and planning of pedagogical activities that include needs assessment, course development, delivery, and evaluation (Koszalka et al., 2013). Established definitions of ID describe the field as linear, following a series of sequential and structured processes with a conclusion. For instance, the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) model is a prevalent design model often presented and practiced as a sequential process (Bradshaw, 2018). In reality, ID processes are often messy, iterative, adaptable, continuous, and sometimes contentious. Practitioner discourse about ID models distinguishes between linear and agile approaches to design, demonstrating differences in how academia and industry approach ID work. While there are no formal definitions of agile ID, a key characteristic is that it is iterative and supports flexibility, interactivity, and rapid prototyping (Morgan, 2015; Pappas, 2015). Iterative or agile design means that each phase of the process is refined and revised gradually based on constructive feedback from IDs, faculty, or students (Culatta, 2023), signaling that the design process is robust and "recursive" (Bradshaw, 2018, p. 337). The ID discipline has significantly evolved since its inception in World War II (Magruder et al., 2019), shifting its focus from tackling instructor-led problems to learner-centered strategies and engagement. Nascent calls to action guided by social justice activism in education and an emphasis on critical pedagogy undergird the emergence of critical ID praxis. The critical ID praxis names the ID field as unresponsive to critical issues of equity and justice, creating a social justice gap. The ID discipline has ignored, considered irrelevant, and is primarily disconnected from equity and social justice issues (Bradshaw, 2018; Costanza-Chock, 2020). Following Freire's praxis framework, naming creates opportunities to learn, reflect, and take action.

Critical Reflection and Action

Reflection and action are intertwined and have a symbiotic relationship, functioning concurrently in the struggle for authentic praxis (Freire, 1970). ID practitioners' engagement is doing a "critical analysis of reality" (Freire, 1970, p. 128) through reflection and action. Similarly, Moraga (2015) emphasizes how critical work starts internally with the self before we can progress to external action. The author explains, "Without an emotional, heartfelt grappling with the source of our own oppression, without naming the enemy within ourselves and outside of us, no authentic, non-hierarchical connection among oppressed groups can take place" (p. 30). Moraga (2015) urges us to toil with these questions; "How have I internalized my own oppression? How have I oppressed?" (p. 31) to raise our critical consciousness relating to ID.

Bradshaw's (2017) consideration of Freire's (1970) reflection and action challenges how IDs grapple with the issues and processes identified in the naming process. ID practitioners examine design theory and practice from social, historical, and political contexts and consider the perspectives of people oppressed by ID models and systems. Critical reflection emphasizes a meaningful, authentic, and intentional study of our ID processes leading to appropriate transformative action. In this context, expressions of transformative action can vary. Such expressions could entail understanding our complicity in reinforcing inequities in design and wrestling with how to counter and transform these entrenched inequities (Bradshaw, 2018). Freire (1970) emphasizes how thought, critical reflection, and action are relational, collaborative, and dialogic, providing space for IDs to create and recreate just design models and routines. Freire (1970) explains that "human activity is theory and practice; it is reflection and action" (p. 125). Framing ID as a human activity means developing new habits of mind and practice which transform ID praxis as a practice of freedom. We use Costanza-Chock's (2020) design justice principles to represent Freire's critical action. Costanza-Chock (2020) offers a dialectic design justice framework to disrupt traditional ID praxes by using ID strategies as tools "for liberation" (p. 6). Critical IDs take a critical pedagogical approach which entails asking critical questions about design values, purposes, commitments, strategies, and their applications in educational environments. Specifically, Costanza-Chock (2020) offers the following questions to foster critical reflective inquiry, or criticality, among ID practitioners to engender transformation in the IDT field:

- *Values. What values do we encode and reproduce in the objects and systems that we design?*

- *Practices. Who gets to design? How do we move toward community control of design processes and practices?*

- *Narratives. What stories do we tell about how things are designed? How do we scope design challenges and frame design problems?*

- *Sites. Where do we do design? How do we make design sites accessible to those who will be most impacted by design processes? What design sites are privileged and what sites are ignored or marginalized?*

- *Pedagogies. How do we teach and learn about design justice? (Costanza-Chock, 2020, p. 24)*

Whether designing a program, course, or individual instructional unit, grappling with Costanza-Chock's (2020) questions challenge ID practitioners to reflect and examine which knowledge, traditions, and pedagogies replicated and reinforced through their design practices may exclude historically marginalized people. Since participating in a critical inquiry of ID catalyzes discussions about how to decolonize design work, it is necessary for IDs to share their stories of what it looks like to engage in this process. The act of decolonizing design centers on bell hooks' (1994) questioning "deeply and profoundly the politics of domination, the impact of racism, sexism, class exploitation and the kind of domestic colonization that takes place in the United States" (p. 46). Both Costanza-Chock (2020) and Bradshaw (2018) grapple with this phenomenon by challenging and encouraging ID practitioners to critically assess the IDT field within historical, social, and political contexts.

Critical Reflection and Action in Instructional Design

Bradshaw's (2017) analysis of the IDT field demonstrates how it reinforces its neutral stance in broader social justice issues and professional design praxis; Bradshaw's (2017) thesis names and encapsulates the tensions inherent in the IDT field:

> Raising awareness and supporting positive means of addressing our collective ignorance of the connections to, and ramifications of, social justice issues to the field of IDT leads to consideration of questions such as "How does the instructional system itself reinforce structures of inequity, injustice, and oppression?" and "How can my designs disrupt systems of oppression?" (Bradshaw, 2018, p. 343).

Bradshaw's (2017) questions invite ID practitioners to engage meaningfully through reflection and questioning to raise their awareness of vital social justice issues. This process begins with a deep study to understand the nature of the problem. It may also necessitate unlearning the established ID practices and envisioning new purposes and commitments to justice-oriented design. Morris (2018) urges that working toward critical ID challenges us not to rely on how we have always done things but ask and consider the question: "How should I do this now" (p. 1). This questioning should include the opportunity to elevate the voices of people who are made invisible by traditional ID process, people who include women, Black and Brown people, people who are neurodiverse, have overt and hidden [dis]abilities, and the LGBTQIA+ community (Morris, 2018). Addressing the aforementioned Costanza-Chock (2020) design justice questions involves "continuous learning on topics and issues related to culture, cultural competencies, equity, justice, inclusion, positionalities, and privilege" (Bradshaw, 2017, p. 24). This learning pursuit motivated the co-authors to reflect critically on their own design processes. The four vignettes in this paper are entry points to engage in critical introspection about ID praxis across four distinct academic areas using Freire's (1970) and Costanza-Chock's (2020) guiding theories. The vignettes are "horizontal discourse" with ID practitioners and educators that acknowledge our humility. Leaning on Freire's (1970) framing of humility, we position ourselves as learners in this scholarly space, not as experts who have all the answers. Freire (1970) states, "dialogue cannot exist without humility" (p. 90). The purpose of the vignettes is to create space for "reflective critical dialogue" that is grounded in our openness and willingness to understand, learn, and care (Tobolowsky, 2014, p. 67).

Vignette 1: Critical and Equity-centered Instructional Design Praxis in the School of Education

Professional Positionality

I have multiple roles at the School of Education at the University of Pittsburgh: Director of Innovative Technologies and Online Learning, Associate Professor of Practice of Digital Media for Learning, and the Co-Associate Chair of the Department of Teaching, Learning, and Leading (TLL). I come to these roles as a Black cisgender middle-class educator whose professional identity is rooted in IDT. I have over fifteen years of experience as an instructional designer supporting faculty and students at private and public institutions. Social constructivist learning theory and the ADDIE model have informed my ID practice for most of my career. As my ID practice focused primarily on developing online programs and courses, Garrison et al.'s (2000) Community of Inquiry (CoI) framework has offered a more robust approach to my ID work. The framework emphasizes the interconnectedness of cognitive presence (creating engaging and interactive instructional materials that support the co-construction of knowledge), teacher presence (course design, facilitating active participation, and providing immediate feedback,) and social presence (supporting community building through student interaction with course materials, the instructor, and their peers). My ID work involves building relationships with faculty to understand the pedagogical goals and needs to design meaningful, engaging, and inclusive learning experiences.

Purpose and Commitments

In my director's role, I support the School of Education to develop and expand its online programs and increase the integration of instructional technologies in different learning environments. I also develop processes to support online program development and coordinate course redesign and updates. My role at Pitt Education began one month before the COVID-19 pandemic, so I facilitated the immediate transition from in-person to remote instruction, collaborating with faculty to redesign their courses into online and hybrid modalities. In addition to the health pandemic, the racial unrest, which Gloria Ladson-Billings (2021) called the "anti-Black pandemics of 2020" (p. 72), elevated discourse about race, racism, and anti-racist pedagogy in higher education. Ladson-Billings (2021) said that both pandemics call for a "hard-reset" for educators "to engage in culturally relevant pedagogy that takes into account the conditions of students' lives these occurrences set in motion" (p. 72). This re-envisioning applies to grounding culturally responsive praxis in all education aspects - curriculum design and development, instruction, assessment, pedagogy, and technology. Ladson-Billings' (2021) demand for a hard "reset" motivated the examination of my ID praxis using Freire's (1970) praxis framework to understand how my ID work demonstrates a commitment to equity and justice. Another influencing factor is the School of Education's mission-vision, a call to action to ensure educational equity and justice challenged me to investigate how my ID praxis meets the School's aims to "disrupts and transform inequitable educational structures" (School of Education at the University of Pittsburgh, 2023). My vignette is an exploratory discourse and examination of my constructivist and inclusion approaches to ID using Freire's (1970) praxis framework coupled with Costanza-Chock's (2020) design justice guiding questions.

Naming

Engaging Freire's (1970) naming process in the analysis of my work highlighted the social justice gaps pointed out by Bradshaw (2017) in my ID practice, reflected by the prevalence in my design work to center universal design principles to accommodate students with physical, sensory, and cognitive challenges and dominant white Eurocentric knowledge systems. Naming my narrow ID lens highlighted how my ID routines exclude and marginalize students from racial and intersectional culturally diverse groups. I also recognize that my ID work is collaborative, supportive, and meets nationally recognized quality assurance design standards. It is also safe and doesn't align with Ladson-Billings' (2021) demand for a hard reset or the School of Education's goals to disrupt inequities. The Freirean naming process is dialogic; being in conversations with other IDs who are exploring criticality in ID led to the discovery of a self-imposed line or distance inherent in my design work with faculty. There is a reluctance to move from peripheral aspects of ID support to developing deeper pedagogical connections with faculty (Vaught, 2022, personal communication) in the design process.

Naming tensions in my ID work through critical reflections broadened my understanding of how my ID shied away from challenging the instructional designer (me), faculty, and students to wrestle with "a deeper and fuller understanding of issues and circumstances in order to make visible the hidden structures and systems of domination and inequality that reinforce and increase benefits to some members of society, while reducing and blocking access to benefit for others" (Bradshaw, 2017, p. 9). My ID practice is complicit in not questioning the emphasis of dominant knowledge traditions and how they are marginalizing. In Cherrie Moraga's (2015) paper, "La Güera", the author offers language to understand how silence is a function of complicity and how silence maintains oppression in different contexts. My silence is reflected in not engaging faculty in discussions about equity relating to their pedagogical values and instructional materials to avoid difficult conversations. I recognized the power dynamics in play, where the instructional designer is a service provider to the faculty, the academic expert. Consequently, taking action toward critical ID could begin with changing the instructional designer-faculty relationships to facilitate courageous conversations about equity, justice, and liberation. It requires continuously wrestling with questions that challenge and agitate our traditional ID practices, such as: How do our ID theories and practices advocate for equity and justice? How do we engage faculty in discussions about how their academic content connects and grapples with equity and justice considerations during ID consultations? How do ID practitioners and leaders engender equity-centered ID among their ID team members? Participating in continuous reflections to make connections between criticality and ID is necessary.

Moving from critical reflection to action could be like enacting Costanza-Chock's (2020) design justice principles to acknowledge and understand whose values are encoded and reproduced in the instructional artifacts and resources we design and develop. What stories do we tell about how things are designed? Critical ID work entails moving beyond prevailing learning theories to explore pedagogies in the margins. This constitutes a shift from dominant design frameworks and vignettes. Having intentional ID interactions and engagement with faculty and students to explore applications of critical and hybrid pedagogies, critical race theories, anti-racist pedagogy, and Black knowledge traditions are all possiblities. When considering practice, asking "who gets to design?" means ascertaining ways to break down silos in the ID process which exclude student/community voices, particularly underrepresented student populations, from the design processes. Rather than relying on course evaluations at the end of the course, ID work could invite students to participate in front-end ID processes in various ways, such as reviewing instructional content and learning activities for specific considerations. Inviting dialogue with faculty and students about explicitly examining equity considerations when co-constructing instructional content and student learning experiences is another possible strategy. Addressing pedagogies may require us to ask "How do we teach and learn about design justice?" Critical ID strategies such as supporting faculty by researching and locating resources which examine equity, justice, and liberation related to their academic discipline should be considered. In summation, collaborations with faculty members during design

consultations could incorporate knowledge systems which challenge the status quo and support incremental and widespread changes in design pedagogies and praxis.

Vignette 2: An Examination of Digital Accessibility in Health and Rehabilitation Sciences

Professional Positionality

At the University of Pittsburgh, I am the Assistant Director of Online Learning within the School of Health and Rehabilitation Sciences (SHRS), where my primary role is to oversee a design team of IDs, technologists, and multimedia specialists. In addition to my role as an online administrator, I am also an active educator at the graduate and undergraduate levels, teaching courses in the adjunct capacity on learning technologies, online program development, multimedia principles, and ID. I embrace these roles as a bicultural (Hispanic-American), bilingual (Spanish-English), cisgender, middle-class educator, with a passion for marginalized students that developed early in my career as an English as a Second Language educator of diverse minoritized linguistic, cultural, and racial groups. My commitment to advocating for those who do not possess the social capital of the dominant society, and are hence excluded from participation or permitted only liminal participation, was furthered through my ID preparation. In my doctoral work, I studied Universal Design for Learning and was confronted with the intentionality that must occur in ID to truly make courses inclusive of all students, ranging from issues of economics, bandwidth, and technology access, to serving students with a variety of disabilities. On its own, online education is not the great equalizer it is claimed to be, but relies on skilled designers and educators to recognize (name) the replication of dominant pedagogies and injustices in online learning and engage in the type of critical reflection and dialogue to act on them (Freire, 1970). As I continue to mentor ID practitioners, my goal is to help them to become critical IDs and apply the Freirian Praxis lens as they work with faculty to design inclusive learning experiences that center and elevate the voices of those typically absconded by the design process (Morris, 2018).

Context

Health and rehabilitation sciences is a collection of allied health disciplines which complements the work of physicians, dentists, and other professionals in the healthcare industry. Health and rehabilitation services are wide-ranging and may include physical and occupational therapists, health informaticians, counselors, and speech language pathologists, to name a few. These professionals require significant clinical expertise and are often conceptualized as helping professions, with a strong patient focus. Like many others in higher education (Seaman et al., 2018), schools of health and rehabilitation sciences have recently embraced the transition from residential to online and hybrid programming as a pivotal strategy for continued growth and sustainability. Nevertheless, this move has been met with some resistance from accrediting bodies due to the hands-on nature of these careers and the need for clinical immersion experiences to equip students as future healthcare providers adequately. Navigating these unique design constraints, in addition to the COVID-19 shift to emergency remote teaching, has driven an increase in demand for ID expertise (Xie et al., 2021) within health sciences curricula.

As the Assistant Director of Online Learning within the University of Pittsburgh's SHRS, I am responsible for guiding the selection and hiring of new IDs, technologists, and media specialists, and training them to work in tandem with faculty to develop high-quality, equitable online and hybrid courses for learners. In this leadership capacity, my work entails preparing novice IDs to take on a critical role (Costanza-Chock, 2020) by becoming agents in the design process, considering diverse social, economic, cultural, and racial values as they create discrete learning objects, units, lessons, or entire courses.

Naming

To coach the design team, I have used a problem-framing approach (Svihla et al., 2022) in group meetings where we collectively define a problem of practice, prioritize ethical considerations by asking critical questions of one another, and articulate a potential method for solving the problem. These conversations are not necessarily focused on teaching designers to apply a prescribed ID model (e.g., Agile Model, ADDIE model, etc.) so much as engaging in the critical analysis and dialogic reflection of a focal issue of injustice or inequality. The goal of this technique is to encourage the design team to directly transfer these lessons from team meetings to their individual consultations with faculty and, consequently, into course designs which would impact student learning.

A focal aspect of social justice relevant to explore in the ID of clinical and healthcare disciplines is accessibility (Moore, 2021). In light of Costanza-Chock's (2020) pioneering framework, my conversations with course designers must probe their thinking about how learning objects, instructional activities, materials, and assessment methods can inadvertently reinforce the value of ability versus disability, visible disability versus invisible/undisclosed disability, thus unfairly privileging some learners, while excluding others from the instructional material and learning experiences (Morris, 2018).

Critical Reflection

In my ID leadership, I recognize that ID professionals are positioned as key agents to enact social justice by de-centering privilege in online and hybrid learning environments. Their design heuristics can be honed by problem-framing which incorporates grappling with critical questions, such as: What digital accessibility barriers will students encounter? How does this experience privilege ability vs. disability? What are the limitations of this technology for a student with a disability? How are all learners empowered (or not) through this instructional activity? While there is no single answer to any of these questions, the role of design leaders is to create a safe forum in which IDs can wrestle with such questions and explore solutions for equity issues with trusted colleagues. On my team, we have embraced the need to start internally with the self, naming our own privilege as individuals who do not live with a physical, cognitive, or sensory disability. In other words, we must start with the notion that we have the potential to unconsciously be oppressors, or oppress others, by our sheer membership in the abled community and lack of awareness and understanding of the barriers that learners with disabilities encounter. Developing this critical consciousness among the non-disabled is essential, as less than 13% of the US population has a disability (US Census, 2022), meaning that few IDs have firsthand, lived experience with disability.

In the practical sense, this has involved providing access to synchronous and asynchronous virtual spaces where IDs can grapple with these issues. For instance, my team of IDs maintains a reflective journal which documents their internal dialogue in response to prompts designed to stretch their thinking about disability in their own design work. These include identifying an instructional artifact/experience they designed and considering questions such as, Who is represented in this instructional material/experience and how are they represented? Designers are encouraged to share these reflections with their team leader to engage in further

dialogue in a safe space (e.g., synchronous web conference). As the team lead, keeping a personal reflective journal to mutually share with my colleagues is essential in trust-building and achieving the transparency necessary for consciousness raising. Additional opportunities, or tools, to support IDs as they confront issues of inequality and social justice with their faculty counterparts can take the form of a book club, where they read an article or engage with a video or podcast before participating in a guided discussion with colleagues either asynchronously (e.g., discussion board) or synchronously (e.g., web conference) according to their level of comfort. Recent articles range from peer-reviewed sources, such as the *Journal of Postsecondary Education and Disability*, [university communications](#) on perspectives of students with disabilities, and topics such as managing collaborative conflict with faculty. Importantly, as the team leader, I am not only responsible for intentionally earmarking time for fostering critical inquiry among novice designers, but also honestly interrogating my own praxis, identifying gaps in understanding, and acknowledging that I do not always have all of the answers, as we work to move the needle toward greater design equality.

Action

The following design case demonstrates Freire's (1970) concept of design action. The design of synchronous and asynchronous learning in a physical therapy curriculum disrupts the prevalence of inaccessible content that excludes students with visible and hidden physical disabilities. Due to the extreme volume of the content contained in the health sciences curricula, interactive anatomical textbooks with 3-D representations of physiological structures, visuals, and videos are commonly integrated into coursework (O'Byrne et al., 2008). While designing an online anatomy course, an instructional designer discovered that multiple interactive textbook chapters assigned by the faculty member contained inaccessible video content that was not closed captioned. Since these videos comprised core content for a formative group assessment, the instructional designer reviewed the vendor accessibility statement (e.g., VPAT) and worked as a change agent by directly reaching out to the technology vendor to seek a solution. Here, the instructional designer first recognized and named the barrier to access, and then took the necessary action to address the disparity. Once discovering that only media created by the vendor product team was captioned, the designer partnered with the faculty to communicate the inequity (awareness raising) and in turn removed all chapters with uncaptioned content. Even further, they identified alternative third-party video clips as replacements to ensure the integrity of the content while making the course accessible to all learners. Finally, as a conduit for social justice, the designer created a video guide and accompanying documentation to share with other IDs and faculty members to illustrate how to filter videos within the textbook to view only accessible media. Since this occurrence, the designer has followed a similar protocol when naming other social injustices in third-party products, including the lack of racial diversity in the representation of skin colors in online textbook. This inequality has serious ramifications for medical practice, leading to discrepancies in clinicians' ability to diagnose skin disease on brown or black skin, and therefore must be addressed in ways that recognize people's unique racial identities.

Vignette 3: Examining the Role of Instructional Design Project Managers in Implementing a Praxis for Critical Instructional Design in Nursing

Professional Positionality

I have worked as an ID at multiple universities and in the private sector for over fourteen years. Nine of those years have been spent managing ID teams and projects. As the Assistant Dean of Instructional Technology, Assessment, and Evaluation for the College of Nursing at the University of South Florida, one of my responsibilities is ensuring our ID team is developing quality, inclusive, and high-impact nursing courses and digital assets while bridging the gap between pedagogy and technology. Throughout my career as an ID project manager, I have managed credentialed educators and digital experts consisting of IDs, multimedia developers, graphic designers, web developers, and quality control personnel. My practices have been informed by the findings from my doctoral work, as my dissertation examined ID practices in higher education focusing on the connection between theory and practice. Furthermore, my Project Management Professional (PMP) certification has augmented my education and experiences by providing me with the knowledge needed to manage projects and stakeholders, develop and implement effective communication strategies, and actively engage with stakeholders (i.e. faculty and ID team). As a Black, cisgender, middle-class woman, I advocate for equity-centered design using my experiences and platform to mentor ID professionals and encourage faculty to utilize a holistic approach and go beyond implementing the standard practices of equity and inclusion in designing courses. It is through this analysis of my own design and leadership practices that I strive to foster an environment that engages our IDs and faculty in critical pedagogy as we create meaningful learning experiences for nursing students.

Context

In response to the changing demands of flexible teaching and learning, there is an increased need for online, hybrid, and hyflex courses. In some cases, as the dynamics of face-to-face courses are impacted, there is a desire to integrate technology in the classroom to enhance and improve teaching and learning. The natural response is to employ more skilled IDs to bring their experiences and knowledge to better address the need. As the leader of the Educational Design and Technology team, one of my responsibilities is serving as an ID project manager, who leads and guides an ID team in designing and delivering courses that meet online learning and departmental standards. Project managers play a vital role in ensuring that IDs are well-equipped with the knowledge, skills, and abilities to design courses that are pedagogically sound, inclusive, quality, accessible, and diverse. Likewise, the project manager must encourage faculty to look beyond traditional course design practices which merely focus on the content's robustness, course engagement, and ability of the course to meet quality standards. Project managers may have to have uncomfortable conversations with faculty and, perhaps, IDs to challenge their thinking about the inclusivity of their course design, practices, and technologies used in online teaching and learning.

Naming

As an ID project manager, the challenges I experience are multifaceted. Leaning on Freire's (1970) naming and reflection process, the initial challenge is understanding how ID project managers can "teach and learn about design justice" (Costanza-Chock, 2020 p. 24) to shift the mindset of faculty as well as novice and experienced IDs. It is a goal to guide these individuals to consider how to incorporate new ways of thinking that center equity and justice in sites or spaces where applications of ID paradigms are rigid and static. It is imperative that I work with IDs to think beyond the surface level of diversity and inclusion practices that focus on the representation of cultural identities in instructional materials that are accessible. As an ID project manager, I create time and space to work with my ID team to examine how we do ID work and which values are reflected in our collective design work (Costanza-Chock, 2020) for nursing students. I recognize that my ID team must be knowledgeable of pedagogical strategies to enable students to connect their unique knowledge and experiences to the instructional materials. As

an ID project manager, I struggle with how to ensure our ID practices focus less on the logistical aspect of content development and to create space for my ID team to envision how to create justice-oriented learning environments and pedagogies that value rather than marginalize underrepresented nursing students. Providing opportunities for ideation and reimagining ID work is not always feasible with a small ID team that supports a large nursing faculty. Another challenge to transforming ID toward a critical approach is getting buy-in from faculty who are sometimes entrenched in their established content design and delivery routines.

Critical Reflections and Action

I acknowledge that supporting faculty to change their norms also requires shifting my ID team's design practice. This requires learning, with my team, how to ask important questions during ID consultations to encourage faculty to identify their biases and to guide faculty to explore equity considerations in the design, instructional content, and selection of technology and digital media. As a leader supporting a small ID team, I need to provide professional development opportunities to support my team with the resources, language, and strategies to interrogate their ID practice using Costanza-Chock (2020) guiding design-justice principles. Reflection and action are at the heart of praxis (Freire, 1970). A vital question to consider is: How can I engage my ID team and, ultimately, faculty to participate in a critical analysis of their practices? The conversation could begin by examining our responses to questions which challenge our design processes and pedagogies: How do we incorporate criticality in nursing teaching and learning experiences? How do we develop and enact inclusive pedagogical and technology integration processes and policies? How do our course materials and clinical experiences represent different perspectives and backgrounds? What assumptions have we made or been told about online learning? (Morris, 2018; Stachowiak, 2016). As an ID project manager, I can guide my team through this process of reflecting, acting, and ultimately transforming by facilitating meaningful conversations with IDs and faculty.

Taking action to support shifting my ID team's practice is complicated and multidimensional because both the instructional designer and faculty may have varying awareness of how to tackle inequities in ID. Collaborating and supporting my ID team to serve as change agents by using questioning and discourse to engage faculty to think critically about how they address equity and justice in their academic content, learning activities, and assessments is an important goal. As I grapple with the "how," I acknowledge that my journey toward critical ID praxis has just begun. I imagine that transforming our ID work involves intentional study, learning to increase our awareness of inequities in our design work, and establishing a commitment to design justice (Costanza-Chock, 2020).

To initiate change, I could identify IDs and faculty who could share how they critically examine their biases and critically assess their own values and practices. They can discuss how they applied the critical pedagogical approach and how students benefited and responded. IDs play a vital role in directing the ID process and they can pay close attention to critical pedagogies in their interactions with faculty. Costanza-Chock's (2020) design justice principles demand that we don't equal inclusion design strategies with wrestling with equity and justice considerations in ID. As a project manager of IDs, changing our ID practice involves leading and fostering IDs to be open and willing to self-reflect. Leaning on Freire's (1970) praxis, this difficult work requires collective and continuous engagement between IDs and faculty to participate in ongoing dialogue to push the boundaries of inclusionary design strategies.

Vignette 4: Intersections between Critical Information Literacy and Critical Instructional Design in Library and Information Science

Professional Positionality

I have taught in the Master of Library and Information Science program at the University of Pittsburgh for the last four years, teaching in the areas of academic libraries, ID, and critical librarianship. Prior to this position, I was an instruction librarian at a mid-sized, private university for seven years, coordinating the library's instruction efforts for students as they navigated their academic careers. There I also received my doctorate in instructional technology, where I focused on the experience of social metacognition for online students as compared to face-to-face students. While, at times, I would focus on social justice concepts in my teaching and ID, for much of my career, my focus was on what was "objective" and "evidence-based," not recognizing that these are constructs often used to maintain white supremacy. As a white, cisgender, middle-class woman, I now try to recognize my privilege in approaching my work and try to de-center whiteness in my pedagogy, but this can be challenging in the impersonal and exclusionary frameworks of ID I have used given my own lack of awareness of and participation in systems of oppression. Finding inspiration from bell hooks (1994) and Paulo Freire (1970), among others, my goal is to approach critical ID as a method to engage librarians and their communities to work for justice.

Context

Even before COVID-19 but certainly accelerated by COVID-19, many librarians and information professionals have increased their online educational offerings, which makes preparing Library and Information Science (LIS) professionals for ID increasingly important. Using various technologies, more information professionals in libraries, archives, museums, and other cultural heritage sites are creating online content, tutorials, and dynamic online learning environments that direct patrons to resources, provide frameworks for evaluation of resources, and highlight strategies for research. As this content proliferates, the need for theoretically sound practices becomes increasingly important. Information professionals not only need to create online content that generates meaningful learning, but they also need to use inclusive practices online that encourage equity and justice in their communities.

In my role as a LIS educator, I teach future librarians how to work with their communities to create instructional content that works against some of the structural inequities facing those communities. In my ID course, we discuss the importance of critical approaches to ID, and I have tried to improve upon my previous approaches to the course, which reflected ID frameworks created by and benefitting white people only. While we still cover the basics of ID, we also emphasize how we need to center humans rather than technology in our designs, as Jesse Stommel (2014) does in "Critical Digital Pedagogy: A Definition." Librarians work with a diversity of patrons; there is no single way of approaching ID in LIS spaces, and thus we must have a flexible, inclusive, and collaborative approach to learning that empowers patrons to work toward their goals (individual and collective) in new information environments.

Naming

Information literacy is the focus of much of the instruction in LIS, which is the ability to find, evaluate, access, and use information. Librarians and information professionals work with their patrons to find the best resources to meet their needs. While this seems rather straightforward, the complications of misinformation and disinformation, inequitable practices in publishing and information distribution, and digital inequities make this a rather involved undertaking. Critical

information literacy recognizes and names the ways in which power and inequities in the information ecosystem help to perpetuate injustice in our communities. Influenced by critical pedagogy, critical information literacy also centers on the lived experiences of the patron.

Critical Reflections

Critical ID for LIS, then, is a learner-centered approach to addressing how we can work with patrons to better understand their agency in seeking out and using information. In critical ID for LIS, information professionals can provide problem-posing research scenarios which reflect issues meaningful to patron's lives, providing the critical reflection and action encouraged by Freire (1970). These research scenarios can reflect issues of social justice and racial equity to allow patrons to think through ways they want to use information to transform their communities to be more just. As Bradshaw (2018) states, this critical work must be done by centering "the struggles of those at the margins of society" (p. 9). For example, instruction may focus on how to find information about open civic data to track pollution in a city, showing how environmental racism impacts communities. While a librarian could design a straightforward demonstration on how to navigate a data portal, a design that enables patrons to explore how they can use such information to inform themselves and make changes for racial and environmental justice goes beyond a banking style of ID and instead focuses on the agency of patrons. When we are creating materials for our learners, we must ask ourselves the following questions: How have our assumptions about authority been shaped by white supremacy? Whose stories are being told in our design? Whose stories are not being told? How have we involved learners in the creation of our instructional materials? In examining these questions, we can challenge our own worldviews and consider methods of making sure that we reflect a diversity of epistemologies and ontologies in our instruction.

Action

Additionally, critical ID for LIS reflects an understanding of the diversity of backgrounds, understanding, access to technology, and abilit patrons will have. This means that while instruction is often designed for the online environment - with captions, multiple means of representation, and descriptions of visuals - that librarians also need to create instruction in print formats to make their instruction truly accessible. Librarianship has tried to claim neutrality, but, as many have shown (Drabinski, 2008; Ettarh, 2018), the systems and structures of our libraries are not neutral. This includes the instruction that we design for our library patrons. As Costanza-Chock (2020) argues, the systems we design encode particular values. Integrating critical information literacy and critical ID into the practice of librarianship means resisting both the traditional values of paternalistic approaches to working with patrons and the strict definitions of authority, professionalism, and scholarship (Garcia, 2015). Instead, the instruction librarian's design should reflect the interests of the community, respect the values and knowledge of community members, and acknowledge the importance of social justice rather than attempting a "neutral" stance.

One challenge is the resistance to taking what some perceive as a political approach. However, the values of librarianship align strongly with the values of accessibility and social justice. While much work must be done to make librarianship truly an inclusive profession, there has been a long interest in making libraries welcoming spaces that work alongside communities to support their goals to create more just communities, and, thanks largely to the efforts of librarians of color, there has been progress. The American Library Association has issued a principle on racial and social justice in the Code of Ethics, signaling the importance of issues of racial justice to the profession, but this cannot be lip service, and we must recognize the ways libraries and librarians have and continue to harm minoritized communities. Realizing my pedagogy had silenced minoritized voices and ignored issues of justice in attempting to provide "objective" instruction was an important though difficult development in moving my instruction to a more critical and equitable space. ID in LIS cannot ignore the ways in which the design choices we make in our instruction are not neutral, and so we must consciously work to design for justice and liberation.

Discussion and Conclusion

These collective multidisciplinary vignettes emphasize the different entry points to becoming a critical instructional designer, which is initiated by a focus on ID identities, values, and practices through self-examination of the ID field and our own ID processes. IDs should consider theories that undergird their equity and justice design praxis. As hooks (1994) illuminated, there is no gap between theory and practice: "one enables the other" (p. 61). Taking a critical approach to ID means framing and aligning ID practice with critical theories using Freire's (1970) praxis that supports naming, critical reflection, and action. The IDT field is in transition, with ID professionals striving to navigate their transformation in a hyper-contentious socio-political educational climate. The four vignettes revealed how ID is closely intertwined within the academic discipline in which it is housed, necessitating changes in the pedagogical approach used in different academic disciplines. The challenge for ID practitioners and leaders is determining how to invite faculty and administrators to engage in explicit discussions and exploration that question and challenge dominant knowledge systems and structures and then support actionable commitments to equity and justice-centered ID. Another vital aspect alluded to in the vignettes is tackling resistance to change, which is an enduring challenge in ID praxis. A recurring theme throughout the vignettes focuses on consciousness-raising and deepening our knowledge of equity and justice-centered praxis. Another approach is to situate critical ID with an institution's aims, purposes, and commitment to equity, justice, and liberation. Inherent in becoming a critical instructional designer, Gholdy Muhammad's (2020) emphatic call to action (applicable to all educators and IDs in all educational contexts) is to "cultivate genius" of black and brown students (people) using "equity framework" (p. 11), and "if we aim to get it right with all youth, a productive starting point is to design teaching and learning to the group(s) of students who have been marginalized the most in society and within schools" (p. 11). Muhammad challenges us (designers) to recognize students' cultural identities as resources rather than obstacles in the learning process. To do so, the use of an equity framework to design materials, artifacts, and spaces/sites where students recognize themselves in the learning experiences, instructional content, and learning activities is suggested (Muhammad, 2020). Extending this approach, Costanza-Chock (2020) urges us to do our design work in collaboration with communities. The vignettes loosely reflect Muhammad's (2020) and Bradshaw's (2017) discussions about using a human (learner) centered ID approach that does not ostracize historically underrepresented, minoritized students.

Relying on critical pedagogies such as critical race theories and abolitionist teaching, along with liberatory and equity ideologies, praxis, and practice to inform critical ID means challenging ourselves as educators, researchers, learners, and trainers/professional developers to situate ID within broader cultural, ethical, political, social, and historical contexts. Criticality is central to the design process, where ID practitioners engage in deep conversations about design's impact on society. Critical theorists support the design of learning environments that strive to disrupt, dismantle, and resist inequitable systems and structures. Costanza-Chock (2020) supports adhering to Freire's critical pedagogical praxes in which educators and IDs "pose problems, create spaces for collection development of critical consciousness, help to develop plans for action to make the world a better place, and develop a sense of agency among learners" (p. 177). Strivings toward critical consciousness are evident in the vignettes and through the questions offered by the authors to address tensions in the ID pedagogies and praxes. The collective questions symbolize some of the tensions that IDs experience moving from inclusion ID models to critical and transformation ID.

Equally important is acknowledging the power dynamics in ID, where IDs typically serve in a supportive role to the faculty, academic unit, and institution. The shift toward critical ID means changing how the ID profession and role are perceived and practiced both by practitioners and faculty partners. Also, IDs and faculty partners participate in what bell hooks' (1994) described as engaged pedagogy, where "seeing the classroom always as a communal place enhances the likelihood of collective effort in creating and sustaining a learning community" (p. 10). IDs often use ID models as blueprints or best practices for designing quality courses, but bell hooks asks us "…to recognize each classroom as different, that strategies must constantly be changed, invented, reconceptualized to address each new teaching experience" (p. 11). Critical IDs and leaders adapt their strategies and approaches to incorporate the unique voices of educators and students but also perceive design and teaching as a "radical space of possibility" (hooks, p. 12).

Similarly, Perlow et al. (2018) challenge ID educators and practitioners to design, create, and provide spaces/places (digital and physical) to wonder, discuss, and examine: What is liberatory pedagogical praxis as it relates to ID? How do we engage in critical inquiry to change long-established approaches to ID work? (p. 323). In our vignettes, we hope that we have explored some of the ways that we address these questions in various contexts and that readers have a sense of how they might begin to take a critical approach to ID. Instructional design scholars and practitioners may use the scholarly activity provided in the appendix to interrogate their critical ID theory and practice.

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Appendix

Instructional Design Practitioner Reflection and Discussion Activity

You may wish to have participants participate in a discussion and/or create a video/infographic/podcast to address the questions listed below. Alternatively, participants can address these questions after completing one of the readings, viewings, and listenings provided below.

Guiding questions:

1. How do you describe your current ID praxis?

2. How do you describe your critical ID identity?

3. How would you frame your shift toward critical ID praxis that centers equity, justice, and liberation principles?

4. How do critical pedagogies inform your ID praxis?

5. What does an equity-centered design look like in your professional context?

6. How do you design learning experiences that are liberatory and humanizing?

Readings:

- Morris, S. M. (2018). Critical instructional design. In Sean Michael Morris & Jesse Stommel, *An urgency of teachers: The work of critical digital pedagogy*. Hybrid Pedagogy Inc

- Bradshaw, A.C. (2018). Reconsidering the instructional design & technology timeline through a lens of social justice. *TechTrends: Linking Research and Practice to Improve Learning, 62*(4), 336-344.

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Web resources:

- Equity Unbound: https://onehe.org/free-resources/

- Design Justice Network: https://designjustice.org/

Viewings:

- YouTube Video: Amy Bradshaw - Critical Pedagogy and Educational Technology: A Dialectic Approach to Equity and Inclusion (Duration: 1:01)

Listenings:

- Bali, B., Caines, A., & Zamora, M. (2021). In Stachowiak, B (2016) Teaching in Higher Ed podcast. Episode 349: Community building activities. Retrieved from https://teachinginhighered.com/podcast/equity-learning-design/

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