Revisiting Disability Studies in HCI: From Access to Justice through Artistic Practices

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Abstract

This paper revisits Mankoff, Hayes, and Kasnitz's 2010 publication "Disability Studies as a Source of Critical Inquiry for the Field of Assistive Technology"—a pivotal work that introduced Disability Studies (DS) into HCI and reoriented accessibility research through cultural, social, and political perspectives. Fifteen years later, while DS has profoundly shaped research practices in HCI, scholars continue to note the limited representation of disabled people's multifaceted identities—prompting calls for Disability Justice (DJ) to expand access beyond rights-based inclusion toward interdependence, creativity, and collective liberation.

We suggest that realizing DJ's potential in HCI requires returning to its creative and communal roots – through public, artistic, and collective practices that center crip joy and disabled expertise. As one example, drawing on first author's research, including *Crip Sensorama*, an XR installation co-authored with disabled artists, we demonstrate how DJ can be practiced as shared, lived experience rather than abstract principle.

Keywords

disability studies, disability justice, artistic interventions, mouth interfaces, XR

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1 Disability Studies meets HCI

The year 2010 marked a pivotal moment in Human-Computer Interaction (HCI), signaling the convergence of Disability Studies (DS) and accessibility research. With their paper titled *"Disability Studies as a Source of Critical Inquiry for the Field of Assistive Technology"*, Mankoff et al.[1] [29] envisioned the integration of DS within HCI to "provide a nuanced understanding of assistance and address the complex interplay of issues at work." Provoking and reimagining earlier approaches in accessibility, the authors positioned disability not merely as a condition to be addressed but as *a source of critical inquiry* to build assistive technologies. Before this intervention, Disability Studies and HCI existed as largely separate domains—DS theorizing the politics and culture of disability, and HCI focusing on technological solutions to what it treated as "impairment" [22, 25]. Previously this separation had left HCI as the domain of problem-solver (disability constituting a medicalised, individual problem and technology the solution) and Disability Studies as that of critics—each speaking about disability from opposite ends of experience.

Mankoff et al. [29] thus shook the field by bringing these two disciplines into dialogue, foregrounding disability as a cultural, social, and political identity instead and, subsequently, situating disabled experiences as central to the design and evaluation of technologies. This shift marked a move from designing "for" disabled people to designing *with* disabled communities, recognizing lived experiences of disability as driving forces in the building of assistive technologies. In 2025, we can trace how [29]'s research became a cornerstone that paved the way for a wave of disability-led methods [9, 16, 21, 27, 37], frameworks and interventions [3, 12, 15, 28, 32, 36, 43, 44], disability-led designs [23, 33], and crip narratives [1, 8, 10, 17, 24] within HCI—centering disabled people's needs and expertise toward more equitable technology design.

As researchers positioned at the intersection of HCI, Disability Studies, and the Arts and Humanities, we recognize and revisit this moment as a decisive turning point in HCI. It marked a clear departure from the medical model that framed disability as a problem to be fixed [2, 6], steering HCI toward social, relational, and critical perspectives [13, 26, 35]. The intellectual genealogy stemming from Mankoff et al. [29] demonstrates how their paper became a root node for an expanding body of disability-led HCI research—branching toward critical access studies, lived experience methods, and more recently, disability justice [39].

2 So What Now? Moving towards Disability Justice

In 2025, fifteen years later, despite sustained efforts across the HCI community, disabled people's multifaceted identities and lived experiences remain underrepresented—exacerbating the continued devaluation of disabled expertise in the field [40, 46]. While the field has made strides in participation and inclusion [38, 42], these advances often stay within rights-based or accommodationist logics,

[1]The link to the PDF of our revisited publication can be accessed here: https://www.cs.cmu.edu/~io/publications/10MankoffASSETS.pdf

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where access is imagined as (non-disabled) compliance rather than (solidarity-based) coalition. It is precisely for this reason that researchers working at the intersection of Disability Studies and HCI have demanded Disability Justice frameworks that move beyond access as a right toward justice as an ongoing practice of interdependence, allyship, and power-sharing [19, 39, 40]. In this revisitation, we understand Mankoff et al.'s original vision not as unfulfilled, but as *unfinished* — a foundation that contemporary scholars are expanding through justice-based approaches [19, 39, 40]. The question that now confronts the field is how HCI might carry this promise forward—what remains missing in how we understand, research and practice Disability Justice in HCI today?

To speculate on this question, we use this paper as a reminder that Disability Justice (DJ) did not emerge from academic theory but from performance and artistic practice. Its genealogy lies in *Sins Invalid* - the collective founded by Patricia Berne and Leroy Moore—which advanced ten principles of DJ, reframing access as a practice oriented on collective care and interdependence rather than institutional compliance [4]. Across art, design, and technology, disabled artists have long enacted these principles, transforming access considerations into performance, invention, and critique through the very technologies that often exclude them [5, 11, 30]. These practices remind HCI that justice exceeds design standards—it is a goal that needs to be lived, aesthetic, and shared through ongoing acts of interdependence [3].

Through this lineage, we propose a re-orientation in HCI that acknowledges that justice cannot be achieved through standards or interfaces alone; it must be performed, felt, and continually negotiated in relation with others - sometimes not with "users", but with friends and allies. It is from this unfinished lineage—from Disability Studies to the so far unrealized promise of Disability Justice—that the current work of the authors stems from.

Figure 1: Up: Staging of Crip Sensorama where two visitors sit opposite to each other; Down: A visitor interacting in *Crip Sensorama* at Ars Electronica Festival for Art, Technology and Society (2024).

3 New Wave of Disability Justice in HCI: A Proposition

As authors situated across critical disability studies, HCI, and the arts, we propose a new wave of Disability Justice in HCI — one that learns from the past and thus insists on artistic and materially grounded disabled-led futures. To ground this proposition, we present a brief case study from the first author Jain's ongoing doctoral research where he is developing accessible XR interfaces with (and for) his quadriplegic and tetraplegic friends, repositioned through *Crip Sensorama* [18, 20] - an XR art installation.

For example, as a part of SNSF Project, *Probing XR's Futures*[2] (2023-2027), led by Salter, Jain is developing custom camera-based mouth-gesture interfaces in XR for and with his friends (not users) who are disabled artists. Jain's friends are excluded from using general purpose XR devices as these technologies demand extensive body movements, head rotations, hand gestures - none of which match how his disabled friends engage with their everyday environments, such as using mouth-operated assistive devices (XR technologies are critiqued for the same previously in [7, 14, 21, 31]). While Jain's co-designed interfaces enable his friends to access XR using their cheeks, tongue, and jaw movements, they co-developed *Crip Sensorama* [20], an artwork that uses and reframes these mouth interfaces not as assistive technologies but as instruments for Disability Justice. Installed in public and artistic settings, visitors open their mouths, puff their cheeks, and move their tongues to interact with disabled storytelling in XR - centering Jain's friend's love for coffee, which he drinks using a straw (Figure 1). In this way, allowing the visitors to question the implicit ability assumptions in XR [41, 45] through art, these interfaces move beyond access as accommodation; they "perform" justice by sharing crip joy, disabled stories, and expertise through interfaces that center crip design - to engage in what Siebers calls *disability aesthetics* [34]. Refer to [18, 20, 21] for more detailed discussion of this work.

4 Conclusion

In revisiting the pivotal convergence of Disability Studies and HCI, this paper invites the field to rethink access not as accommodation, but as justice. While we demonstrate this through only one example of how Disability Justice might take shape within HCI, this work is intended as a proposition rather than a prescription—a continuation of the foundations laid by Disability Studies in HCI. It reminds the field that Disability Justice has always been artistic and collective at its roots, emerging from creative and relational practices rather than technical solutions. We invite HCI to extend this legacy through the artistic, critical, and reflective practices that Disability Justice continues to demand.

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