## Painting with Cameras and Drawing with Text: AI Use in Accessible Creativity

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## ABSTRACT

Generative AI (GAI) is proliferating, and among its many applications are to support creative work (e.g., generating text, images, music) and to enhance accessibility (e.g., captions of images and audio). As GAI evolves, creatives must consider how (or how not) to incorporate these tools into their practices. In this paper, we present interviews at the intersection of these applications. We learned from 10 creatives with disabilities who intentionally use and do not use GAI in and around their creative work. Their mediums ranged from audio engineering to leatherwork, and they collectively experienced a variety of disabilities, from sensory to motor to invisible disabilities. We share cross-cutting themes of their access hacks, how creative practice and access work become entangled, and their perspectives on how GAI should and should not fit into their workflows. In turn, we offer qualities of accessible creativity with responsible AI that can inform future research.

## **CCS CONCEPTS**

• Human-centered computing  $\rightarrow$  Empirical studies in accessibility.

#### **KEYWORDS**

Accessibility, creativity, disability, generative AI, responsible AI

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## **1 INTRODUCTION**

Generative artificial intelligence (GAI) is raising excitement and concern regarding its impacts on creatives. One common example is the rise of natural language interfaces of text-to-image (T2I) machine learning (ML) models that enable users to input text prompts and get back images, songs, and videos. These interactions and capabilities have sparked conversation and experimentation on how creativity may evolve in exciting and concerning ways [29, 109]. For example, new art movements, such as "promptism," followed the public release of multimodal tools [52, 72]; and artists in the wider art-and-technology community have long incorporated ML into visual art, showing work in traditional art museums (e.g., [3]). Meanwhile, these same tools raise concerns about where and how training data is sourced and whether it includes copyrighted material [18, 58, 96], and in response, resources and tools are being developed to protect artists [19, 105, 106]. Amidst this discourse, what counts as "art" (e.g., prompt engineering text input into a T2I tool) has been called into question, with assertions that "AI art is not art" [53, 76, 104].

The question of what counts as art and who counts as an artist implicates logics of inclusion and exclusion in the context of creativity. By creativity, we mean the broad scope of practices united by processes that lead to new artifacts, outcomes, or actions within a specific context ([60, p. 6]; see also: [47, 98]). Despite this broad conception, creative communities and institutions have paradoxically not always welcomed people with disabilities as creators or consumers [60]. From the inaccessible architecture and social norms of creative spaces [67, 107] to narrow techniques and processes considered "correct" that result in "good" art, people with disabilities have experienced friction and outright hostility in pursuing creative endeavors [24, 41, 62]. Though GAI may improve digital accessibility [49, 97], research suggests GAI for creativity already follows other exclusionary art domains, as these tools, including T2I interfaces, are inaccessible to some users [36, 55, 114]. Inaccessible GAI products prevent disabled creatives from fully participating in the evolution of creative tools and the important discourses and actions taken toward their responsible development and use in creative domains [58, 109].

But, people with disabilities have been using, changing, and inventing technology toward accessible ends — including to access art and art worlds [115] — often before so-called mainstream user bases embrace them. Disability studies scholars Aimi Hamraie and Kelly

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Fritsch [50] call experimenting and other innovative techniques by disabled people: crip technoscience. This worldbuilding out of a need to gain access and resist ableism results in 'cripped' creative practices to subvert and recast norms around what counts as artistic expression [27, 28, 66, 68, 95], and how audiences should engage art [23, 40]. Kinetic Light's [71] performances are an exemplar, with props on display for touch, multiple audio description tracks, and haptics to augment the visual and audio access of their dance performances. However, audience access was not the start for Kinetic Light, whose founder, Alice Sheppard, partnered with artist and professors Sara Hendren and Yevgeniya Zastavker, along with their students, to design a ramp not as an accessible conveyance but as a choreography prop [110]. Kinetic Light's performances demonstrate how disability embodiment inherently impacts the design and politics of the artform. Whereas theaters might appear distant from AI development, design scholar Stacy Hsueh's [54, p. 45] case studies into disability-informed art praxis center "crip bodies as productive sites of difference," to reorient technosolutionism for creativity and accessibility from "dominant logics of binaries and fixities that often undergird AI rhetorics," which, absent of intervention, risk perpetuating the exclusions disabled creatives already experience. In taking up crip technoscience, we do not gloss over ableism perpetrated through creative institutions and communities, which cannot be hacked away with bespoke workarounds. We instead join other scholars in emphasizing disability as a productive site of difference for futuring [4, 120], in this case envisioning

In this paper, we share interviews with ten self-identifying creatives with disabilities in the daily and emerging practices they engage in for their creative work. Though we defined it for this paper, our choice to trust participants' self-identification with 'creative' and 'disability' was intentional as we recognize the systemic gatekeeping that prevents some creatives and people with disabilities from outwardly being recognized as such [42, 59]. Our interviewees employed a wide range of mediums, from painting to film to sculpture to ML, <sup>1</sup> and their artistic motivations ranged from hobbies and self-fulfillment to developing public art installations to taking commissions and owning small businesses. Their disabilities spanned chronic illness to physical disabilities to being Deaf, hard of hearing, blind or low vision. Each interviewee came prepared to discuss a few projects in-depth representing their creative practice and to share if and how they use GAI, along with their perspectives on its responsible usage in creative contexts. From these interviews, we contribute:

accessible creativity and responsible AI.

- Perspectives on the possibilities for and concerns about GAI products. These perspectives support and reimagine creativity from the particular and currently under-researched standpoint of creatives with disabilities, of whom a critical mass already relies on GAI to meet daily accessibility needs.
- Qualities of responsible development and usage for GAI and improved design that impacts creatives with disabilities through their broad utility in creative processes or their intentional design to serve as accessibility supports.

In what follows, we review literature at the intersections of accessibility, creativity, and AI. We then introduce our study, overview our findings, and discuss future directions for accessible creativity (with)out GAI.

## 2 RELATED WORK

#### 2.1 Accessibility of Art and Creative Practice

Technology often mediates the experience of people with disabilities in art, serving as both a tool for access and a medium for creation. Recognizing that creative work is integral to human existence, Barbareschi and Inakage [7] emphasize the importance of investigating artistic practices within accessibility research, as doing so enriches understanding of and provides a framework to discuss structural inequalities.

Disability researchers have explored how technology can increase the accessibility of artistic media, allowing people with disabilities to experience art otherwise unavailable to them [70]. Visual art, for instance, may be made accessible by creating analogous sonic or tactile representations [94, 112]. Rector et al. [92] augmented paintings to be non-visually accessible with proxemic audio, offering different semantic layers of information based on the viewer's proximity to the image, from a thematic soundtrack to a detailed verbal description. Similarly, Butler et al. [22] created multimodal artifacts ( soundscapes, 3D models, and tactile maps) to represent an art gallery and its exhibits. While such efforts have broadened access to art for people with disabilities, their role in the experience often remains passive.

Importantly, one's identity as disabled and as an artist are often intertwined [25, 67, 113]. To better understand the experiences of disabled people in creative work, accessibility researchers study creative practices and how disabled creative workers navigate accessibility challenges (e.g., [35, 79]). Perera et al. [85] and Creed [33, 34] conducted case studies of disabled visual artists and their use of creative software, noting the limitations of accessible technology in supporting detailed artistic work. Payne et al. [84] and Saha et al. [99, 101] interviewed blind and visually impaired musicians and music producers, identifying a steep learning curve and accessibility barriers in mainstream audio production tools. Emphasizing the situated knowledge disabled creatives bring to the art world, Luebs et al. [73] interviewed blind and visually impaired crafters and identified their expert strategies, including sorting materials in an accessible way and collaborating in mixed-ability settings. Other researchers have explored the broader impacts of the work

 $<sup>^{1}</sup>$ AI (artificial intelligence) refers to a set of algorithms that make computers perform tasks that generally require human-like intelligence (e.g., chess). AI, in addition to learning algorithms, also refers to more traditional rule-based techniques. *ML* is a subset of AI algorithms that focus on learning from data (i.e., data-driven AI algorithms).

Two substantial ML categories that come up in this paper are Generative and Discriminative algorithms. *Generative AI* (GAI) models are algorithms that learn data underlying probability distributions, and are capable of generating new data instances within the underlying data representation (e.g., generative adversarial networks). *Discriminative models* on the other hand, are algorithms that learn class decision boundaries from the training data and generalize it for new data instances (e.g., classification).

When we use the phrase '*responsible AI*' (RAI), we refer to a field of researching, designing, developing, and deploying AI responsibly, which is, but not limited to, safe, trustworthy, and fair. To be consistent with the terminologies, we use AI to refer to all categories under AI (i.e., ML), as well as GAI and RAI.

of disabled creatives, including their participation in online marketplaces [14], while Xie et al. [122] created a visualization tool for documenting and illustrating movement quality in wheelchair dance.

Accessibility research has developed interventions that make creative activities more accessible. Some researchers and educators have created accessible curricula for specific creative topics, such as audio engineering [100] and fabrication [89, 90, 111]. Another line of work explores how to make creative activities accessible, including crafts such as bead art [30], textiles [13, 37, 46], and sculptural collage [93], and computer-based creative tasks such as drawing [51, 63], electronic music composition [82], performance [83, 91] and production [64], electronics prototyping [88], and AI-art generation [55, 114]. Our work extends prior research by exploring how artists with diverse abilities and areas of creative work negotiate their relationship with technology, including recent advances in AI-based creative tools.

#### 2.2 AI and Creativity

The practice of AI in the arts is grounded in different technocreative traditions and disruptions [109]. Early "computer art" emerged in the 1950s mainframe era of computing when institutions like IBM and Bell Labs hired artists-in-residence to explore and experiment with computer aesthetics [31, 61]. Throughout the 1980s and 1990s, artists and creatives continued to experiment with algorithmic and AI-mediated art [86]. However, computer-mediated art cultivated hostility and resentment from mainstream art worlds [21], which cast artists employing computers as outsiders and critiqued them as "polluting the art world" [77, p. 10].

Advances in deep learning in the 2010s cultivated new interest in the practice of AI in the arts [6], with contemporary artist communities experimenting with neural networks, sharing knowledge and techniques for creatively "hacking" algorithms, and reappropriating ML models into new contexts [87, 102, 103]. These communities developed their own creative knowledge and politics, as research with ML-artists revealed a rejection of dominant technoscience epistemologies of scientific progress, efficiency, and profit that typically inform the normative "goals and standards of researchers, engineers, and big corporations" [26, p. 12]. In this way, critical ML-artist communities re-imagine algorithms beyond the instrumentalist lens, approaching them as a medium - or raw material with specific properties [109] – to be molded through their creative processes [1, 26, 69]. For example, ML-artist Mario Klingemann defends the use of AI in creative practice as a medium, arguing: "If you play piano, no one says the piano is the artist. Just because AI algorithms have a complicated mechanism, it doesn't mean they are the artists." <sup>2</sup>

The public release of GAI tools, such as Stable Diffusion, DALL-E2, and Midjourney, broadened access to these technologies. Alongside interest in AI-mediated art are concerns about ethics, regulation, and guardrails. One major area of concern regards how increasing GAI use in creative industries may devalue other creative work and techniques, and may accelerate unemployment [32, 118]. Another major concern centers on copyright, artist compensation, and how training data is sourced. Here, many artists are concerned how GAI tools can dilute or diffuse an artist's unique style or voice through style mimicry [105, 106], and some scholars argue GAI tools cannot be considered artistic mediums given ethical concerns about how these models are built [58]. These concerns have led some artist communities to respond to GAI tools skeptically and hostilely, declaring "AI art is not art." These arguments are rooted in the notion these tools remove critical parts of the creative process [104], that people employing these tools are merely passive end users *not* artists [76], and generated outputs are devoid of meaning [53]. However, these arguments sometimes reduce the creative production of AI-mediated art in broad, sweeping ways that ignore the diverse ways creative communities engage with GAI tools. We contribute to this literature by focusing on the experiences of creatives with disabilities, a group not yet explicitly represented in this work.

## **3 METHODOLOGY**

#### 3.1 Participant Recruitment

We recruited ten U.S.-based adult, self-identifying creatives with disabilities for our remote, 90-minute interview study. We recruited from a participant pool who (1) previously agreed to receive research recruitment announcements from Google and (2) through *snowball sampling* [81]. These recruitment methods allowed us to connect with people who qualified for the study and who diversified the experiences of our overall sample. However, our purposive sample is not representative [80]; for example, we enrolled more blind and low vision, female, and white participants. Participant demographics are in Table 2 of the Appendix. The research proposal, workshop protocol, recruitment material, and consent form were approved by our legal and ethics review process, and participants received a gift card in thanks for their participation.

To be eligible, participants additionally had to report in the screener survey that they regularly engage in their creative practice and share how they are either using/experimenting, or not using/experimenting, with GAI. We first invited screener respondents to participate in the interview to represent a variety of experiences (not) using GAI and then to represent a diversity of disabilities. Details about each participant including how they identify themselves in relation to their creative practice, their primary mediums, access technologies, audiences, and experience with GAI are in Table 1.

Participants could opt-in for their names to be used in this paper, rather than pseudonyms. Before deciding whether to be named, participants reviewed their quotes, a draft of this manuscript, and their images, if we included them in figures. Additionally, Table 3 of the Appendix contains the personal and professional websites that our participants requested we include. We chose this approach to directly credit participants for their contributions, and given that many artists rely on the self-promotion of their work, and ongoing exclusions that creatives with disabilities experience when they engage with creative communities which purport to provide outlets for such self promotion.

#### 3.2 Interview Structure

The 90-minute interview had three parts:

(1) **Background in their creative practice**: We asked participants to share their primary mediums, how they gained

<sup>&</sup>lt;sup>2</sup>www.youtube.com/watch?v=Jjv3m5oWICA

experience, for what purpose and audiences they did their work, if they work with collaborators or are part of communities, cross-cutting themes and inspirations evident in their work, and the techniques and tools they regularly use in their creative work.

- (2) **Process reflections**: Participants pre-selected 2-3 projects to overview in detail. They shared the outcome, the motivation, and the process from start to finish. Some participants brought samples of their work by either sharing their screen to show digital artifacts or panning the camera around their space as they narrated. Follow-up questions concerned two subtopics: (1) how they made the process accessible for themselves, collaborators, and their audiences, and (2) how they used GAI, if at all.
- (3) GAI and creativity: We asked participants to share their knowledge of the current discourse on GAI and creativity, to share any wishes for and concerns around emerging GAI products, and for their perspectives on responsible AI in creative contexts.

We conducted the interviews to be accessible for both participants and researcher; participants shared access needs in the screener. Some adaptations included hiring ASL interpreters, turning on automatic captions, sending questions in advance, and taking breaks. Two interviewers were present during each session: one asked the questions, and the other asked follow-up questions, took notes, and troubleshooted technical or access issues. As several participants shared work that contributes to their portfolio and/or income, we briefly met with each a few days before the interview to explain procedures and give them time to prepare the projects they were comfortable sharing publicly.

#### 3.3 Data Analysis

We conducted a reflexive thematic analysis (RTA) [16, 17] of interview data. Our use of RTA was informed by our interpretivist approach to understanding how creatives with disabilities navigate technologies and art worlds. The theoretical flexibility of RTA also enabled an inductive analysis of creatives' processes and standpoints informed by the lens of crip technoscience [50].

First, two researchers read and developed a first round of codes for each transcript; one researcher read and initially coded all transcripts for continuity, whereas the others split up the remaining interviews. The interview topics on how participants make their creation process accessible, and how, if at all, they use GAI, scaffolded deductive codes, but within these topics, we open coded according to what participants discussed during the interviews. The team met to iteratively develop codes into the presented themes. Our team contained researchers with complementary expertise, including people who identified as disabled, creatives, and who had professional expertise in accessibility, sociology, and ML. The research team reflected on our creative, scholarly, and professional experiences through the analysis, which was particularly salient in reflecting on ableist norms in both technology development settings and art worlds.

## 4 FINDINGS

In this section, we detail findings relating to the *crip technoscience* practices of creatives with disabilities. We organize our findings into three sections: first, how participants *developed an accessible creative practice*; second, how they *use and do not use GAI in their creative work*; and lastly, their *perspectives on, and needs around, responsible AI and creativity*. These findings demonstrate how creativity and access-building are co-constitutive, through which understandings of creative outputs and accessible processes for getting to them are interdependent. Figure 1 shows examples of participants' work.

#### 4.1 Developing an Accessible Creative Practice

4.1.1 Nonlinear Journeys to Accessible Creativity. While participants entered the study practiced in articulating the creative mediums that they work, this certainty and their established workflows represented nonlinear journeys of "trial and error" that were anything but. Creativity norms, access needs, and disability experiences played an outsized role in guiding their journeys to and motivations for becoming comfortable in their creative practice.

Some participants' creative journeys began not as journeys at all. Instead, they were *jumpstarted* when participants' discovered they could engage in a new artistic medium they had not previously considered. Sometimes, these creative discoveries came after being immersed in — and believing pervasive ableist defaults — where they were encouraged to use certain mediums and discouraged from others perceived to be a mismatch with their abilities. For example, Danielle, who is blind, described her introduction to drawing when she attended a program instructing in nonvisual techniques of daily living:

"A sighted [art teacher] named Ann Cunningham was so insistent we could draw that I was like, 'Are you serious?' I had no idea, at that time as a 19-year-old, this was something we could even really do, because in school ... I was always relegated to the pottery wheel, which was great, but [that] also didn't give me any 2D education."

Danielle's journey impacted her such that she has developed training for teachers of blind students in effort that blind youth discover drawing earlier than she did.

In contrast, others pursued artistic mediums with smoother onboarding, given their abilities. Michelle reflected, "I took painting lessons as a tween, [but] thought I couldn't paint very well because I couldn't paint very realistically.... I was in high school, and had to decide if I wanted to take an art class or photography, and I was like, 'Let me try photography.'" Michelle later recognized the narrow definition she used to define 'good painter,' and resumed painting, preferring curved, organic shapes, which she finds "forgiving" to the ways she manipulates paintbrushes. Still, her longer, focused trajectory on photography and film was the culmination of a careful decision to pursue what, at the time, she perceived as a medium better suited to her abilities.

4.1.2 Choosing Tools, Adapting Spaces, and Negotiating Access. As they settled into primary artistic mediums, participants set up their physical and digital spaces according to their processes and access needs. For example, Meredith kept stools around their study, and M kept a bed in theirs; they both needed to take rest breaks and work

Participant	<b>Creative Mediums</b>	Purpose of Work	Audience	Creative Training	Use of AI
Meredith Clark	leather work	self-employment, commissions, teaching, hobby/fun	customers	self-taught, professional lessons	not using
Jules Dameron	film, theatre, writing	self-employment, commissions	hearing, Deaf and hard of hearing, ASL users	art school, workshops	LLMs for communications only
M Eilo	drawing, painting, digital art, fibers, film, sculpture, writing, social practice	self-employment, grant funded public projects	disabled community members and art event goers	professional lessons, art school	trains computer vision AI
Luda Gogolushko	digital art, writing	volunteering, student	children and readers	self-taught	LLMs, T2I, for reference materials and ideation only
Jennifer Justice	drawing, painting, digital art, mixed digital and material, performing arts, sculpture, writing	self-employment, commissions	artist friend community, disabled community, gallery and museum audiences	professional lessons, art school, self-taught	T2I for reference material and ideation only
Sheri "Olabisi" Lawson	digital art, performing arts, writing	commissions, coursework or learning, hobby/fun	myself, friends, family, local small businesses	self-taught, professional lessons	LLMs, T2I, for reference materials and ideation only
Jason Meddaugh	audio engineering, musician	self-employment, hobby/fun, Volunteering	students/youth participants, general public, technology enthusiasts	self-taught, professional lessons	LLMs as accessibility workaround, text-to-music experimentation
Michelle Miles	film, writing, painting	self-employment, commissions, hobby/fun	myself, my friends and family, the experimental film community, the disability community	self-taught, professional lessons, art school	not using
Danielle Montour	digital art, drawing, 3D printing, writing	self-employment, teaching, coursework or learning, hobby/fun, volunteering	blind people and teachers of blind students	community-taught	LLMs and T2I as nonvisual creative expression
Oliver Stabbe	papercraft, digital art, fibers, film, photography, sculpture, writing	coursework or learning, hobby/fun, volunteering	local deaf school, DND group, my community collective, and for me	self-taught, community-taught	LLMs for reference materials and ideation only

#### Table 1: Participants' creative practice and use of AI

while sitting or lying down. This extended to digital workspaces; M has a computer dedicated to training ML models, whereas Sheri works in specific colors and contrasts she can see, in addition to utilizing built-in magnification and zoom settings. She reflected on how changes in her vision have changed the aesthetic color of her work:

"Before [vision loss], gray was one of my favorite colors. Then with my vision [loss] I really started appreciating vivid greens and contrasting them with oranges and different colors that stood out more to me."

As Sheri describes, accessibility is an interdependent and ongoing process influenced by numerous factors, including the relationships between people, tools, and environments [10, 15]. Thus, we inquired

how participants *negotiated access* for themselves and others during their creative processes.

Often within established practices came project-level negotiations based on what was needed to fulfill the project and the stamina and access needs of the participant completing it [74]. Meredith described fulfilling a bulk order for leather bookmarks with their fluctuating access needs in mind. First, they co-designed the graphics, text, and layout by iterating on digital prototypes with the client. Then, before settling on a production process, they tested different options to learn their corporeal limits in the context of the project's demands and made adjustments as necessary. They explained:

"I tested how long it would take for me to use my own letter stamps to [create the bookmark] and it was just so long as

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Figure 1: Samples of participants' work. (a) Frame from "i can't write," copyright Michelle Miles. (b) Digital image by Sheri Lawson feature of @TheMelanatedMind, which includes modeling work from Eromomen E. Image copyright Sheri Lawson. (c, d) Images of the installations "Prosthetic Memory" and "Masking Machine: Guerrilla AR Performance Art," copyright M Eilo.

I had to multiply it by 100. I'd rather order a stamp that has [the entire layout]. So doing that tiny run balanced out the cost of getting the tool that'll make [the process] faster and easier is worth it. ... The biggest thing was trying to break it into smaller parts. So I'd be like, 'All right, I'm gonna do ten now and then ten later.' I space out how much I do repetitive things because some of my issues are repetitive stress injuries. So, not pulling the same [stamp] lever as many times, not hammering longer than this many minutes in a row."

Meredith learned over time what they can generally handle, but for larger projects, they have to make adjustments.

Jules described adaptations he and his cast of Deaf and hearing performers and managers made to make rehearsals more accessible:

"The stage manager was requiring a report on the cast every rehearsal. So they would type up a list, in English, to email to everyone. But one of the Deaf cast members really couldn't read English very well. ASL was their primary language and form of communication. So, we suggested the stage manager have an interpreter sign this in ASL and video the interpreter every day, and send that out to the cast so that they can just watch the report in ASL, instead of reading it in English."

Jules and his cast iteratively negotiated access, as they could not anticipate the dynamics between Deaf and hearing members. This transformed some normative theater practices, such as how end-ofday stage manager notes are typically distributed.

In some cases, *access hacks* enabled participants to try new art forms. Michelle described access barriers associated with working in a desired medium: "Even just loading a camera with 16-millimeter film requires a lot of dexterity, and I just wanted to use the materials in any way that I could." She ideated a creative workaround after gaining exposure to more films while fulfilling a job responsibility to scan several into a digital archive:

"When the lab processes film, they will write things at the very beginning or the very end... When you're looking at the strip of film, you can see the writing, but as it's going through the scanner, it's only showing frame by frame and it creates this cool abstract feel. And my relationship with writing utensils has been evolving, where probably

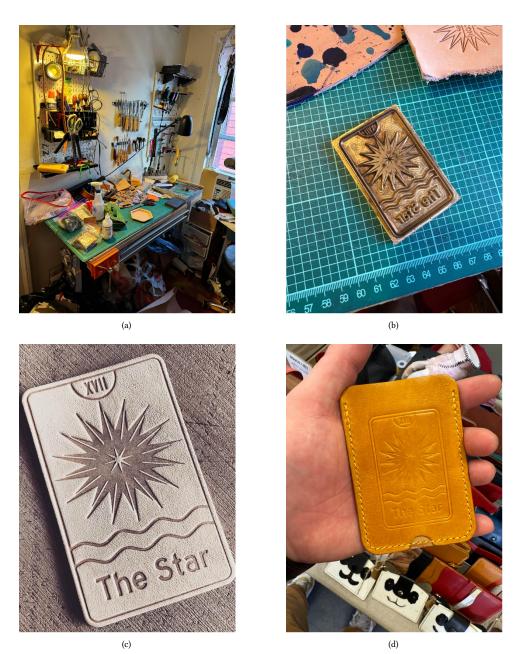


Figure 2: Workspace and examples of leather work created by Meredith Clark of Beacon Craft Studio. Work and images are copyright Meredith Clark. (a) The creator's workspace. (b) A leather stamp featuring a star image. (c) A piece of leather that has been embossed using the stamp. (d) The embossed piece of leather that has been dyed yellow and stitched together to create a finished card holder.

in early college, my hand started getting a lot weaker. ... But it was complicated because [for example] if I was at the doctor, they asked me to fill out a form. I can do that some of the time but depending on a lot of factors [like] if it was really cold outside, my hands would be much less capable of writing with anything than if it were warm. ... For this film I took a blue sharpie and I just wrote on the film leader. And on a frame a little bit later, I started to get sharpie all over my hands and so it was smudging a little bit which just made it even more abstract. But as I scanned it, it was illegible because it's going frame by frame. So the

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title 'i can't write' is inspired by, it sometimes is true and sometimes isn't."

Michelle made several other films while avoiding carrying heavy cameras, another access barrier she had to circumvent. For example, she stationed a camera lens above her set, which consisted of a petri dish where she mixed paints with other liquids, and filmed the slow mixing process. Recalling a professor's feedback on her approach: "You're not taking pictures of things. You're using a camera to capture color and shape.'" Michelle reflected that after putting down paintbrushes as a teen for accessibility reasons, she was painting with cameras instead.

Michelle's access negotiations involved manipulating materials in ways that worked for her: writing on film leader rather than filming with a camera, and keeping a camera stationary while mixing materials below the lens. In so doing, Michelle's crip technoscientific practices also reimagined what counted as working in a particular medium: in this case, 16mm film and filming with heavy cameras. As GAI tools have become more widely available and advertised for their promise of increased access, participants also tested their capabilities to do access work, which we discuss in the next section.

4.1.3 Human-GAI Access Negotiations. GAI eased and reimagined creative processes for some participants. For example, users can request different types of output from large language model (LLM) tools including downloadable files with code they could run, and detailed image descriptions. Danielle leveraged these expanded capabilities to accessibly create digital and tactile graphics:

"I learned that you have to talk about some parameters [in prompts] to make an SVG image emboss. You have to specify the dimensions of the canvas, which are a lot larger than what folks might try to do visually just so that everything has space and comes out in good tactile relief. [Tactile] graphics embossers, there are several dot heights that correspond to intensity of color. I said to both Bard and ChatGPT, 'please make an SVG representation of a dog out of geometric shapes.' And I said make it different colors just to make different dot heights. So I made the tail red and the eyes blue and the ears yellow, so I could get different dot heights because yellow is a much lighter dot height. I was able to emboss the [SVG file output from the LLMs] and figure out what I liked and what I didn't. That was really important because even though it wasn't perfect right away, it was a place to start. What I liked was they said, "Okay, we used hexagons for ears, and spiral for a tail. And here's what we used for eyes and nose. So that was really neat because I learned how it was describing elements of a picture. ... I have a few ways to check work and so I'll use 'Be my AI' [an AI visual interpreter app]. I can use an NVDA [screen reader] add-on to describe what's on my screen. So that's how I check my work if I don't want to emboss it [as a tactile graphic]."

LLMs operated at different, and potentially frictioned, levels for Danielle. LLMs were not only a material through which she shaped creative work [109], where perfection and finality are unwanted. But, Danielle also leverages LLMs and computer vision for foundational access to her work, where accuracy is imperative, leading Danielle to keep multiple visual interpretation tools around.

In another example, M adapted the traditional AI pipeline to remove access barriers. They described how they built their dataset to train a model for their installations:

"The biggest part of the accessibility for me was the synthetic data pipeline that we developed, because the alternative was to have to go a bunch of places and take a bunch of photos, which is how a data set would normally be developed, but that is not accessible for me to be able to physically do that."

While commonly resorted to for efficiency and scaling purposes, synthetic data removed mobility and time barriers for M to collect the specific data they needed for their bespoke work. However, bounded access work was rarely participants' only touchpoint with GAI tools. They variedly experimented with incorporating them into their creative process, or at the very least, they became conversant in the discourse surrounding their rise, particularly how they impacted them and their artist and disability communities.

## 4.2 How Participants Did [Not] Use GAI in Their Creative Practice

In addition to access hacks, participants found GAI useful in several ways. Some used it to do the work they did not want to spend time on. Others leveraged GAI for reference material, whereas others produced creative work with GAI.

4.2.1 GAI Around the Creative Work. Several participants had not used GAI directly in their practice, but used it around the practice. One of the most common use cases was using LLMs to develop communications. These communications were necessary for driving their work, but were not what they wanted to spend their time doing. In some cases, this time spent also reflected legacies of ableism, such as spoken and written communication's dominance over ASL, and LLMs could provide some relief. Jules shared:

"I get stressed out sometimes with having to write in English because I'm a native ASL user. So I prefer not to have to deal with English writing. Deaf people, historically, have been scrutinized for our English writing skills and it's not our fault, because English is not our primary language. So I don't think that it's fair that we have to be scrutinized for that. So I use ChatGPT to get my point across."

To Jules and others, GAI was useful around their practice, freeing up time and energy for them to spend on creativity.

4.2.2 GAI for Ideation, Inspiration, and Reference Material. Ideation and research are canonical processes whereby creatives engage the world around them to find starting places, specific references, or aesthetic vibes they want their own creations to reflect. GAI presented opportunities for participants to consolidate these far-flung search processes into prompting a limited set of interfaces. Often, GAI did not replace other methods of ideating and referencing, but integrated into existing practices as a first step, before participants resumed their search of disparate resources to fill in the gaps.

#### Al Use in Accessible Creativity

Jennifer is a surrealist painter. She started using Midjourney, a T2I interface, which both expedited her inspiration image search process and generated images in the surrealist style she sought. She rehearsed how she uses Midjourney to generate inspirational reference material:

"[I usually prompt it to] describe specific architecture. It's helpful to have a visual reference for painting in front of you. Before AI, I would have done a Google Search, and then you collage them together in your mind. Then preparatory drawings, and then create a series of paintings based on that. But, with Midjourney, you can just say, 'I want a Southwest ghost town with its false front facades and tumbleweed,' and it'll create that and you can create variations of that. 'Okay now I want to see it at night.'... Google Images are usually commercial or photographic images that people have uploaded, but you can drill down and get a much more specific result with AI."

Oliver instead needed information to design his art, which he first tried acquiring from an LLM tool's summary and organized list of options. He shared how the conversational interface of the LLM tool made researching more manageable as he designed a mezuzah, which he gifted to a marrying couple. The purpose of the gift to celebrate such a milestone, and the laws of kosher mezuzah-creation he was following necessitated particular care and intentionality in every step of the process: from choosing unique materials that would reflect the couple's personalities, to effortful crafting to create the gift to the exact specifications. He explained how this process began with a LLM tool:

"Some of my process was talking with ChatGPT as just a way to narrow down so much information that exists about my options available. So my primary consideration was what do I know about the couple? ... I used ChatGPT to figure out a certain kind of tree that fit that criteria, that also was made of soft wood. Ideally, I would love to use a redwood tree, but that's much more difficult to craft with. So I asked ChatGPT about the different kinds of trees that are available. And then from there, I asked it to categorize softwood versus hardwood."

However, the ideation assistance offered by GAI interfaces at the time of our interviews was limiting, as Jason described what he did and did not get from text-to-music generators: "You can give suno.ai a style, an idea, and it will make a song out of it. So I asked for just a catchy pop song about AI." Jason then played the AI-generated song for us and pointed out several quality issues, continuing:

"There's nothing I can do with it. But what it does give me is maybe some idea for chords, or I could take a concept like that and I would recreate it. Because it doesn't give it to you in pieces. It just gives you that whole thing. So I went over to REAPER [digital audio production app] and you can sketch down the chord pattern." While Jason appreciated text-to-music tools for ideating, he was not able to bring the useful aspects of songs he generated into his audio engineering workspace.

4.2.3 Al as a Creative Tool. Whereas several participants leveraged GAI in the beginning stages of their creative processes, others used AI throughout, creating work that would not have been possible without it. For example, Jason differentiated using GAI for idea generation from easing specific tasks that changed – and made possible – the final outcome. Jason creates mashups in which he combines elements from multiple songs into one. The key to this process is separating songs into composite audio tracks, a task Jason completes with Demucs, a tool that utilizes AI to predict which sounds are part of which audio tracks. Separating multitrack audio allows him to experiment with whether the songs can be mashed up into something that makes sense, for example, by combining bass from one song with vocals from another.

M explicitly characterizes themselves as making art with AI and considers it one of their access technologies. AI's integral role in their work and practice was made particularly evident through two of their projects that amplified personal access solutions into public provocations. They described:

"I have a long-term memory disability. ... So working with that part of my disability has been creating, for years and years and years, notebooks of different things that have happened and writing things down for my day just like journaling in general, and it was one of those books that we used for [the installation] prosthetic memory. I had also been producing daily or weekly video journals and then putting them on YouTube and it was those two sets and materials that we combined together."

M trained their own ML model to use the notebook as a reference to bring up other snippets they had documented to preserve memories. They later developed an installation out of these pairings where visitors could turn through their journals and watch and listen to the video accompaniments.

M is also autistic, and they developed an accessibility solution and art installation to prevent them from having to make eye contact, a social norm enforced upon them in public:

"Masking Machine is a Steadicam harness, which is like a vest that you strap to your chest with a stiff arm that comes out of the front. We used it to mount a screen with a camera on the back that was looking at my face. And then we used a facial points detection algorithm to track my face. Then we used those points to apply, you can either think of it as masks or as digital makeup, to my face. On the back of the Steadicam mount was a battery and a computer, all of which were hooked together so that I could physically walk around a space with the thing mounted to me. So I would walk up to someone, and they would see my body from the chest down and my hands around the screen and my face on the screen itself with different digital masks depending on what the settings were at the moment, and then I would reach around the screen and shake hands with them. So they would have this physical touch sensation. And it would simulate eye contact so I was looking into a camera, and they were looking into my face on a screen, but I was not looking directly into their eyes.... We took it to art spaces where we had not been invited, and practiced with it as a social device performance."

ML made possible M's crip technoscience to create their own memory and social accessibility tools, and expanded their influence through public installation. However, it was not only the models which made these access hacks and art installations possible, but M's unique design and access to the ML development pipeline. M worked interdependently with a software developer who filled in knowledge gaps they had around training local ML models, and this collaboration enabled them to invent technology and creative expression that challenged predominant characterizations of access by provoking the public to meet them halfway (e.g., making eye contact through a screen) [120].

## 4.3 Perspectives on Responsible AI for Creativity

Participants were deeply concerned about the impacts of AI, particularly as they were cognizant of GAI's increased usage in creative and wider contexts. They shared their understandings of (ir)responsible AI for creativity in a few ways, from articulating their own qualifications for what counts as art, by distinguishing AI's tool properties from its application, and by sharing their own boundaries and outlining potential avenues for fair use, which were informed by their accessibility needs and experiences using AI to relieve them.

4.3.1 What Makes Art, "Art"? As GAI influences perceptions that pictures, songs, and videos can be made with just a few words (i.e., engineered prompts), creatives weighed in on what counts as art. Some participants did not consider the content generated from GAI tools to be creative or that it should be accredited to the end user. This content reflected those generated with a single, unedited prompt, taking up a folk theory articulated by ML artists in [109, p. 6], which states "true creativity involves rising above basic T2I model affordances." However others, informed by their exclusion from art spaces, were not interested in constraining art for the purpose of quelling AI's threat to creatives' livelihoods. M summarized: "I will draw the art tent as big as you could possibly draw it because the point of creative expression is that humans are communicating things to other humans, and humans are using their bodies and using their minds to express and interact with the world." Jason diverted the question, considering it unproductive to argue over what counts as art, understanding the impacts to be beyond how AI-generated content is classified: "I don't really get caught up on the term 'real' or not because if you're listening to [AI-generated music], it's real. It exists in the world, so it's not fake in that regard, even though it's AI generated." While participants generally wanted to find GAI working in concert with the creator, they understood that narrow classifications of what counts as art could leave out disabled artists, who may particularly benefit from and develop new forms of disability-informed creativity with AI.

4.3.2 Al is a Tool. Some participants considered the question of whether "AI art is art" irrelevant by rationalizing it as another digital tool with specific affordances. For example, M equated it

to other popular software: "I use AI because it does a particular set of things just like I use Adobe Illustrator because it does a particular set of things." By reducing it to technical specifications and capabilities, they understood responsibility to refer to values guiding how it should be regulated and utilized. Jennifer continued this line of argument by reflecting on the history of technology, noting how digital tools have evolved and have met resistance over time: "Photoshop is a digital tool already capable of making very complex filters. If an illustrator who was trained to draw by hand from the 1930s dropped into today, they would probably say Photoshop is cheating." However, Jennifer also recognized that these tools do not exist in a vacuum and have real impacts on those disrupted by their change, and this responsibilizes creatives to advocate: "People in creative fields have to be vigilant about the possibility of people using AI in a way that's all about the bottom line, instead of having nice products, and push back against unfair use of whatever technology might step on people's livelihood." M and Jennifer found issues not with new digital tools, considering these evolutions as inevitable and even generative to their creative practice. Instead, they noted historic and ongoing misuse of tools to service narrow purposes, such as profits, at the expense of others, such as ensuring those relying on the now automated processes could still create and be compensated.

4.3.3 Boundaries on Using AI. Taking up Jennifer's term, "vigilance," participants shared a variety of boundaries they set on their use of AI in their creative practice, as well as their perceptions on what constitutes responsible AI in creative contexts. Some participants constrained their GAI usage. Jules, Oliver, and others, scoped usage to complete tasks around their creative work that they did not want to spend time on, and which they perceived did not require creative labor, like writing emails. Jules explained his rationale for this boundary: "It's an ethical thing for me ... Just trying to respect my process as a writer and make sure that it's authentically my voice. ... I have a bit of pride about that." Jules considered scriptwriting without GAI signaled his work was authentic and credible. Oliver wanted to maintain agency over his creative work, which he ensured by keeping control of the work's trajectory: "I definitely do not use AI to make decisions for me." To some participants, these firm boundaries clarified for them - and they hoped to their audiences - that they were the primary authors of their work. Communicating this had implications for how their work would be received, from being credited at the theater (Jules), to being the fashioner of personalized gifts (Oliver).

However, others struggled to draw this boundary. Meredith grappled with the challenge of discerning between referencing others' leatherwork for inspiration and copying: "It's hard because I take inspiration from so many people and alter it a little bit, and I wouldn't want to not be able to make any wallets because there's already so many types of wallets." If GAI's usage in creative work was inevitable, or at least impossible to bound in general terms, participants outlined characteristics of responsible usage.

4.3.4 *Citation.* Participants considered direct action at multiple levels necessary to normalize responsible AI for accessible creativity. To start, they shared the value of citation. Oliver considered it basic respect, not only for those referenced but for those encountering the work to be able to trace it: "The line for me, does it have a citation? ...

I care very deeply about being able to trace where information has come from. At the current state of the tech that we use, it doesn't tell you where this information comes from." M followed up with an example of how they imagined AI could be cited in an art space:

"If you personally want to use an image generator, all I want from that interaction is that I know where everything came from. So in an art gallery when I put reclaimed material, rope, acrylic paint, or whatever on the materials list, I want you to put the exact name of the image generator that you use and maybe even the prompt that you use for that image generator."

But Jason destabilized the idea that citation was so straightforward, calling into question norms around what has required citation in the music industry. He used the interview to reason how he might advocate for different practices-to encourage more citation as a form of disclosure and reflexivity:

"If I used suno.ai and it gave me a basic chord idea, and I went from there, I may or may not mention it, because people use a lot of tools in the creation process, and especially in the idea stage. Before [gen] AI, if you were putting out a new song, there's not usually an accompanying list of every tool that you used to create the song. People don't disclose every time they use Auto-Tune. But it's used and it makes a vocalist sound different. Would you want someone to disclose they use that because it's changing their performance? So I think there probably is some line of, 'If I use AI, and this thing would not have happened without it; if it's the primary reason that this art was created, I probably would disclose it. But just as much these days I would disclose it because I want people to think, 'Hey, yeah, I used this tool. This is what I did with it."

Jason noted the convenience of citation as an 'easy' solution, but considered the norms that would have to be established, and the challenge of drawing lines around what type of usage warrants citation. In this way, responsible AI would impact citation as a wider practice.

4.3.5 Data Stewardship. Along with end user practices, participants considered responsibilities for those handling data. A topic that frequently came up concerned how developers would curate datasets and what consent would be necessary for participants to either opt in for their own data to be used, or have confidence that their peers' in art and disability communities data would be respected.

Jason was aware and unsettled that his voice in podcasts is prime training data, as podcasts are widely sought as a high-quality audio data source. As such, he and other participants advocated for intentionality and consent. M elaborated:

"It's important that the data that goes into a data set [were] put there intentionally for a reason. When I'm building my data sets, the reason that we're putting these images of this book [Prosthetic Memory journal] into this data set is specifically so that we can use it to recognize this book later."

Imagining a world where artists could develop their own ML models or be in relationship with others doing so, some participants were interested in contributing to datasets:

"I wouldn't mind having certain pieces that were used to help train. I wouldn't necessarily want it to just start training on any piece that I create. Because some of them just have a different, personal value to me and I want to have some say in what's used and what's not. [Sheri]"

Sheri created digital art for different purposes. Art for the social media page she manages, The Melanated Mind, was public, whereas she also took commissions and did art privately for herself. Understanding consent processes was vital for Sheri to decide what work she would offer for model training.

4.3.6 *RAI and Accessibility.* Participants' expansive experiences with AI as an access tool nuanced their perspectives on responsible AI, as it had remediated and even reimagined access at scale, if not perfectly, in absence of others taking responsibility. In addition, from their crip technoscientific practices of accessible worldbuild-ing, they imagined futures where AI could continue to provide, and even innovate, what accessibility could be. M ideated ways AI could support their creative process altogether:

"I think that AI can be really useful to make processes easier, especially for neurodivergent people who struggle with prioritization. To give people a way to vomit draft a bunch of work and then have an assistant to hone that work down. I really want to be able to take this giant pile of things and have that pile essentially grow little mushrooms of, 'hey these two things are kind of related to each other,' or 'here's all the times that you've mentioned migraine in the last decade,' things that help. Especially as someone who has really intense memory loss, adjacency is really difficult, being able to draw a through line, learning your own interconnections."

M could only sift through some of their traces to know what creative projects they could pursue, and they projected that AI assistance could complement this process by pointing out opportunities they could explore further.

Jules wanted to expand the benefits he could reap from GAI, accepting that he would often be in communication with nonsigners:

"I don't want the interpreter to be sensitive [about] this, or that it's any reflection on them at all <laugh>. But I would really love to have technology that helps speak for me better, to be precise with whatever my sign is to translate it into voice. And that sounds very advanced, because there are lots of different vocabulary and slang that people use. But, if that kind of technology could happen in the future to translate ASL, Deaf people are the most expensive disability group. So anything we could do to avoid that burden on anyone would be great."

Jules knew the impacts of devalued and displaced labor; he had supported the SAG-AFTRA direct actions in the months preceding our interview. However, Jules recognized that even with the best access to interpreters by having multiple on set to facilitate communications among his Deaf and hearing cast, communication remained difficult, motivating his usage of LLMs. And, default communications still favored hearing and written English.

Responsible AI could relieve communication inequities experienced by his community. However, for Jules, responsible AI also meant quality. Translation could not be treated as a one-to-one 3D sign to spoken language equivalency, but automatic translations would need to account for nuances sign brings to language, and the disparate dialects and traditions shaping sign at community levels [116]. Solidifying his concern that AI be applied to solve accessibility challenges carefully, Oliver echoed that "accessibility should not be within the responsibility of AI. It needs to be on people first and foremost."

#### 5 DISCUSSION

Creativity and accessibility are intertwined such that one is not a precursor to the other [25, 50, 67, 113], but they are co-constituted through iterative and ongoing processes, which contrasts with frequent characterizations of accessibility as a technological state [10]. These interdependencies, shaped by broader patterns of ableist exclusion in technology development and art worlds, sometimes lead disabled creatives through unconventional journeys into creative mediums and practices and access hacks, including incorporating GAI both in and around their work and using ML models as creative materials themselves, further stretching artistic mixed-media domains. Negotiating access is constitutive to developing an accessible creative practice that reflects the political values of creatives, such as constructing boundaries around GAI usage to protect them and their peers in artist and disability communities. Yet, the process of negotiating access also reveals limitations in current GAI development where the still limited features and functions prevent them from using GAI products more. In grappling with the excitements and uncomfortable evolutions GAI brings to creative work, the creatives with disabilities in our study outlined some qualities of responsible usage, guided by their creative practices and accessibility needs.

In what follows, we discuss the entanglements of creativity, accessibility, and disability that shape creative work. We then respond to discourses in ML and creative spaces on arguments made for and against GAI's uptake as a creativity tool, rooted in the *crip technoscience* our participants engaged in to simultaneously make creatively and accessibly. We finally offer future directions for accessible creativity (with)out AI.

## 5.1 Entanglements of Creativity, Accessibility, and Disability

Our findings illuminate interdependencies between creativity and accessibility, including access hacks that led to innovations in creative and technocreative practices. We learned how interviewees *negotiated access*. These negotiations first occurred with themselves in arranging spaces and work schedules to accommodate their needs for rest and expending energy intentionally and over time. Participants also built access in groups in the case of Deaf and hearing casts working together (Jules), and they even made decisions about their preferred mediums based on the ease to which they could onboard given their abilities and the realities of the often ableist, but sometimes disability-centered environments (Danielle) in which they cultivated their practice.

However, we found that access interdependencies not only impacted the creation processes but were often entangled with the creations themselves, informing new, crip technoscientific access provisions. These interdependencies occurred subtly, such as when Sheri prioritized color pallets she could see better, improving access for herself while establishing a consistent aesthetic. These entanglements were also quite blatant when personal access provisions became provocative installations, like M's *Prosthetic Memory* and *Masking Machine*, and Michelle's handwritten movie and painting with cameras. Crip technoscience recognizes how worldbuilding out of necessity can double as a form of resistance and rewriting ableist creations to enact alternatives that recognize and celebrate disability as generative to what creativity can be altogether [50].

One action toward meaningfully engaging artists in accessibility research and associated best practices is through artist residencies, both toward community building and as research method. Artist residencies take up the terminology and reputation of their wellknown counterpart in artworlds, and emphasize the artist as invited but also stationed centrally and agentively in research spaces. Importantly, in their reflections of conducting an experimental artist residency, HCI researchers Devendorf et al. [38] emphasize the necessity to characterized residents as collaborators whose knowledge production is technical "in its own right" (p. 5) as to push back on frequent characterizations of art in technical worlds as "romantic, poetic, or primitive" (p. 1) remnants of bygone eras which "innovative" technologies are rewriting [39]. Their articulation of artist residency well-align with the politics of crip technoscience, which foreground disabled ways of knowing as generative to worldbuilding [50]. Now, we turn to contemporary discourses on AI and creativity to offer disability-informed critique, which may be generative to our later discussion of future avenues to accessible creativity.

# 5.2 Responding to Discourses on AI and Creativity

AI for creativity has exploded into public discourse as both an exciting and perilous application. These polarized discourses have resurfaced conversations about what counts as art. A direct response has included phrases like, "AI art is not art" [53, 76, 104]. These phrases and surrounding discourse draw attention to and redress concerns for the compensation and valuing of artists and their work [19, 105, 106], a concern we argue warrants attention. However, these assertions about AI-mediated art, while meant to uplift human artists, construct boundaries around who can and cannot be human artists: those who produce art with a particular set of tools, practices, and abilities. Critiques of GAI that dispense with a particular form of engagement also assert acceptable forms of engagement, forms that cast creativity such as drawing on film not within the confines of movie-making and remembering with the assistance of a personalized ML model as inauthentic. Some of our participants do not use GAI in their art, both from intentional boundary-making and innocuous lack of interest. But regardless of where these boundaries are or the logics undergirding them, their expansive accessibility prostheses, to borrow from M, demonstrated

how their creative practice is impossible but with their interconnection with tools and networks. Their interdependencies defy definitions of art to the inclusion or exclusion of a specific set of tools. Rather, in line with crip technoscience, often, their accessible creative expression disrupted normative creative conventions with reimagined suites of personalized and access-centered practices and values. Calling in the ableism of such phrases recognizes disabled creatives have and will always be creating, and disabled creatives are at a disproportionate risk when the conditions of creative labor change, given their systemic exclusion from creativity already. Thus, activism to protect artists which not only delineates how art is done but also casts potential accessibility provisions outside risks amplifying inequities experienced by artists who do not fit within the rhetoric's confines.

In pointing out exclusionary tactics, we call attention to the ways we make and unmake possibilities for creative expression itself, and also bring recognition to the sensemaking and boundary work creatives with disabilities already engage to protect their communities and advocate for responsible AI. Participants were not waiting on the sidelines allowing GAI to happen, nor were they considering their access needs, which AI could help with apart from their potential pitfalls. They were deeply engaging with it and surrounding discourse, and developing and evolving standards of use for themselves. Further, their experiences relying on technologies for access and simultaneously finding them insufficient were evident in their nuanced excitements and concerns around GAI. Redirecting criticisms from what capabilities and tools produce work qualified as art also makes space for the creativity disabled people bring to outline responsible usage, which we overview next.

#### 5.3 Accessible Creative Expression

Finally, we synthesized four qualities of accessible creative expression overall, and particularly regarding responsible AI for such applications.

5.3.1 Accessible design principles and strategies should account for surrounding processes and interdependencies. Processes meant to guide the design of accessible technologies have primarily, and reasonably, focused on developing technology which is accessible to users with disabilities. Through our interviews with disabled creatives, we learned about the tools, materials, and spaces they engaged during their creative processes, and the interdependencies they negotiated to make them accessible and manageable. Some strategies, such as ability-based design [121], propose that technologies should adapt to users' abilities. However, in addition to using technology to do their creative work, our participants spent time ideating and planning, not only to narrow in on their creation, but to adapt their common accessibility practices to the demands of the specific project, such as Meredith choosing to purchase one stamp to impress onto a bulk order of leather bookmarks given the size of the order, and their allocating time to be able to break up the process according to their abilities to do repetitive work.

We could expand ability-based design and other principled approaches to holistically account for the collection of materials and spaces, including those which may not be digitally connected. Additionally, there is opportunity to build out ability-based planning. For example, creatives novice in a particular domain may benefit from knowing what they should keep in mind based on their abilities, access needs, and the nuances of specific projects. Currently, people with disabilities self-develop these situated knowledges, and lean into disability communities when they find them. However the former requires experience and the latter requires connection, which tends to come more easily to people with the most outwardly-recognized disabilities [42]. Accessibility research is already working to amplify the reach of people with disabilities, including Tutoria11y's scaffolding for audio engineers to make nonvisually accessible tutorials for other blind people [100], and NYU's Ability Project workshops on nonvisual physical computing and coding where researchers did administrative labor and provided learner support while domain experts who also had disabilities in common with learners instructed [89, 90]. Ability-based planning could aggregate community knowledges into planning supports, extending the impact of disability communities, with personalized adaptations based on user needs. There is additional need to scaffold and facilitate interdependencies such as M's work with a software engineer, which are predicated on common interests to build access, which may become exemplars for community efforts such as makerspaces and tool libraries which have been unwelcoming to disabled people or charity-focused, despite their aims to democratize making [2]. As we will discuss later, these supports would need to be designed responsibly to respect this knowledge which is often kept within communities to safeguard its co-optation.

5.3.2 AI for accessible creativity should be designed for specific use cases. GAI is often framed as a stepping stone toward artificial general intelligence, which promises AI that can reason and complete a task without explicit instructions, in effect, being able to complete different types of tasks [20]. Such capabilities could revolutionize user interactions by removing barriers to task definition, and allowing users to delegate tasks altogether, like our participants including Jules who wanted to make the work around their creative practice as low effort as possible. However, AI positioned as general purpose has already been shown to exclude people with disabilities and other marginalized groups [45, 48, 56, 117]. One way we found this in our participants' work was through their multiple and sometimes simultaneous reasons for using gen AI interfaces that, if different, worked with similar underlying models (e.g., ChatGPT and Be My AI both leveraging GPT4). Jennifer enjoyed Midjourney's surreal outputs. She could prompt engineer to more specific outputs toward the inspiration she was seeking, which reduced the effort she had to expend to conduct Google image and other reference materials searches, which did not even produce the aesthetic she worked in, being that most results were photographic. Jules, in contrast, used LLMs as translation tools to relieve the burden of communicating in written English, an inequity given historic and ongoing oralism [44]. Danielle used LLMs for these purposes simultaneously, to both ideate and to generate functional SVG files. Jules and Danielle could not afford for their email communications or files and descriptions to be experimental extensions of their creative practices. Jules needed to establish common ground between people using different languages, and get points across. And, Danielle needed SVG files embossed into tactile graphics. These tasks required a degree of accuracy that

ML artists have argued could interfere with the weirdness that has made gen AI such as T2I so useful in ideation [109]. We argue that these simultaneous and conflicting needs bring out a crucial tension in wider mainstream GAI development.

While ASSETS research has long focused on dialing into the specific needs of specific people with disabilities, growing interest in general purpose AI may undermine these necessary efforts. Future research should concern developing guidance for determining the differing and potentially conflicting needs creatives with disabilities may have, sometimes simultaneously, such as needing accessible forms of ideation and experimentation and reliable methods of understanding their work and communicating (e.g., image descriptions and email writing support).

5.3.3 AI for accessible creativity should be accessible to develop. Accessibility research in this area will first acknowledge that creatives with disabilities are innovating, and are not just using tools readily available to them. They are shaping the tools and processes to work for them. From our interviews we learned that text prompting opened up creative ideation and access potential for participants, who enjoyed experimenting with it in their creative process, and utilizing it to relieve work around them. However, not only has research shown that text prompting is not accessible for everyone [114], it also offers a limited, if expanded, set of opportunities to control the outputs. The design and evaluation of underlying models was still inaccessible. However, M had the resources to circumvent prompting interfaces to design and train their own model. Agency over the end-to-end process allowed them to develop provocative access and art installations which realized some of crip technoscience's most imaginative futuring, where publics are expected to question their potentially narrow understandings of memory or eye contact [4, 120], and accommodate M instead of M painfully accommodating them.

We do not argue that ML is necessary to build access or enact criptopias. We instead point out additional possibilities when the end-to-end development pipeline is accessible. We are unaware of research into making the ML development pipeline accessible, and particularly this which is attuned to the educational inequities experienced by many disabled learners. We find community-based workshops and courses as promising models for developing accessible curricula and inclusive learning environments [65, 88, 90]. There is also opportunity to investigate the specific access barriers that may come up during different tasks in the ML development cycle. M could not collect their own data, for example, a collection they needed to do to develop a model to curate their memories, which was a very specific and personal use case. Using synthetic data to train the model on what were images of their memory journals and what were noise relieved an access barrier, but synthetic data, used for different purposes, risks model development that does not reflect authentic or consentual representation [57, 119]. Future research needs to address responsible ML development cycle adaptations.

*5.3.4* Al for accessible creativity should have specific standards of development and use. As has been researched more widely, AI harms tend to impact those already marginalized [8, 9, 12, 45, 78, 108], and there are specific risks to people with disabilities [11, 43, 48, 56, 75, 117]. Yet, many people with disabilities

are not only enthusiastic about the accessibility potential of GAI like our participants, they often must rely on it in absences of accessible infrastructure. These tensioned usages position people with disabilities at a nexus of benefits and harms that could lend to developing standards of use that might move past polarizing discourses for and against AI art, as a coalition of nondisabled and disabled AI artists, the Are We Art Yet collective is doing [5]. For example, Sheri was interested in consenting for some of her work to train AI models that might help digital artists like her ideate in future. But she considered some of her work too personal to influence image outputs shown to strangers. And, given that M trained an ML model to curate their own memories, they wanted data collections to be purposeful and private, which they could not guarantee by using some third party prompting interfaces which had terms and conditions of use to the contrary. This greatly increased the labor necessary to develop their memory prosthetic, and they acknowledged training a local model was made possible by their interdependent work with a software engineer. While there have been AI fairness workshops [117], accessibility researchers would be well positioned to guide standards of use development. Before this is possible, however, we argue there are open questions to developing best practices that accessibility researchers are poised to work on, such as, how could workshops be facilitated such that stakeholders with different backgrounds, some influenced by lack of access to education (e.g., in the ML development pipeline) gain a common ground? We find opportunity to combine expertise on community needs, accessibility, event access, ML, and facilitation to develop responsible AI for accessibility in an accessible manner, and for these best practices to influence broader work on responsible AI which has not meaningfully included people with disabilities from the outset [58, 109].

#### **6** LIMITATIONS

While our study provides some perspective into the work of disabled creatives, it is limited in the diversity of perspectives that it represents. For example, our snowball sample recruiting technique sample size of 10, them being US-based, and majority female and white meant that we did not well represent several creatives, including men, nonbinary, and BIPOC creatives, or those residing outside the US. Conversely, our openness to recruit people working in any creative medium also means that our findings covered a breadth of topics related to accessibility and responsible AI, limiting the attention we could give any one medium.

Further, our methods were limited to retrospective conversations of our participants' prior creative work; we were not able to observe them during creative work, enter their workspaces, or directly interact with physical artifacts. Our interviews were conducted online due to the geographic spread of our participants. Directly observing creatives' work in progress would likely reveal additional aspects of their creative processes.

Finally, we chose to engage with individual creatives through interviews; we did not directly engage with community organizations related to art and disability, although some participants shared experiences of working with these organizations. Working directly with community organizations would lend insight to what has and has not worked, and provide more comprehensive guidance on the needs and challenges experienced within communities. They would also lend insight into structural change that is necessary, as our focus on individuals may overfocus on individual-level change.

## 7 CONCLUSION

We centered creatives with disabilities as informants into future accessible and AI-driven creativity. From our participants we learned how they negotiate access across their practice, and adapted to the specific demands of individual projects. In so doing, they continuously experimented with and incorporated new technologies, including GAI into their creative workflows. Our participants shared their crip technoscience practices, demonstrating that creativity and access-building were inseparable but co-constitutive, growing their understandings of creative outputs and accessible processes for getting to them. From this ingenuity, we redirect discourses on what counts as art, which may exclude accessible forms of creative expression to qualities of responsible GAI and greater design for accessible creativity-defining specific applications for AI that account for potential simultaneous usages of but conflicting information wants, supporting accessible processes leading to creative expression, increasing user agency by making ML development accessible, and crafting disability-informed standards of development and use.

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#### REFERENCES

- Memo Akten, Rebecca Fiebrink, and Mick Grierson. 2019. Learning to See: You Are What You See. In ACM SIGGRAPH 2019 Art Gallery (Los Angeles, California) (SIGGRAPH '19). Association for Computing Machinery, New York, NY, USA, Article 13, 6 pages. https://doi.org/10.1145/3306211.3320143
- [2] Katherine H. Allen, Audrey K. Balaska, Reuben M. Aronson, Chris Rogers, and Elaine Schaertl Short. 2023. Barriers and Benefits: The Path to Accessible Makerspaces. In Proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility (New York, NY, USA) (ASSETS '23). Association for Computing Machinery, New York, NY, USA, Article 7, 14 pages. https://doi.org/10.1145/3597638.3608414
- [3] Refik Anadol, Casey Reas, Michelle Kuo, and Paola Antonelli. 2021. Modern Dream: How Refik Anadol is Using Machine Learning and NFTs to Interpret MoMA's Collection. Museum of Modern Art. https://www.moma.org/magazine/ articles/658
- [4] Robin Angelini, Sabrina Burtscher, Felix Fussenegger, Kay Kender, Katta Spiel, Franz Steinbrecher, and Oliver Suchanek. 2023. Criptopias: Speculative Stories Exploring Worlds Worth Wanting. In Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems (Hamburg, Germany) (CHI EA '23). Association for Computing Machinery, New York, NY, USA, Article 412, 10 pages. https://doi.org/10.1145/3544549.3582743
- [5] Are We Art Yet. 2023. About Us. Tumblr. https://are-we-art-yet.tumblr.com/ post/707299382295412736/welcome-to-the-tumblr-of-are-we-art-yet-a
- [6] Sofian Audry. 2021. Art in the Age of Machine Learning. MIT Press, Cambridge, Massachusetts.
- [7] Giulia Barbareschi and Masa Inakage. 2022. Assistive or Artistic Technologies? Exploring the Connections between Art, Disability and Wheelchair Use. In Proceedings of the 24th International ACM SIGACCESS Conference on Computers and Accessibility (Athens, Greece) (ASSETS '22). Association for Computing Machinery, New York, NY, USA, Article 11, 14 pages. https://doi.org/10.1145/ 3517428.3544799
- [8] Solon Barocas, Moritz Hardt, and Arvind Narayanan. 2019. Fairness and Machine Learning. http://www.fairmlbook.org.
- [9] Ruha Benjamin. 2019. Race After Technology: Abolitionist Tools for the New Jim Code. Polity Press, Cambridge, UK.
- [10] Cynthia L. Bennett, Erin Brady, and Stacy M. Branham. 2018. Interdependence as a Frame for Assistive Technology Research and Design. In Proceedings of the 20th International ACM SIGACCESS Conference on Computers and Accessibility

(Galway, Ireland) (ASSETS '18). Association for Computing Machinery, New York, NY, USA, 161–173. https://doi.org/10.1145/3234695.3236348

- [11] Cynthia L. Bennett and Os Keyes. 2020. What is the Point of Fairness? Disability, AI and the Complexity of Justice. SIGACCESS Access. Comput. 125, 5, Article 5 (mar 2020), 1 pages. https://doi.org/10.1145/3386296.3386301
- [12] Federico Bianchi, Pratyusha Kalluri, Esin Durmus, Faisal Ladhak, Myra Cheng, Debora Nozza, Tatsunori Hashimoto, Dan Jurafsky, James Zou, and Aylin Caliskan. 2023. Easily Accessible Text-to-Image Generation Amplifies Demographic Stereotypes at Large Scale. In Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency (Chicago, IL, USA) (FAccT '23). Association for Computing Machinery, New York, NY, USA, 1493–1504. https://doi.org/10.1145/3593013.3594095
- [13] Katya Borgos-Rodriguez, Maitraye Das, and Anne Marie Piper. 2021. Melodie: A Design Inquiry into Accessible Crafting through Audio-enhanced Weaving. ACM Trans. Access. Comput. 14, 1, Article 5 (mar 2021), 30 pages. https://doi. org/10.1145/3444699
- [14] Katya Borgos-Rodriguez and Anne Marie Piper. 2023. Understanding Participation among Disabled Creators in Online Marketplaces. Proc. ACM Hum.-Comput. Interact. 7, CSCW2, Article 314 (oct 2023), 28 pages. https: //doi.org/10.1145/3610105
- [15] Stacy M. Branham and Shaun K. Kane. 2015. The Invisible Work of Accessibility: How Blind Employees Manage Accessibility in Mixed-Ability Workplaces. In Proceedings of the 17th International ACM SIGACCESS Conference on Computers & Accessibility (Lisbon, Portugal) (ASSETS '15). Association for Computing Machinery, New York, NY, USA, 163–171. https://doi.org/10.1145/2700648. 2809864
- [16] Virginia Braun and Victoria Clarke. 2019. Reflecting on Reflexive Thematic Analysis. *Qualitative Research in Sport, Exercise and Health* 11, 4 (2019), 589–597. https://doi.org/10.1080/2159676X.2019.1628806
- [17] Virginia Braun and Victoria Clarke. 2020. One Size Fits All? What Counts as Quality Practice in (Reflexive) Thematic Analysis? *Qualitative Research in Psychology* 18, 3 (2020), 1–25. https://doi.org/10.1080/14780887.2020.1769238
- [18] Blake Brittain. 2023. AI-generated Art Cannot Receive Copyrights, US Court Says. Reuters. https://www.reuters.com/legal/ai-generated-art-cannot-receivecopyrights-us-court-says-2023-08-21/
- Blake Brittain. 2023. Create Don't Scrape. https://www.createdontscrape.com/
  Sébastien Bubeck, Varun Chandrasekaran, Ronen Eldan, Johannes Gehrke, Eric Horvitz, Ece Kamar, Peter Lee, Yin Tat Lee, Yuanzhi Li, Scott Lundberg, Harsha Nori, Hamid Palangi, Marco Tulio Ribeiro, and Yi Zhang. 2023. Sparks of Artificial General Intelligence: Early Experiments with GPT-4. arXiv:2303.12712 [cs.CL]
- [21] Jack Burnham. 1980. Art and Technology: The Panacea that Failed. In The Myths of Information: Technology and Postindustrial Culture. Coda Press, London, UK, 200–218.
- [22] Matthew Butler, Leona Holloway, and Kim Marriott. 2019. A Closer Look: Multi-Sensory Accessible Art Translations. In Proceedings of the 21st International ACM SIGACCESS Conference on Computers and Accessibility (Pittsburgh, PA, USA) (ASSETS '19). Association for Computing Machinery, New York, NY, USA, 594–596. https://doi.org/10.1145/3308561.3354617
- [23] Amanda Cachia. 2013. 'Disabling' the Museum: Curator as Infrastructural Activist. Journal of Visual Art Practice 12, 3 (2013), 257–289. https://doi.org/10.1080/ 14702029.2013.10820082 arXiv:https://doi.org/10.1080/14702029.2013.10820082
- [24] Amanda Cachia. 2018. The Politics of Creative Access: Guidelines for a Critical Dis/Ability Curatorial Practice. In *Interdisciplinary Approaches to Disability*. Routledge, London, England, 99–108.
- [25] Amanda Cachia. 2022. Curating Access: Disability Art Activism and Creative Accommodation. Taylor & Francis, New York, New York.
- [26] Baptiste Caramiaux and Sarah Fdili Alaoui. 2022. "Explorers of Unknown Planets:" Practices and Politics of Artificial Intelligence in Visual Arts. In Proc. ACM Hum.-Comput. Interact., Vol. 6. Association for Computing Machinery, New York, NY, USA, Article 477, 24 pages. https://doi.org/10.1145/3555578
- [27] Jenny Chamarette. 2022. Backdating the Crip Technoscience Manifesto: Stephen Dwoskin's digital activism. *Film Quarterly* 76, 2 (2022), 16–24.
- [28] Eliza Chandler, Lisa East, Carla Rice, and Rana El Kadi. 2023. Misfits in the World: Culture Shifting through Crip Cultural Practices. Disabled Portraits: Disability, Art, and Communication 1, 3 (2023), 26–46.
- [29] Minsuk Chang, Stefania Druga, Alexander J. Fiannaca, Pedro Vergani, Chinmay Kulkarni, Carrie J Cai, and Michael Terry. 2023. The Prompt Artists. In Proceedings of the 15th Conference on Creativity and Cognition (Virtual Event, USA) (C&C '23). Association for Computing Machinery, New York, NY, USA, 75–87. https://doi.org/10.1145/3591196.3593515
- [30] Sifan Chen, Danyang Peng, Giulia Barbareschi, Chihiro Sato, and Dunya Chen. 2024. BeadMuse AI: Enhancing Inclusive and Independent Crafting Through Adaptive Pixel Art Templates. In Proceedings of the 13th International Conference on the Internet of Things (Nagoya, Japan) (IoT '23). Association for Computing Machinery, New York, NY, USA, 211–218. https://doi.org/10.1145/3627050. 3631580

- [31] Paul Cohen. 2016. Harold Cohen and AARON. AI Magazine 37, 4 (2016), 63–66. https://doi.org/10.1609/aimag.v37i4.2695
- [32] Jake Coyle and The Associated Press. 2023. ChatGPT is the 'Terrifying' Subtext of the Writers' Strike that is Reshaping Hollywood. Fortune. https://fortune.com/2023/05/05/hollywood-writers-strike-wga-chatgptai-terrifying-replace-workers/
- [33] Chris Creed. 2016. Assistive Tools for Disability Arts: Collaborative Experiences in Working with Disabled Artists and Stakeholders. *Journal of Assistive Technologies* 10, 2 (2016), 121–129.
- [34] Chris Creed. 2018. Assistive Technology for Disabled Visual Artists: Exploring the Impact of Digital Technologies on Artistic Practice. *Disability & Society* 33, 7 (2018), 1103–1119. https://doi.org/10.1080/09687599.2018.1469400 arXiv:https://doi.org/10.1080/09687599.2018.1469400
- [35] Maitraye Das, Katya Borgos-Rodriguez, and Anne Marie Piper. 2020. Weaving by Touch: A Case Analysis of Accessible Making. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (Honolulu, HI, USA) (CHI '20). Association for Computing Machinery, New York, NY, USA, 1–15. https://doi.org/10.1145/3313831.3376477
- [36] Maitraye Das, Alexander J. Fiannaca, Meredith Ringel Morris, Shaun K. Kane, and Cynthia L. Bennett. 2024. From Provenance to Aberrations: Image Creator and Screen Reader User Perspectives on Alt Text for AI-Generated Images. In Proceedings of the CHI Conference on Human Factors in Computing Systems (Honolulu, HI, USA) (CHI '24). Association for Computing Machinery, New York, NY, USA, Article 900, 21 pages. https://doi.org/10.1145/3613904.3642325
- [37] Maitraye Das, Darren Gergle, and Anne Marie Piper. 2023. Simphony: Enhancing Accessible Pattern Design Practices among Blind Weavers. In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (Hamburg, Germany) (CHI '23). Association for Computing Machinery, New York, NY, USA, Article 132, 19 pages. https://doi.org/10.1145/3544548.3581047
- [38] Laura Devendorf, Katya Arquilla, Sandra Wirtanen, Allison Anderson, and Steven Frost. 2020. Craftspeople as Technical Collaborators: Lessons Learned through an Experimental Weaving Residency. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (Honolulu, HI, USA) (CHI '20). Association for Computing Machinery, New York, NY, USA, 1–13. https: //doi.org/10.1145/3313831.3376820
- [39] Laura Devendorf, Leah Buechley, Noura Howell, Jennifer Jacobs, Cindy Hsin-Liu Kao, Martin Murer, Daniela Rosner, Nica Ross, Robert Soden, Jared Tso, and Clement Zheng. 2023. Towards Mutual Benefit: Reflecting on Artist Residencies as a Method for Collaboration in DIS. In *Companion Publication of the 2023 ACM Designing Interactive Systems Conference* (Pittsburgh, PA, USA) (DIS '23 Companion). Association for Computing Machinery, New York, NY, USA, 124–126. https://doi.org/10.1145/3563703.3591452
- [40] Alison F. Eardley, Hannah Thompson, Anna Fineman, Rachel Hutchinson, Lindsay Bywood, and Matthew Cock. 2022. Devisualizing the Museum: From Access to Inclusion. *Journal of Museum Education* 47, 2 (2022), 150–165. https://doi.org/10.1080/10598650.2022.2077067 arXiv:https://doi.org/10.1080/10598650.2022.2077067
- [41] Jennifer Eisenhauer. 2007. Just Looking and Staring Back: Challenging Ableism through Disability Performance Art. Studies in Art Education 49, 1 (2007), 7–22. https://doi.org/10.1080/00393541.2007.11518721 arXiv:https://doi.org/10.1080/00393541.2007.11518721
- [42] Heather A. Faucett, Kate E. Ringland, Amanda L. L. Cullen, and Gillian R. Hayes. 2017. (In)Visibility in Disability and Assistive Technology. ACM Trans. Access. Comput. 10, 4, Article 14 (oct 2017), 17 pages. https://doi.org/10.1145/3132040
- [43] Vinitha Gadiraju, Shaun Kane, Sunipa Dev, Alex Taylor, Ding Wang, Emily Denton, and Robin Brewer. 2023. "I wouldn't say offensive but...": Disability-Centered Perspectives on Large Language Models. In Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency (<conf-loc>, <city>Chicago</city>, estate>IL</state>, <country>USA</country>, </confloc>) (FAccT '23). Association for Computing Machinery, New York, NY, USA, 205–216. https://doi.org/10.1145/3593013.3593989
- [44] Gallaudet University. 2024. History Through Deaf Eyes: Oral Education as Emancipation. Gallaudet University. https://gallaudet.edu/museum/exhibits/historythrough-deaf-eyes/language-and-identity/oral-education-as-emancipation/ Accessed 07-19-2024.
- [45] Timnit Gebru and Émile P Torres. 2024. The TESCREAL Bundle: Eugenics and the Promise of Utopia Through Artificial General Intelligence. *First Monday* 29, 4 (2024). https://doi.org/10.5210/fm.v29i4.13636
- [46] Emilie Giles, Janet van der Linden, and Marian Petre. 2018. Weaving Lighthouses and Stitching Stories: Blind and Visually Impaired People Designing E-textiles. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (Montréeal, QC, Canada</city>, <country>Canada</country>, </confloc>) (CHI '18). Association for Computing Machinery, New York, NY, USA, 1–12. https://doi.org/10.1145/3173574.3174044
- [47] Vlad-Petre Gläveanu. 2010. Principles for a Cultural Psychology of Creativity. Culture & Psychology 16, 2 (2010), 147–163.
- [48] Kate Glazko, Yusuf Mohammed, Ben Kosa, Venkatesh Potluri, and Jennifer Mankoff. 2024. Identifying and Improving Disability Bias in GAI-Based Resume

Screening. arXiv:2402.01732 [cs.CY]

- [49] Kate S. Glazko, Momona Yamagami, Aashaka Desai, Kelly Avery Mack, Venkatesh Potluri, Xuhai Xu, and Jennifer Mankoff. 2023. An Autoethnographic Case Study of Generative Artificial Intelligence's Utility for Accessibility. In Proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility (New York, NY, USA) (ASSETS '23). Association for Computing Machinery, New York, NY, USA, Article 99, 8 pages. https://doi.org/10.1145/3597638.3614548
- [50] Aimi Hamraie and Kelly Fritsch. 2019. Crip Technoscience Manifesto. Catalyst: Feminism, theory, technoscience 5, 1 (2019), 1–33.
- [51] Susumu Harada, Jacob O. Wobbrock, and James A. Landay. 2007. Voicedraw: A Hands-free Voice-driven Drawing Application for People with Motor Impairments. In Proceedings of the 9th International ACM SIGACCESS Conference on Computers and Accessibility (Tempe, Arizona, USA) (Assets '07). Association for Computing Machinery, New York, NY, USA, 27–34. https: //doi.org/10.1145/1296843.1296850
- [52] Jeff Hayward. 2022. The Growing Art Movement of 'Promptism'. Medium. https://medium.com/counterarts/the-growing-art-movement-ofpromptism-9ec956d82a61
- [53] Erik Hoel. 2022. AI-art Isn't Art. The Intrinsic Perspective. https://www. theintrinsicperspective.com/p/ai-art-isnt-art
- [54] Stacy Hsueh. 2021. Politics of Inclusion and Lessons of Access from Disabled Artists. In Proceedings of Politics of the Machines-Rogue Research 2021. BCS Learning & Development, Berlin, Germany, 45–51.
- [55] Mina Huh, Yi-Hao Peng, and Amy Pavel. 2023. GenAssist: Making Image Generation Accessible. In Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology (San Francisco, CA, USA) (UIST '23). Association for Computing Machinery, New York, NY, USA, Article 38, 17 pages. https://doi.org/10.1145/3586183.3606735
- [56] Ben Hutchinson, Vinodkumar Prabhakaran, Emily Denton, Kellie Webster, Yu Zhong, and Stephen Denuyl. 2020. Unintended Machine Learning Biases as Social Barriers for Persons with Disabilities. SIGACCESS Access. Comput. 125, 9, Article 9 (mar 2020), 1 pages. https://doi.org/10.1145/3386296.3386305
- [57] Benjamin N Jacobsen. 2023. Machine Learning and the Politics of Synthetic Data. Big Data & Society 10, 1 (2023), 20539517221145372.
- [58] Harry H. Jiang, Lauren Brown, Jessica Cheng, Mehtab Khan, Abhishek Gupta, Deja Workman, Alex Hanna, Johnathan Flowers, and Timnit Gebru. 2023. AI Art and its Impact on Artists. In *Proceedings of the 2023 AAAI/ACM Conference* on AI, Ethics, and Society (Montréal, QC, Canada) (AIES '23). Association for Computing Machinery, New York, NY, USA, 363–374. https://doi.org/10.1145/ 3600211.3604681
- [59] Chelsea Jones, Nadine Changfoot, and Kirsty Johnston. 2021. Representing Disability, D/Deaf, and Mad Artists and Art in Journalism: Identifying Ableist Fault Lines and Promising Crip Practices of Representation. *Studies in Social Justice* 15, 2 (2021), 307–333.
- [60] David R. Jones. 2022. Reclaiming Disabled Creativity: How Cultural Models Make Legible the Creativity of People with Disabilities. *Culture & Psychology* 28, 4 (2022), 491–505.
- [61] Leslie Jones. 2023. Coded: Art Enters the Computer Age, 1952-1982. LACMA, Los Angeles, California.
- [62] Jennifer Justice. 2022. Disabled Artists, Audience, and the Museum as the Place of Those Who Have No Part. In *Curating Access*. Routledge, London, England, 61–73.
- [63] Hesham M. Kamel and James A. Landay. 2000. A Study of Blind Drawing Practice: Creating Graphical Information Without the Visual Channel. In Proceedings of the Fourth International ACM Conference on Assistive Technologies (Arlington, Virginia, USA) (Assets '00). Association for Computing Machinery, New York, NY, USA, 34–41. https://doi.org/10.1145/354324.354334
- [64] Aaron Karp and Bryan Pardo. 2017. HaptEQ: A Collaborative Tool For Visually Impaired Audio Producers. In Proceedings of the 12th International Audio Mostly Conference on Augmented and Participatory Sound and Music Experiences (London, United Kingdom) (AM '17). Association for Computing Machinery, New York, NY, USA, Article 39, 4 pages. https://doi.org/10.1145/3123514.3123531
- [65] Claire Kearney-Volpe, Chancey Fleet, Keita Ohshiro, Veronica Alfaro Arias, Eric Hao Xu, and Amy Hurst. 2023. Tangible Progress: Tools, Techniques, and Impacts of Teaching Web Development to Screen Reader Users. ACM Trans. Access. Comput. 16, 1, Article 8 (mar 2023), 33 pages. https://doi.org/10.1145/3585315
- [66] Evadne Kelly, Carla Rice, and Mona Stonefish. 2023. Towards Decolonial Choreographies of Co-Resistance. Social Sciences 12, 4 (2023). https://doi.org/10.3390/ socsci12040204
- [67] Georgina Kleege. 2017. More Than Meets the Eye: What Blindness Brings to Art. Oxford University Press, New York, New York.
- [68] Andrea LaMarre, Carla Rice, and Kayla Besse. 2019. Relaxed Performance: Exploring Accessibility in the Canadian Theatre Landscape. British Council. https://atrium.lib.uoguelph.ca/server/api/core/bitstreams/b183e7e1-2393-4500-9ce6-2c769bc6a92f/content
- [69] Golan Levin and Tega Brain. 2021. Code as Creative Medium: A Handbook for Computational Art and Design. MIT Press, Cambridge, MA.

- [70] Franklin Mingzhe Li, Lotus Zhang, Maryam Bandukda, Abigale Stangl, Kristen Shinohara, Leah Findlater, and Patrick Carrington. 2023. Understanding Visual Arts Experiences of Blind People. In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (Hamburg, Germany) (CHI '23). Association for Computing Machinery, New York, NY, USA, Article 60, 21 pages. https://doi.org/10.1145/3544548.3580941
- [71] Kinetic Light. 2016. About. KineticLight.org. https://kineticlight.org//
- [72] LUCA School of Arts. 2022. PROMPTISM: The Art of Talking with Machines. LUCA Arts. https://www.luca-arts.be/en/promptism
- [73] Wenhao Y. Luebs, Garreth W. Tigwell, and Kristen Shinohara. 2024. Understanding Expert Crafting Practices of Blind and Low Vision Creatives. In Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems. Association for Computing Machinery, New York, NY, USA, 1–8.
- [74] Kelly Mack, Emma J. McDonnell, Leah Findlater, and Heather D. Evans. 2022. Chronically Under-Addressed: Considerations for HCI Accessibility Practice with Chronically Ill People. In Proceedings of the 24th International ACM SIGAC-CESS Conference on Computers and Accessibility (Athens, Greece) (ASSETS '22). Association for Computing Machinery, New York, NY, USA, Article 9, 15 pages. https://doi.org/10.1145/3517428.3544803
- [75] Kelly Avery Mack, Rida Qadri, Remi Denton, Shaun K. Kane, and Cynthia L. Bennett. 2024. "They only care to show us the wheelchair": Disability Representation in Text-to-Image AI Models. In Proceedings of the CHI Conference on Human Factors in Computing Systems (Honolulu, HI, USA) (CHI '24). Association for Computing Machinery, New York, NY, USA, Article 288, 23 pages. https://doi.org/10.1145/3613904.3642166
- [76] Peter McClard. 2022. Sorry, Generating AI Art Does Not Make You an Artist. Medium. https://peter-mcclard.medium.com/sorry-generating-ai-art-doesnot-make-you-an-artist-108fe16d4de7
- [77] Patrick W. McCray. 2020. Making Art Work: How Cold War Engineers and Artists Forged a New Creative Culture. MIT Press, Cambridge, Massachusetts.
- [78] Safiya Umoja Noble. 2018. Algorithms of Oppression. New York University Press, New York, NY, USA.
- [79] Keita Ohshiro and Mark Cartwright. 2022. How People Who are deaf, Deaf, and hard of hearing use technology in creative sound activities. In Proceedings of the 24th International ACM SIGACCESS Conference on Computers and Accessibility (Athens, Greece) (ASSETS '22). Association for Computing Machinery, New York, NY, USA, Article 66, 4 pages. https://doi.org/10.1145/3517428.3550396
- [80] Lawrence A Palinkas, Sarah M Horwitz, Carla A Green, Jennifer P Wisdom, Naihua Duan, and Kimberly Hoagwood. 2015. Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. Administration and policy in mental health and mental health services research 42 (2015), 533–544.
- [81] Charlie Parker, Sam Scott, and Alistair Geddes. 2019. Snowball Sampling. https: //doi.org/10.4135/9781526421036831710
- [82] William Christopher Payne, Fabiha Ahmed, Michael Zachor, Michael Gardell, Isabel Huey, Amy Hurst, and R. Luke Dubois. 2022. Empowering Blind Musicians to Compose and Notate Music with SoundCells. In Proceedings of the 24th International ACM SIGACCESS Conference on Computers and Accessibility (Athens, Greece) (ASSETS '22). Association for Computing Machinery, New York, NY, USA, Article 17, 14 pages. https://doi.org/10.1145/3517428.3544825
- [83] William C Payne, Ann Paradiso, and Shaun Kane. 2020. Cyclops: Designing an eye-controlled instrument for accessibility and flexible use. In Proceedings of the International Conference on New Interfaces for Musical Expression, Romain Michon and Franziska Schroeder (Eds.). Birmingham City University, Birmingham, UK, 576–580. https://doi.org/10.5281/zenodo.4813204
- [84] William Christopher Payne, Alex Yixuan Xu, Fabiha Ahmed, Lisa Ye, and Amy Hurst. 2020. How Blind and Visually Impaired Composers, Producers, and Songwriters Leverage and Adapt Music Technology. In Proceedings of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility (Virtual Event, Greece) (ASSETS '20). Association for Computing Machinery, New York, NY, USA, Article 35, 12 pages. https://doi.org/10.1145/3373625.3417002
- [85] Dharani Priyahansika Perera, Jim R. T. Eales, and Kathy Blashki. 2007. The Drive to Create: An Investigation of Tools to Support Disabled Artists. In Proceedings of the 6th ACM SIGCHI Conference on Creativity & Cognition (Washington, DC, USA) (C&C '07). Association for Computing Machinery, New York, NY, USA, 147–152. https://doi.org/10.1145/1254960.1254981
- [86] Patric D. Prince and Deborah Sokolove Colman. 1986. SIGGRAPH 1986: A Retrospective. ACM SIGGRAPH Art Shows. https://digitalartarchive.siggraph. org/exhibition/6098/
- [87] Helen Pritchard and Jane Prophet. 2015. Diffractive Art Practices: Computation and the Messy Entanglements Between Mainstream Contemporary Art, and New Media Art. Artnodes: Revista de Arte, Ciencia y Tecnología 0, 15 (2015), 5–14. https://doi.org/10.7238/issn.1695-5951
- [88] Lauren Race, Chancey Fleet, Joshua A. Miele, Tom Igoe, and Amy Hurst. 2019. Designing Tactile Schematics: Improving Electronic Circuit Accessibility. In Proceedings of the 21st International ACM SIGACCESS Conference on Computers and Accessibility (Pittsburgh, PA, USA) (ASSETS '19). Association for Computing Machinery, New York, NY, USA, 581–583. https://doi.org/10.1145/3308561.

3354610

- [89] Lauren Race, Claire Kearney-Volpe, Chancey Fleet, Joshua A. Miele, Tom Igoe, and Amy Hurst. 2020. Designing Educational Materials for a Blind Arduino Workshop. In Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (>Honolulu, HI, USA) (CHI EA '20). Association for Computing Machinery, New York, NY, USA, 1–7. https://doi.org/10.1145/3334480. 3383055
- [90] Lauren Race, Joshua A. Miele, Chancey Fleet, Tom Igoe, and Amy Hurst. 2020. Putting Tools in Hands: Designing Curriculum for a Nonvisual Soldering Workshop. In Proceedings of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility (Virtual Event, Greece) (ASSETS '20). Association for Computing Machinery, New York, NY, USA, Article 78, 4 pages. https://doi.org/10.1145/3373625.3418011
- [91] Grazia Ragone. 2020. Designing Embodied Musical Interaction for Children with Autism. In Proceedings of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility (Virtual Event, Greece) (ASSETS '20). Association for Computing Machinery, New York, NY, USA, Article 104, 4 pages. https: //doi.org/10.1145/3373625.3417077
- [92] Kyle Rector, Keith Salmon, Dan Thornton, Neel Joshi, and Meredith Ringel Morris. 2017. Eyes-Free Art: Exploring Proxemic Audio Interfaces For Blind and Low Vision Art Engagement. Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. 1, 3, Article 93 (sep 2017), 21 pages. https://doi.org/10.1145/3130958
- [93] Marta Resende, Diana Carvalho, Anabela Branco, and Tânia Rocha. 2022. Art & Accessibility: A Case Study on Collage for People with Visual Disabilities. In Proceedings of the 10th International Conference on Digital and Interactive Arts (Aveiro, Portugal) (ARTECH '21). Association for Computing Machinery, New York, NY, USA, Article 32, 7 pages. https://doi.org/10.1145/3483529.3483676
- [94] Nina Reviers and Sabien Hanoulle. 2023. Aesthetics and Participation in Accessible Art Experiences: Reflections on an Action Research Project of an Audio Guide. *Journal of Audiovisual Translation* 6, 2 (Dec. 2023), 99–121. https://doi.org/10.47476/jat.v6i2.2023.277
- [95] Carla Rice, Eliza Chandler, Fady Shanouda, Chelsea Temple Jones, and Ingrid Mündel. 2024. Misfits Meet Art and Technology: Cripping Transmethodologies. Cultural Studies Critical Methodologies 0, 0 (2024), 15327086241234705. https://doi.org/10.1177/15327086241234705 arXiv:https://doi.org/10.1177/15327086241234705
- [96] Adi Robertson. 2023. Who Owns AI Art? The Verge. https://www.theverge. com/23961021/ai-art-copyright-training-ownership-fair-use
- [97] Ran Ronen. 2024. How Artificial General Intelligence Could Redefine Accessibility. Forbes. https://www.forbes.com/sites/forbesbusinesscouncil/2024/02/02/ how-artificial-general-intelligence-could-redefine-accessibility/
- [98] Elisabeth Rudowicz. 2003. Creativity and Culture: A Two Way Interaction. Scandinavian journal of educational research 47, 3 (2003), 273–290.
- [99] Abir Saha, Darren Gergle, and Anne Marie Piper. 2023. Understanding Peer-to-Peer Instructional Support in an Online Community for Blind Audio Producers. In Proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility (New York, NY, USA) (ASSETS '23). Association for Computing Machinery, New York, NY, USA, Article 48, 15 pages. https://doi.org/10.1145/ 3597638.3608399
- [100] Abir Saha, Thomas Barlow McHugh, and Anne Marie Piper. 2023. Tutoria11y: Enhancing Accessible Interactive Tutorial Creation by Blind Audio Producers. In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (Hamburg, Germany) (CHI '23). Association for Computing Machinery, New York, NY, USA, Article 220, 14 pages. https://doi.org/10.1145/3544548.3580698
- [101] Abir Saha and Anne Marie Piper. 2020. Understanding Audio Production Practices of People with Vision Impairments. In Proceedings of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility (Virtual Event, Greece) (ASSETS '20). Association for Computing Machinery, New York, NY, USA, Article 36, 13 pages. https://doi.org/10.1145/3373625.3416993
- [102] Hugo Scurto, Baptiste Caramiaux, and Frederic Bevilacqua. 2021. Prototyping Machine Learning Through Diffractive Art Practice. In *Designing Interactive Systems Conference 2021* (Virtual Event, USA) (*DIS '21*). Association for Computing Machinery, New York, NY, USA, 2013–2025. https://doi.org/10.1145/ 3461778.3462163
- [103] Hugo Scurto and Ludmila Postel. 2023. Soundwalking Deep Latent Spaces. In Proceedings of the 23rd International Conference on New Interfaces for Musical Expression (NIME'23). The International Conference on New Interfaces for Musical Expression, Mexico, Mexico, 1–4. https://hal.science/hal-04108997
- [104] Sarah Shaffi. 2023. 'It's the opposite of art': Why Illustrators are Furious about AI. The Guardian. https://www.theguardian.com/artanddesign/2023/jan/23/itsthe-opposite-of-art-why-illustrators-are-furious-about-ai
- [105] Shawn Shan, Jenna Cryan, Emily Wenger, Haitao Zheng, Rana Hanocka, and Ben Y. Zhao. 2023. Glaze: Protecting Artists from Style Mimicry by Text-to-Image Models. In 32nd USENIX Security Symposium (USENIX Security 23). USENIX Association, Anaheim, CA, 2187–2204. https://www.usenix.org/conference/ usenixsecurity23/presentation/shan
- [106] Shawn Shan, Wenxin Ding, Josephine Passananti, Stanley Wu, Haitao Zheng, and Ben Y. Zhao. 2024. Prompt-Specific Poisoning Attacks on Text-to-Image

Bennett and Shelby et al.

Generative Models. arXiv:2310.13828 [cs.CR]

- [107] Finnegan Shannon. 2018. Do you want us here or not. https://shannonfinnegan. com/do-you-want-us-here-or-not
- [108] Renee Shelby, Shalaleh Rismani, Kathryn Henne, AJung Moon, Negar Rostamzadeh, Paul Nicholas, N'Mah Yilla-Akbari, Jess Gallegos, Andrew Smart, Emilio Garcia, and Gurleen Virk. 2023. Sociotechnical Harms of Algorithmic Systems: Scoping a Taxonomy for Harm Reduction. In Proceedings of the 2023 AAAI/ACM Conference on AI, Ethics, and Society (Montréal, QC, Canada) (AIES '23). Association for Computing Machinery, New York, NY, USA, 723–741. https://doi.org/10.1145/3600211.3604673
- [109] Renee Shelby, Shalaleh Rismani, and Negar Rostamzadeh. 2024. Generative AI in Creative Practice: ML-Artist Folk Theories of T2I Use, Harm, and Harm-Reduction. In Proceedings of the CHI Conference on Human Factors in Computing Systems (Honolulu, HI, USA) (CHI '24). Association for Computing Machinery, New York, NY, USA, Article 32, 17 pages. https://doi.org/10.1145/3613904. 3642461
- [110] Alice Sheppard and Yevgeniya Zastavker. 2016. Ramp/Kinetic Light. Adaptation + Ability Group. http://aplusa.org/projects/ramp-alice-sheppard/
- [111] Alexa F. Siu, Son Kim, Joshua A. Miele, and Sean Follmer. 2019. shapeCAD: An Accessible 3D Modelling Workflow for the Blind and Visually-Impaired Via 2.5D Shape Displays. In Proceedings of the 21st International ACM SIGACCESS Conference on Computers and Accessibility (Pittsburgh, PA, USA) (ASSETS '19). Association for Computing Machinery, New York, NY, USA, 342–354. https: //doi.org/10.1145/3308561.3353782
- [112] Abigale Stangl, Jeeeun Kim, and Tom Yeh. 2014. 3D printed tactile picture books for children with visual impairments: a design probe. In Proceedings of the 2014 Conference on Interaction Design and Children (Aarhus, Denmark) (IDC '14). Association for Computing Machinery, New York, NY, USA, 321–324. https://doi.org/10.1145/2593968.2610482
- [113] Jennifer Sullivan Sulewski, Heike Boeltzig, and Rooshey Hasnain. 2012. Art and Disability: Intersecting Identities Among Young Artists with Disabilities. Disability Studies Quarterly 32, 1 (2012). https://doi.org/10.18061/dsq.v32i1.3034
- [114] Atieh Taheri, Mohammad Izadi, Gururaj Shriram, Negar Rostamzadeh, and Shaun Kane. 2023. Breaking Barriers to Creative Expression: Co-Designing and Implementing an Accessible Text-to-Image Interface. arXiv:2309.02402 [cs.HC]
- [115] Chelsea Temple Jones, Carla Rice, Margaret Lam, Eliza Chandler, and Karen Jiwon Lee. 2021. Toward TechnoAccess: A Narrative Review of Disabled and Aging Experiences of Using Technology to Access the Arts. *Technology in Society* 65 (2021), 101537. https://doi.org/10.1016/j.techsoc.2021.101537
- [116] Nina Tran, Richard E. Ladner, and Danielle Bragg. 2023. U.S. Deaf Community Perspectives on Automatic Sign Language Translation. In Proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility (New York, NY, USA) (ASSETS '23). Association for Computing Machinery, New York, NY, USA, Article 76, 7 pages. https://doi.org/10.1145/3597638.3614507
- [117] Shari Trewin. 2018. AI Fairness for People with Disabilities: Point of View. arXiv:1811.10670 [cs.AI]
- [118] Angela Watercutter and Will Bedingfield. 2023. Hollywood Actors Strike Ends With a Deal That Will Impact AI and Streaming for Decades. Wired. https: //www.wired.com/story/hollywood-actors-strike-ends-ai-streaming/
- [119] Cedric Deslandes Whitney and Justin Norman. 2024. Real Risks of Fake Data: Synthetic Data, Diversity-Washing and Consent Circumvention. In Proceedings of the 2024 ACM Conference on Fairness, Accountability, and Transparency (Rio de Janeiro, Brazil) (FAccT '24). Association for Computing Machinery, New York, NY, USA, 1733-1744. https://doi.org/10.1145/3630106.3659002
- [120] Rua M. Williams and Juan E. Gilbert. 2019. Cyborg Perspectives on Computing Research Reform. In Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems (Glasgow, Scotland Uk) (CHI EA '19). Association for Computing Machinery, New York, NY, USA, 1–11. https://doi.org/10.1145/ 3290607.3310421
- [121] Jacob O. Wobbrock, Shaun K. Kane, Krzysztof Z. Gajos, Susumu Harada, and Jon Froehlich. 2011. Ability-Based Design: Concept, Principles and Examples. ACM Trans. Access. Comput. 3, 3, Article 9 (apr 2011), 27 pages. https://doi.org/ 10.1145/1952383.1952384
- [122] Yurui Xie, Giulia Barbareschi, Ayesha Nabila, Kai Kunze, and Masa Inakage. 2023. Movement Quality Visualization for Wheelchair Dance. Proc. ACM Comput. Graph. Interact. Tech. 6, 2, Article 23 (aug 2023), 12 pages. https: //doi.org/10.1145/3597628

#### 8 APPENDIX

#### Table 2: Participant demographics & access technologies

Age Range	
18 - 24	0
25 - 34	5
35 - 44	4
45 - 54 55 - 64	1
65 - 74	0 0
65 - 74 75+	0
75+	0
Race/Ethnicity (multi-select)	
Asian	1
American Indian or Alaska Native	1
Black or African American Hispanic, Latino, or Spanish origin	1 0
Middle Eastern or North African	0
Native Hawaiian or other Pacific Islander	0
White	7
Another race or ethnicity not listed	1
Prefer not to answer	0
Gender (write in)	
Female	3
Female/Woman	1
Female/Genderqueer	1
Woman	1
Male	2
None	1
No response	1
Disabilities	
Blind	3
Chronic illness	2
Cognitive disabilities	3
D/deaf Facial or limb difference	2 1
Hard of hearing	2
Learning difference	1
Low vision	1
Motor disabilities	3
Mobility disabilities	3
Access Technologies	
AI	2
AI captions	2
ASL	2
Auto-injectors	1
Braces	2
Braille displays Braille embossers	1 1
Cane	1
CART	1
Dictation	2
Ergonomic keyboard	2
Hearing aids	1
Light detector	1
Magnification	2
Memory prosthetics	1
Oxygen tank	1
Remote access	1
Screen readers	3
Smarthome technologies	3 1
Spelling and grammar checkers Sticky keys	1
Text-to-speech	2
Visual interpreters	1

Portfolio Portfolio Website	BlinkPopShift Jennifer Justice Jason Meddaugh	blinkpopshift.com/projects jennifer-justice.com linkedin.com/in/jasonmeddaugh
	<i>v v</i>	5 5
Website	Jason Meddaugh	linkedin.com/in/iasonmeddaugh
Business	A.T. Guys	atguys.com
Business	Blind Bargains	blindbargains.com
Portfolio	The Melanated Mind	instagram.com/themelanatedmind
Project	how did we get here	vimeo.com/378524407
Project	i can't write	vimeo.com/355860891
	Project	Project how did we get here

## Table 3: Participant portfolios and projects