

LAB NOTES

Transcription Work and the Practices of Crip Technoscience

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Abstract

The following essay considers the emergence of transcription work provided by Communication Access Real-time Translation (CART) operators in academic spaces for d/Deaf and hard of hearing individuals to foreground the practice of access. How do we account for the distribution and attribution of access in a way that is mediated across human and non-human objects? I draw on crip technoscience to illuminate the value of the stenographer's labor and their dictionary software as an inherent part of the production of knowledge.

Across the street from the western edge of the UC San Diego campus sits the striking figure of the Salk Institute for Biological Studies. Founded by Jonas Salk in 1957 shortly after his successful development of the polio vaccine, today the Louis Kahn–designed institute is a site for research on cancer biology, immune system biology, neuroscience, and neurological disorders.¹ While the institute's website presents the research center as "Where Cures Begin," much of its ongoing and cutting-edge research is funded by the philanthropic efforts of the March of Dimes, a mid-twentieth-century institution with a mixed legacy within the history of crip technoscience. The specter of the mid-twentieth-century poster child at the

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center of March of Dimes campaigns provides powerful and sentimental visual rhetoric for the maintenance of the nonprofit industrial complex, arguably a type of “inspiration porn” that flourishes across social media today.² Yet it was at the Salk Institute that the French philosopher Bruno Latour conducted his ethnographic study of endocrinologists, the results of which were published in his and Steve Woolgar’s (1979) co-authored groundbreaking study *Laboratory Life: The Construction of Scientific Facts*.

Laying the groundwork for the future approaches of influential scholars such as Emily Martin and Annemarie Mol, Latour and Woolgar’s work became foundational to the idea that studying the ways in which knowledge practices are produced in situ might tell us something revelatory about science. Fundamental to this vision was their use of ethnography; as the British sociologist John Law (2004) writes in *After Method*, ethnographers of science have “a culture. They have beliefs. They have practices. They work, they gossip, and they worry about the future. And, somehow or other, out of their work, their practices and their beliefs, they produce knowledge, scientific knowledge, accounts of reality” (p. 19). Social scientists, Law argues, are not that different from humanists, visual artists, historians, philosophers, and natural scientists, and these “tribes of scientists” use tools and methods just like “other tribes” to produce knowledge. Yet it is my contention that ethnographers of science have neglected a crucial component of knowledge production, one that is central to crip technoscience: the provision for, and possibility of, *access* as a central node of knowledge practices. Just as Latour and Woolgar grappled with how scientific knowledge is produced, I grapple with the question of how crip technoscientific knowledge is produced with the support of access workers in academic spaces.

At UC San Diego, I had numerous conversations about the role of access in knowledge production with faculty and students in the graduate Science Studies Program, a scholarly community in close proximity to the Salk Institute in which scientists study their peers’ practice in and beyond the laboratory setting. I began to ask, what if we were to examine the practices through which access is produced, especially by using the

methodological tools and intellectual traditions of both early laboratory studies and later feminist science studies? Who, for instance, provides the labor that makes access possible? How do we account for the distribution and attribution of access in a way that is mediated across human and non-human objects? How do we practice everyday access for disabled students and faculty? Are there communities of practice centering around the provision of access? And, if so, how mobile, or flexible, are such communities of practice?

Like many other d/Deaf and hard of hearing students, I use Communication Access Real-time Translation (CART) in the classroom as part of a set of accommodations offered by the disability service on campus. In my work, I argue that CART provides a case study for the ways in which access can be both an object and subject of ethnographic study, since the production of real-time captioning informs the acquisition of knowledge in a uniquely specific way. Stenographers and d/Deaf and hard of hearing students engage and interact regularly through processes of collective learning. In such communities of practice, stenographers provide a locale through which knowledge-from-below is produced, thus contributing value and knowledge practices to the infrastructure of access on campus. For CART stenographers, real-time captioning is both the practice of crip technoscience as well as its product.

CART stenographers, also known as operators, translate academic neologisms from spoken speech into steno codes via their machine in order to render their real-time captions as readable. As a result, they must be deeply embedded in the relevant knowledge practices of each classroom. Transcription can only occur through regular access to knowledge practices in situ, and the success of real-time captions most often depends on the stenographer's practice of care, as well as the maintenance work of their dictionary software in and beyond their remunerated labor hours. The practice of care and maintenance work consists of repairing broken steno codes with spoken speech, and constructing and editing new vocabulary terms (i.e., words lists) within their existing dictionaries. Without access to the knowledge practices associated with disciplinary sites, steno workers

will not have access to the correct “job dictionary” for facilitating captions in certain environments. Stenographers with real-time transcription experience that is largely informed by theoretical work in the social sciences—references to Foucault or Marx, for instance—cannot simply import their existing dictionaries over to STEM-related subjects. By the same token, technical terms associated with STEM subjects are not simply imported for CART users studying in the social sciences and humanities. Only through consistent knowledge practice in selected subjects can stenographers’ job dictionaries exist for the use of their d/Deaf and hard of hearing clients.



Figure 1. Digital steno codes powered by computer-aided technology. Photograph courtesy of the author.

Figure 1 depicts a black and white close-up of a personal computer used on-site in a classroom, which reveals a series of capitalized letters. In

the background, there are blurred images of students seated at the seminar table. The focus of the computer screen frames a series of letters equally spaced out, down the right side of a vertical screen in two columns of text. The columns of text are repeated to spell out the singular letters needed to communicate the acronym “ADA” (Americans with Disabilities Act). On this particular occasion, the stenographer is repeating the strokes on their twenty-four-key steno-board to locate and practice the encoding of ADA into their specific job dictionary. Under real-time conditions, the detailed attention required to spell each letter of the acronym equates to a temporal rhythm that is not captured by spoken speech. For steno workers, the task of completing acronyms, unusual spellings, and numbers departs from a standardized approach to stenoform. Steno workers are trained to transcribe speech according to their discursive context rather than spelling each letter individually, a process that is time-consuming and puts pressure on them to keep up with the ongoing flow of talk. The process of curating real-time access therefore draws on the steno worker’s affective capacity to make sense of, and code, speech. High abstraction translates to phonetic mishaps, and therefore knowledge production and the exchange of information within the classroom frequently begins to unravel. These lapses are translated as “[inaudible] [inaudible] [inaudible],” or replaced with long dashes, “—.” This is also coupled with the production of speaker anonymity, since the yellow text on the royal blue background identifies the PROFESSOR, while multiple speaking STUDENT(s) share a singular identity, omitted and standardized in this way.

Under real-time conditions, it is difficult to resist the process of standardization, when clarity and efficiency are essential to maintaining access to spoken speech for d/Deaf and hard of hearing students. In other branches of the speech-to-text industry, such as broadcasting work, there are moves to adopt artificial intelligence to further standardize the process of captioning without the need for a stenographer. The displacement of human workers, along with the increased outsourcing of transcription work to microtasking platforms such as Amazon Mechanical Turk (MTurk), is premised on the idea that the means of access is a neutral process of

transferring speech and visual data into readable and spoken text, in turn disavowing the centrality of situated and affective labor in the complexity of access work.

Like ethnographers and philosophers of science, stenographers and their machines employ methodologies and tools that resonate with the means of translating speech into meaningful texts. Knowledge practices informed by a stenographer's transcription work also draws parallels with care work, repair and maintenance work, and access work that largely occurs through the process of practicing knowledge in situ. These practices resonate with the ethics of crip technoscience, in which knowledge-from-below informs the machination of a stenographer's dictionary software. For steno workers, repairing and caring for their job dictionary is a human-centered practice that echoes forms of "collegial intimacy" collectively maintained by workers and their relation to their readers (Hickman, 2018). The term *collegial intimacy* draws on the work of Mia Mingus (2011), Aimi Hamraie (2013), as well as that of Park McArthur and Constantina Zavitsanos (2013), who have all reflected on the collective means of care and access. Unlike conventional care workers, access workers are additionally in close proximity to information workers, who are categorized alongside engineers, scientists, and design professionals. In this capacity, those who enact the labor of access are part of a cohort of workers that includes stenographers, audio describers, and sign language interpreters. How these steno workers understand their work is not always defined by their proximity to care work, but rather their work is collectively defined and managed by communities of practice. CART stenographers working in higher education have professional overlaps with courtroom reporters (both groups are represented by the National Court Reporters Association), thus providing the former group access to professional recognition (Downey, 2008). As argued above, the need for maintenance work is required for the stenographers and students alike to produce opportunities for collegial intimacy across academic spaces. Steno workers often find themselves exceeding the ADA's definition of "best practice" in real-time captioning as put forward by disability legislation, in order to note the social complexity of

spoken speech and the nuances of transposing spoken speech into readable texts. Even though many stenographers align themselves with information workers, at times advocating for the recognition of their work is sacrificed in an attempt to foreground the agency of their consumers. To reconcile the visibility of their work not only reveals the social complexity of transcription work but, I would like to suggest, draws attention to the question of methodologies in critical disability studies.

How might access work resonate with the recent turn towards critical methodology? In a recent series of short essays featured in *Lateral*, Jina B. Kim (2017) and Sami Schalk (2017) respond to Minich's (2016) essay "Enabling Whom? Critical Disability Studies Now." In their responses, each author synthesizes key factors in the emergence of critical disability studies to describe a turn towards the study of methodology. In this turn, disability, as Minich (2016) asserts, proves to be a "mode of analysis rather than [an] object of study." Kim's (2017) essay furthers Minich's thesis, calling for the shifting of disability "from noun—an identity one can occupy—to verb: a critical methodology." When considering the labor of access workers and disability studies scholars in the field, we can refer to Minich, Kim, and Schalk's collective reflections on the positionality of disabled people and people of color as modes of analysis synonymous to the practice of "doing scholarship" in (critical) disability studies. With this in mind, how might researchers enfold the usage of assistive technology into conversations around knowledge-making in disability culture? Would, for instance, scholars in (critical) disability studies ever consider themselves "access workers" as they pay close attention in their work to visual and audio description in order to render it accessible? Similarly, anthropologists and ethnographers employ thin and thick description that cuts across the audio and/or visual in their research, but not always as a means to render their research accessible. We might ask therefore to what extent intent makes one providing access an *access worker*.

By reflecting on the practice of description and transcription in this way, we can begin to disentangle access from its sole association with disability to laterally engage with access through the labor practices that

produce it. By this, I mean not to depoliticize disability, but rather to broaden the complexity of access in the provision of real-time captioning across speech-to-text industries to include everything from CART services on campus to media broadcasting work. As laboratory ethnographers explored the construction of scientific facts through attending to daily practices, so too we might understand the deconstruction of disability as diagnostic and medical categories by disability studies scholars. Disability studies scholars have understood the social model as a useful tool to demonstrate the state (or indeed lack) of social infrastructures and communities of practice that inform the construction of disability. Even from outside of a framework that centers disability, studying the practices of access work has the potential to posit a different set of questions for crip technoscience such as, how do we develop a critical understanding of the ethics of access? How does critical methodology, for example, of the sort put forward by Schalk, Kim, and Minich, resonate with the production of knowledge provided by access workers? By developing an attention to the complex histories and practices of access, we can locate real-time captioning as no longer simply a byproduct of disability accommodation but as a layered sociocultural text that describes instances of knowledge production. This shift offers concrete opportunities to reconsider and experiment with an ethics of access not only as our object of study but as a scholarly practice.

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Notes

¹ For more on the history of the Salk Institute, consult their website at <https://www.salk.edu/about/history-of-salk/>.

² For more on the role of the March of Dimes in latter-century US charity politics, see Gotkin (2018); Sharpe (2016); and Longmore (2015).

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Louise Hickman completed her Ph.D. in Communication at the University of California, San Diego in 2018. She works in critical disability studies, science and technology studies, critical methodology, feminist labor and crip theory. Her current book project focuses on transcriptive technology (for example, speech-to-text translation) and the cultural formation of access workers and their labor practices, focusing on transcription from 1956 to the present.