



INTRODUCTION

Special Section: Crip Technoscience

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This special section of *Catalyst* maps the central nodes of the emerging field of crip technoscience, which we situate at the intersection of feminist technoscience studies and critical disability studies. Crip technoscience marks areas of overlap between these fields as well as productive disciplinary and political tensions. Our section brings together critical perspectives on disability and science and technology in order to grapple with historical and contemporary debates related to digital and emerging

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technologies, treatments, risk, and practices of access, design, health, and enhancement.

“Crip technoscience,” as a recent scholarly analytic (Hamraie, 2015, 2017; Hamraie & Fritsch, 2019), names historic and contemporary practices of anti-assimilationist disability making and knowing. These practices have robust, complex, and unexpected intellectual genealogies, ranging from histories of disability activism and assistive device making (O’Toole, 2015; Williamson, 2012a, 2012b) to environmental justice (Chen, 2012; Taylor, 2017), critiques of the cyborg (Kafer, 2013; Mills, 2011a), and black/feminist health activism (Nelson, 2011; Murphy, 2012). Our understanding of crip technoscience builds on foundational work in the field of critical disability and technology studies, including Katherine Ott’s (2014) concept of “disability things” as value-laden objects of material and historical study, Melanie Yergeau’s (2014) critique of “hackathons” as the new telethons, Alice Wong’s (2015a, 2015b) critique of disability “makeathons” as excluding disabled people, and Graham Pullin’s (2009) and Sara Hendren’s (2014) elaborations of critical design as a framework for understanding adaptive technologies. Our work has also been greatly influenced by Barbara Gibson’s (2006) and Ingunn Moser’s (2005, 2006) engagements with technology and subjectivity, and Tanya Titchkosky’s (2011) generative study of the meaning of access.

In curating this section, we assert an understanding of crip technoscience that builds upon the ways that crip theory, and critical disability studies more broadly, have emphasized an anti-assimilationist disability politics—not only through disability activism but also through the material and social practices of disability world-building (McRuer, 2006; Sandahl, 2003; Kafer, 2013; Fritsch, 2013, 2015a; 2015b; Mitchell & Snyder, 2015). As a result, crip technoscience engages with rather than eschews the relationships, activisms, and products of engineering, design, and other technoscientific practices. In this regard, crip technoscience draws upon forms of lived experience (O’Toole, 2015; Lifchez & Winslow,

1979) and the historical archive (Petrick, 2015; Williamson, 2012a, 2012b; Serlin, 2004, 2012; Mills, 2011b) that have captured an array of activist design and access projects, from software coding to wheelchair repair to architectural design. In this sense, crip technoscience emphasizes difference and embodiment at the core of disability politics while affirming an open rather than hostile relationship to technoscience, often regarded as anathema to disability politics.

Crip world-building always happens in the material world. The editors have been variously engaged with contributing to a public profile for crip technoscience by organizing conference panels at the annual meetings of the Society for Disability Studies (2014 and 2015), the Society for Social Studies of Science (2017), and the American Studies Association (2018); hosting a “Design@Large” event in San Diego (2014), a Technoscience Salon event in Toronto (2016), and various symposia at the NYU Center for Disability Studies; and by organizing a dedicated track on critical design and technology studies at the Society for Disability Studies.

Scholars of critical, feminist, and crip disability studies have not necessarily engaged directly with what we are calling “crip technoscience.” But in their works, they have often built on two important foundational claims: one, through disability studies, that natural and built environments are constructed rather than given; and two, that science and technology shape the expression, enactment, or elimination of disability, impairment, madness, d/Deafness, neurodiversity, chronic conditions, and illness. Foundational scholarship in the field of science and technology studies (STS), such as Langdon Winner’s classic 1980 essay “Do Artifacts Have Politics?” incorporates insights drawn from events in disability rights activism to understand the ways in which technology often sustains cultural norms and biases:

The organized movement of handicapped people in the United States during the 1970s pointed out the countless ways in which machines, instruments, and structures of common use—buses,

buildings, sidewalks, plumbing fixtures, and so forth—made it impossible for many handicapped persons to move about freely, a condition that systematically excluded them from public life. (p. 125)

While Winner's examples were drawn from histories of the social, political, and technoscientific oppression and elimination of disabled people, we want to interrupt such lineages to call attention to ways of thinking about disability as desirable—what some scholars have identified as “disability gain” (Davidson, 2016). While part of this interruption stems from a transformation of the profile of disability in the public sphere, disability as desirable is also anchored in an anti-eugenicist politics and an orientation toward technoscience as means by which certain forms of activism can be materialized. Thus, this issue brings together work that rejects essentialist beliefs about disability *or* about technoscience, rejecting foundational assumptions in disability studies that technology is inherently deterministic or assimilative while also maintaining an openness toward the possibility that disabled peoples' activist practices can constitute a kind of critical world-building. At the same time, we are aware of the many ways that “disability gains” have been commodified or appropriated by technoscience. We believe, then, that this issue is a piece of the larger, long-term project of politicizing crip relationships to technoscientific knowledge and material production, and in the process, maintaining a politicized orientation—a crip way of feeling and making—toward disability itself.

When we began to generate ideas for this special issue, we did not know what kinds of submissions—scholarly, activist, pedagogical, artistic—we were likely to get. Our call for papers, for example, asked a central question: “How can crip technoscience highlight the ways that disability, impairment, chronic conditions, illness, madness, Deafness, neurodiversity (among other crip ways of being) shape our practices, ontologies, and epistemologies?” This open question solicited rich and provocative work on a wide variety of topics: data and digital media; crip art and design; access

and the aesthetics of composition; disability justice; and kinship with, through, or despite particular technologies. As a result, this issue represents “crip technoscience” as a point of conceptual convergence.

Our section opens with Aimi Hamraie and Kelly Fritsch’s “Crip Technoscience Manifesto,” which engages the world-building and world-dismantling effects of disabled knowing and making through centering frictional technoscientific activism and critical design practices that foster disability justice. Offering four commitments of crip technoscience, Hamraie and Fritsch call on “activists, scholars, and makers to expand possible futures for disabled people.”

Alison Kafer and Eunjung Kim provide two different perspectives on the ways crip communities reimagine given relations to technology. In “Crip Kin, Manifesting,” Kafer describes speculative art-making as a tactic to refuse and repurpose medicalized technologies—and to understand these tools as at once sites of critique and of love, “estrangement and relation.” Investigating the dissimilar technical subject of electronics manufacture, Kim argues that injury, illness, and death from toxic exposure have been transformed by “necro-activists” in South Korea into occasions for sociality and disability justice.

Any genealogy of crip technoscience must also account for its antecedents within the literary and cinematic realms of science fiction and the cultural impact of authors such as Octavia Butler and Marge Piercy. In “Cyberpunk’s Other Hackers: The Girls Who Were Plugged In,” Lindsey Dolich Felt uses the work of Alice Sheldon, well known in feminist technogeek circles for “The Girl Who Was Plugged In” (1973), a feminist novella published a full nine years before William Gibson’s “Burning Chrome,” the short story credited with inventing the cyberpunk genre. Felt explicates the novella to historicize and situate female switchboard operators within feminist and crip genealogies of labor, technology, and cybernetic theory.

The technological interface embodied by the switchboard operator who is “plugged in” provides an intriguing parallel to Stephen Horrock’s discussion of diabetics for whom access to insulin injections is an essential component of technoscientific practice as well as crip sociality. Yet as Horrocks argues in “Materializing Datafied Body Doubles: Insulin Pumps, Blood Glucose Testing, and the Production of Usable Bodies,” newer sociotechnical systems have rendered diabetic identities far more complex. Unlike earlier generations of users, for whom insulin injection was an analog affair, contemporary diabetic identity is increasingly organized around technologies of data gathering and predictive modeling, creating a new generation of what Horrocks calls “datafied body doubles”: digital doppelgangers whose diagnostic data stand in for human users.

In “Technopsyence and Afro-Surrealism’s Cripistemologies,” Olivia Banner’s critical concept of “technopsyence” mobilizes crip theory to critique contemporary digital mental health research and treatment paradigms. Noting the ways in which racial capitalism is reproduced through the governance of mentalities, Banner takes up recent work in Afro-Surrealism to trace the ways in which mobile devices are used by crip bodyminds to creatively “resist racial capitalism and the psy discourses that support it.”

Finally, the roundtable discussion on recent directions in crip technoscience offers narratives and practices from social media activism (from Vilissa Thompson), crip nightlife and accessible DJing (via Kevin Gotkin), disability dance and performance (highlighting the work of Alice Sheppard), and finally, disabled people’s responses to current and future environmentalist practices such as proposed straw bans (commented on here by Alice Wong).

The photograph on the cover of this special issue exemplifies our anti-assimilationist perspective, featuring a crip technoscience invention by John Farnworth. The image shows the push handles of a manual wheelchair that have been covered in punk-aesthetic metal spikes,

emphasizing the position of this wheelchair user who does not want to be pushed around.

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