Cripping Online Learning Space Designs for Collective Access

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ABSTRACT

Despite the growth of remote learning, many online art education space designs still overlook the learning experiences of students with disabilities, merely offering baseline assistive technologies. Drawing upon crip technoscience from critical access studies, this article defines current online learning spaces as virtually-built environments embedded with compliance-centered logics and ableist assumptions about access. I suggest that art educators challenge such preconceptions by engaging students in cripping, which entails (1) disrupting ableist designs and (2) crafting alternative designs for online learning spaces. Introducing projects by artists Elisa Giardina Papa, Shannon Finnegan, and Bojana Coklyat as exemplary practices of such disruption and reconstruction, I emphasize collaborative cripping as an anti-ableist practice informed by crip technoscience. This practice empowers students to counter the pervasive assimilation of people with disabilities into ableist online learning environments. In its conclusion, this article advocates for constructing collective access in online learning spaces toward disability justice.

KEYWORDS: Disability Justice, Collective Access, Crip Technoscience, Critical Disability Studies, Critical Access Studies, Anti-Ableist Art Education

The rapid adoption of digital learning and the growth of the remotehybrid learning community in art education during the COVID-19 pandemic has increased forms of accessibility for students with certain disabilities. Yet, online learning spaces and institutional websites have only partially bridged the disability divide through assistive technologies and universal design (Meleo-Erwin et al., 2021; Smith, 2020). While accessible features do exist in online learning spaces, website designers often place these assistive tools to the side of the screen, thus obscuring them from view. Namely, many forms of universal design merely serve to meet legal requirements and do little for equitable learning in online learning spaces (Kent, 2015). As a result, just like their offline counterparts, online learning spaces fail to center the diverse needs and learning experiences of students with disabilities (Ellis et al., 2020; Quinn et al., 2019). Inevitably, students with disabilities cannot fully satisfy their educational needs in an online environment, since they had previously relied on various inperson accommodations, such as in-person assistance and support services (Ellis et al., 2020).

This paper presents issues of accessibility in online art education spaces as observed from my position as a teaching assistant at a U.S.-based university. Although I self-identify as a woman with illness, including several congenital heart defects, I acknowledge that I have a relatively great amount of privilege, since I have encountered very few obstacles in accessing education (whether in physical or digital spaces). Distinct from the experiences of some students with disabilities discussed in this paper, the shift to online education during the COVID-19 pandemic provided me with more accessibility. As I have residual intercostal neuralgia that arose from cardiac surgery, the online instructional spaces benefitted me, as I was better able to manage my pain and personal fatigue at home.

However, my experiences diverge substantially from those of students with other types of disabilities. Throughout my work in the university museum and class settings, I have engaged with students who, due to visual or learning disabilities, grapple with significant obstacles in navigating various online learning spaces. These students struggled due to the university's underdeveloped accessibility accommodations and its lack of effort to sufficiently prioritize the learning experiences of students with disabilities. As a result, the educational landscape continues to marginalize these students. In fact, the online museum education programs and learning spaces that I developed are no exception to this pervasive issue. I often used images without detailed alt text¹ and marked several links with generic phrases such as *click here*, which does not provide screen readers with any meaningful context or additional information about the destination of the link. Spurring from such realizations, my investigation into the accessibility features and ableist assumptions of online education spaces reveals how these options and designs are undertaken merely to ensure compliance with the Americans with Disabilities Act (ADA)². As such, enhancing robust access in online learning spaces is imperative.

In this paper, I propose that art educators and researchers should actively critique the spatial designs of online art education using crip technoscience from critical access studies as guiding frameworks for their interventions (Hamraie, 2015). I argue that art educators should consider online learning space structures and designs as virtuallybuilt environments that often implicitly convey ableist assumptions, thereby prioritizing able-bodied students over those with disabilities.

Accordingly, art educators in higher education should critically examine the academic ableism ingrained in such spatial designs, while also proposing ways to challenge the conventional ADA compliancecentered design. To confront ableism in online learning space designs, I recommend employing an act of *cripping*. My use of cripping, in this context, indicates a radical act of disrupting the compliance-centered online learning space designs or crafting alternative designs centering on the experiences of students with disabilities. I will introduce artistactivists Shannon Finnegan and Bojana Coklyat's Alt Text as Poetry project and Elisa Giardina Papa's Labor of Sleep: Have you been able to change your habits?? in the Whitney Museum's Sunrise/Sunset project as significant examples that can inspire students' act of cripping. By encouraging students to re-imagine and recreate truly accessible online learning space designs, art educators can increase students' critical awareness of ongoing ableism in their practice. In hopes of bridging the disability divide in online learning, this paper ultimately aims to build new anti-ableist pedagogies in art education that will help move the field toward greater collective access.

Neutralization of Universal Design in Higher Education

In modern design history, disability was a marginal issue until the 1950s; indeed, only in recent years has it become a common talking point (Guffey, 2017; Williamson, 2019). The barrier-free design movement, beginning in the 1960s, established the foundation for the concept of universal design (Hamraie, 2017).3 In 1985, Ronald Mace, an architect with a disability, finally coined the concept of universal design as an intentional design approach recommending "all products, buildings and exterior spaces to be usable by all people to the greatest extent possible" (Mace et al., 1991, p. 30). Using this concept, Mace ultimately pursued a disability alliance that would transcend the medical model of disability (Hamraie, 2017). After the passage of the ADA in 1990 and the expansion of the disability justice movement, universal design has gradually become influential in U.S. society over the years (Hamraie, 2017). Designers and scholars have started to widely recognize the needs of people with disabilities in various built environments (Ellcessor, 2016).

Although the increased recognition of universal design has extended general accessibility, it has not led to true equality. Institutions,

¹ Alt text is a written description attached to an image or media, providing context for people who use assistive technologies, such as screen readers. It ensures accessibility of visual content for individuals with low vision, visual disabilities, or neurodiversity. (Coklyat & Finnegan, 2022; Strantz, 2021).

² The Americans with Disabilities Act (ADA) is a federal law in the United States that passed in 1990 based on the disability rights movement. The ADA requires all private and public entities, including educational institutions, to offer reasonable accommodations and ensure access for people with disabilities (Brown et al., 2021).

³ The barrier-free design movement was a dominant paradigm of accessible design until universal design emerged. Although the barrier-free design movement initially aimed to construct wide-ranging accessibility, it often emphasized White middle-class disabled users and was merely compliant with legal enforcement (Hamraie, 2017).

⁴ The medical model of disability considers disability as an undesirable human condition or impairment that should be cured through medical interventions (Garland-Thomson, 2017; Kallio-Tavin, 2020).

including those in higher education, have started to consider universal design as a shorthand for "magic solutions to accessibility," all within the vague framework of legal compliance with the ADA (Seale, 2013, p. 18). They have merely incorporated limited accessibility features, such as poorly designed ramps, and have overlooked the qualitative dimensions of access (Dolmage, 2017; Sheppard, 2019). Instead, their goal is merely to ensure compliance with ADA-related regulations. Such reliance on compliance-centered logics, coupled with a misguided emphasis on neutrality for "all users," results in the dilution of the original intent of universal design (Hamraie, 2017, p. 13). Consequently, these institutions, influenced by neoliberal ideologies, appropriate universal design as a marketing tool for showcasing diversity. This neutralization of universal design not only promises a false future for all people, but also erases the unique values and experiences of people with disabilities, fabricating a veneer of inclusion without addressing the true needs of the disabled (Hamraie, 2017).

Similarly, in the realm of online education, the discourse of universal design has often intertwined with U.S. legal regulations and compliance requirements (Ellcessor, 2016). Legal regulations around website design did lead to the creation of accessible web environments, yet these are often based on a narrow interpretation of accessibility and disregard the fact that no single design can meet every individual's needs (Ellcessor, 2016).⁵ Due to the limitations of such an approach, many higher education institutions have, in recent decades, adopted international open web standards such as Web Content Accessibility Guidelines (WCAG) 2.1.6 However, these standards still mainly center on the needs of people with visual impairments or restricted motor movements, while rarely addressing the needs of those with learning disabilities or neurodiversity (Giannoumi et al., 2017; Kurt, 2019).⁷ Hence, universal design and accessibility are often considered mere technological phenomena, reinforcing the existing emphasis on assistive technologies without establishing the necessary philosophical foundations for valuing a broad range of experiences with disability (Ellcessor, 2016; Foley & Ferri, 2012).

This narrow interpretation of universal design and accessibility is evident in Learning Management Systems (LMS) such as Canvas and Blackboard, widely used in U.S. higher education.⁸ These corporatedriven LMS often fail to meet the needs of many students with disabilities, relying heavily on external assistive technology tools and falling short in incorporating accessible configurations (Brito & Dias, 2021; Kent, 2015). Even Canvas, renowned for its disability-friendliness, provides limited functions for students with cognitive and learning disabilities (Paynter & Barnes, 2021). Such accessibility functions typically reside in the corner of the learning space, diminished to a small button, hidden within the default user interface. Moreover, many LMS largely fail to assist instructors in constructing accessible course content, offering limited guidance regarding accessible content-building (Brito & Dias, 2020; Oswal, 2019). Rather than fostering inclusivity, these LMS reinforce the normative narratives of able-bodied student users, thus putting the burden of accommodation onto disabled individuals and endorsing neoliberal paradigms of ability (Ellcessor, 2021; Gabel et al., 2016; Quinn et al., 2019). Such practices help to sustain an ableist structure in higher education, potentially hindering disabled students' learning (Ellcessor, 2021; Seale, 2013; Stone, 2019).

Thus, art educators should scrutinize the misinterpretation of universal design in online art education and develop strategies to effectively critique these accessibility shortcomings within our educational practice. By doing so, we can better uphold disability justice in online learning environments. With this enhanced critical awareness, art educators might reinterpret universal design in online education as a "value-explicit design" that consciously articulates the value of disability knowledge and experiences (Hamraie, 2013, para. 21). This style of design will encourage students to interrogate the "false value-neutrality" of current online environments, in which putatively "neutral" platforms of information-sharing silently prioritize the experiences of normative, able-bodied student users (Hamraie, 2013, para. 21).

Students as Preferred Able-bodied Users in Online Learning Spaces

When we consider online education space designs as virtually-built environments, who are the assumed users? Current online learning spaces in higher education tend to universally assume that the very meaning of "student" connotes being able-bodied, and thus the "preferred users" (Ellcessor, 2016, p. 63). The normative definition of student often conjures images of neurotypical, physically nondisabled, and financially stable students who have easy access to

⁵ The amendment of Section 508 of the Rehabilitation Act of 1973 in 1998 led to a major change in web content accessibility. This legislation mandated that the U.S. government and its organizations build accessible web-based content and information technology for people with disabilities (Ellcessor, 2016).

⁶ The Web Accessibility Initiative (WAI) of the World Wide Web Consortium (W3C), an international community that establishes open web standards, developed WCAG 2.1. These guidelines provide a framework for crafting accessible web content for individuals with disabilities (Abou-Zahra & Brewer, 2019).

⁷ Neurodiversity is a concept that refers to neurological differences of the human brain or neurological systems. Challenging ableist assumptions about normative human brains and mental disabilities, this term promotes an inclusive, equitable view of diverse states of mind (Owren & Stenhammer, 2013; Richardson, 2018).

⁸ Learning Management Systems are web-based systems that allow instructors to design and deliver courses to students through online communication and sharing (Green & Chewning, 2020; Paynter & Barnes, 2021).

technology (Quinn et al., 2019). By exclusively prioritizing such students' experiences, hegemonic arrangements in online learning spaces fail to include students with disabilities (Kent, 2015). Even during the forced shift to online learning during the COVID-19 pandemic, higher education continued to default to the assumption that non-disabled students are the normative users (Ellis et al., 2020).

Indeed, such ableist assumptions about student users stem from the longstanding history of ableism in the U.S. education system, particularly its binary notion of normality and abnormality. The modern U.S. education system has invented the ableist notion of "normal" students, who are judged non-disabled by medical and legal authorities, and "not normal" students, identified as those with disabilities (Keifer-Boyd et al., 2018, p. 268). The U.S. K-12 education system segregates students with disabilities into special education, leading to a mere 19% of students with disabilities in the U.S. attending two-year and four-year colleges in 2015–16 (National Center for Education Statistics, 2018). However, the landscape is changing, as more students with disabilities participate in higher education. Despite the increase, accessibility within higher education remains underdeveloped and under-diversified, since institutions continue to assume students are able-bodied (Gabel et al., 2016; Kent, 2015). Institutions rarely address their own ableist presumptions or actively promote the accessibility of virtual learning, which could attract more students with disabilities and sustain their profits in a competitive student market (Ellis et al., 2020). Consequently, such neglect perpetuates ableist assumptions within LMS designs, normalizing the experiences of non-disabled students while imposing silence on the experiences of disabled students (Gabel et al., 2016).

While most higher education institutions offer support for students with disabilities through disability resource centers, obtaining assistance for online learning remains a challenge. To access these resources, students must receive a "biocertification" (Samuels, 2014, p. 9), requiring them to prove their disability with medical diagnosis documentation. Such a process puts the onus of accommodation on the individual student, who must self-identify and convince the institution of their need for accommodation. Critical disability studies scholars have long criticized the way in which universities perpetuate the culture of labeling and segregation through ADA-compliant policies, rather than fostering an inclusive learning environment and culture (Brown et al., 2021; Dolmage, 2017; Hamraie, 2017). The current structure causes students to endure "access fatigue," a state of exhaustion stemming from the constant need to perform their disability to access necessary accommodations (Konrad, 2021, p. 180). Consequently, some students with disabilities choose to hide their disability, often to avoid contacting the disability resources offices (Miskovic & Gabel, 2012).

Regarding these challenges, we, as art educators, should find ways to center the experiences of students with disabilities in online learning spaces and dismantle ableist understandings of accessibility. Thus, in the following sections, I suggest combining crip technoscience with art education practices inspired by contemporary digital artworks, and I further envision pedagogical methods that develop collective access in online learning spaces.

Cripping and Crip Technoscience: Rethinking Accessibility in **Online Art Education Designs**

In the field of art education, researchers have historically emphasized the critical understanding of inclusivity and disability, drawing from critical disability studies (Kallio-Tavin, 2020; Keifer-Boyd et al., 2019; Penketh, 2014; Wexler, 2016). Among such research, Galloway et al. (2007) underscore the significance of accessibility and accommodation for people with disabilities in theatre performance and its education, advocating for an ethic of accommodation. Also, Richardson and Kletchka's (2022) recent article explicitly highlights the potential for critical access studies in museum education to challenge ableism and transform the spatial relationship between museums and disabled visitors. Despite the valid focus these researchers place on access and accommodation, the field of art education has rarely taken into consideration such issues in online learning.

To account for this deficiency, I suggest art educators challenge the normative assumption that users are students without disabilities. and strive to understand identities, experiences, and access needs of students with disabilities in online learning spaces through the concept of *cripping* and *crip technoscience*. As the shortened form of the pejorative term cripple, "crip" is a reclaimed term referring to people with disabilities, used to resist "compulsory able-bodiedness" of contemporary society (McRuer, 2006, p. 1).9 Critical disability studies scholar Robert McRuer (2006) uses this term in building crip theory, which highlights the value of disabled people's ways of knowing and embodied experiences as social knowledge (Kafai, 2021; McRuer & Johnson, 2014). By transforming "crip" from crip theory into an active verb, I propose that cripping online space designs challenges ableist assumptions within accessible designs, which perceive disability merely as an "imposition" or "interference" to the "accepted norm and standards of the built environment" (Williamson, 2019, p. 190). Thus, cripping online learning space design is an active refusal to comply with ableist futures in art education practices (Hamraie, 2015; Penketh, 2020; Williamson, 2019).

Furthermore, I suggest connecting the act of cripping to the concept of crip technoscience, a term coined by Amie Hamraie and Kelly Fritsch

^{9 &}quot;Compulsory able-bodiedness" refers to the social and cultural belief that everyone should be able-bodied, as well as the idea that disability is a personal tragedy or defect rather than a socially-constructed category. McRuer (2006) argues that compulsory able-bodiedness includes an assumed hierarchical relationship between able-bodied and disabled people, justifying the exclusion and marginalization of people with disabilities.

(2019). Crip technoscience is a form of design activism aiming to disrupt systemic ableism and to advocate for the "transformative power of crip knowing-making" (Hamraie & Fritsch, 2019, p. 20). By incorporating the term "crip" into "technoscience," a term that encompasses the intertwined nature of science, technology, and political context, the authors highlight that designing access is a form of "attack" that creates political friction and contests the ableist built environment (Hamraie & Fritsch, 2019, p. 10). Crip technoscience demonstrates the power of disabled people's political acts of non-conformity as a means to build access, thus serving as a catalyst for social transformation. Additionally, these scholars' application of cripping to technoscience asserts that people with disabilities are active agents who produce crip knowledge rather than merely cultural consumers or objects of assimilationist technologies (Fritsch, 2016; Hamraie & Fritsch, 2019). Based on such perceptions, crip technoscience should prioritize a commitment to the interdependence of people with disabilities. Since neoliberal, ableist society has posited that disability is an individual issue and that each disabled person is solely responsible for their access, Hamraie and Fritsch (2019) emphasize that we should rebuild interdependent disability culture and community through intimacy and collaboration, to better combat the burden of neoliberal individualism.



Figure 1. Screenshot of "Alt-Text as Poetry Workbook", Shannon Finnegan and Bojana Coklyat, 2019-present, Designed by Companion-Platform. *Courtesy of the Artists.*

A compelling example of the radical potential of crip technoscience emerges in the work of artist-activists Shannon Finnegan and Bojana Coklyat. Their ongoing project, Alt Text as Poetry (2019-present), is a workshop-based art project that demonstrates how a blend of alt text technology and creative approaches can construct enhanced access for people with disabilities (Finnegan & Coklyat, 2019). These two artists critique the ways people and institutions frequently consider alt texts as technologically formulated simple information and create them in a perfunctory manner—merely to meet web accessibility requirements (Coklyat & Finnegan, 2022). By reframing alt text as a creative poetry of image description, their workshops help participants collaboratively write alt text, building substantial communication between images and disabled users. These workshops prompt participants to understand that alt text should provide more pleasurable experiences, offering a "sense of belonging" to people with disabilities (Coklyat & Finnegan, 2022, p. 279). To extend such practices, the artists distribute their selfpublished workbooks online for free, allowing anyone to practice alt text writing with poetic language through technology (see Figure 1). This project shows the enormous potential of crip technoscience to enhance disabled users' online experiences, while emphasizing the importance of interdependence and collaboration in achieving disability justice.

Drawing upon the intersection of theory, practice, and activism in crip technoscience, scholars argue that we should define a culture of access as a culture of "transformation" that dismantles the underpinning logic of ableist culture through spatial change (Brewer et al., 2014, p. 152). This radical engagement underscores the significant contribution of disability experiences to our knowledge-building. As one example of such transformation, we can further include an alternative accessibility model known as "cultural accessibility" in the context of digital space (Ellcessor, 2016, p. 179). Cultural accessibility challenges hegemonic narratives of abled bodies and technologies through disabled people's coalitional practice in digital platforms (Ellcessor, 2016). Within cultural accessibility, the participatory process of access and its educational impact on bridging the disability divide will eventually help art educators critique the current neoliberal consumption of access as assimilation or rehabilitation (Brewer et al., 2014; Foley & Ferri, 2012). Based on these concepts, educators will eventually be able to set the goal of cripping online learning spaces in art education as the construction of "collective access"—that is, a flexible and creative engagement with the built environment that fosters disability solidarity (Piepzna-Samarasinha, 2018, p. 28).

¹⁰ Shannon Finnegan and Bojana Coklyat run the website "Alt Text as Poetry" (https://alt-text-as-poetry.net/), a platform providing information about alt text and sharing their ongoing project and workshops that explore alt text and its potential in advancing accessibility and disability justice.

Embracing Disability Experiences through Cripping Online **Learning Space Designs**

In pursuit of collective access within online art education, how should art educators incorporate cripping into art education practices as an active refusal of ableist online learning space designs? I suggest two methods of cripping that can challenge compliance-centered universal designs in online learning spaces: (a) disrupting the ableist designs of current online learning spaces, or (b) crafting alternative online learning space designs. Regardless of how this cripping happens, I argue that art educators should first privilege students with disabilities as core "knowers and makers" who analyze the ableist assumptions ingrained in online learning spaces and develop design practices through their own lived experiences (Hamraie & Fritsch, 2019, p. 7). Thus, I strongly suggest first building a collaborative relationship with students with disabilities, in which educators listen to students' experiences with online learning accessibility and the ableist assumptions embedded in spatial designs. It is critical to give these students a central role in collaborative art-making. If there are no students with disabilities in the class, educators may seek to collaborate with disability resource teams or student disability rights groups at the institution. Art educators should remember, of course, that no single student with a disability can represent all people with disabilities or understand all accessibility needs. Our practice can never be liberatory without considering students' actual lived experiences of disabilities. Thus, centering the perspective of students with disabilities when planning online learning spaces is the first step towards building collective access through our practice.

Based on the aforementioned substantial collaboration, art educators should offer an opportunity for students to thoroughly analyze the design of targeted online learning spaces and plan their own creation or disruption of the design. Their guidance should facilitate students' detailed examination of the design as a whole, as well as its smaller elements, such as pervasive use of images, font size and colors, lack of screen-reader-friendly content and the location of each assistive technology. To further connect their design analysis to a critical awareness of ingrained ableism within such designs, I recommend focusing on these core questions:

- 1. Who are the assumed users, and who are the marginalized users, within this online learning space design?
- 2. What narratives or forms of knowledge are absent, and what ableist logics are embedded within this online learning space
- 3. How should we further prioritize the experiences and knowledge of students with disabilities in our art and design creations?

4. How might we effectively address and challenge ableism by attacking the design of online learning spaces, and subsequently improve accessibility through our redesign efforts?

These questions will prompt students to look beyond the surface, identifying and addressing the unnoticed ableism often entrenched within online learning space designs. Through comprehensive explorations, students will develop enhanced critical perspectives, interrogating ableist assumptions and identifying where changes for inclusivity should be made. Armed with such critical awareness, students will be able to further plan their own redesign or reconstruction of inclusive online learning spaces.

Disrupting Ableist Designs in Online Learning Spaces

Having established the foundation of analysis, students can implement their own cripping practices. Students may start transforming typical LMS designs by disrupting each design element or interweaving their own resistive artworks. Admittedly, various design elements and assistive technologies in a given LMS are already built-in, and there is not much room for students to transform the whole website structure. However, students can at least transform some spaces and enhance accessibility by creating new visible buttons for assistive technology and adding various visual/spoken/written descriptions regarding contents in LMS pages. More actively, students can create their own artworks that include disability experiences or knowledge and place them on the landing page of the LMS. Taking the current ableist LMS design and fracturing it with students' creative representations of disability justice will effectively showcase the resistive potential of art in website designs. Although such partial transformations are, of course, not fully disability-friendly or inclusive, the practice itself can create subversive meaning and actively "attack" ableist landscapes in online education (Hamraie & Fritsch, 2019, p. 10).



Figure 2. Screenshot of "Labor of Sleep: Have you been able to change your habits??", Elisa Giardina Papa, 2017. Still frame from video. Commissioned by the Whitney Museum of American Art. Courtesy of the Artist.

As an example of these partial disruptions, Elisa Giardina Papa's Labor of Sleep: Have you been able to change your habits?? (2017) in the Whitney Museum's Sunrise/Sunset project offers a compelling model for students' understanding (see Figure 2).11 By taking over the Whitney Museum's website and blocking the main webpage with her video art, Giardina Papa emphasizes how people use technology to control their sleep patterns in accordance with the cycles of a larger societal system (Giardina Papa, n.d.). Her work critiques the irrational aspects of technology-based self-optimization, which transforms even sleep into labor (Whitney Museum, n.d.). Her critique becomes more impactful as her work blocks the museum's website design. This act of redaction invites visitors to contemplate museum websites as technologyinfused built environments of their own, to which individuals must often adapt.

Admittedly, Giardina Papa's project does not directly tackle the issues of disability or accessibility in institutional website designs, but we can still extend her criticism of the standardization of bodily habits. Through the lens of critical disability studies, viewers can connect Papa's critique to the issue of bodily normativity in online institutional spaces, as well as the interplay of body, time, and technology. Accordingly, her disruption of the Whitney's website provides students with an effective model of how to temporarily disrupt an institution's official design and resist ingrained, hegemonic relationships with technology, the body, and society. As one of a series commissioned by the Whitney Museum, Giardina Papa's work also reveals the potential for collaboration between an institution and a contemporary artist to dismantle dominant narratives in institutional website structures and designs. Introducing her work as a significant example of collaboration can encourage students to enact their cripping. Such a process will involve challenging compliance-centered designs and transforming these online spaces into more inclusive built environments. Furthermore, students might potentially seek out extensive collaborations with their institution or LMS, aiming to enhance the accessibility of their designs and structures.

Crafting Alternative Online Learning Space Designs

Another practice to incorporate cripping into our art education lies in designing and constructing alternative website designs that center on disability experiences. Based on students' shared experiences of disability and their analyses of targeted online learning space designs, students can create a mockup of a new website design to enhance the learning experiences of students with disabilities. When possible, students can construct alternative online learning spaces using HTML or other web tools, such as WordPress or Adobe XD. However, art educators should bear in mind that familiarizing oneself with such languages and tools requires substantial time and effort for students. Therefore, educators should plan the whole construction as a longterm project that may require further collaboration with a technology assistance center or other departments in the institution. Moreover, this re-imagination and reconstruction practice does not always need to result in a fully completed website. Students who do not have technological proficiency can participate in cripping by drawing or crafting new website designs using analog materials and various art mediums. Art educators should remind students that the most significant objective in this practice is to engage in a critique of current ableist logics and compliance-centered designs, thereby re-imagining inclusive online learning space designs.

¹¹ The Whitney Museum's Sunrise/Sunset project is an ongoing collaborative internet art project that disrupts and replaces the official museum website with unfolding various artworks during the sunset and sunrise in New York City since 2009 (Whitney Museum, n.d.). Although the theme and focal point of each artwork changes, the project offers visitors an opportunity to reflect on intertwined relationships between museum, website, technology, and culture in contemporary society.

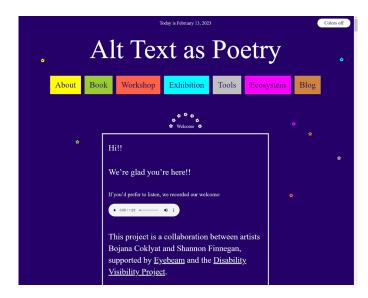


Figure 3. Screenshot of "Alt Text as Poetry" Project Website, Shannon Finnegan and Bojana

For example, the aforementioned *Alt Text as Poetry* project demonstrates an exemplary website that can increase students' awareness of accessibility in website designs (see Figure 3). The artists developed a text-centered website using HTML to be more accessible and inviting, working in collaboration with web designers and programmers, Laurel Schwulst and Taichi Wi. To increase accessibility, their website offers voice descriptions and appropriate contrast for those with vision variances or non-standard color perception. Rather than using icons or images, which can be challenging for text-to-speech tools to interpret, the artists construct the design with box-shaped texts and flower symbol Unicode texts. This project website questions the prevailing U.S. web design trends, which rely heavily on images and low-contrast text. In doing so, Finnegan and Coklyat prove that text-based websites can successfully meld aesthetics with cultural accessibility. Introducing their project website will effectively allow students to analyze various disability-friendly design elements. It will also encourage students to construct their own versions of online learning space designs, with a focus on disability justice and broader accessibility.

In summary, while I suggest two distinct ways of cripping in art education (disrupting and crafting), the act of cripping can vary significantly depending on each educator's vision. By introducing the aforementioned artists' examples, art educators can employ various creative mediums and actively share crip knowledge with students with disabilities. Students' interpretations of cripping, as well as the outcomes they achieve from it, may also vary depending on their sociocultural backgrounds and collaborations with other students with disabilities. Amidst such variety, art educators should ultimately address an essential question at the end of the practice: What is the meaning of collective access in online learning space design, and how should we achieve collective access in our society? Exploring this question through hands-on learning allows students to reflect on the true value of collective access in online learning space designs and to envision more inclusive online learning spaces. This transformative process will not only foster students' critical awareness about ableism, but also equip them with the necessary understanding of crip knowledge to reshape more accessible, equitable, and inclusive online learning spaces.

Conclusion

Higher education has historically colluded in the construction of academic ableism (Dolmage, 2017). Such ableism extends to online learning spaces, which, in their spatial design, have normalized nondisabled students and have often failed to fully consider a range of students with disabilities (Kent, 2015; Quinn et al., 2019). These entrenched ableist structures in neoliberal higher education and the broader society have consistently silenced students with disabilities' aspirations for collective access (Dolmage, 2017). To combat such oppressive structures, I suggest cripping online learning space designs based on critical access studies and the conceptualization of crip technoscience (Hamraie & Fritsch, 2019). As part of a disability justice art education praxis, students' cripping practices should focus on challenging and disrupting compliance-centered online learning space designs. Shannon Finnegan and Bojana Coklyat's Alt Text as Poetry project and Elisa Giardina Papa's Labor of Sleep: Have you been able to change your habits?? are key examples that inform students how to disrupt ableist spatial designs and further reconstruct inclusive online learning environments. The disruption of standard institutional website designs exposes how they perpetuate dominant narratives of online learning space designs and the exclusion of disabled students. Accordingly, this writing argues that art education praxis should ultimately reclaim the value of disability experiences and access, working to liberate students with disabilities in higher education. To construct much broader collective and transformative access in art education, art educators must constantly facilitate students' understandings and re-evaluations of disabled experiences as ways of knowing.

I acknowledge that it is challenging to completely fulfill each disabled student's access needs through one alternative design for online learning spaces. However, as Hamraie and Fritsch (2019) assert, access involves a continuous, frictional, collective, and generative effort to re-imagine spatial relationships. Such a principle remains true in virtual spaces. While the issue of the disability divide in online learning spaces is still centered in a bureaucratic understanding of access, interweaving crip technoscience with our art education practice can help to materialize art educators' visions of collective access. By consistently valuing the interdependence of crip individuals through crip technoscience, art educators can further dismantle ableist structures in online spaces and build new anti-ableist pedagogies in art education.

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References

- Abou-Zahra, S., & Brewer, J. (2019). Standards, guidelines, and trends. In Y. Yesilada & S. Harper (Eds.), Web Accessibility: A Foundation for Research (pp. 225–246). Springer.
- Brewer, E., Selfe, C. L., & Yergeau, M. (2014). Creating a Culture of Access in Composition Studies. Composition Studies, 42(2), 151–154.
- Brito, E., & Dias, G. P. (2020). LMS accessibility for students with disabilities: The experts' opinions. 2020 15th Iberian Conference on Information Systems and Technologies (CISTI), 1–5. https://doi. org/10.23919/CISTI49556.2020.9141046
- Brown, R., Silny, M., & Brown, J. T. (2021). Ableism in the Academy? A Systematic Review and Meta-Analysis of Experiences of Students with Disabilities in U.S. Higher Education. In W. Pearson Jr. & V. Reddy (Eds.), Social Justice and Education in the 21st Century: Research from South Africa and the United States (pp. 293–307). Springer International Publishing. https://doi. org/10.1007/978-3-030-65417-7 15
- Coklyat, B., & Finnegan, S. (2022). Alt Text as Poetry Project. In A. Cachia (Ed.). Curating Access: Disability Art Activism and Creative Accommodation (pp. 278–288). Routledge.
- Dolmage, J. (2017). Academic Ableism: Disability and Higher Education. University of Michigan Press. https://doi.org/10.3998/ mpub.9708722
- Ellcessor, E. (2016). Restricted access: Media, disability, and the politics of participation. New York University Press.
- Ellcessor, E. (2021). Three Vignettes in Pursuit of Accessible Pandemic Teaching. *Communication, Culture and Critique*, 14(2), 324–327. https://doi.org/10.1093/ccc/tcab010

- Ellis, K., Kao, K.-T., & Pittman, T. (2020). The Pandemic Preferred User. Fast Capitalism, 17(2), 17–27. https://doi.org/10.32855/ fcapital.202002.002
- Foley, A., & Ferri, B. A. (2012). Technology for people, not disabilities: Ensuring access and inclusion. Journal of Research in Special Educational Needs, 12(4), 192–200. https://doi.org/10.1111/j.1471-3802.2011.01230.x
- Fritsch, K. (2016). Accessible. In K. Fritsch, C. O'Connor, & A. K. Thompson (Eds.), Keywords for radicals: The contested vocabulary of late capitalist struggle (pp. 23–28). AK Press.
- Gabel, S. L., Reid, D., Pearson, H., Ruiz, L., & Hume-Dawson, R. (2016). Disability and diversity on CSU websites: A critical discourse study. *Journal of Diversity in Higher Education*, 9(1), 64–80. https://doi.org/10.1037/a0039256
- Galloway, T., Nudd, D. M., & Sandahl, C. (2020). 'Actual Lives' and the Ethic of Accommodation. In P. Kuppers & G. Robertson. (Eds.), The community performance reader (pp. 227–234). Routledge.
- Garland-Thomson, R. (2017). Disability bioethics: From theory to practice. In J. M. Reynolds & C. Wieseler (Eds.), The Disability Bioethics Reader (pp. 61–69). Routledge.
- Giannoumi, G. A., Land, M., Beyene, W. M., & Blanck, P. (2017). Web accessibility and technology protection measures: Harmonizing the rights of persons with cognitive disabilities and copyright protections on the web. Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 11(1), article 5. https://doi.org/10.5817/ CP2017-1-5
- Giardina Papa, E. (n.d.). Elisa Giardina Papa. http://www.elisagiardinapapa.org/
- Green, K. R., & Chewning, H. L. (2020). The fault in our systems: LMS as a vehicle for critical pedagogy. *TechTrends*, 64, 423–431.
- Guffey, E. (2017). *Designing Disability: Symbols, Space, and Society.* Bloomsbury Publishing.
- Hamraie, A. (2015). Cripping Feminist Technoscience. Hypatia, 30(1), 307–313. https://doi.org/10.1111/hypa.12124
- Hamraie, A. (2017). Building access: Universal design and the politics of disability. University of Minnesota Press.
- Hamraie, A., & Fritsch, K. (2019). Crip Technoscience Manifesto. Catalyst: Feminism, Theory, Technoscience, 5(1), 1–33. https://doi. org/10.28968/cftt.v5i1.29607
- Kafai, S. (2021). Crip Kinship: The Disability Justice & Art Activism of Sins Invalid. Arsenal Pulp Press.
- Kallio-Tavin, M. (2020). Disability studies as a site of knowledge in art education. *International Journal of Education Through Art*, 16(1), 3–11. https://doi.org/10.1386/eta_00013_2
- Keifer-Boyd, K., Bastos, F., Richardson, J. E., & Wexler, A. (2018). Disability Justice: Rethinking "Inclusion" in Arts Education

- Research. Studies in Art Education, 59(3), 267–271. https://doi.or g/10.1080/00393541.2018.1476954
- Keifer-Boyd, K., Wexler, A., & Kraft, M. (2019). Inclusion Matters: "Are You Sure You Belong Here?" In A. Wexler & J. Derby (Eds.), Contemporary art and disability studies (pp. 48–60). Routledge.
- Kent, M. (2015). Disability and eLearning: Opportunities and barriers. Disability Studies Quarterly, 35(1). https://doi.org/10.18061/ dsq.v35i1.3815
- Konrad, A. M. (2021). Access Fatigue: The Rhetorical Work of Disability in Everyday Life. College English, 83(3), 179–199.
- Kurt, S. (2019). Moving toward a universally accessible web: Web accessibility and education. Assistive Technology, 31(4), 199–208. https://doi.org/10.1080/10400435.2017.1414086
- Mace, R., Hardie, G. J., & Place, J. P. (1991). Accessibility environements: Toward Universal Design. In W. E. Preiser, J. C. Vischer & E. T. White (Eds.), *Design Intervention: Toward a More Humane* Architecture (pp. 155–176). Routledge.
- McRuer, R. (2006). Crip theory: Cultural signs of queerness and disability. NYU press.
- McRuer, R., & Johnson, M. L. (2014). Proliferating cripistemologies: A virtual roundtable. Journal of Literary & Cultural Disability Studies, 8(2), 149–169.
- Meleo-Erwin, Z., Kollia, B., Fera, J., Jahren, A., & Basch, C. (2021). Online support information for students with disabilities in colleges and universities during the COVID-19 pandemic. Disability and Health Journal, 14(1), 101013. https://doi.org/10.1016/j. dhjo.2020.101013
- Miskovic, M., & Gabel, S. L. (2012). When numbers don't add up and words can't explain: Challenges in defining disability in higher education. International Journal of Multiple Research Approaches, 6(3), 233–244. http://dx.doi.org/10.5172/mra.2012.6.3.233.
- National Center for Education Statistics. (2018). Table 311.10. Number and percentage distribution of students enrolled in postsecondary institutions, by level, disability status, and selected student characteristics: 2015–16 [Data table]. Retrieved from https://nces.ed.gov/ programs/digest/d20/tables/dt20_311.10.asp
- Oswal, S. K. (2019). Disability, ICT and elearning platforms: Faculty-facing embedded work tools in learning management systems. The 21st International ACM SIGACCESS Conference on Computers and Accessibility, 105–111.
- Owren, T., & Stenhammer, T. (2013). Neurodiversity: Accepting autistic difference. Learning Disability Practice, 16(4), 32–37.
- Paynter, K., & Barnes, J. (2021). Moving from Blackboard to Canvas: What the research says, plus two professors' experiences. *Inter*national Journal on E-Learning, 20(1), 5–16.
- Penketh, C. (2014). Putting disability studies to work in art education. *International Journal of Art & Design Education*, 33(3), 291–300.

- Penketh, C. (2020). Towards a vital pedagogy: Learning from anti-ableist practice in art education. International Journal of Education Through Art, 16(1), 13–27.
- Piepzna-Samarasinha, L. L. (2018). Care work: Dreaming disability jus*tice*. Arsenal pulp press.
- Quinn, S., Belmonte, A., Davis, E., Gardewine, A., & Madewell, G. (2019). Access [dis]Abled: Interrogating Standard Design Practices of Higher Education Writing Center Websites. Disability Studies Quarterly, 39(4). https://doi.org/10.18061/dsq. v39i4.6603
- Richardson, J. E. (2018). The art and politics of artists with mental disabilities experiencing confinement. Studies in Art Education, 59(1), 8-21.
- Richardson, J. E., & Kletchka, D. C. (2022). Museum Education for Disability Justice and Liberatory Access. Journal of Museum Education, 47(2), 138–149. https://doi.org/10.1080/10598650.20 22.2072155
- Samuels, E. (2014). Fantasies of identification: Disability, gender, race. NYU Press.
- Seale, J. (2013). E-learning and disability in higher education: Accessibility research and practice. Routledge.
- Sheppard, A. (2019). Staging bodies, performing ramps: Cultural, aesthetic disability technoscience. Catalyst: Feminism, Theory, Technoscience, 5(1), 1-12.
- Smith, C. (2020). Challenges and opportunities for teaching students with disabilities during the COVID-19 pandemic. International *Journal of Multidisciplinary Perspectives in Higher Education*, 5(1), 167–173.
- Stone, C. (2019). Online learning in Australian higher education: Opportunities, challenges and transformations. Student Success, 10(2), 1–11.
- Strantz, A. (2021). Beyond "Alt-Text" Creating Accessible Data Visualizations with Code. Proceedings of the 39th ACM International Conference on Design of Communication, 331–337.
- Wexler, A. (2016). Re-imagining Inclusion/Exclusion: Unpacking Assumptions and Contradictions in Arts and Special Education from a Critical Disability Studies Perspective. Journal of Social Theory in Art Education, 36(1). 32-42.
- Whitney Museum (n.d.). Sunrise/sunset. https://whitney.org/artport/ sunrise-sunset
- Williamson, B. (2019). Accessible America: A History of Disability and Design. NYU Press.