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# Terms of use: Crip legibility in information systems

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### Abstract

Centering disabled voices and leveraging disability studies as methodology within the construction of information systems can sharpen analyses of the design of information systems, algorithmic decision making, and their impacts. In this article, we put forth three main points: (1) thinking at the intersection of information and disability studies is productive and sharpens analyses about technology, bodyminds, and identity; (2) disabled people render themselves legible or illegible in information systems by creatively adapting to or resisting them; and (3) analyses of crip legibility are crucial to re-imagining the future of information systems. Together, these facets illustrate a move we call *crip legibility*: how disabled people flexibly respond to, contort, or collectively organize themselves to fit within (or be understood by) existing information systems while building new systems of resistance and care. This term considers the processes by which disabled bodyminds are disciplined, surveilled, or otherwise required to conform to standards set by existing ableist systems while holding space to reimagine otherwise. Information systems — like library call numbers that classify, document, and inform — might distill someone’s experience or identity into a format that becomes readable for medical diagnosis, hiring, legal compliance, and is reproduced in other settings or systems. Using case studies from this special issue, we show how prevalent and harmful these systems can be, how disabled people have resisted or worked around them, and how we might imagine or build otherwise. Crip legibility, then, draws attention to both histories and contemporary embodiments of surveillance and classification — of both disabled and non-disabled bodies — and commits to reimagining information systems that resist technoableist norms.

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### Introduction

Disabled people are, and have always been, experts at navigating information systems.

We [1] are both producers and objects of documentation: our everyday experiences are regularly flattened into neat data tables to be sorted into categories of compliant patients who are and aren't deserving of care. Outside the physical confines of the clinic, we click through frustrating online booking systems for impossible medical appointments, coordinate spreadsheets to provide meals across care networks, and share resources and solidarity with online communities of chronically ill people. Scroll through search results on disability uncritically, however, and a new world emerges: inspirational speakers wax poetic about overcoming disability and design firms debut “disability dongles” (Jackson, *et al.*, 2022) — technology that ostensibly helps disabled people but without our involvement — to great acclaim. Online library catalogs also place “people with disabilities” as a subcategory of “social welfare and criminology,” (Adler, *et al.*, 2017) implying that disability should automatically elicit either pity or fear. To be disabled, however, is to be an experienced cyborg (Shew, *et al.*, 2019), builder (Hamraie, 2017), and hacker (Jackson, 2018). Our bodyminds are continually re/made by technologies, and we find creative workarounds to make the environment around us more accessible. For some, this means using magnetic closures instead of buttons to quickly change into a new disguise; for others, using voice dictation instead of typing to plot against an arch-nemesis. Computers are not the only kind of machine that disabled people hack to fit their specific needs.

While disability can be framed as an issue of legal compliance rather than a topic of critical scholarly interrogation, this special issue situates disabled voices and disability studies frameworks as ways of knowing central to the fields of critical information and digital studies. We seek to address disability and information systems through their materiality, methods, representations, technological specificities, and lived embodiments, from the historical to the contemporary. Navigating, remixing, repairing, and re-imagining the technological ecosystems around us are themselves acts of disabled resistance. By bringing together dual perspectives from disability and information studies, these articles map critical histories and speculative futures for new technologies that are foregrounded in critical discussions about social justice.




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## Starting points

Imagining more just futures — and enacting a more just present — requires a collective approach to disability and information systems that prioritizes interconnectedness. Early scholarship in disability studies offered two dominant or primary frameworks for thinking about disability — the medical and social models — in order to understand meanings of illness and disability. The medical model takes an individual approach to disability by identifying it as a “problem” with an individual’s bodymind that requires treatment, eradication, prevention, or cure (*e.g.*, “fixing” a deaf child with a cochlear implant); the social model recasts disability as borne out of the social and built environment (*e.g.*, language deprivation informed by hearing supremacy and the lack of American Sign Language pedagogy). Building on other relational frameworks, feminist scholar Alison Kafer provides a third alternative — the political/relational model — as a way to see disability as a “site for collective reimagining” which is produced through interactions between people, materials, environments, and their histories as opposed to an individual’s experience or a single encounter [2]. Similarly, disability justice activists Mia Mingus and Ki’tay Davidson center *interdependence* as a way to identify how institutions, personal relationships, environments, pharmaceuticals, and other material things are enmeshed with disabled people’s lives. Mingus draws attention to how “someone made the clothes you’re wearing now, your shoes ... we don’t grow all our own food and spices.” She continues, “We can’t pretend that what happens in this country doesn’t affect others, or that things like clean air or water don’t bind us all together. We are dependent on each other, period” (Mingus, 2017). And, although all of us may be interdependent with other people and systems, non-disabled people have their dependencies normalized while disabled people are pathologized for ours (Ki’tay Davidson quoted in Lewis, 2017). Drawing on many lineages of crip theory around relationality, we show how ableism is similarly informed by racism, sexism, transphobia, fatphobia, ageism, religious discrimination, economic exploitation, and white supremacy — insights that are critical as we analyze

information systems (e.g., Kafai, 2021; Sins Invalid, 2016; Kafer, 2013; Hall, 2011; McRuer, 2006).

In this sense, studying information systems in isolation and not as part of broader social constellations misses the nuance of how people negotiate, resist, and create new ways of interacting with technology. Human-computer interaction researchers Cynthia Bennett, Erin Brady, and Stacy Branham (2018) show how interdependence frameworks can meaningfully improve systems design by shedding light on the ways that technologies can challenge existing hierarchies and giving researchers a framework to think about competing accommodation requests. Building upon these concepts, the pieces in this special issue show how disabled people navigate existing systems and create their own, each underscoring specific interdependencies between people, information systems, and histories of disability. Interdependence is a powerful framework that pushes against the assumption that individual people or technologies can fix systems and bodyminds in isolation. Interdependence demands both a systems-level analysis and granular engagement with everyday experience.

Using interdependence as a conceptual starting point, this special issue takes disability not simply as an object of study but also as a *methodological* approach. Attention to embodied experience, disability expertise (Hartblay, 2020), and reflections on power structures that stigmatize the cultural production of difference are just a few ways that scholars can productively use disability as a critical methodology as it intersects with race, gender, sexuality, size, or class (Luna and Pashall, 2022; Waggoner and Mog, 2020; Mollow, 2015; Schalk, 2017; Kudlick, 2003). Untangling normative conceptions of how bodyminds *ought* to interact with technology is crucial to understanding the limits and possibilities of designing new systems. At its core, however, disability as a methodology is necessary, as literary scholar Julie Avril Minich (2016) argues, to “recommit the field to its origins in social justice work” and to recognize “the activist movements to which disability scholars should be accountable.” Importantly, this critical, activist attention towards research on and with disability similarly extends to the technological assemblages and information networks that shape disabled people’s lives. How technologies embody, enact, and create new understandings of disability is crucial for coalition building as it takes into consideration the material conditions under which disabled people survive, resist, and thrive (Waggoner and Mog, 2020; Kim, 2017).

Likewise, the pieces in this issue draw on a wide array of critical scholarship from the field of information studies — a broad field which spans many disciplines and methodologies within archives, libraries, and their histories to databases, algorithms, and interface design. From library sciences, archival studies, human computer interaction, to critical data studies — what might be considered critical information studies (Vaidhyathan, 2006) — scholars, makers, and thinkers have long documented how classification systems are integral to working infrastructure (Bowker and Star, 2000) and how information systems are also relational. Additionally, building information systems is not simply a question of contemporary importance. For example, historians of information, science, and technology have traced the origins of information overload and the craft practices that readers and writers used to manage the deluge from early modern printing practices to library classification schemas like the Dewey Decimal System (Blair, 2010; Olson, 2001; Drabinski, 2013). Many archival scholars have also traced the very processes and archival decision-making processes that impact how we understand history, others, and ourselves (e.g., Sutherland, 2017; Ghaddar, 2016; Caswell, *et al.*, 2017; Duff and Harris, 2002). This issue draws on the many subfields of critical information studies — from critical archival studies (Caswell, *et al.*, 2017) to science and technology studies (Medina, 2014) — in order to place foci on how information systems both imbue and are imbued by social, cultural, and political context.

Moreover, brick-and-mortar cultural institutions are crucial sites of learning for digital studies scholars because their approaches to the classification, retrieval, and distribution of information have direct consequences for the ways that we experience and consume information on the Internet. Search algorithms and information retrieval have direct historical analogs in the classification of archival materials and books. Additionally, libraries — as producers and distributors of digital media — are subject to the same legal and financial pressures as the Internet content creation industry, as they constantly negotiate paywalls, subscription fees, and search visibility. Unpacking the technological infrastructure of the physical cultural institutions and their organizing systems also helps us understand the creation and deployment of AI, as

algorithmic processes share questions of labor and accessibility (e.g., Hickman, 2023; Hickman and Titchkosky, 2021; Ellcessor, 2016; Roberts, 2019; Gray and Suri, 2019).

This special issue examines multiple facets of information systems as they relate to disability: from the creation and critique of digital archives, libraries, cataloging systems, and patient records, to computer graphics and immersive technologies. These objects of inquiry can be sites of both ableist oppression and productive critique; these papers highlight how these technologies can be improved by using disability as a lens for refinement and/or their designs reimaged (Costanza-Chock, 2020). Intentionally thinking with disability — particularly as it pertains to information technologies that quantify, measure, categorize, and surveil disabled people — can help us draw connections between the historical and the technical, the analog and the digital, from individual craft practice to institutional analyses. We bring multiple fields, disciplines, methods, and interventions from what might be considered information studies together in this special issue to show how current information systems shape and remake disability — some that create distorted, imagined visions of disabled people, and others which can provide more liberatory avenues for disabled people to engage with new technologies.

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## Conceptual roadmap

From case studies about the Library of Congress' indexing systems to the creation of an e-mail server to facilitate access requests, these articles provide a launching pad to further develop what philosopher Ashley Shew (2020) calls *technoableism*: a term that “describe[s] a rhetoric of disability that at once talks about empowering disabled people through technologies while at the same time reinforcing ableist tropes about what body-minds are good to have and who counts as worthy.” These contributions also extend the work in the germinal volume *Feminist and queer information studies reader* (Keilty and Dean, 2013), which uses queer and feminist theory to build new philosophies and practices about information broadly construed. The articles in this volume (and the framework we provide to theorize with them) illustrate how disability and information systems are shaped by one another. We have connected the articles in this issue into three clusters which, while not mutually exclusive, help us to theorize about how information systems render the legibility of disabled people in different ways.

In the first section, the articles bear witness to how information systems have quantified, measured, and categorized disabled bodyminds in ways that intensify the surveillance and institutionalization of disabled people and shape their access to resources. This section outlines how the terms of legibility are not only historical objects in and of themselves, but also produce new, skewed imaginaries through which disability becomes legible.

The second section turns to how disabled people are not only recipients of technological decision-making but also contributors through the friction they add (Hamraie, 2017). Disabled people have long resisted and remixed hostile spaces into ones that are more accessible, from smashing sidewalks and pouring cement for curb cuts to creating alt-text reminder bots. The case studies from the second section explore questions of labor, expertise, and access as disabled people work against and outside the systems that attempt to define and confine us.

Articles in the third and final section demonstrate the magic that disabled people bring to building something new altogether — something that not only resists current systems but also imagines otherwise. Disability studies scholars Amy Hamraie and Kelly Fritsch's (2019) vision of crip technoscience outlines the possibilities that come from disabled critique and world-building: only by “centering technoscientific activism and critical design practices rooted in disability justice,” they argue, can we build towards more accessible futures. In line with such possibilities, the third section takes disability legibility on its own terms by re/imagining systems, representation, consent, and access towards crip world-building.

Taken together, the articles in this volume show not only how systems embody and define ways of being and knowing about disability, but also *how disabled people in turn disrupt, resist, and remake technologies in ways that render us legible through creating friction within and working outside systems*. More than that, however, this volume centers how these practices redefine and reassemble our legibility in new ways — ways that co-create new connections to our communities and our access to our histories.

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## **1. Through quantification, measurement, and categorization, information systems often intensify both the surveillance and erasure of disabled people**

The way that the historical record documents disability — for example through patient notes, asylum documentation, and arrest records — has generated classification structures and information networks that can reinforce reductive narratives around disabled people. Though many of these records emphasize medicalization and rehabilitation above all, becoming legible within documentation in hospitals, government offices, and beyond is itself a political act. Ableist classification systems and the spaces in which they live (*e.g.*, libraries, archives, and search engines) are prime examples of how knowledge ordering necessarily limits the search and discovery of disabled narratives, particularly as they inform decision-making around health and well-being.

Historical documents can also weaponize categories of difference to constrain and discipline disabled bodyminds, but becoming strategically legible in official documents can also become a way of working effectively within the system (for example, to acquire appropriate medical care or social benefits). Drawing attention to analog histories of information systems that erase or further marginalize disabled people is critical to understanding the future of surveillance and digital media. The pieces in this section interrogate this question of legibility in its many forms: to identify the ways that information structures have and continue to play a key role in eugenics and the medicalization of disabled people and to further examine how disabled people respond to and negotiate access to information, medical care, and representation.

We start by thinking about technologies that mediate disabled people's access to information as well as the ways in which they establish and concretize values around disability. **Jasmine L. Clark and Zack Lischer-Katz**, in **“(In)accessibility and the Technocratic Library: Addressing Institutional Failures in Library Adoption of Emerging Technologies,”** begin provocatively by analyzing how academic libraries have increasingly begun to align their interests with Big Tech, particularly in their adoption of artificial intelligence (AI) and immersive technologies (XR) as key components of their services. Adopting these technologies is one thing, Clark and Lischer-Katz argue; in the process, libraries are also appropriating “lean startup” frameworks that are at odds with library ethics and serve to further exclude disabled library users. While adopting these new technologies is part of a broader attempt to innovate library spaces, uncritically adopting these technologies risks importing the same mistakes that pervade technological solutionism. The “lean startup” model of librarianship prizes flashy technologies of the moment at the expense of careful, sustainable library initiatives that meaningfully support a wider audience in academic libraries.

Further addressing libraries as sites that affect disabled people, **Brian Wentz, Ursula Gorham, and Paul T. Jaeger's “Academic Libraries and Their Legal Obligation for Content Accessibility”** focuses on the accessibility of academic libraries in the U.S. The paper's results also have clear implications for the many facets of the Internet's content economy. From purchasing and licensing materials to producing and disseminating their own content, libraries navigate accessibility on various levels, each of which are also subject to industry standards and legal obligations. Wentz, Gorham, and Jaeger argue that a lack of a comprehensive approach to meaningful information access necessarily excludes disabled people. By contrast, taking disability seriously as information studies scholars can create a meaningful difference in the academic library's multifaceted role as digital repository, physical space, publisher, and content creator.

In their piece, **“Handicapped Has Been Canceled: The Terminology and Logics of Disability in Cultural Heritage Institutions,”** Bri(an) M. Watson and Beck Schaefer expand the special issue’s critical lens on libraries by analyzing one heading in the most influential subject indexing system in the world: the Library of Congress Subject Headings (LCSH), which organizes knowledge for galleries, libraries, archives, museums, and special collections (GLAMS). Cataloging and classification systems like LCSH make knowledge and cultural heritage artifacts searchable, but they also embed normative assumptions about the validity of categories like “insanity” or the relative proximity between concepts in information systems (e.g., “people with social disabilities” and “culturally deprived people”). These classification systems often erase disability and replace them with eugenic narratives about overcoming adversity or policing deviance. Watson and Schaefer’s analysis provides an important starting point for scholars of digital media to draw connections between the analog organization of information to digital search and discovery.

The pieces in this special issue also take up how information systems not only encode but also magnify issues around disability, further emphasizing the relationship between historical systems and their contemporary counterparts. Amy Gaeta’s **“Algorithmic Diagnosis: The Phantom Disabilities Created by Social Media Surveillance”** analyzes the affective impact of “diagnostic advertisements,” which are paid posts that project and capitalize on a user’s purported health status to promote medical devices and wellness products. The advertisements’ heavy reliance on implicit identity markers (mediated by surveilling an user’s every move on and off the platform) creates a disturbing form of intimacy that can legitimize a disabled person’s experience — especially if they have been ignored or belittled by physicians — while simultaneously intensifying the commodification of personal health data. Gaeta shows how these advertisements, alongside technological developments in personalized medicine and automated healthcare, often flattens a disabled person’s lived experience in a medical record by reducing people to their clicks and likes on social media. The creation of the disabled “data double” — a digital version of you that an ad believes to have irritable bowel syndrome or bipolar disorder based on platform behavior — exemplifies how algorithmic systems reproduce disability tropes and intensify the datafication of everyday life. In **“Encoding Normative Ethics: On Algorithmic Bias and Disability,”** Ian Moura further teases out the fraught relationship between disabled people and algorithmic medical systems by analyzing Crisis Standards of Care (CSC) used in the early stages of the COVID-19 pandemic and autism-related diagnostic criteria. Building on scholarship on fairness and algorithmic bias, Moura analyzes how algorithmic systems inform medical interventions that normalize disability through neglect and epistemic violence. Together, these two case studies show how algorithms codify eugenic logics in both their design and deployment.

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## 2. Disabled resistance to discriminatory information systems requires a re-mixing and re-imagining of classification and surveillance technologies

Second, we mark moments of friction within information settings: articles in this section identify how making oneself legible within information systems does not have to be passive nor an act of compliance, but can also be an act of resistance. These complex systems of tension — where disabled people negotiate questions of access to food delivery, clear walkways, mainstream job markets, and patient records — are important sites where disabled people make themselves legible in ways that disrupt, shift, or remix the systems on which they rely. From creating new avenues for data workers to negotiate better labor conditions to frameworks for addressing existing AI or medical systems that center the agency and expertise of disabled people, these articles illustrate the transformative potential of disabled expertise and the development of new classification systems that work to shift existing power dynamics.

Connecting histories of disability and place in **“Sidewalks Are for People: Crippling Technocapitalism,”** Olivia Banner and David Adelman focus on the sidewalk — addressing curb cuts and self-driving food delivery robots. Drawing on a range of histories such as that of policing those who “loiter” and those found “unsightly” and contemporary legal, technological, or policy domains that shape sidewalk access and flow,

they trace how the sidewalk has long been a site of surveillance for disabled people. They identify an entanglement of politics around so-called self-driving food delivery robots, which at once provide delivery services of nourishment and sustenance to disabled people while endangering us by blocking our paths or idling in curb cuts, leaving disabled people in oncoming traffic. Such entanglements, they identify, are also enmeshed in the devaluation of racialized food service work in favor of programming work. Through these entanglements, they define *crip sitveillance*, “a form of watching, jamming, interrogating, and ironically mocking how disabled lives are used to justify new surveillant assemblages while also being posited as obstacles to futuristic scenarios.”

Questions about labor and expertise pervade **Di Wu**’s ethnography of disabled data workers in China, “**Assisting Technology: Disability Expertise and Labor in Making AI Work**,” which documents the development of voice assistance technologies similar to Apple Siri or Amazon Alexa. As data workers who tag and transcribe audio snippets to train machine learning systems, these workers are experts who are upheld as inspirational stories for Chinese tech development. Crucially, Wu draws attention to how disability expertise is co-opted to create competitive advantages in AI system development even while disabled workers are largely left behind in the mainstream job market by systemic ableism. Her case study highlights how the story of AI development by disabled data workers is not simply one of extractive capitalism, but one where workers engage in “resource hacking” in order to transform and negotiate more equitable labor practices in AI development. **Josh Guberman and Oliver Haimson**’s “**Not Robots; Cyborgs — Furthering Anti-Ableist Research in Human-Computer Interaction**” challenges essentializing narratives in human-computer interaction (HCI) that characterize autistic people as computers and offer crip technoscience as an alternative framework for more liberatory approaches to technology design. The commodification and pathologization of autism, they argue, contributes to a cycle of tech research and development that prioritizes curative practices (and the violence thereof) over the welfare and agency of autistic people.

**Denis Newman-Griffis, Jess Rauchberg, Rahaf Alharbi, Louise Hickman, and Harry Hochheiser**’s “**Alternative models: Comparing models of disability in artificial intelligence technology design**” likewise identifies how bias emerges in algorithmic systems in three stages of the design process: in the problem formulation phase, in the dataset selection phase, and in the final deployment of AI technologies. Their analysis takes into account three different definitions of disability — through the medical, social, and relational models — to show how working with a specific framework produces fundamentally different design outcomes. For example, healthcare technologies designed using the medical model of disability might optimize for individual therapeutic interventions, whereas technologies designed with the relational model (*i.e.*, where disability exists as a category emerging from social relationships) might prioritize helping disabled people find communities of care to address both systemic and individual problems. Defining the problem that a technology ought to solve is a process that also defines who can (or should) use the system; this article helps inform the design of disability-related AI systems by analyzing specific decision points that influence the final design and deployment of these technologies. **Samuel DiBella** turns attention to medical surveillance as he scrutinizes his own patient archive and the acts of monitoring, watching, and waiting in “**This Patient Is a Hidden Messenger**.” Through an autoethnographic account of “watchful waiting” — an outpatient treatment protocol that emphasizes patient self-surveillance and medical non-intervention until symptoms radically change — he shows how the medical establishment has often treated disabled patients as a mechanism of data transfer, and how electronic patient records often reflect a calcified narrative that effaces a patient’s lived experience. This assemblage of medical records and personal testimony opens up room for interrogating which sources or documents are “credible” for accommodations, treatment, and intervention.

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### 3. Disability expertise resists and transforms ableist norms

Finally, we turn away from existing systems and towards lineages of disabled maker-spaces that imagine

the world otherwise. These last case studies help us illustrate how disabled people build technology and information systems on their own terms. Through oral history archives that capture disabled storytelling to 3D motion-capture technologies that center disabled people's consent, we emphasize how concepts of legibility shift through self-representation. Systems of world-building that center disabled voices demonstrate the magic that occurs when disabled people collectively organize to create a more accessible world (Piepzna-Samarasinha, 2018; Kafai, 2021).

Digital media projects take shape to build access to the world at large. In response to the widespread inaccessibility of European cultural institutions (*e.g.*, museums, libraries, community centers, etc.), the arts-design duo **MELT (Ren Loren Britton and Iz Paehr)** created “**ACCESS SERVER**,” a digital tool that highlights the labor necessary to make them accessible. This e-mail server anonymizes and compensates disabled people for their access requests, which in turn provides these institutions with the resources and expertise to make their spaces more accessible. Through ACCESS SERVER, they illustrate how communities of care can form through the labor of access while highlighting the unequal power relations embedded in requesting accommodations. ACCESS SERVER — like many of the other projects in this section — show how disabled people can work around and outside systems to imagine and enact a more accessible world.

In their piece “**Crippling Computer Graphics: perspectives on disability representation in CG via a community generated 3D asset library**,” disabled media artists **Cielo Saucedo and Nat Decker** also create new avenues for technological futures through Crippling\_CG, which is a digital archive of custom-made 3D assets, avatars, motion capture animation, and community guidelines that uses computer graphics (CG) to rethink crip culture. They respond to harmful histories of computer graphics — like horror genre video games that utilize asylums as sites of medical violence and fright—by giving disabled creators the tools to reconfigure physical realities in digital form. Their analysis shows the many limitations associated with current motion capture technology that prevent creators from producing authentic, celebratory forms of disabled digital embodiment. Their intervention speaks to histories of disability representation, where disabled people might not have had agency in the very documents that capture their lives, while also creating space for crip worldbuilding through this community generated digital asset library.

**Therese Jennissen, Dominique Marshall, Chris Trainor, and Beth Robertson** intervene in the historical representation of disability through “**Creating, Archiving and Exhibiting Disability History: the Experience of the Carleton University Disability Research Group**,” where they discuss building accessible disability archives. In addition to building exhibits, collections, and finding aids that critically address disability representation and access, they highlight a recent project, the oral histories of activists in the disability rights movement in Canada (1970–2020). This project illustrates the importance of building and sustaining relationships with “knowledge keepers,” or activists whose stories they want to share. Through their work they center the vital importance of archival relationships not only for community building but also access to our own histories. **Kulvir Bahra, Shuranjeet Singh, and Taimour Ahmed**, too, think through disabled people's access to support and resources in their article, “**Preparing for peer support in Punjabi men's mental health: the need to understand how online learning can transform the lives of racialised learners**.” In analyzing the literature around Punjabi communities and peer support education, they identify not only the value in peer support networks and transformative education but also how access to such information and resources is crucial for shaping networks by and for disabled people. In conversation with these themes, they showcase Taraki Wellbeing, a volunteer-led organization that works with Punjabi communities primarily in the U.K. to reshape approaches to mental health awareness, education, and peer support. They respond to the sparse literature around Punjabi men's mental health and online peer support education by showing how Taraki takes its audiences' needs seriously by “tr[ying] to understand challenges through the systems, structures and resources that work well.” As part of a community-focused organization, Bahra, Singh, and Ahmed show how concepts from literature are put into action and how access to support services are vital and empowering through this online peer support educational intervention aimed at Punjabi men.



## Crip legibility in information systems

These approaches to resisting or working in systems are important forms of knowledge production about, with, and by disabled people: the authors document the different forms of violence that disabled people face, analyze how disabled people negotiate and navigate within these systems for survival, and generate alternative technologies that first and foremost serve disabled needs. Understanding how to adapt to tech work or to receive medical care, for example, requires tacit knowledge that is difficult to synthesize; additionally, knowledge sharing in disabled communities is often diffuse, informal, or requires unconventional forms of circulation. It is also underscored by interdependence — where, in the words of contributor Di Wu, “disability-informed creativity has transformative world-building potential, [which] can make technologies that are truly useful for the community and bring unprecedented insights to information systems.”

Collectively, the articles in this issue illustrate how disabled people flexibly respond to, contort, or collectively organize themselves to fit within (or be understood by) existing information systems while building new systems of resistance and care, what we call *crip legibility*. This term considers the processes by which disabled bodyminds are disciplined, surveilled, or otherwise required to conform to standards set by existing ableist systems while holding space to reimagine otherwise. Information systems — like library call numbers that classify, document, and inform — might distill someone’s experience or identity into a format that becomes readable for medical diagnosis, hiring, legal compliance, and is reproduced in other settings or systems. Crip legibility, then, draws attention to both histories and contemporary embodiments of surveillance and classification — of both disabled and non-disabled bodyminds — and commits to reimagining information systems that resist technoableist norms.

To note, crip legibility rethinks information systems as a tool of recognition by rejecting the metaphorical ways in which disability gets deployed as a deficit for perception and understanding — *e.g.*, “silences,” “blind spots,” “invisibility.” By contrast, we think about sensory perception, in all its complexities, as part of the magic of crip knowledge production, where disabled people identify, mark, resist, subvert, and remake the ways in which they are perceived (or not) on their own terms. The articles in this issue show, for example, how a computer graphic library can create alternative systems of consent and embodied representation (Saucedo and Decker) or how disability expertise on AI systems can be deployed to negotiate for better working conditions (Wu). Thinking of perception and legibility as a multisensory process acknowledges the embodied ways that people interact with information, in digital or brick and mortar spaces.

Being able to make oneself legible to information systems, moreover, is a necessary task in order to participate in public life or get medical care. Yet as the articles show, these forms of legibility can be violent, dismissive, and at odds with crip survival. Importantly, however, legibility is not always optional for disabled people — in life and within information systems that we need to work within and survive. This special issue highlights not only the necessity of legibility in certain systems but also how disabled people might intentionally render themselves illegible in order to avoid harm (*e.g.*, by opting out of AI training data). We recognize how both legibility and illegibility can be a luxury not afforded to people in certain contexts, or may not be desirable at all. However, what identifying these complex facets of legibility does is help us to think through how knowledge is produced through (and perhaps even despite of) information systems.

Specifically, organizing the papers into three clusters allows us to show theories of relationality and interdependence as they appear in technological ecosystems. We identify how systems not only embody and define ways of being and knowing about disability, but also how disabled people, in turn, disrupt, resist, and remake technologies in ways that render us legible or illegible in ways that:

- Necessitate working within systems

### Create friction within systems

- Co-create new connections to ourselves, community, and history (and our access to it).

The authors in our first cluster show in horrifying detail the levels of exclusion that disabled people face in cultural heritage institutions. They also identify how and why these policies come to be. While these problems of exclusion seem like issues of legal compliance, the authors argue that these results also have clear implications for the many facets of the Internet's content economy. Libraries are both physical and digital content repositories who have had to negotiate questions of searchability, copyright, and access — questions that also dominate the content economies of social media platforms and streaming services. These papers point to different modes of the power imbalance in legibility: in academic libraries that exclude disabled users through certain pedagogies (Clark and Lischer-Katz) or shape access to digital and physical content (Wentz, Gorham, and Jaeger); classification systems on which cultural institutions rely that produce assumptions around disability (Watson and Schaefer) or algorithms that reduce, classify, and reinforce assumptions (Gaeta), whereby they produce the very biases the 'predict' (Moura). Taken together, they show facets of crip legibility by surfacing historical and contemporary systems that enact harm and the violent criteria which render disability perceptible. Being able to flexibly (and selectively) deploy certain aspects of one's experience in the language of an information system is often critical to everyday life.

Articles in the second cluster help us to articulate some modes of resistance by questioning the ways that disabled people become legible in professional, medical, or technological systems. When disabled people jam or interrogate spaces of technological surveillance and thus their own legibility within them (Banner and Adelman), hack and transform systems for more equitable labor practices (Wu), resist the pathologization of disability through new frameworks (Guberman and Haimson and Newman-Griffis, Rauchberg, Alharbi, Hickman, and Hochheiser); or build complementary modes of documentation that interrogate what forms of representation are 'credible' (DiBella), disabled people resist and redefine modes of technological legibility. In this section, the articles illustrate how disabled people subvert, manipulate, obfuscate, or create friction within information systems to generate different forms of legibility. In this section, the articles illustrate how disabled people subvert, manipulate, obfuscate, or create friction within information systems to generate different forms of legibility.

Authors in the third cluster illustrate how disabled people can reimagine the politics of information systems by creating new systems of legibility. Papers in this section show new forms of documentation — archiving oral histories from disability rights activists (Jennissen, Marshall, Trainor, and Robertson) and building asset libraries for representing disabled bodyminds in 3D graphics (Saucedo and Decker) — as well as alternative technologies of intervention and connection — paths for creating access requests in cultural heritage institutions (MELT) and foundations for creating culturally sensitive systems of mental health support (Bahra, Singh, and Ahmed). These pieces reveal how rendering oneself legible is not simply a pursuit of representation, but also includes making oneself palpable through advocacy and building community. One can be rendered legible, for example, through changed policies and the construction of new ramps — it does not necessarily require physical presence. These systems provide disabled people with avenues to become legible on their own terms, paving the way for crip-world making that can center justice-based frameworks.




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## Conclusion

Theorizing alongside the pieces in this special issue, we put forth three main points: (1) thinking at the intersection of information and disability studies is productive and sharpens analyses about technology, bodyminds, and identity; (2) disabled people render themselves legible or illegible in information systems by creatively adapting to or resisting them; and (3) analyses of legibility are crucial to re-imagining the future of information systems — together, these facets illustrate a move we call *crip legibility*. Information systems have long quantified and categorized disabled bodyminds in ways that intensify the surveillance

and institutionalization of disabled people. Articles in this issue document how prevalent and harmful these systems can be, how disabled people have resisted or worked around them, and how we might imagine or build otherwise. Crip legibility also helps us — as researchers and as disabled people — rethink interdependence as both a set of relationships between people and technology and to draw attention to the ways that those relationships necessitate particular types of perception. This special issue frames disability and information systems as a fruitful area of critical scholarly and activist interrogation by mapping both critical histories and speculative futures for technologies grounded in critical discussions about justice.

Following critical discussions on crip theory and disability as method (see [“Starting points”](#)), this issue centers technologies as they impact or are impacted by disabled people, underscoring both the necessity of an intersectional approach while recommitting the field to its origins in social justice work. This critical attention towards disability and technology also helps us build on powerful work on interdependence between disability activists and information professionals, as the papers in this volume show how navigating the connections between users, workers, contributors, and the material facets of information systems can push back against technoableism. We identify how disabled people resist through practices of making themselves legible (or even purposefully illegible) alongside granular analyses of the technological systems which determine, respond to, or fail to recognize the terms of such legibility.

It is here, in this present moment — marking crip legibility for existence, survival, resistance, remembrance, and joy — that we hope to open space for crip futures for new information systems. 

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## Notes

**1. Positionality:** The language throughout this essay toggles between “we” and “they” when describing disabled people. This ambiguity is intentional. As disabled, chronically ill, and institutionally affiliated scholars based in North America, we recognize how information systems are objects of intellectual inquiry and a permanent fixture — for good or ill — in our personal lives. Issues of legibility, classification, and crip world-making are part of our own experiences, but there are limitations to our analysis as disabled

people in academia, who are — in the case of this issue — publishing in an academic venue. We also are aware of the universalizing language of words such as “us” and “we”, where, while we are part of the communities that we write from and speak to in this issue — both as disabled people and people working within information studies/technology — we also recognize that these communities do not exist in singularity and consist of people with vastly varying identities, investments, experiences, and politics.

2. Kafer, 2013, p. 9.

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