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JUST INNOVATION? DIGITAL EDUCATION REFORM IN SILICON VALLEY AND OAKLAND, CALIFORNIA

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by

Ethan Chang

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The Dissertation of Ethan Chang is approved:

_________________________________________________________________________
Ronald David Glass, Ph.D., Chair

_________________________________________________________________________
Rodney Ogawa, Ph.D.

_________________________________________________________________________
Lora Bartlett, Ph.D.

_________________________________________________________________________
Julie Bettie, Ph.D.

_________________________________________________________________________

Lori Kletzer
Vice Provost and Dean of the Division of Graduate Studies
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Key Terms and Concepts

**Accelerate-Edu.** A Silicon Valley-based education nonprofit organization founded in 2014 that aspired “To increase and accelerate student achievement by leveraging technology at scale.”

**Achievement tradition (of educational research).** A mainstream approach to educational research that takes prevailing school norms and structures as given and aims to maximize student achievement on measures of test-based accountability.

**Black sociotechnical imaginary.** A materially-based discourse that (1) directly engages past and present forms of racial injustice, (2) privileges the collective use value of digital technologies over market-exchange value, and (3) interrupts digital meritocracy by inviting young people and community members to articulate their concerns, desires, and aspirations for neighborhood transformation.

**Desire tradition (of educational research).** A more peripheral tradition in educational research that (1) approaches historically marginalized communities as constrained by structural inequities and as rich sources of cultural knowledge; and (2) draws on participatory methodologies to generate knowledge that emanates from and is responsive to the most marginalized youth and communities.

**Digital meritocracy.** A policy discourse that constructs technologies as a means of enhancing and evaluating individual success and failure (“personalization”) in ways that transcend racialized and place-based inequities (“everywhere”).

**InnovateEquity.** An Oakland-based education nonprofit organization founded in 2010 that aspired to leverage innovations in technology to “meet the economic, educational, environmental challenges of the twenty-first century.”

**InnovateEquity Downtown Team (IDT).** A team of 9 racial equity professionals and grassroots organizers who partnered with InnovateEquity to develop a community-based vision of downtown Oakland.

**Miami Planning Partners (MPP).** The primary urban development firm hired by the City of Oakland that specialized in revitalization plans that “nurture valuable places where people want to be.”

**More just innovations.** Digital tools, practices, and processes that emanate from epistemologies historically excluded from education policy debates, foster collective

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1 All names of organizations and actors included in this study are pseudonyms in compliance with Institutional Review Board guidelines (UCSC IRB Protocol # 2747).
critiques of structural inequities, and mobilize organizing power among youth and families from long-marginalized communities to demand educational justice on their own terms.

**Opportunity tradition (of educational research).** One alternative approach to the dominant achievement tradition in educational research, which calls attention to out-of-school factors (e.g., nutrition, housing, poverty) to explain disparities of educational opportunity within and beyond schools.

**Politics of redaction.** The historically conditioned ways actors in positions of power seek to depoliticize justice-oriented organizations in ways that further the reproduction of inequitable social structures.

**Researching as a critical secretary.** A method of participant-observational data collection that investigates how power and politics are encoded in everyday talk and practices, especially from the situated perspectives of those observed to hold the least formal power in education reform organizations.

**The City.** The team of actors within the Urban Planning Department in the City of Oakland.

**Trace of academia.** Institutionalized pressures to publish, procure funding, and secure employment within academia that exert a difficult-to-detect influence on data collection and data analysis research processes.

**White sociotechnical imaginary.** A materially-based discourse that (1) deflects attention to past and present forms of racial discrimination, (2) brokers private-public relations that aim to enhance the exchange value of digital technologies, (3) and reifies digital meritocracy and individual social mobility goals of schooling.
Abstract

Just Innovation? Digital Education Reform in Silicon Valley and Oakland, California

Ethan Chang

Just Innovation problematizes taken-for-granted assumptions about innovation in education as just about new devices like laptops, computers, or smart-phones. It also aims to open conceptual space for considering what is just, or fair in twenty-first century contexts by investigating the cultural politics of digital education reform. Drawing on critical policy analysis and critical sociology of education, I investigate how nonprofit reformers in the California Bay Area designed and organized to achieve distinctive visions of digital education reform. Data includes 53 federal policy texts (1958 – 2016), 11 months of participant-observation at a Silicon Valley nonprofit I call “Accelerate-Edu,” and 13 months of participant observation at an Oakland nonprofit I call “InnovateEquity.”

I argue that digital education reforms that gain legitimacy tend to reify values associated with a white sociotechnical imaginary: a materially-based discourse that deflects attention to past and present forms of racial discrimination, brokers private-public relations centered on enhancing the exchange value of digital technologies, and instantiates individual social mobility goals of schooling. Yet, Just Innovation also points to alternative possibilities for action evident in a Black sociotechnical imaginary; a materially-based discourse that directly confronts past and present forms of racial injustice, privileges the collective use- over market-exchange value of digital
technologies, and invites young people to articulate and organize around shared desires for neighborhood transformation.

*Just Innovation* writes against prevailing policy, scholarly, and popular constructions of digital technology as an inherently liberatory tool and outlines possibilities for civic engagement that contest prevailing relations of power and privilege. I conclude by discussing policy, research, and pedagogical “disruptions” that might contribute toward more equitable and historically responsive twenty-first century educational futures.

**Keywords:** digital, policy, place, race, future, imaginary
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I want to begin by acknowledging participants at two digital nonprofit organizations I refer to as “Accelerate-Edu” and “InnovateEquity.” Thank you for allowing me to participate in the daily rhythms of your work and lives. I hope I have re-presented you and your organizing efforts in ways that you find accurate. I also want to acknowledge the broader InnovateEquity Downtown Team (IDT) who extended more than a “seat at the table” and invited me to participate in a way of life and collective struggle I have come to understand as synonymous with Oakland.

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When I interviewed Renée, the Chief Financial Officer at Accelerate-Edu, she explained that a key dimension of her work revolves around telling a good story. “There’s always a story, there’s always something,” Renée explained. She described how funders want to know how their financial investments have impacted the lives of individual young people in Silicon Valley schools. A knot formed in my stomach when Renée mentioned this to me. I worried that pressures to tell a story might contribute to insincere, or worse, exploitative representational practices; stories that Accelerate-Edu might use for organizational gain, which young people from minoritized and divested communities might have little final say in narrating.

But like Renée, I too, searched for stories to tell. This is one of them. In an ethnographic sense, the pages that follow represent a “fiction”: something “made” that weaves observations, theories, and lived experiences into a narrative (Clifford & Marcus, 1986; Emerson, Fretz, & Shaw, 2011). And like Renée, I also have an audience. Rather than writing to funders—though this too, is increasingly difficult to disentangle from research processes—I write to a committee of professional researchers who will assess the merits of my work and determine whether I might be considered an institutionally-legitimated producer of knowledge.

Observations about the tensions between public pursuits of truths and the private agendas of researchers are not new (Peshkin, 1988). Nelson Flores, a critical linguist and educational researcher, observed, “Some ethnographies really are just gossip written by somebody with a doctorate who befriended people just so they could
exploit their struggles to get tenure” (nelsonfiores, 2018, Nov. 9). Peshkin (1988) admits that all scholars have a public agenda (e.g., “educational justice,” “community transformation,” “educational equity”) and a private one (scholarly advancement, publication, tenure). Better to admit these agendas than pretend that they do not exist, Peshkin argues. Similarly, Sims (2017) considers the ways researchers tend to operate “as if” our everyday work has a direct impact on those whose lives we write about and urges us to trouble the research rituals that sustain forms of disengaged scholarship removed from the realities of those whose lives we write about (p. xix).

This dissertation makes no claims to be outside of institutional contradictions and social relations of power that mediate knowledge production processes. I approach the university as a place rife with contradictions equivalent to, if not even more constrained than the nonprofit contexts that animated Renée’s search for a story to tell. This preface then is an admission. Although I aim to “hover low” (Geertz, 1994, p. 59) to the concrete contexts, terms, and phrases that reformers in Silicon Valley and Oakland drew on to achieve distinctive racialized visions of digital education reform, my efforts to re-present these truths are difficult to disentangle from personal theories, hunches, and assumptions that guided my interpretive efforts along the way. Although I actively pursued contradictory evidence and worked to resist imposing a narrative structure on the data (Emerson, Fretz, & Shaw, 2011), these efforts are limited by my own ability to discern the water in which I swim.

If you find these admissions unsatisfying, I do too. In Chapter 5, I revisit the inadequacies of research projects that merely “show how” power operates without
“intervening in” social worlds (Decuyper, 2019, p. 219). I outline distinctive kinds of “disruptive” practices that education researchers and educators might enact to better actualize the justice commitments we write about.
Introduction

“Everyman’s portable automatic tutor is a reachable dream. . . With traditional media, our options were limited; with the computer, ways to learn are limitless. Let’s not use the computer to mimic the dark ages of learning: let’s explore and capitalize on the richness of this new tool.”


“America loves the dream but doesn’t know how to confront the dream deferred.”

~ Cary McClelland (2018)

_Silicon City: San Francisco in the Long Shadow of the Valley_

A month into my fieldwork with Accelerate-Edu, a digital technology nonprofit organization based in Silicon Valley, I attended an invitation-only event that the organization hosted at Microsoft’s headquarters. Industry executives, “edtech” entrepreneurs, and school district leaders gathered to discuss the future of digital schools. I volunteered at the check-in desk, distributed roughly 100 personalized name tags, then located a seat at the back of a large, air-conditioned auditorium.

During the opening panel, Frank, a CEO of a high-tech company observed, “It is the responsibility of this area, given what companies do, to help.” Frank gestured with his left hand as he spoke, his navy-blue tie remained tucked snugly in his gray coat. Four other panelists seated next to Frank nodded along when he added, “Companies are fortunate to be in this area to participate with enthusiastic folks… and should reach out to Accelerate-Edu to form connections. It takes a village to support the next generation of students.” I scanned the auditorium to discern how the audience
interpreted Frank’s call to action, but only the faces of the five panelists were visible under the brightly lit stage. A clamor of applause emanated from the theater seats.

Meanwhile, less than 50 miles east of Silicon Valley, community leaders, activists, residents, and young people gathered in the basement floor of a fluorescent lit co-working space in downtown Oakland. InnovateEquity, another digital nonprofit organization I sought to understand, organized a community-engagement event as a part of a broader effort to facilitate equitable educational, environmental, and economic opportunities for youth, families, and residents from historically excluded communities and communities of color. Roughly 75 people were seated across 9 rectangular tables. The room hummed with chatter. Participants passed markers and post-it notes to contribute their ideas to a community-driven effort to plan the future of downtown Oakland.

During a report-back to the whole group, Kimberly, a Black woman with gray hair woven into her braids, stood and summarized her table’s key points. “We discussed how affordable housing should be less of a political issue and more of a right,” Kimberley opened, adding that Oakland youth need community policing and free spaces to congregate without having to purchase goods. When she began to take her seat, Isaac, the co-founder of InnovateEquity, encouraged, “Share your tech idea.” Kimberley stood and re-engaged the audience. “Oh, we also talked about how large tech companies… the Pixars, Googles, Ubers… they should be contracted to develop housing and dedicate a percentage of their profits to build affordable homes for folks
like our teachers who can't afford to live here,” Kimberly asserted. Audible “Mhmms” and visible nods received Kimberly’s comments.

These contrasting vignettes offer a glimpse into the distinctive cultural contexts in which I conducted a comparative case study of digital education reforms between the fall of 2016 and spring of 2018. Known as a global epicenter of digital innovation and “counter cultural” thinking (Turner, 2006), the Bay Area offered a fitting region to explore how education reformers developed and sought to materialize innovative ideas about digital education reform.¹ I wanted to understand what aspects of schools and society each organization “countered,” what other aspects they reinforced, and ultimately, the implications of reform actions in relation to education equity by which I mean fairness in educational opportunities, outcomes, and resources given an historically uneven playing filed (Green, 2016; Ishimaru & Galloway, 2014).

Just Innovation investigates the cultural politics of digital education reform. It questions taken-for-granted narratives that assume innovation is just about new technologies such as laptops, computers, or smart-phones. Just Innovation also aims to open conceptual space for considering what is just, or fair in the so-called “twenty-first

¹ Following Terplan and Szambelan (2018, Jun. 19), I consider the “Bay Area” to include the nine counties of Alameda, Contra Costa, Marin, Napa, San Mateo, Santa Clara, Solano, Sonoma, and San Francisco. But like all geographic boundaries, the “Bay Area” represents a category of meaning subject to ongoing sociocultural and political contestations (Massey, 1994). I use this definition for clarity and consonance with existing metropolitan, transportation, and environmental plans. As I later outline, this definition excludes Santa Cruz and San Joaquin counties and explains some of the aspirational yearnings for inclusion expressed by my university.
century” and examines the relations of power and privilege that shape which reforms are legitimated, resourced, and translated across contexts. Taking a cue from Frank’s observation that “It takes a village to support the next generation of students,” I ask: Who is included in that village? What are the barriers to participating in digital education reform debates? What kinds of digital innovations are evident in the visions, tools, and programs that education reformers advance? And importantly, who ultimately benefits? I worried that the pursuit of new digital innovations might deflect attention to dreams “long deferred” by systems and structures of inequity embedded in the historic formation of the U.S. (McClelland, 2018)? \textit{Just Innovation} investigates the social processes through which education reformers craft and seek to achieve distinctive visions of digital education reform and explores the equity implications of these efforts.

Given my interests in justice broadly, \textit{Just Innovation} investigates barriers to equitable educational opportunity beyond schooling and beyond reductive notions of “digital divides” (Light, 2001). A closer look at Frank’s and Kimberley’s words helps to illustrate this point. Although both Frank and Kimberley speak of the responsibilities of technology companies to support youth and communities, their statements reflect contrasting political values and assumptions. Whereas Frank alludes to what companies “do” and underscores their responsibility to “help,” Kimberley specifies the ethical

\footnote{Elsewhere, I problematize notions of the “twenty-first century” as an ostensibly shared, democratic future (Chang, 2019a). Policy makers have historically used the phrase as a rationale for expanded investments in digital technologies, and in doing so, depoliticized and ahistoricized the relations between digital technologies, schools, and prevailing distributions of power and resources.}
responsibilities of corporations to provide affordable housing for teachers. She uses explicit language of “profit” as a rationale for demanding corporate re-investment in local places. Kimberly utters what critical scholars of education have long held as the inseparable relations between schools and the sociocultural and political-economic contexts within which schools are embedded (Anyon, 1997, 2005; Berliner, 2006). I wanted to ask how material questions of place, housing, and neighborhood safety are bound up with questions of digital education reform.

Importantly, *Just Innovation* is not about the relationship between digital technologies and school achievement outcomes. I did not spend time in schools. Although I am also interested in questions of achievement, my inquiry does not explore digital tools or pedagogies that teachers might utilize to enhance student test scores. Rather, I ethnographically investigated political struggles within and beyond the “organizational field” of school reform (DiMaggio & Powell, 1983) and studied the work of nonprofit actors beyond school walls as they sought to achieve distinctive visions about schooling in the so-called “twenty-first century.”

My main argument is that much of what gains legitimacy in digital education reform contexts tends to reproduce prevailing inequities of educational opportunity. Ostensibly “innovative” reforms represent novel objects, but extend traditional norms and values associated with a *white sociotechnical imaginary*: a materially-based discourse that deflects attention to past and present forms of racial discrimination, brokers social ties that enhance the exchange value of digital technologies, and reifies individual social mobility goals of schooling. I empirically develop this concept
drawing on fieldnote and interview data of leadership and team members at Accelerate-Edu in Silicon Valley.

Yet, *Just Innovation* also points to possibilities amid a seemingly overdetermined digital education reform landscape. I discuss alternative options for digital reform action evident in a *Black sociotechnical imaginary*; a materially-based discourse that directly engages past and present forms of racial injustice, privileges the collective use- over market-exchange value of digital technologies, and invites young people to articulate and organize around shared desires for neighborhood transformation. Contrary to prevailing approaches to digital education reform, a Black sociotechnical imaginary facilitates critical analyses and advocacy among youth from minoritized and divested communities whose lives straddle on- and offline contexts.

Taken together, *Just Innovation* aims to open conversations about digital educational opportunity amid historical legacies of structural injustice. Although this project may seem to only concern scholars of digital technology, it should concern anyone who cares about young people and access to meaningful social, political, and economic opportunities given the increasing ordinariness of the digital in our everyday lives (Selwyn, 2019). By revealing the tacit racial and sociotechnical values encoded in digital innovations, I also aim to build toward *more just innovations*, including digital tools, practices, and processes that emanate from ways of knowing long excluded from policy debates and mobilize organizing power among the most marginalized youth and families to demand justice on their own terms.

**Questioning Digital Technologies**
I initially did not set out to study digital technologies. As an alumnus of Teach for America (TFA), a national non-profit organization that recruits college graduates from “elite” universities to teach in low-income, communities of color, I wanted to explore the politics of school choice. Through my work with TFA, my sense of how to reform schools was that you opened a charter school for “at risk” youth (Brown, 2016). I did not have a language to articulate what bothered me about this theory of change, which relied on libertarian notions of expanded choice, neglected questions of historic inequities, and relied on heroic interpretations of teacher- and administrative-heroes, who singlehandedly rescued broken communities (Ishimaru, 2013). Studying the limits of school choice animated a more fundamental research agenda that centered on questions of power, participation, and who ultimately benefits from education reform projects.

When the pull of technological promises shaped the very investment priorities of my university—including the decision to establish a UC Santa Cruz Extension campus in Silicon Valley—I realized, as Behar (2003) observes, research topics sometimes “choose” the researcher (p. xi).³ Then university Chancellor, George

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³ Put differently, my decision to study digital technologies might be reframed in ways that better surface the agency of research objects of inquiry. The specter of the Valley emerged again in a following email that the Chancellor sent to the campus, which framed our university’s distance from Silicon Valley as an impediment to “competing for contracts with developers who are focused on the lucrative market over the hill” (Blumenthal, 2016 Dec. 7). Although the university’s pursuit of a “permanent home in Silicon Valley” claimed to open future possibilities for graduate students and faculty, I sensed this strategic extension campus was not intended for me, or critical social scientists and critical humanities scholars who also raised questions about social conflict amid digital contexts.
Blumenthal, wrote to faculty and staff, “UC Santa Cruz finally has a permanent home in Silicon Valley” (Blumenthal, 2016, May 6). I was struck by how Blumenthal’s appeal to a “permanent home” elided a local material search for housing locally, particularly among my graduate student friends who navigated quarterly teaching assistant contracts and student loan debt to make ends meet.⁴ To reiterate, the object I sought to understand was not “out there” but enfolded in my everyday lived experiences as a person living and conducting research proximal to Silicon Valley.

Digital education reform also represented a new and understudied area of inquiry within education research broadly and one that problematically rekindled a libertarian faith in individual freedom. In "School Choice on Steroids,” Monahan (2015, Aug. 20) depicted a shifting landscape of education reform actors (e.g., philanthropists, federal policy makers) and organizations (such as, the American Legislative Exchange Council) who positioned digital technologies as a revolutionary force for educational change. Monahan quotes presidential hopeful and founder of the Foundation for Educational Excellence, Jeb Bush, stating: “Having a high-quality education must no longer depend on location. For the next generation of students, the international stakes

⁴ In Silicon City, McClelland (2018) offers a narrative portrait of contrasting perspectives of life and culture in San Francisco, California. His interview with environmentalist and inventor, Saul Griffith, captures these tensions well. Assuming the voice of a morally bankrupt technology innovator, Griffith remarked: “Would you mind stepping over this homeless person before I show you the future of technology?” (pp. 153-154). This question captures how the future of technology is often predicated on past and present material exclusions. In a similar vein, when Buzzfeed published an email message from UCSC’s director of housing that encouraged professors and staff to open their homes for incoming students to redress a looming housing crisis (Chen, 2018 Aug. 3), I was reminded of how Chancellor Blumenthal’s “permanent home” in the Valley was not distinct from but imbricated in a local Santa Cruz housing crisis.
are too high to restrict access to great courses based on zip code” (Monahan, 2015, Aug. 20). Bush’s appraisal of digital opportunity reified metaphors of individual choice and escape that initially concerned me in debates about charter school. Instead of equity, Bush spoke of the need for more “quality” digitally-mediated school opportunities. Although Bush acknowledged that inequities exist, he minimized attention to systemic forms of racialized inequities of opportunity and chose to focus instead on the “international stakes” of school reform and the potential for digital devices to overcome “zip codes.” When framed through metaphors of “escape,” what justice possibilities do digital technologies afford for the vast majority of minoritized youth surviving and seeking to thrive in contexts of gross injustice?

But what was also particularly troubling were the vast amounts of material resources and attention that discursive narratives of digital technologies recruited. According to recent estimates, annual education technology expenditures for K-12 schools in the United States totaled US$59.8 billion (U.S. Department of Education, 2011; as cited in Bulger, 2016). This reflects a decade long trend of ballooning venture capital investments in digital technologies (Burch & Good, 2014), which federal test-based accountability policies have catalyzed (Burch, 2009). Spurred by feelings of concern and frustration, I wanted to understand the politics of digital education reform and the promises and perils of investing in digital solutions to educational inequities of opportunity.

**Troubling the ‘Twenty-First Century’**
As in popular constructions of digital technologies, educational policy and research representations of digital devices stress the emancipatory potential of new innovations assumed to expand opportunities for “all” (OECD, 2018). According to the U.S. Office of Education Technology (2016), new digital technologies can “shrink long-standing equity and accessibility gaps and adapt learning experiences to meet the needs of all learners” (p. 1). Other policy texts extend a presumed faith in the liberatory potential of digital innovations and call on schools to prepare young people for a global, economic and technologically-mediated ‘twenty-first century’ future (Future Ready Learning, 2016; Partnership for twenty-first Century Learning, 2015). These policy discourses obscure attention to material inequities beyond the school and tend to exclude attention to the kinds of opportunities historically excluded youth deem worth wanting (Chang, 2019a).

Much of the research on digital education reform sustains this faith in digital technologies. According to Selwyn (2014), research on digital technologies falls largely into two camps: studies that aim to refine practitioner use of specific tools and studies that promote the pedagogic possibilities of digital technologies. Studies that aim to refine practitioner use often rely on randomized control trials and explore the anticipated achievement gains of digital technologies (Means, Toyama, Murphy, & Baki, 2013; Morgan, 2015). Kanna and Gillis (2009) argue that digital technologies offer ways to “optimize your child’s education” by providing opportunities for children to take responsibility for their learning using digital tools and pedagogies. They add that new digitally-mediated techniques of self-motivation and self-management can
boost student engagement and reduce racial, economic, and gendered gaps in achievement. Studies like those provided by Kanna and Gillis exemplify a diacritical approach to inquiry that leave questions about the content and purpose of learning—whether to reproduce a hierarchical, high-tech economy, or foster new forms of civically engaged, community leaders—largely unquestioned (Philip, Bang, & Jackson, 2017).

Studies that promote the pedagogic possibilities of digital technologies also exclude attention to social problems technology may prove unable to fix. The words of Hess (2010) exemplify this romantic depiction of the liberatory affordances of digital tools:

New technologies create unprecedented opportunities for curricular customization; for schools to escape geographic constraints; for students to interact with teachers and each other in new ways; for parents to be looped into school-student communications; for teachers to escape the confines of their classroom; and for data systems that permit granular monitoring and intervention on a previously impossible scale (p. 25).

Metaphors of “escape” express an attention to place-based barriers to opportunity but in minimize the significance of spatial inequities and elevate the liberatory effects of digital devices. Hess also glosses over questions about whose curricula, what kinds of communications, what forms of data might best drive more equitable education reforms. By focusing on best practices, Hess extends a broader trend in educational research that depoliticizes digital education reform.

Like Hess, Moe and Chubb (2009) reinforce utopic understandings of digital technologies as a means for students to “escape their local conditions” (p. 176). They argue that digital advances allow students from under-resourced communities to “take
advantage of the same broad range of course work and educational options available to kids anywhere in the country” (p. 176). Similarly, Kahn’s (2012) widely popularized vision of the “One World Schoolhouse” reifies an abstract faith in digital technologies. Describing the promise of virtual learning, Kahn observes, “The Internet can make education far, far more accessible, so knowledge and opportunity can be more broadly and equitably shared.” He adds, “There is no economic reason that students everywhere could not have access to the same lessons as Bill Gates’s kids” (p. 12). Indeed, there is no economic, but also, no moral reason students should not have the same lessons as Gates’s children. Yet, that Gates’s three daughters do not attend Kahn’s school, but rather, Lakeside School—a private school in Seattle with an annual tuition $33,280 (Loudenback, 2017 Nov. 28)—reveals how schooling is not simply a matter of learning but also about conferring symbolic power onto select groups of students (Posey-Maddox, 2014).

Taken together, mainstream research and policy studies of digital technology tend to minimize attention to concrete cultural and material conditions of young people’s everyday lives and elevate the liberatory potential of digital innovations. In doing so, these studies stunt possibilities of imagining digital solutions that might advance educational justice and result in a fundamental redistribution of power and resources (Oakes & Rogers, 2006).

**The Emerging Field of ‘Critical Ed Tech’**

Although critical analyses of digital technologies in education date back more than forty-years (Illich, 1973; Jackson, 1968; Noble, 1977), it was not until recently
that the field of “Critical Ed Tech” (CET) emerged as an academically legitimated field of inquiry (Eynon, 2018, p. 217). Studies that reflect a critical orientation to digital technologies challenge assumptions that we know and agree upon the aims of schooling (Hodas, 1996). Rather than exploring whether technology “works,” CET studies investigate how digital technologies interrupt, or reproduce existing relations of power (Selwyn, 2015, 2014, 2012). In this sense, CET begins with a more expansive approach to problematizing educational and social injustice and examines who benefits from the expansion of access to digital tools (Selwyn & Facer, 2013).

One subfield of CET scholarship draws on political-economic (Picciano and Spring, 2013; Spring, 2012) and new institutional frameworks of analysis (Burch, 2009) and critiques a growing private-public edtech industry. For instance, Burch (2009) investigates the relationship between federal policy makers and private corporations. She argues that the passage of No Child Left Behind in 2001 constructed school failure in ways that stimulated public school demand for digital devices. Between 2001 and 2007, she documents a 160% increase in profits among digital technology corporations ($47 million to $116 million). The profits of digital education reform have since given rise to the Education Industry Association (EIA): actors and organizations that establish commercial contracts between education technology vendors and public-school districts (Burch & Good, 2014). Similarly, Picciano and Spring (2013) develop the notion of the "education technology industrial complex" to explain how “networks of ideological, technophile, and for-profit entities” transform public schooling into a market for educational technologies (Picciano and Spring, 2013,
These studies reveal how powerful political and economic actors create and expand markets for digital technologies and exert increasing influence over the role and purpose of schooling in an entrepreneurial and capitalist society.

Other scholars take a more micro social scientific and learning sciences approach to investigate how young people use and make meaning with digital tools (Bulfin, Johnson, Nemorin, Selwyn, 2016; Davies & Eynon, 2013; Ito, Matsuda, Okabe, 2010). Akom, Shah, Nakai, and Cruz (2016) explore how youth digitally asset-map their communities and organize campaigns for justice, such as organizing local campaigns for nutritious foods and grocery stores in divested communities of color. Rather than integrating learning and student subjectivities to align with digital innovations, Akom, Shah, Nakai, and Cruz explore how digital devices might amplify the aspirations of minoritized youth. Similarly, Emejulu and McGregor (2014) challenge one-dimensional analyses of youth as universal, determined subjects, and recast young people as critical creators and designers of future worlds. They develop the notion of “radical digital citizenship,” which calls for efforts to critical analyze the consequences of digital tools in everyday life and explore possibilities for designing new digital tools and practices that address structural inequities.

In summary, CET contributes theoretical concepts to ask better questions about digital education reform. It orients inquiry toward the study of digital tools with/in inequitable structures, contexts, and distributions of resources too often glossed over in prevailing policy and scholarly representations of digital utopic possibilities. Yet, rather than approach a study of digital education reform with reference only to CET, I also
understand this project as a case of competing approaches to education reform and research.

**Digital Technology as a Case of Competing Education Reform Traditions**

In addition to a timely and understudied object of analysis in education research, digital technologies represent a potentially illuminating case for investigating competing traditions of education reform and research broadly. I use the term “traditions” to emphasize engrained assumptions and theories of change across distinctive orientations toward educating research. I sought to understand how contrasting traditions unfolded in and through digital debates and approached the digital as a “ready canvas” through which “proxy battles” over education reform are waged (Selwyn, 2014, p. 125). This sketch of contrasting traditions is not intended to be a comprehensive review of the literature, but rather, a sketch of prevailing political orientations toward education reform and inquiry, which I call the *achievement*, *opportunity*, and *desire traditions* of educational research.

**The Achievement Tradition**

Studies within the achievement tradition take prevailing societal and school organizational rules as given and aim to maximize student performance on measures of test-based accountability (Apple, 2013). The primary objective of the achievement tradition is to explore mechanisms that increase student achievement outcomes (Hess, 2013).

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5 Although notions of a “ready canvas” obscure attention to ongoing historical struggles, I use this metaphor to convey the non-neutrality of digital technologies and the interplay between digital tools and sociocultural practices.
What these studies afford in their specificity and actionability, they lack in an inattention to structures of power and privilege within which schools are embedded.

Take for example one of the most robust analyses within this tradition—Bryk, Gomez, Grunow, and LeMahieu’s (2015) widely cited *Learning to improve: How America’s schools can get better at getting better*. Bryk et al. observe that education reformers have failed to bridge visions of school improvement with the day-to-day realities of school leaders, teachers, and staff implementing school reform projects. They argue that school reforms have historically failed to adopt a more processual approach to school change and suggest that more trial and error and “iterating toward success” can help to address these historic shortcomings (p. 3). Contrary to other, more provincial studies within the achievement tradition focused on student behaviors (Tough, 2012), Bryk et al. do not psychologize school success and failure. They contribute a robust call to action that involves a broad range of actors and organizations engaged in iterative processes to enhance school performance. Still, Bryk et al. evade attention to power and politics. They do not address fundamental questions about toward what end and in whose interests we ought to iterate towards. Further, their theory of change assumes increasing school achievement can enhance equity for all despite the societal role schools play in ranking and sorting students for their future sociopolitical and economic stations in life (Labaree, 2011; Metz, 1990; Schneider, 2011). If, as in Varenne and McDermott (1999) observe, schooling is a contest in which “Everyone can race, only one can win” (p. 4), how can improving the race rectify hierarchical and exploitative relations of power within society?
The important point I aim to make here is “achievement” cannot be the guidepost for considering questions of equity and justice. Although “reformist-reforms” are needed, such efforts must also consider transformational “non-reformist reforms” that tackle the root causes of injustice in schools and society (Fraser & Honneth, 2003, p. 79). Given that schools have historically, as Bourdieu and Passeron describe, “conferred on the privileged the supreme privilege of not seeing themselves as privileged” (Bourdieu & Passeron, 1990, p. 2010), a more expansive theory of educational change is needed; one that situates schools in tension with inequitable societal structures.

**The Opportunity Tradition**

In contrast to the achievement tradition, the opportunity tradition calls attention to structural inequities that drive variations in race-ethnic “achievement gaps” (Carter & Welner, 2013; Kozol, 2005). Ladson-Billings’s (2006) powerful critique of the “achievement gap” is foundational to this tradition of education research. Her notion of the “education debt”—historical, economic, social, and moral dimensions of educational opportunity—ushered in a new language for explaining inequities in school opportunities, particularly in ways that addressed out-of-school factors (p. 3). Ladson-Billings enlivened Coleman’s (1966) influential report “Equality of educational opportunity,” which called attention to out-of-school factors and reframed how educational researchers explained variation in test-based outcomes. His report forms the basis of much of the scholarship in the opportunity tradition, which focuses primarily on contexts of poverty and segregation within and beyond school walls.
Scholarship in the opportunity tradition targets stubborn “geographies of opportunity” as the main barrier to equitable opportunity (Green, 2015). Reardon (2016) argues that racial differences in exposure to poverty account for roughly one-fifth of the average racial achievement gap. Similarly, Orfield, Kucsera, and Siegel-Hawley (2012) document the persistent influence of the “double-segregation” of race and poverty, which they argue, undermines opportunity for our most disadvantaged youth (p. 7). Likewise, Berliner (2006) critiques policy inattention to out-of-school factors associated with achievement, which he terms, “the unexamined 600-pound gorilla” (p. 952). Berliner takes aim at scholars working in the achievement tradition and argues that attention to poverty and racial segregation is needed to rectify “Our impoverished view of educational reform” (p. 1). Taken together, these researchers lament a persistent policy and research inattention to historically given inequities that shape, and are shaped by, schooling.

Scholars working in the opportunity tradition contribute important contextual analyses of schooling and visions of what a more just system of schooling might look like. Yet, this tradition lacks a public pedagogy for organizing toward school and community change. Take, for instance, Orfield, Ee, Farkenberg, and Siegel-Hawley’s (2016) observation:

Given the expanding and deeply rooted nature of segregation highlighted here, the sustained focus of all three branches and levels of government is desperately needed. […] A turn toward the vision of Brown becomes more imperative. We need to create schools that build a society where the talent of all is developed and students of all races/ethnicities are prepared to understand and live successfully in a society that moves beyond separation toward mutual respect and integration. (p. 9).
Although noble in their aspirations, Orfield et al.’s calls for action leave much wanting in terms of an organizing strategy for interrupting “the deeply rooted nature of segregation.” New forms of organizing are desperately needed, yet further specificity concerning the role of research in building toward a society marked by relations of “mutual respect and integration” remain limited. In summary, the opportunity tradition offers an illustrative and critical analysis of the problems that constrain education equity, but lacks adequate attention to social processes and strategies for how researchers, organizers, and families might upend stubborn barriers to opportunity.

**The Desire Tradition**

The desire tradition of educational research builds on the conceptual resources of the opportunity tradition but integrates an asset-based framing of communities that have survived, and even thrived, amid centuries of state-sanctioned violence and divestment (Tuck, 2009a). Studies within the desire tradition mark an epistemological shift in educational research by approaching schools and communities as constrained by structural inequities and as rich sources of cultural wisdom, hope, and organizing power (Green, 2015; Oakes & Rogers, 2006; Rose, 2009; Tuck & Yang, 2014). These studies challenge tendencies within the opportunity tradition that Tuck (2009) describes as a “damage-centered” approach to inquiry. According to Tuck, critical analyses that delineates multiple injustices may unintentionally reinscribe understandings of historically marginalized communities as broken (Tuck, 2009). She argues that researchers might explore “desire-based research” that specifies the root causes of injustices (as in the “opportunity tradition”), but that also creates discursive space for
community insight, healing, and hope. Similarly, Green’s (2015) notion of “opportunity in geography” repositions “low-opportunity, urban communities of color as not only places of inequality, but also places of possibility by focusing on the assets within them” (p. 6). For Green, urban cities like Detroit, long burdened by histories of racial isolation, concentrated poverty, and school inequality, are also rich sources of cultural assets and community wealth (Yosso, 2005). The desire tradition employs a both/and logic by investigating constraint/opportunity, oppression/liberation, and despair/hope. These studies provided a conceptual language for enlivening concepts rooted in indigenous (Alfred, 2005) and liberatory theories of educational and social change that work along the axis of what “is” and what “ought” to be (Freire, 1970; Horton & Freire, 1990).

By repositioning community members, families, and youth as partners in struggles for justice, the desire tradition facilitates a participatory methodology for materializing more just community and educational changes. Scholars working in the desire tradition often utilize collaborative, community-based research (CCBR) as an approach to conducting inquiry “by or with insiders to an organization or community, but never to or on them” (Herr & Anderson, 2014, p. 3; see also, Cammarota & Fine, 2008; Glass et al., 2018; Oakes & Rogers, 2006). These participatory methods support efforts to advance more relevant and rigorous truths (Warren et al., 2018; Warren & Mapp, 2011). Such collaborative forms of inquiry enliven a public pedagogy rooted in
the lived expertise, community traditions, and grassroots aspirations for transformation to sustain longterm struggles for justice.⁶

Yet, this long horizon of social transformation also poses several challenges. The pursuit of non-reformist reforms tend to constrain the abilities of engaged researchers, families, activists, and youth from recruiting resources necessary to sustain intergenerational movements for justice (Kirshner, 2015; Kirshner & Ginwright, 2012). Despite these limitations, the desire tradition offers a more robust language for critically analyzing and advocating for change forged through participatory and affirming collaborative partnerships.

The summary table below (Table 1.1: Traditions of Education Research) synthesizes the main features of each lineage of education reform and research. This review of traditions of education reform raises new questions to guide inquiry. In the following chapters, I pose the following sub-analytic questions to guide my investigations of digital education reform movements: 1) What assumptions about how change happens are evident in the everyday talk and practices of digital education

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⁶ Conversely, the absence of a public pedagogy within the opportunity tradition can be traced to scholarly inattention to community assets. Berliner’s (2006) analysis of the moral imperative to eliminate poverty helps to illustrate this point. He writes: “It takes no great wisdom to realize that families with increasing fortunes have more dignity and hope, and are thus able to take better care of their children, than do families in more dire straits, where anxiety and despair are the more common emotional reactions” (p. 986). Although Berliner does not claim that marginalized communities are structurally determined, he re-presents families and youth from disinvested communities and communities of color as marked primarily by “anxiety and despair.” When brokenness is lifted up as “the more common emotional reactions,” communities are not positioned as partners in collective efforts to transform their cultural and material conditions, but instead, in need of rescue.
reformers? 2) What forms of knowledge do digital education reformers draw on to achieve their organizational missions? 3) How do reformers theorize place in mobilizing digital education reform programs and actions? These theoretically driven questions offer potential insight beyond the subfield of CET and bring this project into conversation with scholarship on education reform broadly.

Table 1.1. Contrasting Traditions of Educational Research.

<table>
<thead>
<tr>
<th></th>
<th>Achievement Tradition</th>
<th>Opportunity Tradition</th>
<th>Desire Tradition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
<td>Explores technical solutions to improve classroom teaching and enhance organizational efficiency in ways that contribute to student achievement gains</td>
<td>Targets within- and out-of-school barriers to achievement to advance more equitable educational and social opportunities for the most marginalized youth reform solutions</td>
<td>Reframes communities as places of inequality and places of possibility and utilizes participatory methodologies to forge inter-racial and inter-generational coalitions for educational justice.</td>
</tr>
<tr>
<td><strong>Theory of Change</strong></td>
<td>By identifying, refining, and iterating solutions, educational researchers can work with school leaders and teachers to address organizational problems of practice</td>
<td>By developing a rigorous empirical knowledge base and pressuring policy makers, educational researchers can upend structural inequities within which schools are embedded</td>
<td>By building organizing power within and across historically marginalized communities, researchers can accompany grassroots movements for racial and educational justice.</td>
</tr>
<tr>
<td><strong>Knowledge Forms</strong></td>
<td>Publications, white papers, policy briefs</td>
<td>Publications, white papers, policy briefs</td>
<td>Publications, white papers, policy briefs, art performances, digital and social media, videos, organizing campaigns</td>
</tr>
<tr>
<td><strong>Attention to Place</strong></td>
<td>Place does not figure into the theory of change given a focus on organizational problems</td>
<td>Place matters given the enduring relevance of structural constraints like racial segregation and poverty</td>
<td>Place is actively practiced and (re)made as a basis of reclaiming divested community and school</td>
</tr>
<tr>
<td><strong>Limitations</strong></td>
<td>Favors the identification of discrete problems of practice in ways that overlook the ways in which improving schooling can simply sustain social inequities</td>
<td>A focus on barriers to opportunity risks framing communities as damaged and reifying deficit understandings of the most marginalized communities</td>
<td>Outcomes such as healing or critical consciousness are often illegible within prevailing research and reform discourses and present challenges to</td>
</tr>
</tbody>
</table>
Theory of change limited to what takes place within (and rarely beyond) classrooms, schools, and formal organizations
Lacks a public pedagogy for building organizing power among families, youth, and community members to demand the redistribution of power and resources
proving the value of desire-based actions
Long horizon of community transformation limits evidence of discrete wins required to sustain intergenerational movements for justice

Critical Policy Analysis & New Institutionalism

I framed this inquiry by drawing on concepts from Critical Policy Analysis (CPA) and new institutionalism in organizational theory. CPA departs from traditional “what works” orientations to policy analysis and explores how policies reproduce or challenge prevailing societal and educational inequities (Diem, Young, Sampson, 2019; Diem, Young, Welton, Mansfield, & Lee, 2014; Webb & Gulson, 2015). Paying attention to power and issues of (in)equity is critical when studying digital education reform given observed tendencies to minimize the cultural and material barriers to opportunity that minoritized young people must negotiate.

My application of CPA also drew on what Dumas, Dixson, and Mayorga (2016) define as policy discourse: “the intersection of power and knowledge in producing certain policy ‘truths’” (p. 6; see also, Petersen, 2015; Webb & Gulson, 2015). I utilized this notion of policy discourse to investigate the ways in which narratives of digital access make, unmake, and remake “definitions of what counts as education” (Ball, 1993, p. 3); that is, the taken-for-granted languages and frameworks of meaning that condition what is intelligible and desirable (Foucault, 1972; Weaver-Hightower, 2008). Investigating how power is embedded in meaning-making frameworks offered an
important historical vantage point for troubling what Selwyn (2012) describes as the “otherwise anodyne mainstream educational technology literature” (p. 15). Further, the prevalence of futurist discourses that obscure attention to history and cultural contexts warranted a critical discursive approach to analysis. If, as Cohen (1987) observes, “New technology is an old educational enchantment” (p. 153), studying how policy makers discursively rationalize investment in new tools offered potential insight into the ways that power is imbued in digital education reform debates. Specifically, I sought to understand how prevailing edtech policy discourses constrained the everyday talk and practice of digital education reformers.

In addition to policy discourse, I also drew on CPA assumptions about policy as an ongoing sociocultural “practice of power” (Levinson, Sutton, & Winstead, 2009, p. 767). CPA encourages inquiries that examine how policy is made, unmade, and remade at the level of policy subjects’ everyday practices (Ball, 1993; Werts & Brewer, 2014; Winton, 2013). From this standpoint, researchers utilizing CPA examine what policy “does” materially and how active, meaning-making actors animate policy discourses in ways that sustain or interrupt status quo relations of power (Diem, Young, Sampson, 2019; Diem et al., 2014). Such a perspective has important implications for how researchers come to understand the ways in which creative actors appropriate elements of edtech policy discourses and “make” new norms, activities, and practices (Koyama & Chang, 2019; Levinson, Sutton, & Winstead, 2009). This attention to everyday practice affords a more agentic understanding of digital education reform that challenges abstract,
technologically determinist narratives about technology as an “unstoppable” force (Jasanoff & Kim, 2015, p. 339).

Despite this broad conceptualization of policy and power, attention to organizational structures remain limited. Often, CPA scholars investigate how policy discourses, such as those associated with neoliberal policy discourses of efficiency and accountability reconstitute the subjectivities of school actors, such as new conceptions of the entrepreneurial and managerial principal or schoolteacher (Ball, 2015; Youdell, 2010). Yet, the increasingly influential role of out-of-school organizations—such as philanthropic foundations and nonprofit organizations that mediate education policy discourses (Au & Ferrare, 2015; Reckhow & Snyder, 2014)—encouraged a search for complementary tools for analysis that consider how power is also encoded in organizational structures, or regularized patterns of action and interaction (Scott, 2003).

New institutionalism is a theoretical approach that examines how institutions, “taken-for-granted classifications, scripts, and schemata” (Meyer & Rowan, 2006, p. 6), influence organizational action and interaction (Scott, 2003). From this perspective, organizations adopt elements of legitimated cultural scripts to mitigate challenges to their credibility (Aurini, 2012). Studies informed by new institutionalism investigate how organizations tend to adopt elements of their institutional environments to gain legitimacy and signal the “congruence” between organizational activities and societal institutions (Dowling and Pfeffer, 1975, p. 122). Such a theory has important consequences for studying digital education reform in a moment when the state, media,
professions, and markets produce cultural scripts concerning the role and value of

Asking questions about organizational legitimacy also situates inquiry with and
in relation to the “organizational field” (Burch, 2007; DiMaggio & Powell, 1983).
DiMaggio and Powell (1983) define the “organizational field” as “Those organizations
that, in the aggregate, constitute a recognized area of institutional life: key suppliers,
resource and product consumers, regulatory agencies, and other organizations that
produce similar services or products” (p. 143). Several researchers use the concept of
the “organizational field” to trace the interactions across actors and organizations
(including state and private market actors) and the subtle shifts in products, governance
structures, and roles that result from these interactions (Aurini, 2012; Burch, 2007,
2009; Rowan, 2006). The notion of the organizational field is particularly pertinent
when considering digital education reform given the observed outgrowth of “The Great
American-Education Industrial Complex” (Picciano & Spring, 2013, p. 7).

Within this broader organizational field, I chose to situate my study in nonprofit
organizations given a growing body of scholarship that seeks to understand the
increasingly influential, yet understudied role of nonprofit organizations as
intermediaries, or “brokers” of material resources, social connections, and information
between public and private sectors (DiMartino & Scott, 2013; Galey, 2015; Lubienski,

Situating this study in nonprofit organizations also allowed me to avoid
repeating rich empirical studies within schools. Cuban (1986) traced the successive
waves of technological innovations and identified a “token compliance” among educators (p. 55). In a follow-up study (Cuban, 2001), he empirically demonstrated how teachers across three school contexts operated under shared conditions of “situationally constrained choice”: organizational contexts that restrict the ways teachers can implement technology and that shape their willingness to engage new learning innovations (Cuban, 2001). Similarly, Cohen (1987) observed teachers’ tendencies to layer new technologies onto traditional pedagogies (c.f., Sims, 2017). More recently, Bingham (2016) argued that teachers’ frustration with new technologies leads them to resort to traditional pedagogical practices. Studying the interpretive practices within schools, though potentially illuminating, would constrain my interests in studying how distinctive visions of digital education reform emerge and gain traction and are then translated to, and often imposed on, school actors. Although I do not assume school actors, such as administrators, teachers, and students passively “implement” policy, studying actors in the organizational field offered potential insight outside of the constrained, situational organizational contexts of schools.

Combining CPA and new institutionalism, I set out to study the intersection of edtech policy discourses and digital nonprofit education reformers local practices. I wanted to understand what policy discourses are considered legitimate, or taken-for-granted in the current historical moment and how digital education reformers reify and/or contest these prevailing cultural scripts.

**Digital Education Reform in the Bay Area: An Historical-Comparative Inquiry**
Informed by CPA and new institutionalism, I adopted an historical-comparative approach to inquiry. I began by conducting “a history of the present” (Foucault, 1980) and tracing the interests and values encoded in digital education reform policy discourses (Fairclough, 2001; Cherryholmes, 1988). In total, I collected and analyzed 53 federal edtech policy texts published between the first mention of technology in education policy debates (1958) to the start of this empirical inquiry (2016; see Appendix B for a further descriptive overview).

I then sought to ethnographically investigate how actors in two contrasting nonprofit organizations sustained, altered, and/or transformed edtech policy discourses. Ethnography allowed me to study the situated contexts of local talk and practices and link concepts of policy discourses with everyday material practices (Burawoy, 2009; Leonardo, 2010). Ethnographic interviews and fieldnote observations thus provided opportunities to develop a situated and contextualized account of human life (Denzin & Lincoln, 1994, p. 2); what Haraway (1998) describes as “webbed accounts” of “local knowledges” through which cultural actors made, unmade, and/or remade policy discourses (p. 581).

I also considered a comparative analysis an indispensable component of my research design given my interests in how power constrains and enables opportunities for education alternatives. A comparative design allowed me to resist tendencies to simply “critique” existing digital education reforms and build toward an analysis of critical, yet hopeful lines of emancipatory action (Duncan-Andrade, 2009). As Selwyn (2019) advises: “If we are not happy with the digital conditions that currently dominate,
then what \textit{do} we want?” (p. 34). Rather than merely speculating about what we might want, a comparative research design allowed me to ground potentially more just innovative approaches to digital education reform in empirical data.

Two nonprofit organizations in the California Bay Area emerged as illustrative cases for analysis. I refer to these organizations as “Accelerate-Edu” and “InnovateEquity.” Both Accelerate-Edu and InnovateEquity operated within the same organizational field of digital education reform, which I interpret broadly as concerning both school and non-school learning contexts enmeshed with social, cultural, political, and economic contexts (Anyon, 1997, 2005; Berliner, 2006). Both were nonprofit, 501(c)3 organizations founded within the past ten years. Both operated within shared policy and geographic contexts. Additionally, both organizations engaged in distinctive kinds of “brokering” labor (Trujillo, 2014, p. 254) and mediated relations across private foundations, state and district actors, corporations, media outlets, and families and communities. Accelerate-Edu and InnovateEquity also reflected contrasting orientations toward technology, youth, and the purposes of education that invited exploration into potential alternatives for conceptualizing and enacting digital education reforms.

\textbf{Accelerate-Edu}

Founded in 2014, Accelerate-Edu aspired, “To increase and accelerate student achievement by leveraging technology at scale” and partnered with corporations, digital technology companies, philanthropic foundations, district leaders, and other digital technology nonprofit organizations to pursue these aims. Leadership at
Accelerate-Edu comprised primarily of white and Asian men; several of whom entered the nonprofit sector from previous work in local Silicon Valley technology corporations, including Google, Apple, and an array of startup companies. I wanted to study Accelerate-Edu given that their mission and values reflected broader federal education technology initiatives and offered potential local-level insights into national theories of digital school transformation. The leadership team comprised of individuals from the high-tech industry and business backgrounds also offered potential insights into the growing intimacy between education and industry (Ball, 2007; Lipman, 2011). I wanted to understand the possibilities and constraints evident in this approach to digital education reform within formal school districts and schools.

The team with whom I had the most ongoing interactions included Iris, a South Asian Indian woman and program director, Yadin, an East Asian man and program manager, and Laurel, a Latina who managed communications and event logistics. I gained consent to study Accelerate-Edu by communicating with Yadin by phone throughout the summer of 2016. As I discuss in the appendix (see Appendix A), our shared racial and cultural backgrounds offered a basis for establishing rapport during the 4 months leading up to my first formal in-person meeting with Yadin. My initial meeting with Yadin proved a valuable relationship for catalyzing what I interpreted to be trusting relations with the broader Accelerate-Edu team.

Over the course of 11 months of participant observation, I attended weekly team meetings, quarterly advisory board sessions, meetings with district personnel, organizing retreats, public outreach and funding events, Halloween parties, and after
work get-togethers. Interviews include accounts from current and former staff at InnovateEquity, including members of the advisory board. I inquired about respondents’ paths toward working at the organization, their hopes and concerns for what digital technologies might accomplish, and their visions of successful educational and social change (see Appendix C).

During the course of my fieldwork, each member of the Accelerate-Edu team left the organization and pursued a new career at different moments; Iris at 6 months, Yadin at 7 months, and Laurel at 10 months. In June 2016 (at 9 months), Nicole replaced Iris, Nick replaced Yadin, and Ysabelle joined the team to lead a research study. Laurel’s position remained unfilled at the conclusion of my fieldwork. These transitions troubled linear approaches to consent and elevated a need to approach ethics as an ongoing practice of research relations (Sabati, 2018). Although I had consent from organizational leadership to conduct this study, fieldwork became uncomfortable as a result of my inability to forge mutually trusting relations with the new iteration of the team (as I elaborate on in Appendix A). About 1 month into my fieldwork with the new team, I determined that it was most ethically responsible to conclude my fieldwork. I discussed a formal exit plan with project lead, Nicole, and agreed to conclude my participant-observation with accelerate-Edu following a final public event in August 2017. The total time I spent with this second iteration of Accelerate-Edu amounted to 2 months.

InnovateEquity
InnovateEquity was founded in 2010 and sought to leverage digital tools to “meet the economic, educational, environmental challenges of the twenty-first century.” Like Accelerate-Edu, InnovateEquity partnered with corporations and philanthropic foundations, but also with city governments, community leaders, housing activists, and youth organizations. I wanted to study InnovateEquity given the contrasting interpretations of “education” they enacted, which oriented digital tools toward broader questions of civic engagement. I was interested in understanding how their more expansive interpretation of education—as bound up with questions about housing, safety, and jobs—offered potential alternative vantage points for exploring the possibilities of digital education reform.

The immediate team that I interacted with the most at InnovateEquity included Isaac, a Black professor at a local university and co-founder of InnovateEquity, Anna, a South Asian woman and director at InnovateEquity, and Alicia, a Puerto Rican woman and Project Manager at InnovateEquity. For this particular project, nine other policy consultants and local community leaders supported the particular downtown Oakland project that I studied. I refer to this team as the InnovateEquity Downtown team (IDT). With the exception of two white consultants, the IDT comprised People of Color from Black, Brown, and Asian communities.

Over the course of 13 months of fieldwork, I participated in weekly internal team meetings, public outreach and funding events, conversations with city officials, community neighborhood design sessions, informal luncheons, and after work get-togethers. As in my interviews with staff at Accelerate-Edu, my interviews with
InnovateEquity inquired about interviewees’ paths to working at/with InnovateEquity, their hopes and concerns about what digital technologies might accomplish, and their visions of successful educational and social change in downtown Oakland.

Extended participation with InnovateEquity fueled what I interpreted as relations of trust. This was made possible in light of my participation in various forms of volunteer labor (Appendix A). Still, I wrestled with my presence as a researcher taking fieldnotes and analyzing empirical details, which created a thin, but palpable separation between myself and the team. Unlike Accelerate-Edu staff, all participants remained on the InnovateEquity team at the conclusion of the study. As many other ethnographers have documented (Hoang, 2015; Ribas, 2015), trusting relations can make leaving the field a tricky process. I received two invitations to participate in projects beyond the Oakland-based project. These invitations reflected labor needs and my understanding of mutually respectful and mutually trusting relations between myself and members of InnovateEquity.

**On Method, Racial Formation, and Ethnographic Sincerity**

Although I append a more elaborate discussion of methodology (see Appendix A), it is important for the reader to understand the ways in which race mediated my data collection and data analysis research processes. Although other structures—such as gender, language, sexuality, and citizenship—shaped how I developed and sustained relationships with participants, race was a primary mediating structure. Omi and Winant (2014) argue that race operates as a “master category”: a social construct and material reality that is shaped in and through inter-personal and institutional
interactions. Attention to race does not exclude attention to other structures, but rather, elevates the significance of race as a central meaning-making category. Throughout my fieldwork, my “Asianness”—in particular, interpretations of my Asian identity as a “model minority” (Wong, Lai, Nagasawa, Lin, 1998) and “yellow peril” (Fujino, 2008, 2005; Kawai, 2005)—assumed added significance across Silicon Valley and Oakland. Both categories, as an upstanding, hardworking, passive “model minority” and as un-American, othered, and subversive “yellow peril” existed simultaneously. Fieldwork became an unexpectedly jarring process of studying the self in relation to a digital and racial society.

In the “Valley,” I was surprised how much my Asianness emerged throughout my interactions with Accelerate-Edu, especially at public events they hosted. When volunteering with Accelerate-Edu, I would often receive the phrase, “Have I met you before?” I initially interpreted these questions as a benign inquiry, or perhaps a networking introduction. But when, on repeated occasions, I was asked if we had “met before,” I realized that I was not an uncommon or unwelcome guest in Silicon Valley, but rather, a part of the raced, gendered, and classed hierarchy of the high-tech society. It was not until a news piece emerged that documented the persistence of racial income inequalities across race and gendered subgroups that I was able to put these anecdotal comments into a structural context (Patten, 2016, July 1). According to a Pew Research report, the median salary of Asian men was 117% as much as white men, compared to
that of Hispanic (67%) and Black men (71%). Median hourly salaries for women were collectively lower for all corresponding racial subgroups as a percentage of the income of white men, including Asian women (85%), White women (81%), Black women (62%), and Hispanic women (57%). This national portrait surfaced inequities that were even more intense within Silicon Valley. According to a recent report by the U.S. Equal Employment Opportunity Commission (2016), 83% of executives in Silicon Valley firms identify as White, 10.5% identify as Asian, and only 3% and 2% identify as Hispanic and Black, respectively. I realized that I was racialized and gendered in relation to this structural hierarchy in the Silicon Valley, and though I sought ways to understand how these interpretations informed my (in)access to particular moments and conversations, I still remain unsure how race mediated the data I collected and ultimately analyzed to construct findings presented in this dissertation.

By contrast, fieldwork in Oakland made possible a new subject position, particularly in relation to housing rights and environmental justice activists in Chinatown. Although I was also afforded privileges associated with a “model minority” narrative, I was also construed as an affiliate of local community groups that opposed “urban renewal” efforts, including activists and residents purportedly “clinging” to traditional produce markets, local restaurants, and housing complexes that sullied the aura of a global and modern city. As one example, without having shared who I was, a participant at one community meeting leaned over to me and whispered, “These

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7 I use the umbrella category of “Asian” here in keeping with Patten’s (2016, July 1) analysis, which does not disaggregate Asian into sub-categories of east, west, south, southeast, or north Asian.
developers are always trying to push plans down our throats.” In this moment, I was a member of Chinatown and could claim my affiliations with legacies of Chinese exclusion and neighborhood struggle. My own personal and political interests in allying with community groups notwithstanding, my status as a monolingual, 4th generation, Asian American of Japanese and Chinese descent belied how this particular community member interpreted me. Privileges associated with my background aligned more with those of the development firms rather than the community resident who generously included me as part of “us.” As in my critical reflexive memos in Silicon Valley, I attempted to explicate how race mediated what kinds of data I had access to, analyzed, and ultimately drew on to construct my findings.

Of course, attention to race as a mediating structure in research processes is not new. Milner (2007) argues that researchers must pay careful attention to their own and others’ racialized systems of knowing and being in the world, particularly in the process of collecting and analyzing data and what researchers ultimately “find.” Taking Milner’s advice seriously, I turned to Jackson’s (2005) notion “racial sincerity”—a concept that emphasizes the temporal and ongoing inter-subjective relations between researchers and research “subjects”—as a way to conceptually grasp contrasting racializing experiences in Silicon Valley and the Town. Sincerity offered a way to make sense of distinctive kinds of research subjectivities and practices across both cases. I consistently wrote memos in an effort to explicate what I experienced as racialized and revisited these memos prior to analyzing my data.
Importantly, sincerity also opened possibilities for developing my own racialized interpretation of the world and coming to terms with the various privileges and penalties afforded to me as a reflection of my racialized identity. Outside of the formal dissertation project, I sought out histories of Chinese labor exploitation, segregation, and to my surprise, inter-racial solidarity between Asian and Black communities in Oakland that long pre-dated my dissertation project (Fujino, 2005). One protest sign, “Yellow Peril Supports Black Panther Party” symbolized Asian-Black political solidarity in the historical record of Oakland; an expression of inter-racial solidarity that recently resurfaced in the movement sign: “Asians 4 Black Lives.” Writing the dissertation became a sociocultural practice of making sense of my own comforts and discomforts working across lines of difference. I approached writing as a way to engage difference not as something to be feared, but as a generative source of coalition building and troubling what role research might play in broader movements for social and educational change (Lorde, 1993).

Taken together, this dissertation represents a critical moment in my own subject formation. Hoang (2015) writes of the “embodied costs” of conducting fieldwork, that “color the way we see the world, manage our personal relationships, cope with pain, and experience the joy that comes with the deep connections we build in the field” (p. 23). Indeed, fieldwork in Silicon Valley and Oakland shaped much of the theories and languages that now filter into my research agenda, but also in my everyday life as a husband, brother, grandson, and neighbor. What I originally thought were effective
fieldnote practices of writing daily reflections became constitutive dimensions of my efforts to author an identity.

In the pages that follow, critics might find too critical a re-presentation of “the Valley” and too romantic a portrait of “the Town.” I have sought contradictions across both cases and have included this exposition of my own positionality as a way to be transparent with the reader, who can judge whether or not I have succeeded in this effort.

Overview of Chapters

The following chapters are organized by cases. I aimed to preserve some of the contextual richness of the Valley and the Town and situate distinctive ways in which actors “countered” particular aspects of federal edtech policy discourses.

Chapter 1 traces how federal edtech policy discourses condition the historical present. Drawing on archival data, this chapter introduces a concept I call digital meritocracy: a policy discourse that constructs digital technologies as a means of more effectively evaluating individual success as a product of individual effort and ability, regardless of historic, place-based, structural inequities (Chang, 2018b). I weave themes of “personalization” and “everywhere” over six decades of federal policy texts and argue that policy makers have historically invested in digital tools as a means of individualizing failure and relieving the state of obligations to address historic legacies of racial segregation.

Chapters 2-3 explore how digital education reform actors in Silicon Valley and Oakland, California designed and sought to achieve their organizational aims in
relation to, and at times, in opposition toward policy discourses of digital meritocracy (Chang, 2018a, 2019). Each chapter investigates the intersection of policy, place, organizations, and the everyday cultural talk and practices through which digital education reformers sought to materialize distinctive visions of progress using digital technologies.

Chapter 4 analyzes findings across both cases. I found that CPA and new institutionalism proved helpful but insufficient theoretical tools to explain what emerged from the data, and in this chapter, combine scholarship on sociotechnical imaginaries (Jasanoff & Kim, 2015) and racially specific spatial imaginaries (Lipsitz, 2011, 2007) to examine empirical patterns across Accelerate-Edu and InnovateEquity. I argue that each organization represents cases of contrasting white and Black sociotechnical imaginaries. I then develop a conceptual framework that combines white and Black sociotechnical imaginaries with traditions of educational research outlined in Chapter 1. This framework provides an interpretive lens for assessing the shifting political dynamics of digital education reform. In a final analytic move, this chapter empirically develops the notion of a politics of redaction: the historically conditioned ways actors in positions of power incrementally depoliticize justice-oriented talk and practice in ways that tend to reproduce inequitable social structures (Chang, 2019b). A politics of redaction reveals how some digital education reforms are privileged, whereas others—namely those that challenge prevailing hierarchies of racial power and privilege—are penalized.
Chapter 5 turns to the narratives of community leaders in Oakland situated “outside” the organizational field of digital education reform in the California Bay Area. Their words offer an empirical foundation for exploring the possibilities and barriers of building toward what one community member described as, “a real seat at the table”; participatory democratic processes where community input is not only uttered but heard and acted upon in ways that allow for historically marginalized communities to thrive. I draw on these community-based theories of social and educational change to reconsider how digital tools and practices are “storied into existence” (Lynch, 2015, p. 145) and to theorize what an attention to subjugated ways of knowing and being might contribute toward materializing education equity. I conclude by outlining various forms of policy, research, and pedagogical “disruptions” that might build toward more just and historically responsive twenty-first century futures.
Chapter 1: Digital Meritocracy

“If we can put men on the moon, why can’t technology be used to help Johnny learn to read and write?”

~ James Scheuer, New York Representative, (1977)
Computers and the Learning Society

“We must face America before we can get to Johnny.”

~ Herve Varenne and Ray McDermott (1999)
Successful failure: The School America Builds

This chapter explores the historic formation of present ways of talking about and designing edtech policy solutions. Drawing on CPA, I use the term “policy makers” broadly to refer to formal congressional representatives and invited speakers whose testimonials participate in the construction of policy discourses (Diem, Young, Sampson, 2019). I investigate the terms and frameworks of meaning through which policy makers call for, and occasionally contest, efforts to expand federal investments in education technologies. Although this chapter explores the specific objects of policy investment (e.g., radio, television, computers), I focus my analysis on the discursive themes and cultural frameworks of meaning through which policy makers imagine technology as a solution to specific school and educational problems (Gale, 2001).

My main argument centers on a policy discourse I call digital meritocracy: the notion that digital technologies offer a means of enhancing and evaluating individual success and failure in ways that transcend racialized and place-based inequities (Chang, 2018b). Digital meritocracy extends an achievement tradition of education reform and minimizes calls for the redistribution of decision-making power and material resources
by focusing policy attention on cognitive deficits of young people (Oakes & Rogers, 2006). Specific objects of policy investment—such as educational televisions or computer laptops—represent novel devices, but reify moral discourses of meritocracy that reward students based on ostensibly objective measures of talent, effort, and ability (Lamont, 1995; Young, 1958).

This chapter traces the formation of digital meritocracy evident in two complementary discursive themes: personalization and everywhere. Personalization heightens a focus on individual children and cognitive (dis)abilities that are assumed to reside within the individual (Brown, 2016). I unpack two personalization subthemes: personalization as antidote to the impersonal school and personalization for the ‘disabled’ and ‘gifted’ child. The effective functioning of personalization, however, depends on a complementary discourse that elides attention to place-based, structural inequities. Here, discourses of everywhere as global competition and everywhere as global connectivity deflected policy attention to intra- and inter-district inequities and cast policy making attention toward global horizons of edtech possibility.

These complementary discourses shaped, and were shaped by, powerful discursive coalitions that blurred traditional political party lines. I found an array of actors and interests under a broad “ideological umbrella” that favored expanded investments in digital technologies (Apple, 2012, p. 136; c.f., Hajer, 2006; Pedroni, 2007), including progressive reformers, disability and “gifted” advocates, military, and corporate leaders. This discursive coalition—comprised of otherwise incongruent advocacy groups—sustained a policy making “common sense” (Gramsci, 1971) of
digital meritocracy that persists today in remarkably similar education policy storylines between Republican and Democratic parties (Carpenter, 2019).

Based on these findings, I argue that digital meritocracy is not simply a federal policy discourse, but a racial project (Omi & Winant, 2014). Digital meritocracy emerged as a “color-evasive” (Annamma, Jackson, & Morrison, 2017) way of signaling opportunity “everywhere”; that is, opportunity regardless of place, zip-code, or neighborhood. Digital meritocracy participates in the reproduction of racially disparate outcomes by circumnavigating racially explicit strategies in favor of less politically difficult ones, such as expanded technology for “all” students (Diem, Holme, Edwards, Haynes, Epstein, 2018). In extending digital meritocracy, policy makers performed a liberal concern for individual children from disadvantaged communities, while doing little to remedy the structural conditions that marginalized entire communities of color (Lipsitz, 2015).

I conclude by identifying what Christensen, Morsing, & Thyssen (2015) term, “discursive openings”: moments of critique and contradiction through which alternative approaches to policy and practice emerge (p. 141). These fissures reveal the contingent nature of discursive frameworks of meaning, despite an otherwise bleak and

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1 Following Annamma, Jackson, and Morrison (2017), I use the term “color-evasive” to trouble ablest assumptions in popular and scholarly conceptions of “colorblindness.” As they compellingly argue, “Color-blindness, as a racial ideology, conflates lack of eyesight with lack of knowing” (p. 154). They add that “color-evasiveness” avoids positioning visual disabilities in deficit ways, while simultaneously elevating attention to the social constructedness of race (i.e., not as something “out there” waiting to be “seen”). I use the term, “color-evasive” wherever possible, but occasionally use the term “colorblindness” when citing scholars who use the term to make similar points about racism (e.g., Chapter 4, quote of Murakawa [2014]).
seemingly overdetermined analysis of digital meritocracy and the policy consequences of this enduring framework. Attention to discursive openings also motivates my ethnographic investigation of how reformers today make, unmake, and remake digital meritocracy in ways that expand possibilities for thinking and acting in designing more politically and historically responsive solutions (Andre-Bechely, 2005).

**The Discursive Formation of ‘Personalization’**

Personalization is a widely celebrated theme in current edtech policy discourses. From the National Education Technology Plan (2016) to the Every Student Succeeds Act (2016), policy makers assume personalization represents a desirable aim of edtech initiatives, which will increase student learning. The ESSA casts a national vision for states to explore uses of technology to “personalize learning to improve student academic achievement” (ESSA, 2016, p. 1177-172). Similarly, the NETP (2016) elevates policy attention to “personalization” and pedagogical efforts “to give students more choice over what and how they learn and at what pace” (p. 5). But as I detail in this section, policy emphases on more choice sidestep questions about the substantive content and political purposes of learning. Such vague ways of framing learning merely afford students “more and more” control over “less and less” (Anderson, 2009, p. 2); the pursuit of greater choice reify existing aims and curricular content of schooling.

**Personalization as Antidote to the Impersonal School**

One way that policy makers justified a need for more personalized, technology-mediated learning was by problematizing the impersonal, “one-size-fits-all” structures
of schooling. In 1966, Maurice Mitchell, President of Encyclopedia Britannica, Inc., expressed concerns about the impersonal dimensions of schooling and asked members of Congress what kind of schools they might build if all schools and universities were destroyed overnight. For Mitchell, the answer was obvious: America needs schools that are responsive to individual learners. He argued that programmed learning, an instructional approach that utilized teaching machines, afforded “new techniques of self-instruction” (p. 13). Mitchell elaborated:

Programmed learning strikes hard at the very heart of some well-established educational traditions. It suggests that group or lock-step learning in the conventional classroom is often unnecessary and sometimes undesirable. It makes possible the measurement of learning by achievement instead of on the basis of time—a year of algebra versus algebra until you've learned it (often in 12 weeks)—and thus upsets many administrative and other traditions in our schools. (Technology in Education, 1966, p. 14)

Although programmed learning challenged “well-established” and “traditional” school processes, it reified traditional functions of schooling that aim to prepare students for hierarchical positions in a stratified society (Ogawa, 2015). Mitchell’s testimony anticipates the competency-based education reform movement popularized today, which appropriates digital platforms as a means of allocating individual student credits based on content mastery instead of the duration or time of instruction (National Education Technology Plan, 2016). Other possible ways of personalizing learning, such as by investing in school counselors or developing more culturally responsive pedagogies for teachers to engage students in less impersonal ways, were notably absent from policy debates. As Mitchell concluded, personalization through technology “permits education in terms of the abilities and pace of the individual student”
(Technology in Education, 1966, p. 14); subtle “innovations” in the delivery rather than the aims of public schooling (Labaree, 1997).

Like Mitchell, the House Commission on Education Technology envisioned technology as a way to liberate the individual student from their peers, but also from classrooms and even schools. In the late 1960s, The House Commission on Education Technology observed, “Freedom and self-direction have always been accepted as goals of American education. The use of technology in education can increase the alternatives and permit the student to find his own direction more easily” (Education Technology Act, 1969, p. 92). Such appeals reified American cultural values of freedom as individual choice and liberty and minimized contrasting understandings of freedom, such as “freedom from want” and access to basic material goods (Lakoff, 2006, p. 55). Technology is thus imagined as a way of further institutionalizing accepted goals of American schooling, such as individual letter grades and course credits (Katz & Rose, 2013; Varenne & McDermott, 1999). Within these distinctively American and behaviorist frameworks, peers are constructed as barriers to learning, rather than social others who can support the generative conflict and construction of new meanings (Gutiérrez & Rogoff, 2003).

Throughout the 1970s, policy makers elaborated on the virtues of digital technologies as a means of personalizing learning and enhancing individual freedom. C. Sergeant Carleton, Education Director of the National Audio and Visual Association, invoked Greek philosophy and posed the following rationale for expanded federal investment in edtech:
If we could individualize instruction by assigning one Socrates to each student, we might have an effective learning situation but the cost would be out of sight. Even if there were enough teachers to go around. But through educational media, instruction can be individualized and at a fraction of the cost of an additional Socrates. And the teacher’s time, most important, is ‘freed’ to focus on the individual needs of individual students. (Education Technology, 1971, p. 46)

For Carleton, “need” is exclusive to the learning needs of individual students. This framing excludes attention to the social contexts of schooling and broader needs emanating through an opportunity or desire framework. He braids discourses of personalization with longstanding emphases on efficiency as an inherent aspiration of educational policy making (Callahan, 1962). Corporate backers, such as Computer Curriculum Corporation, extended justifications like those Carleton ushered into policy making spheres by testifying potential district savings new technologies afforded (Computers and the Learning Society, 1977). In the same 1977 hearing, Martin Clinton, Vice President of Computer Curriculum Corporation in Palo Alto, testified that computer assisted instruction could deliver achievement results within 1-month and within prevailing $100 per-pupil expenditures. He elaborated that technology allowed teachers to “monitor the progress made by each child and to provide diagnostic help as shown to be necessary by the computer system” (Computers and the Learning Society, 1977, p. 77). These testimonies constructed technology as a veritable means of personalizing learning, enhancing achievement results, all at a lower price-point and in ways that addressed urgent district timelines.

These discourses of personalization as antidote to the impersonal school persisted throughout the 1990s and early 2000s. Pennsylvania Representative, Bob
Walker, characterized the central “dilemma of our contemporary education system” as whole-group instruction that required “teaching to the lowest common denominator” (Education Technology, 1991, pp. 7-8). With technology, Walker argued, policy makers can “free the teacher up” to meet the needs of 28 different students, each operating at 28 different levels of instruction (p. 8). Such views reified longstanding American values of individual liberty and infused positivist and behaviorist assumptions into technology-mediated classroom designs. Personalization using edtech devices thus emerged as an advantageous way to extend the freedom of the student and the teacher in ways that emphasized cognitive diversity but minimized sociocultural differences among students.

**Personalization for the ‘Disabled’ and ‘Gifted’ Child**

Arguments for technology-driven personalization overlapped with rationales that disability and gifted learning advocates contributed concerning a need for greater individualized forms of instruction. Policy makers considered these “classes of users” as key beneficiaries of more personalized, technology-mediated instruction (Computers and the Learning Society, 1977, p. 256). Attention to the needs of “disabled” and “gifted” children corresponded to broader “cultural scripts” (Meyer & Rowan, 1977) concerning the roles and purposes of education broadly. I analyze pro-disability and pro-military narratives separately to situate how policy makers drew on these discursive resources to rationalize investment in digital technologies for the “disabled” and “gifted” child, respectively.
Throughout the late 1960s and early 1970s, disability advocates actively championed the needs of students with learning disabilities ultimately leading to the passage of Education for All Handicapped Children Act of 1975. Concern for students with disabilities in a one-size-fits-all school created a narrative backdrop to justify expanded investments in digital tools. As one example, Robert Herman, Associate Deputy Commissioner for the Bureau of Education for the Handicapped, argued that technology provides previously unimaginable ways of personalizing schooling and better serving the needs of students with disabilities and with observed talents and gifts. He elaborated:

> It [computers] can be the patient, non-threatening instructor that can repeat over and over again for a child with a learning problem. It can provide a child who is limited in his expressive abilities new ways to express his ideas and thoughts. (Computers & the Learning Society, 1977, p. 430)

Although Herman advances technological possibilities in favor of expanded ability access and a more universal design for learning (Rao, Ok, Bryant, 2014), he articulates technologies toward repetitive, drill-and-kill pedagogies and even suggests that such technologies can replace teachers. Herman approached disability as a cultural fact rather than as sociocultural construct (McDermott, 1993)\(^2\) and positions technology as

\(^2\) McDermott (1993) offers an instructive anthropological analysis of the cultural work of learning disabilities. He de-centers an analysis of disability as residing within the disabled child, and instead, traces the expression of disability through the concerted practices, gestures, pedagogies, and interpretive efforts among multiple actors (e.g., school actors, special educators, behavior health specialists, school leaders). These collective practices, McDermott argues, construct the category of disability as a meaningful label. Policy making attention to anthropological analyses of disability are minimized in favor of psychological based accounts, which conveniently frame disabilities in ways that technology might “fix.”
a means of accommodating students to succeed according to accepted goals and categories of American schooling (Education Technology Act, 1969).³

Policy makers emphasized the liberatory potential of digital tools for students with disabilities throughout the 1980s. Patricia Sturdivant, Associate Superintendent for Technology in Houston described how Apple microcomputers allowed students who were deaf or blind to participate in learning (Computers and Education, 1983). Similarly, the Office of Technology and Assessment described the potential for technology by noting its emancipatory potential:

Perhaps the most impressive applications of computer-based technologies are in the field of special education. Some teachers have described the computer as ‘the freedom machine’ because it has made communication itself possible for their students. Word processors allow students who could not hold a pencil to write; speech synthesizers provide some students with a means to communicate orally for the first time. (Power On!, 1988, p. 74)

Notwithstanding the important ability access gains that education technologies provided, statements like those evident in the Power On! report instantiate narrow interpretations of freedom specific to learning moments and pedagogical encounters. Questions about broader legacies of divestment and inequality—particularly along the lines of race, sexuality, gender, and class that also constrain the possibilities of freedom—are notably absent from discussion.

³ In this particular hearing, testimony included university-based research on the pedagogical possibilities of the computer-assisted instructional system, PLATO (p. 179), electronic mail (p. 240), and closed captioning (p. 430). In each of these examples, policy makers left the aims and purposes of schooling unquestioned and articulated technology as a way to enhance the achievement of existing school aims.
Policy making attention to disabilities technologies could not easily “fix” were also notably absent from federal hearings, reports, and testimonies. Although examples of orthopedic and hearing impairments were evident in testimonials throughout the 1970s and 1980s, examples of students with autism or emotional disturbances were notably excluded from federal texts. Such omissions reflect what Sims (2017) describes as a process of “rendering technical”: the way experts imagine and conceptualize school reform projects in ways that are amenable to the instruments they have on hand (p. 15; c.f., Li, 2007). To acknowledge disabilities that technology could not “fix” would interrupt policy constructions of technology as “the freedom machine” (Power On!, 1988, p. 74).

Testimonies throughout the 1990s and early 2000s drew on progressive pro-disability legislation (e.g., Assistive Technology Act of 1998) and rationalized expanded access to digital learning devices. Eva Cronin, an elementary teacher from Georgia, captured these progressive affordances of digital technologies well when she explained, “All students are capable of learning. Technology widens the avenues of learning and addresses individual strengths and needs” (p. 85). She related a story of Mark, a student with a learning disability, who, through the use of a text-to-speech encyclopedia, was able to read and produce a report that compared the digestive systems of frogs and humans (Using Technology to Learn, 2000, p. 12). Similarly, Dr.
David Rose urged congress to invest in technologies and develop standards of universal design and access to support students with disabilities. Rose explained:

And what I am saying is that if we, in addition to having the printed book, have a digital version, [...] we can do that individualizing, say, well, Billy needs this book to read out loud because he is blind. And Sally is going to need help with the decoding because she is dyslexic. (Education Technology Hearing, 2001, p. 42)

Disability advocates advanced compelling testimonies regarding the affordances of technology to personalize learning for students with disabilities. Such words were well received by members of Congress (Education Technology Special Hearing, 2001). Yet, what is most striking about pro-disability rationales for more personalized, technology-mediated learning are the ways in which such claims resonate with existing structures of schooling that stress interpretations of freedom as an individual choice. The state received testimony about learning that supported students to learn at their own pace and about the digestive systems of frogs but tended to exclude conversation about digital technologies that might facilitate a more critical, civically engaged inquiry.

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4 Early emphases on Universal Design for Learning (UDL) principles were later embedded in edtech policy texts. For instance, the National Education Technology Plan notes: “Education stakeholders should develop a born accessible standard of learning resource design to help educators select and evaluate learning resources for accessibility and equity of learning experience. Born accessible is a play on the term born digital and is used to convey the idea that materials that are born digital also can and should be born accessible” (NETP, 2016, p. 82). It is worth noting the placeless ways in which equity is deployed here. When equity is confined to “equity of learning experience,” it can be talked about in ways that obviate political demands for the redistribution of resources, and instead, catalyze efforts to invest in edtech products.  

5 As one example, Senator Harkin summarized his interpretation of the hearings this way: “Yes, because as I said at the beginning, I am really amazed at how much more the technology has done to help kids with disabilities learn. It is amazing what is happening” (Education Technology Special Hearing, 2001).
of structural inequities or that might mobilize interpretations of freedom that extend beyond individual choice and involve basic resourcing and self-determination among minoritized communities.

In addition to the assumed benefits of personalized learning for students with disabilities, policy makers from military, defense, and scientific backgrounds articulated the advantages of personalization for “gifted” students. Early themes of personalization for the gifted during the 1950s and 1960s constituted a discursive backdrop to rationalize investment in digital technologies during the 1980s.

In 1958, Wernher Von Braun, Director of the Army Ballistic Missile Agency in Huntsville, Alabama spoke admiringly about the public schools in England where, through the use of standardized exams, teachers did not have to “cope with students of dubious ability” (Science and Education for National Defense Hearing, 1958, p. 65). He called on Congress to fund a more disciplined, authoritarian, and tiered system of schooling, which he argued would better serve the nation. Echoing this military perspective, Columbia Professor I. I. Rabi called for “special schools for gifted children” (Science and Education for National Defense Hearing, 1958, p. 58). He alluded to a threatening global context and stated:

We are not all of equal ability. We must provide for the individuals in their differences. Just as we take special care of retarded children and try to bring them along so that they are of benefit in a maximum way to the country and themselves, so in the same way I think that we should take special account of gifted children. (Science and Education for National Defense Hearing, 1958, p. 59)
Like Von Braun, Rabi expresses broad societal concerns about U.S. competitiveness in the wake of the successful 1957 Soviet launch of the Sputnik satellite. Rabi regarded collective forms of instruction—of having “all of them together”—as not only impersonal but detrimental to the schooling for our “gifted children” (Science and Education for National Defense Hearing, 1958, p. 72). His views anticipate enduring concerns about U.S. international competitiveness that recruited broad political support and shifted education reform agendas from issues of “(in)equality” toward concerns about “excellence” (Schneider, 2011; Tyack & Cuban, 1995).

Similarly, the Honorable Hubert Humphrey emphasized the national stakes of public schools that failed to attend to the needs of gifted learners. He cautioned,

[. . .] we cannot treat all of our citizens as mentally equal and downgrade our gifted and intelligent students when our Nation so gravely needs to develop to the fullest extent the potential of the gifted young Americans to whom we must ultimately entrust our future development as a nation. (Science and Education for National Defense Hearing, 1958, p. 967)

Humphrey reified cultural beliefs about the assumed validity of I.Q. tests, which scholars have long problematized as indicators of social contexts and racial biases (Oakes & Lipton, 1999). Humphrey added that collective forms of teaching and learning minimize attention to “those 10 percent or 15 percent” that will ultimately lead our nation (Science and Education for National Defense Hearing, 1958, p. 791).

Statements like those Humphrey uttered reveal how early testimonies of

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6 Oakes and Lipton (1999) cogently observe, “Americans would take to any scientific and technological solution that came their way as long as it matched common conceptions of who was smart and who was not” (p. 47). Personalization reified common conceptions of intelligence, which may explain why policy makers readily adopted digital technologies as a convenient and risk-averse policy solution.
personalization were never intended to support all students, but rather, designed to reproduce prevailing conceptions of intelligence in relation to stratified structures of opportunities.

By the 1970s and 1980s, policy makers combined advances in digital technologies with these discursive resources to emphasize the personalized learning benefits of digital devices. Dr. Dorothy Sisk, Director of the Office of the Gifted argued, “It [computer-assisted instruction] would give the highly gifted youngster who is far above his age mates a chance to study at his own level in his own school and yet remain with children of his own age” (Computers and the Learning Society, 1977, p. 609). Sisk animates policy concerns with gifted learners, but intriguingly, avoids challenging institutionalized features of schooling, such as age-segregated classrooms (Tyack & Tobin, 1994). Her testimony draws on taken-for-granted cultural scripts about “gifted” students and situates technology as one investment-worthy object of federal education policy making for supporting these students.

Throughout the 1980s, policy makers reified a narrative of tech-mediated personalization for gifted students by citing the affordances of technology-based honors and AP course offerings. In 1983, Secretary of Education, T. H. Bell, called for “super software packages” that would allow schools to “move ahead rapidly with the gifted and talented learners” (Computers and Education, 1983, p. 17). Similarly, Dr. Kyo Jshin, Assistant Superintendent of Washington D.C. public schools, argued for the use of television for special education and gifted students (Computers and Education, 1983). In 1999, Dr. Bruce Droste, Director of the Virtual High School (VHS),
contributed testimony concerning the affordances of new technologies, which provide hundreds of course offerings to students who would otherwise be unable to enroll in Advanced Placement (AP) courses at their local schools. Rationales like those Droste offered rely on institutionalized understandings of “classes of users” (Computers and the Learning Society, 1977, p. 256) and explore digital mechanisms for bringing tracked curricula to students deemed “gifted.”

These policy discourses inform more recent education technology policy discourses in the 2000s. In 2007, the America Competes Act (ACA) doubled down on efforts to use technology to support the needs of gifted students. The ACA called for an Experimental Program to Stimulate Competitive Technology, which explored virtual access to AP and International Baccalaureate programs and sought to encourage 700,000 students each year to achieve a score of 3 or above on AP exams. Contrary to pro-disability legislation, the ACA expressed little concern about issues of access or equality, and instead, articulated personalized learning toward the pursuit of national excellence.

In sum, personalization encapsulated the interests and aspirations of a wide array of policy makers. School reformers, disability advocates, industry leaders, military personnel, and parents of “gifted” children all expressed an interest in what technology might afford in terms of more personalized modes of teaching and learning. But more than a progressive school reform, federal support of technology also represented a uniquely American project of nation-building. In fact, William Carr, executive secretary of the National Education Association, argued that failure to
support the individual child was practically “un-American” (Science and Education for National Defense, 1958, p. 477). For nationalist like Carr, edtech helped to remedy an impersonal school system that threatened national competitiveness. Yet, personalization as an investment rationale also required a way to explain away obvious inequities between schools and school districts, which technology could not readily fix. Policy makers turned toward discourses of “everywhere” to solve this immanent contradiction.

The Discursive Formation of ‘Everywhere’

Policy discourses of “everywhere” orient attention toward the technological possibilities of global competition and global connectivity. A policy focus on global horizons functions to discursively diminish attention to spatial barriers and community assets (Green, 2015; Tate, 2008). In current policy making contexts, themes of “everywhere” are often expressed through a “regardless” rhetoric. The NETP (2016) asserts that new digital innovations advance school opportunities for all young people “regardless of where students go to school” (p. 7), “regardless of location” (p. 15), and “regardless of learners’ geography, socio-economic status, or other factors that historically may have put them at an educational disadvantage” (U.S. Office of Educational Technology, 2016, p. 40). Similarly, the ESSA emphasizes the themes of “time, path, and pace” (p. 168) but does not specify attention to “place.” These policy omissions are particularly striking given the preponderance of existing research studies that emphasize the importance of residential and school segregation as a key
explanatory factor driving school achievement outcomes (Orfield, Ee, Frankenberg, Siegel-Hawley, 2016; Reardon, 2016).

This section traces two sub-themes that animate present manifestations of an everywhere discourse: *technologies for global competition*, that is, as a means of ensuring American military and economic superiority; and *technologies for global connection*, or as a means of overcoming the spatial and material barriers across rural and urban neighborhoods. These complementary discourses construct digital technologies as a meaningful and even urgent measure of education policy making.

**Technology for Global Competition**

Early constructions of technology for global competition emanated from military interests and nation building efforts in the 1950s that, by the 1980s, corporate and industrial actors readily appropriated. In 1958, Republican Senator from Ohio, John Bricker, spoke of the virtues of educational television in ways that animated Cold War fears of Soviet expansion. Bricker argued that failing to incorporate television represented an “irreparable harm not only to the youth of our country but to the country generally” (Educational Television, 1958, p. 3). Throughout his testimony, Bricker expounded on the “virtually immeasurable” rewards of educational television as a means of enhancing American military, scientific, and educational effectiveness (Educational Television, 1958, p. 3).

Like Bricker, Franklin Bouwsma, C.E.O. of the Detroit Educational Television Foundation, emphasized an urgent national need to keep pace with Russian scientific advances and global competitors broadly. He described the educational television as an
instructional tool “to show the young people what worlds are still left to conquer” (Educational Television, 1958, p. 176). Like Bricker, Bouwsma articulated technology through metaphors of nation building. Even as settler-colonial relations were reinforced domestically (Wolfe, 2006), Bouwsma called on Congress to invest in educational television as a means of learning about and conquering distant lands and even other moons and planets.

Policy makers also wove narratives of “risk” to extend discourses of technology for global competition. In 1983, the National Committee on Educational Excellence decried the “rising tide of mediocrity” that threatened U.S. superiority and equated policy making inattention to schooling as an act of “unthinking, unilateral educational disarmament” (p. 5). The report, *A Nation at Risk*, outlined new standards and time allocations for K-12 schools and reified global constructions of technology as a way to secure American global competitiveness. Educational researcher, Paul Hurd, cautioned, “We are raising a new generation of Americans that is scientifically and technologically illiterate” (p. 10). Hurd underscored a need to equip schools with innovative forms of scientific and technology-mediated learning to prepare the next generation for an increasingly automated, global, and competitive world.

In the wake of *A Nation at Risk*, federal testimonies extended exaggerated concerns about the global possibilities of digital education reforms. Although policy makers may have relied on hyperbolic constructions to mobilize political support for Congressional appropriations, such discourses also legislated what Stein (2004) calls, “ways of seeing”: frameworks through which specific solutions are attached to specific
school problems (p. 1). Take for instance, testimony given by Patricia Sturdivant, Associate superintendent for technology in Houston Independent School District.

Echoing themes of *A Nation at Risk*, Sturdivant prophesied:

> Our national survival depends on revitalizing and redirecting our public education system, and I think that an emphasis on technology can be an important catalyst. We can turn it around with an American invention, electronic technology. The Orwellian prophecy of an authoritarian, technological nightmare in 1984 is now only three months away. If we have the resolution and foresight to do what must be done, I believe that 1984 will find the American people using technology to rejuvenate the schools to expand our freedom, our children’s horizons, our preeminence in the international community, but it is going to take a planned and concerted effort. It won’t just happen. (Computers and Education, 1983, p. 528)

Fictional storylines animated visions of technological change (Jasanoff & Kim, 2015).

Sturdivant frames the American public school system as backward and position technology as a tool for “revitalizing,” “redirecting,” and “turn[ing] it around.” Sturdivant correctly assesses the critical role the federal government plays in establishing a national vision for technology (Selwyn, 2018), but her appeal relies on hyperbolic narratives concerning the liberatory potential of digital technologies.

Such grandiose warnings filtered into edtech policy hearings throughout the 1980s and extended a policy making concern with technology for global competition.

Virginia State Associate Director of Technology Education, Thomas Hughes,

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7 Jasanoff and Kim (2015) argue that works of “science fiction” provided discursive resources that co-produced the design and creation of new technologies (p. 1). For example, Jules Verne’s Nautilus anticipated submarines, Mary Shelley’s Frankenstein predated the production of twentieth century biological laboratories, and Aldous Huxley’s assembly line of human reproduction predated cloning by 20 years. As in these examples, Orwell’s *1984* provided Sturdivant discursive resources to craft a narrative that urged Congress to invest in educational technologies and avoid a dystopian future.
cautioned that the failure to invest in technology was equivalent to the U.S. becoming “an industrial dinosaur” and would “sacrifice the American birth right of personal choice, equity and opportunity” (The Education Technology Act, 1986, p. 26). Federal reports similarly invoked a need for greater state investment in technology, equating school teachers to “society’s potters entrusted with the clay of children’s minds,” but possessing only “rusted tools” for accomplishing this task (Power On!, 1998, p. 201). The Power On! report urged the state to invest in “arming young people to compete in this changing world” by allocating funds toward new technologies and research and development initiatives (Power On!, 1998, p. 201). Likewise, Massachusetts Representative, Edward Markey, argued that federal laws supporting the investment in technology do not only benefit poor people who “want this big thing so badly” (p. 2), but also the nation, who could remain “Number One, looking over our shoulders at Number Two and Three in the world” (Technology and Education, 2001, p. 3).

In summary, observed declines in American military and economic superiority motivated policy making interests in technology as a way to make America competitive again. Although the specific kinds of technological devices and contexts have shifted, themes of technology for global competition endure and are evident in more recent policy demands to invest in technology to prepare students for “the 21st century workforce and the Armed Forces” (America Competes Act, 2007, p. 668) and “to remain competitive in a global economy” (National Education Technology Plan, 2016, p. 6). Taken together, policy makers expressed concerns over the U.S. “squander[ing]
that early lead” in the 20th century (ConnectEd, 2013, p. 4), and call on the state to invest in technological solutions to ensure American military and economic superiority.

**Technology for Global Connectivity**

The promise of digital technologies to shore up American scientific and military competitiveness also carried a complementary, more progressive interpretation of “everywhere”: technology for global connectivity. Themes of technology for global connectivity drew on liberal interests in creating more equal school opportunities, particularly for historically disadvantaged students and students of color. But what technologies offered by means of digital access, they excluded through a policy omission of spatial barriers to equitable schooling, such as nutritious foods, safe neighborhoods, and quality schools (Berliner, 2006; Green, 2015). Just as discourses of personalization excluded attention to specific disabilities that technology could not fix, discourses of technology for global connectivity elided attention to neighborhood barriers that were not amenable to technological innovations (Sims, 2017).

In the 1950s, constructions of technology for global connectivity emphasized the possibilities of educational television to provide youth with more worldly, cosmopolitan worldviews. For instance, Dr. William Brish, superintendent of schools in Hagerstown, Maryland, explained the possibilities of television as bringing “community happenings and world happenings from television, itself, into the classroom” (Educational Television, 1958, p. 93). A decade later, Dr. Sterling McMurrin, dean of the Graduate School of Education at the University of Utah, and
Sidney Tickton, vice president of the Academy for Educational Development, observed:

New forms of communication give man new capacities. Instructional technology could extend the scope and power of instruction. It could help to bridge the gap between the outside world and the school, thus making learning more immediate and more relevant. (Education Technology Act, 1969, pp. 41-42)

McMurrin and Tickton contrasted new technologies with outdated textbooks. Although they argued that new tools would provide students “more relevant” knowledge, their claims rested on particular understandings about what and whose knowledge counts and might “give man new capacities.” Such views reflect tacit efforts to foster the construction of what Popkewitz, Olsson, and Petersson (2006) describe as, “cosmopolitan learners”: civilized, risk-averse subjects set against their “urban” and “at risk” counterparts, who uphold a secure and healthy “learning society” (Popkewitz, Olsson, & Petersson, 2006, p. 432). Notably absent from McMurrin and Tickton’s testimony are specific mentions of what kinds of learning might be relevant for minoritized and multilingual learners who do not match this cosmopolitan ideal.

Yet, even when policy makers acknowledged spatial inequities during the 1960s and 1970s, disparities between “ghetto” (read Black) and “rural” (read white poor) students were considered amenable to the connective and transcendental potential of technologies. Idaho representative Orval Hansen’s opening remarks offer a representative illustration of how policy makers crafted rural and urban challenges as one and the same.

Perhaps technology’s greatest boon could be to make education more democratic. Access to the best teaching and the richest opportunities for
learning is inevitably inequitable because of the constraints of economics, geography, or other factors having nothing to do with a student’s ability to learn. Through television, film, and other forms of telecommunications, however, the remote rural college and the hard-pressed ghetto school could share the intellectual and esthetic advantages of the best institutions and the richest community resources. (Education Technology Act, 1969, p. 42)

By uttering “remote rural” and “hard-pressed ghetto” in the same breath, Hansen minimized the distinctive historical and racial legacies of place-based (dis)investment key to the divestment and formation of urban ghettos (Rothstein, 2017). Hansen ignored this history, opting instead to elevate attention to the connective potential of digital technologies. Dr. James Emery, President of Educom, reified themes of technological connectivity and argued that, with the adoption of new learning devices, “geographical location will cease to be an important restriction in accessing these [educational] resources” (Computers and the Learning Society, 1977, p. 251). As evident in these examples, policy makers extended a logic of equality, or “sameness as fairness” (Ishimaru & Galloway, 2014, p. 98) when conceptualizing what technology might afford. Yet, in doing so, policy makers simultaneously minimized demands for material redistributions of wealth and power.

By the 1990s, policy making attention shifted from the “ghetto” to “rural” students; a discursive shift that offers potential insight into a broader cultural consensus that the Civil Rights Movement had succeeded (Taylor, 2016). As one example, the Star Schools for All of Our Students program (1991) emphasized the construction of satellite and cable TV technologies that connected teachers across the country and provided rural students with access to courses not available in their home communities. Massachusetts Senator Edward Kennedy summarized,
By linking together remote classrooms and the best teachers, Star Schools has turned one-room school houses from Forest, Mississippi to Tok, Arkansas, into windows on the best instruction in the Nation. We have truly taken satellite technology to create ‘Star Wars’ and used it to create ‘Star Schools.’ (Star Schools, 1991, p. 6)

Kennedy animated Cold War concerns about scientific and military dominance by retaining an emphasis on national excellence, while simultaneously underscoring the connective potential of digital tools. Likewise, Senator Jeff Bingaman, observed: “In a rural state such as Vermont, the use of technology in the schools can no longer be thought of as a luxury but rather as a necessity if we are to keep pace with a changing society and expect students to be able to compete in a global economy” (Technology for Education Act, 1993, pp. 36-37). Similarly, Karon Tarver, Technology Director for the East Chambers Independent School District in Winnie, Texas used metaphor to describe the impact of the E-rate investments, a Federal initiative that provided discounted rates for telecommunications and internet access to schools and libraries. Tarver explained, “The E-rate has helped this farming community student body to see beyond the rice fields. Students are more interested in technology and participating in a global economy” (Technology and Education, 2001, p. 17). Tarver added that through technology, her students can go on “virtual field trips” to zoos, museums, and national parks, and even uncover Mayan ruins in Belize (Technology and Education, 2001).

Collectively, policy discourses of everywhere conflated the needs of urban and rural youth, and in the process, substituted technological access in place of political calls for a more equitable redistribution of power and resources.

**Digital Meritocracy as a Racial Project**
In 1969, the Commission on Instructional Technology observed: “The further one looks ahead, the more benefits technology seems to hold for education” (Education Technology Act, 1969, p. 88). This chapter does not speculate about the possibilities ahead, but rather, attempts to look back into the archives of federal policy texts and testimonies to trace the historic formation of present ways of talking about and recuperating a faith in digital technologies. Tracing the historic formation of “personalization” and “everywhere” reveals the array of political actors and interest groups—school reformers, advocates of students with disabilities and gifted learners, corporate and industry CEOs, and military leaders—who coalesced under one “ideological umbrella” and propelled an educational faith in digital technologies (Apple, 2012, p. 136).

Taken together, discourses of personalization and everywhere co-constitute a framework of meaning I call, *digital meritocracy*: a policy discourse that constructs technologies as a means of enhancing and evaluating individual success and failure in ways that transcend racialized and place-based inequities (Chang, 2018b). Digital meritocracy innovates and intensifies cultural myths of meritocracy, which assume individual success and failure reflects the sole product of individual effort, talent, and ability (Young, 1958). Meritocratic assumptions are imbued in the organizational structures and practices of K-12 schooling (Katz & Rose, 2013; Labaree, 1997, 2011), such as tracking (Oakes & Rogers, 2006), high-stakes standardized testing (Au, 2016), and programs and pedagogies that aspire to cultivate student “grit” (Golden, 2017). Digital meritocracy builds on these assumed features of American schooling. It orients
digital education reform talk and practice toward “fixing” observed deficits assumed to reside in young people, while simultaneously excluding attention to schools as organizations that tend to reflect and reproduce broader historical and structural inequities (Katz & Rose, 2013). Digital meritocracy innovates old myths about schooling as an avenue for individual social mobility; the “great balance wheel of society” (Mann, 1957, as cited in Rice, 2015). In sum, digital meritocracy recuperates the promise of new tools to make schools and learning democratic for all while leaving structural inequities intact.

In this sense, digital meritocracy is also a racial project; it narrowly poses “definitions of what counts as education” (Ball, 1993, p. 3) that minimize attention to past and present forms of racial discrimination. Digital meritocracy aims to cultivate achievement for “Johnny”—a universal (white, male) “cosmopolitan learner” (Popkewitz, Olsson, & Petersson, 2006, p. 433)—even as it reifies narratives of “risk” for minoritized youth who encounter structural inequities within and beyond schools (Brown, 2016). It narrows policy making attention to questions of cognitive deficits and “achievement gaps” of the “at-risk” child (Carter & Welner, 2013). It insists that new technologies can “help Johnny learn to read and write” (Computers and the Learning Society, 1977, p. 1) even as it dismisses attention to social class as predictors of achievement (Carnoy & Rothstein, 2013).

Problematically, a personalized focus on “Johnny” deflects policy attempts to “face America” (Varenne & McDermott, 1999, p. 213). Instead, digital meritocracy constructs an “America” in figurative terms: as a land of opportunity for “all”
regardless of existing inequities. It excludes attention to legacies of slavery that manifest through current forms of racial isolation and concentrated poverty (Taylor, 2016); inequities evident in alarming rates of poverty disaggregated by race such as the 36% of Black, 30% Hispanic, and 32% of American Indian/Alaska Native students in poverty compared to 12% of White and 11% of Asian students (US Department of Education, 2017). Digital meritocracy recasts schools not as institutions forged in relation to racialized neighborhoods, but rather, as bastions of global horizons of competition and connectivity. It supplies a technological and technical gloss for talking about, justifying, and sustaining historic racial inequities. By conflating distinctions between “urban” and “rural” schools, it flattens structural inequities and assumes new technologies afford all youth access to ostensibly even digital playing fields of the future.8

Taken together, digital meritocracy conceals explicit policy making and political interests in remaking schools and society in a particular desired form: one in which incremental, digital reforms obviate demands for more fundamental redistributions of material advantages (Oakes & Rogers, 2006). Katz and Rose (2013) put it this way: “Individualizing problems proves a useful strategy because it defines a reform agenda

8 More recent, recuperative policy efforts are also telling. The National Education Technology Plan (2016) concedes that “the presence of technology does not ensure equity and accessibility of learning” (NETP, 2016, p. 80), but later assures the reader: “No matter their [students’] perceived abilities or geographic locations, all learners can access resources, experiences, planning tools, and information that can set them on a path to acquiring expertise unimaginable a generation ago.” (NETP, 2016, p. 80). Digital meritocracy ultimately denies the salience of racialized inequities inherited from prior generations even as it occasionally acknowledges that new devices do not guarantee equitable learning opportunities.
that ignores existing distributions of power and resources and, in the case of education, avoids dealing with systemic inequalities” (Katz & Rose, 2013, p. 227). Digital meritocracy innovates school reform in ways that depoliticize policy making efforts (Anyon, 2005, 1997).

What then, are the prospects for interrupting digital meritocracy? As Varenne and McDermott (1999) conclude, “We suspect, controversially, that the most dangerous moral prescription is the unassailable one that education must ‘help children one at a time, starting from where each is’” (p. 215). Indeed, digital meritocracy is deeply institutionalized in edtech policy debates to the point that it seems “unassailable.” But the historical record also identifies moments of contestation and interruption that assail this taken-for-granted cultural script.

**Discursive Openings and Challenges to Digital Meritocracy**

Given that policy discourses are never fixed, but constantly made, unmade, and remade (Gale, 2001), attention to “discursive openings”—anomalous moments in which “common sense” frameworks are called into question and a “good sense” emerges (Christensen, Morsing, & Thyssen, 2015, p. 141)—offers insight into potential ways for “imagining otherwise” and choosing different options for action (Andre-Bechely, 2005). Contrary to notions of false consciousness or ideological interpellation (Althusser, 1971/2014), the language of discursive openings maintains an attention on creative, agentic action and possibilities of structural transformation.

One opening emerged in 1966, when Kenneth Komoski, associate Director of the Institute of Educational Technology at Teachers College, critiqued the “embarrassing
weakness” of research on instructional programming and cautioned against a growing intimacy between schools and industry. Komoski noted, “We must avoid any possibility of industry and education becoming two sides of a single mode” (Technology in Education, 1966, p. 205). His concerns about a “burgeoning new education industry” anticipated what roughly 40 years later, Picciano and Spring (2013) termed, “The Great American-Education Industrial Complex” led by for-profit, high-tech corporations (p. 7).

But Komoski did not only anticipate the intimate relations between technology corporations and public schooling, he also challenged “everywhere” assumptions engrained in discourses of digital meritocracy. In addition to concerns about the vested interests of IBM, General Electric, RCA, CBS, Xerox, and Raytheon, Komoski expressed reservations about a general tendency “to deal with problems technologically that seem to defy technological solutions” (p. 205). His concerns with technological policy “ways of seeing” school problems (Stein, 2004, p. 5) are evident in what Sims (2017) recently theorized as cycles of “disruptive fixation”: cyclical processes of reform failure that emanate from a “tunnel vision” endorsed by philanthropic foundations and digital technology reformers (p. 162). Although Komoski could not have anticipated the influential role of philanthropic foundations in current digital education reform contexts, his concerns about the ways in which industry interests may hem in more democratic forms of engagement reveal important moments of refusal and possibilities for thinking and challenging digital meritocracy.
Like Komoski, C. Sergeant Carleton—an avid proponent of personalization, who advocated for one Socrates for every student—also admitted the unrealized promises of super 8-millimeter film in the early 1970s. Carleton decried the production of incompatible systems of film processing, which he argued, reflect “the American capitalistic system” (Education Technology, 1971, p. 52). Like Komoski, Carleton questioned potential contradictions between public schools and private industry, which he argued, benefit “the guy who has the patent on the system,” but “does not help the kids who are in the classroom today—as you well recognize” (Education Technology, 1971, p. 52). Carleton was less direct in his challenge to the tenets of digital meritocracy, but nonetheless, troubled an assumed faith that technology can “help Johnny to read and write” (Computers and the Learning Society, 1977, p. 1). A decade later, similar concerns surfaced pertaining to the competing interests between the for-profit aims of technology corporations and the everyday needs of classroom teachers (Computers and Education, 1983); contradictions that critics warned may even compromise national educational goals (Oversight Committee Hearing on Education Technology, 1982).

More direct challenges to digital meritocracy were also evident in edtech policy reports throughout the 1980s and 1990s. As one example, the Office of Educational Technology (OET) issued a 1982 report that included the following:

Another important concern is that a Federal education policy that focuses on technology might create the impression that technology is a panacea. Such an impression could divert attention as well as funds from other significant problems that may not be solvable by the technology. It could also create over-expectation followed by unwarranted disillusionment about the potential
contributions technology could make to education. (my emphasis, Information Technology and its Impact on American Education, 1982, p. 179)

The OET warns that technology cannot remedy every problem. Rather than reify digital meritocracy, the OET cautioned that unquestioned investment in digital technologies may contribute to educator disillusionment with digital innovations. In the 1990s, another OET report, Future Visions of Technology (1995) raised the question, “Is there a down side to technology?” (p. 180). The OET outlined potential contradictory effects of expanded access to digital technologies, such as: downsizing the teaching workforce, increasing inequities in knowledge and skills based on access to technologies at home, and potentially harmful side-effects of access to global networks of information (pp. 180-181). Observations such as these challenge the “everywhere” assumptions of digital meritocracy and offer instructive historical precedents for considering ways of re-articulating policy discourses in ways more critically assess the potential (dis)advantages of expanded access to technologies.

Evidence of discursive openings raises new questions about the social practices and historical conjunctures through which those challenges emerged. Absent data beyond federal policy texts, I turn to ethnographic fieldnotes and interview data of present reform organizing to ask how digital education reformers in the Bay Area conceptualize and work to achieve their reform aims in policy contexts constrained by digital meritocracy. I turn now from the halls of Congress to the organizational field of digital education reform in the California Bay Area.
Chapter 2: The Valley

“The enduring credo of Silicon Valley is that innovation, not money, is its guiding purpose and that world-changing technology is its true measure of worth.”

“Silicon Valley’s New Philanthropy”

“…personalized learning will not only help students in good schools, it will help provide more equal opportunity to anyone with an internet connection.”

“A Letter to Our Daughter”

A row of Sycamore trees lined the main conference room at Accelerate-Edu. The afternoon light filtered through brown mottled branches and illuminated the portraits of “pioneers,” major funders of the organization, which hung along the adjoining wall. I made my way around a large rectangular table to greet Iris, the Project Director at Accelerate-Edu. Small clusters of pens, note pads, and plastic containers of teal-colored Tic Tacs were arranged along the middle of the table. Iris welcomed me with a hug.

Today’s quarterly strategizing meeting included 14 members of the Accelerate-Edu advisory board, which consisted of high-tech CEOs, venture capital investors, and a handful of university-based researchers.1 I waited for the meeting to begin when I noticed a plaque behind me, resting against the windowsill. The plaque read “INNOVATION: The best way to predict the future is to create it. ~ Molière.”

1 Advisory board members came from professional fields of technology, human resources, and risk management. Based on publicly available information, the net worth of these companies ranged from a low of $4.4 million to a high of $37.7 billion.
2 Molière is the stage name for French playwright, Jean-Baptiste Poquelin. Born into wealth, Molière authored comedic plays that ridiculed French class norms. As one
What does it mean to create the future as a means of predicting it? What role do digital innovations play in materializing those futures? And whose values and interests are encoded in the design of new learning innovations? This chapter illustrates the cultural work of innovating digital education reform from the perspective of leaders and staff at Accelerate-Edu.

Following Molière, Accelerate-Edu sought to predict the future of schooling by creating public school markets for edtech products. By “brokering” private-public partnerships between edtech entrepreneurs in Silicon Valley (henceforth “the Valley”) and public school leaders, Accelerate-Edu sought to extend the reach of what they considered the benefits of private sector innovation. District leaders, corporate partners, and philanthropic foundations financially backed and participated in legitimating Accelerate-edu as a credible digital education reform organization.

But ethnographic attention to the everyday talk and practice at Accelerate-Edu revealed deep divisions between leadership and staff. Whereas staff drew on their prior experiences as educators, organizational leadership relied on business and market principles to craft a global vision of edtech markets. Leadership minimized attention to resolving internal disputes and sought to expand district “adoption” (i.e., sales) of new example, *Le Bourgeois gentilhomme* (“The Bourgeois Gentlemen”) chronicled the failed attempts of protagonist, Jourdain, as he sought to climb the social ladder through acts of symbolic distinction, such as adopting bourgeois musical tastes and hobbies. Moliere might have found it comical that his name was emblazoned on a plaque within Accelerate-Edu’s offices where the work of reforming schools represented a twenty-first century practice of symbolic, bourgeois distinction.
technologies across 56 school districts in the Valley, often regardless of observed learning outcomes or school-based realities. Throughout these reform efforts, families and young people of color were notably absent from participation, and instead, targeted as beneficiaries of digital innovation.

This chapter begins by situating Accelerate-Edu in relation to place, policy, and philanthropic foundations that mediated the cultural work of visioning digital education reform. I begin by describing the organizational vision of Accelerate-Edu that, while filtered through my fieldnotes and re-presentational efforts, offers readers a basis for discerning the (mis)alignment between the expressed aims of Accelerate-Edu and the day-to-day practices I documented. In particular, I discuss how cultural legacies of “innovation” in Silicon Valley and policy discourses of digital meritocracy informed the everyday talk and practices of actors at Accelerate-Edu, particularly in the design of two major projects: the EduTech Assessments and the Pitch Games.

I then depict how leaders and staff engaged in organizing to reform. This chapter depicts the organizational roles, structures, and practices evident at Accelerate-Edu. I interrogate how and why reformers at Accelerate-Edu persistently asserted their organizational identity as a “free, neutral broker” and elevated their “nonprofit” status within for-profit edtech markets. I consider these appeals strategic efforts to distance their organizational identity from broader corporate reform movements and simultaneously normalize observed patterns of labor exploitation assumed to be a given feature of the “nonprofit sector.”
I then illustrate how actors at Accelerate-Edu succeeded in *engaging external partners in digital education reform* despite intra-organizational tensions and frequent labor turnover. This section depicts external performances of innovation and details the cultural work of implementing EduTech Assessments and the Pitch Games. Drawing on ethnographic and interview data, I offer a glimpse into the market interests at play that belie claims of neutrality Accelerate-Edu used to re-present themselves.

In a final section, I discuss *digital education reform outcomes*; what Accelerate-Edu produced for whom and for what educational purposes. I find little evidence of any improvement or acceleration in learning however broadly conceived. Instead, I trace the flow of material resources toward Accelerate-Edu and argue that the naturalization of digital meritocracy and Valley-esque notions of “innovation” as presumed goods in twenty-first century digital education reform constitute a less visible, yet central outcome of the organization’s work. I conclude by synthesizing moments of contradiction amid deeply constraining discursive and organizational contexts in an attempt to trouble a static, homogeneous, or linear re-presentation of Accelerate-Edu and to consider possibilities of reforming otherwise.

**Visioning Digital Education Reform**

The stated vision of Accelerate-Edu was “To increase and accelerate student achievement by leveraging technology at scale.” Prevailing achievement traditions in education reform, policy discourses of digital meritocracy, and place-based visions of innovation in the Valley informed how Accelerate-Edu problematized key barriers to opportunity and crafted a vision for digital school reform.
P**roblematicizing Digital Education Reform: The ‘Achievement Gap’**

All actors at Accelerate-Edu explained the main problem with schools in terms of an “achievement gap” between wealthy, White and Asian students and low socioeconomic, Black and Latinx students. Iris put this plainly: “Everything we do is about the achievement gap.” The “achievement gap” functioned as a “buzzword” (Ball, 2007, p. 116): a taken-for-granted term evident throughout Accelerate-Edu materials, edtech company recruitment invites, and organizational vision statements. Staff spent little time debating the social or political purposes of achievement.

In addition to problematizing school reform, the “achievement gap” became a way of interpreting and framing young people often through deficit terms. This was particularly evident in the patterns of mistranslation between the foundation program officer who supported Accelerate-Edu and leadership at Accelerate-Edu. As one example, Nina, a foundation program officer, explained the major problem of school reform this way:

Whenever the PISA results come out, people are like ‘oh my gosh, America is awful.’ And it looks that way, but when you actually dive a little bit deeper you’ll see that white American students are performing like all of Finland… like towards the top and like Black and Hispanic students are way further down and the only way to move us as a country is to really look at, meeting the needs of students who haven’t done well.

Nina articulated an understanding of school equity that troubled a universal approach to working with “all” students. She even alluded to opportunity gaps within and beyond schooling and clarified, “This system just has not served their needs.” Despite this broader view of reform, Nina also naturalized hierarchical metaphors of ranking and sorting that positioned some students “towards the top,” and Black and Latinx students
“way further down”; animating themes associated with digital meritocracy that emphasized educational excellence for global competition. This mix of political values left her directives subject to (mis)interpretation.

When Mark described Accelerate-Edu’s approach to digital education reform to me, his discussion of the “achievement gap” took a decidedly psychologized and deficit tone. Mark referenced guidance Accelerate-Edu received from Nina to explain the organization’s focus on achievement gaps:

Mark: The US is way behind on PISA. What does that stand for, do you know?

Ethan: Program for International Student Assessment…? I think.

Mark: Doesn’t matter. Okay, so I don’t mean to talk about this openly, and you can see why this requires some delicacy. The reason we’re underperforming is because of minorities. It’s a fact. So, they [foundation] want to focus on the minorities… Blacks and Hispanics. So, and they’re making no bones about that.

Mark misconstrued Nina’s attention to “the system” driving achievement gaps and, combining discourses of digital meritocracy and deficit racialized understandings of low-achievement, understood his organizational charge as using edtech to accelerate achievement for “minorities.” He elaborated: “Education is now officially broken… and it needs the help of nonprofits and not education people to fix it because it’s not going to fix itself.” In the remainder of his interview, Mark discussed how nonprofits like Accelerate-Edu facilitated the transfer of educational innovations from private to public markets, echoing a broader neoliberal emphasis on the inherent goodness of private over public modes of distributing social goods (Harvey, 2005). He was steadfast in his assessment that minoritized youth were pulling national achievement scores
down, which he underscored by observing: “It’s a fact.” Contrary to theories of philanthropic-driven change (Reckhow & Snyder, 2014; Tompkins-Stange, 2016), visions of digital education reform also entailed interpretive efforts between philanthropic foundations and the moments of mis-interpretation and mis-translation by nonprofit leadership.

‘Achievement technologies.’ Accelerate-Edu invested in what I call, achievement technologies, digital tools that sought to maximize student performance on measures of test-based accountability (Chang, 2019a). Achievement technologies assume knowledge is singular and universal and aim to expand the amount and pace at which students acquire knowledge. Achievement technologies tended to share two features: standards-alignment and integration of psychological and neuroscientific learning principles.

About three-quarters of the companies Accelerate-Edu partnered with emphasized how their products aligned with the Common Core State Standards (CCSS) or Next Generation Science Standards (NGSS). Accelerate-Edu staff explained that standards alignment reflected the interests among edtech startup companies to tailor their tools to teachers who expressed interests in products that supported test-based accountability outcomes. But standards alignment may have also expressed edtech entrepreneurs’ interests in “scaling” their products across districts and states. Ravitch (2015, July 15) argues that for- and non-profit innovators are among the most ardent supporters of standards alignment as a way to minimize district variation and create
consolidated, markets for edtech innovators. Standards alignment thus reflected one dimension of achievement technologies that was about learning and market expansion.

In addition to standards-alignment, over half of the companies Accelerate-Edu recruited drew on advances in psychological notions of socio-emotional learning and/or neuroscientific principles. One notable example was a platform called “Virtual Math Adventures.” The achievement technology was a software game and alternative math world where students received virtual building supplies upon successfully answering math questions it. At one edtech entrepreneur and educator meetup, I received a brochure from the company with the following words written in big lettering: “Neuroscientific Learning Principles are Embedded into Every Aspect of the Virtual World.” Watters (2014) argues that these edtech platforms sustain a longstanding connection between psychology and tech-mediated school learning, which date back to behavioral psychologist, B.F. Skinner's teaching machines. Virtual Math Adventures represented one digital innovation on old behaviorist learning principles, which maintained a focus on individual cognitive gains and deficits.

Achievement or learning? Yet, an organizational focus on achievement was not without contradictions. During one programmatic visioning retreat, Accelerate-Edu staff admitted that the notion of achievement entailed some form of measurement in

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3 In her discussion of Skinner’s efforts to mechanize learning, Watters (2014) observes, “No doubt, ed-tech today draws quite heavily on Skinner’s ideas because Skinner (and his fellow education psychologist Edward Thorndike) has been so influential in how we view teaching and learning and how we view schooling” (p. 14). Watters links digital technological innovations and cultural frameworks of schooling to explain enduring patterns of interest and investment in digital education reforms.
discerning the relationship between edtech products and student achievement gains. The following ethnographic vignette offers a glimpse into how staff worked with leadership to resolve this tension.

*Fieldnote memo – Visioning Retreat at Iris’s Home (December 1, 2016)*

I joined five members of the Accelerate-Edu team and huddled around a small table in Iris’s dining room. The purpose of today’s retreat was to re-envision the mission statement of Accelerate-Edu as a basis for guiding organizational priorities. Iris began the meeting by asking each of us to write our understanding of Accelerate-Edu’s vision statement. I scribbled on a post-it—“To increase and accelerate student achievement by leveraging technology at scale”—having rewritten this statement in my fieldnotes several times. After the team tacked their post-its to a sheet of poster-paper, Iris synthesized our various interpretations. The following exchange unfolded in the middle of her report-back:

“I like how clear and concise the statement is,” Renée, a member of the development team, opened.

“Yeah, but I’m not sure about the word, ‘achievement,’” Yadin, the program manager at Accelerate-Edu, cautioned. Aaron, another member of the development team seconded Yadin’s concern and explained that Accelerate-Edu does not conduct pre- or post-assessments to measure how technology impacts students’ standardized achievement scores.

“Achievement was put in there to be politically correct to the student,” Mark clarified. Mark left the meaning of “politically correct” undefined.

The team ultimately chose to replace the word, “achievement” with “learning” and rationalized that this broader term reflected a “bigger piece” of how Accelerate-Edu hoped to expand students’ educational uses of technology across Silicon Valley.

Although these moments of contradiction raised questions about the assumed benefits of achievement digital technologies, the team ultimately substituted “learning” for “achievement” to maintain a business as usual approach to expanding digital technology adoption across Silicon Valley schools. This rhetorical substitution of “learning” for “achievement” was particularly striking given that the purpose of this
retreat was to re-envision the mission statement. When Mark alluded to prior decisions to include “achievement” as a way of being “politically correct to the student,” he offers some insight as to how the interests of students were an afterthought in the design of organizational aims. So whether it was the “achievement gap” or “learning gap,” Accelerate-Edu remained steadfast in their approach to facilitating the transfer of achievement technologies into public schools.

In addition to using digital technologies to increase student learning, the team understood their work as addressing labor shortages in the Valley. Mark articulated this overarching vision when he spoke of a “massive shortfall in talent.” He explained,

…the stark contrast of the achievement gap, equity gap, any gap you want to cite, is not just present here, but you know… violently present. So, and that all translates into a pipeline shortage of what is needed to keep the engine churning in the Silicon Valley.

Mark encapsulates Accelerate-Edu’s theory of reform: expanding markets for education technologies will help to close the “achievement gap,” which will expand the pool of skilled labor to fill a “pipeline shortage” in the Valley. This emphasis on edtech markets as a way “to keep the engine churning in the Silicon Valley” reflected organizational interests in digital innovations that adapted students to prevailing

4 Debates over the mission statement at Iris’s house mirror the words of former Secretary of Education, Arne Duncan. Urging Congress to adopt the 2010 Education Technology Plan, Duncan remarked, “The plan calls for applying advanced technologies used in our daily personal and professional lives to our entire education system to improve student learning, accelerate and scale up the adoption of effective practices, and use data and information for continuous improvement” (Transforming American Education, 2010). Like Duncan, Accelerate-Edu explored digital education reforms that sought to “improve,” “increase,” and “accelerate” student achievement. But whereas Duncan focused on the “adoption of effective practices,” Accelerate-Edu focused on the adoption of edtech products.
socioeconomic and political contexts. The point is not to leverage learning to change society, but rather, to integrate young people into existing societal structures.

Taken together, few team members questioned inequities in the Valley, such as widening economic inequalities (Benner, Giusta, Auerhahn, Brownstein, Buchanan, 2018, Oct.) or access to affordable housing (Silicon Valley Rising, n.d.). Instead, Accelerate-Edu presumed that closing the achievement gap would help to fill “pipeline shortages” in the Valley and maintain existing standards and distributions of opportunity. Notably absent from the cultural work of visioning reform were efforts to facilitate young people in developing critical interpretations of inequitable worlds (Akom, Nakai, Shah, & Cruz, 2016; Mirra & Garcia, 2017). As Kirshner (2015) observes, “Yes, youth are the ‘leaders of the future,’ but they also interpret, critique, and sometimes, take action to change oppressive conditions” (p. 55). Such interpretations of youth as critical civic leaders for social change were not evident at any point in my fieldwork. In this sense, Accelerate-Edu reified a benevolent and paternalistic approach to reform by explaining what youth needed to thrive in twenty-first century futures. At the same time, they minimized attention to past and present experiences, needs, and aspirations of diverse young people. Guided by Mark’s leadership, the Accelerate-Edu team extended rhetoric that claimed to support “all

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5 Benner et al. (2018) document a $9.6 billion shift from employees to investors between 2001 and 2016, despite a 62% increase in net income. They add, “If labor’s share of production in 2016 had been the same as in 2001, every employed Silicon Valley worker would have received, on average, an additional $8,480.4” (p. 3). Mention of economic inequities like these were not evident during my fieldwork at Accelerate-Edu.
children” but ultimately sought to integrate minoritized youth into existing structures of social and economic opportunity.

**Envisioning Solutions: EduTech Assessments and the Pitch Games**

To solve the achievement gap and address high-tech labor shortages in the Valley, Accelerate-Edu sought to connect private sector digital innovation with an assumed lack of innovation in public schools. The central theory of change revolved around a “pinwheel” theory of organizational improvement that involved four stages: Assess, Plan, Partner, Adopt (then Re-Assess).

**Figure 2.1. Re-presentation of the ‘Pinwheel’ Theory of Change at Accelerate-Edu**

The initial stage, “Assess,” sought “to gauge the maturity and preparedness of districts to receive new education technologies.” Based on this initial stage, Accelerate-
Edu developed a blueprint, or “Plan,” to begin addressing district needs in ways that aligned with local control accountability plans. The third, and most visible stage, “Partner,” drew on dating metaphors and utilized “matchmaking” events to link edtech entrepreneurs and teacher test groups. This “Partner” stage also included three-months of “rapid cycle feedback loops” designed to facilitate feedback between educators and edtech designers. The final and most contested stage, “Adopt,” sought to facilitate district adoption (i.e., contracts) of an edtech product.

Accelerate-Edu devoted most of their time and energies to the “Assess” and “Partner” stages, which entailed developing “EduTech Assessments” and hosting the “Pitch Games,” respectively. In theory, EduTech Assessments were a free service designed to support districts in identifying areas of technological improvement. Darren, the CEO of Accelerate-Edu, explained, “Schools don’t think enough about the plumbing… They tend to focus too much on cool devices and superstar teachers.” By “plumbing,” Darren meant that districts do not think holistically about edtech infrastructure, curriculum, and professional development, which are essential in district-wide efforts to support innovative digital learning. Elsewhere, Darren elaborated on how he envisioned EduTech Assessments supporting district needs.

I think it’s step 1. You got 56 different companies here. Given the current state… and that assessment gives us a pretty clear picture of… you’re not going to use tech there because you don’t have the bandwidth. The average tenure of super is 2.7 years, a lot of tech strategies never go through because of turnover. ‘Here’s

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6 Key elements of this pinwheel theory of change, such as the Plan and Adoption phases were outsourced to corporate and district partners. I focus my analyses on the Assess and Partner dimensions of the four-stage plan given that actors at Accelerate-Edu invested the most time and resources into these phases.
an assessment let’s work with you.’ It’s been a great entry point by offering it as a service.

Darren’s reframing of 56 Silicon Valley school districts as “56 different companies” offers insight into how Accelerate-Edu conceptualized and reinscribed public schooling through a language of private business (Scott, 2009). EduTech Assessments catalyzed made the digital needs of districts evident for district and school leaders and facilitating their identification of companies equipped to fill the observed digital void. In this sense, EduTech Assessments functioned as a “great entry point” for stimulating market demand ultimately wedded to the “Adoption,” or purchase of technologies. These market-driven strategies obviated potentially slower and more politically contentious (i.e., democratic) reform strategies such as recruiting, training, and retaining qualified district superintendents.

Other staff echoed Darren’s focus on the need to create a coherent district plan to support digital integration. Bernard, the Education Manager, explained, “Schools didn’t have a clue in this stuff. And there had been all of these disastrous things… L.A. Unified buying every kid an iPad.” Iris echoed this appraisal and explained that EduTech Assessments helped districts discern how full their “gas tank” was at each level of technological readiness. Prior failures of digital innovations afforded a convenient rationale for more innovation (Sims, 2017). As I detail later in this chapter, this technical and linear approach to reform belied a more iterative and messy process of conducting EduTech Assessments, which required ongoing attention to sustaining relationships unlike single market transactions.
Once Accelerate-Edu completed an EduTech Assessment, they crafted goals for district technology procurement (e.g., “Broadband access at all elementary schools”) and recruited districts to participate in the Pitch Games. Accelerate-Edu staff explained that local district and school leaders needed support navigating an edtech market saturated with over 4,000 startup companies. The Pitch Games addressed this market problem. It “brokered” partnerships between district leaders and edtech companies observed to represent the “best edtech tools in the market.” Modelled after the popular television program, Shark Tank—a reality T.V. show where early-stage entrepreneurs “pitch” their products to investors—the Pitch Games was said to “flip” the paradigm of traditional corporate-school partnerships by having edu-tech entrepreneurs compete for teachers. In theory, the Pitch Games professed to ensure that new devices were responsive to classroom and teaching realities.

Interviews with founding members of the Pitch Games offer additional insight into the market assumptions that guided the initial design and aspirations of the Pitch Games. My interview with Yurie, a former staff member of Accelerate-Edu, was revealing. She remarked,

So overall, the goal was to find ways to accelerate the use of technology in our schools. Knowing that we’re surrounded here by edu-tech startups either working through [startup Accelerator] or they’re getting VC [venture capital] funding so they’re just hanging around here… there are a lot in this area… and we’re feeling that there was a great disconnect between the great work that they were doing and what was actually happening in classrooms.

Like education policy makers of the 1970s, Yurie wondered why technology can’t also “help Johnny learn to read and write” (Computers and the Learning Society, 1977, p. 1). She assumed that edtech companies and the products they designed were “great,”
despite providing little evidence when asked to elaborate on this claim. The Pitch Games reflected the material expression of these assumptions, which sought to bridge a “great disconnect” between innovation in the private sector with the assumed lack of innovation in public schools.

Situating the Work of Visioning Reform: Place, Policy, and Philanthropy

Although reformers at Accelerate-Edu crafted a distinctive vision of reform, they consistently drew on discursive resources evident in Valley conceptions of “innovation” and policy discourses of digital meritocracy. Philanthropic foundations also adopted and reconstituted these discourses through their partnerships with Accelerate-Edu. Collectively, these macro cultural narratives informed everyday reform actions at Accelerate-edu.

Innovation as a moral discourse in the Valley. Discourses of innovation represented a legitimated cultural script that informed how leadership approached digital school reform in the Valley. A welcome video on the Accelerate-Edu website offers one telling example of this distinctly Valley-esque discourse of innovation. Against the visual backdrop of the morning sunlight streaking through a vineyard, brick buildings at Stanford University, and the front doors of Tesla, the voice of Peter, a founding board member, narrates:

I think everyone is excited about growth. Look at how we respond to spring and growth. It is a compelling thing to be a part of. I was living in Oregon and a part of businesses that grew slowly. A friend of mine called and said, ‘You can’t imagine what’s happening down here. You have to come and see.’ I got pretty excited about amazing smart people coming from all around the world coming here to feed on each other and the ideas that were being created here to develop completely new things. Silicon Valley continues to be the center of new
business creation and innovation. We’re blessed with this system and we have to protect it.

Peter reified the Valley as a center of business but also as a particular way of doing business; one premised on the inherent goodness of what is “new” and “innovative.” Gianella (2015) argues that when living and working in the Valley, it is not essential to be morally right as long as you can be innovative. The opening words from Peter extend this logic. Like Mark’s interest in using schooling to “keep the engine churning in Silicon Valley,” Peter underscored the ultimate aims of schooling as a way to integrate young people into high-tech economies in ways that “protect” a system we are “blessed” to have. This view mirrors Harvey’s (2005) analysis of schools as a key institution within a “neoliberal state,” which functions to sustain and naturalize ostensibly free market exchanges (p. 65). As in Peter’s articulation of schooling, Harvey sees the “free market” as dependent on the social organization of state driven processes that legitimate and “protect” market transactions. Notably excluded from Peter’s interest in “amazing smart people” are the principals, teachers, counselors, and young people whose talents and innovative capacities were disregarded.

Valley discourses of innovation also informed how Accelerate-Edu conceptualized schooling and the key problems and solutions for fixing broken schools. Returning to the introductory video, Peter added: “One of the things that I worry about a lot is our education system. There will be several million technology jobs that simply can’t be filled by the math science engineering students we’re creating in America.” The video pans to photos of a houseless person pushing a grocery cart, a group of students playing at recess, a locked door, a broken window. Statistics flash against these
black and white images that explain, “Although only 54% of high school graduates are eligible to apply to local state colleges and universities, for Latinos [sic] that number is 28%.” Accelerate-Edu rationalized the promise of private-sector innovation by framing nonmarket, or community-based forms of creative ingenuity in deficit terms. In this sense, Accelerate-Edu reified progressive and paternalistic “helping” discourses, which position youth and families of color as in need of solutions that they themselves are unable to create (Villenas, 2001, p. 8; c.f., Koyama & Chang, 2019).

A brief historical aside illustrates the historical origin stories that animate a cultural faith in innovation. According to Turner (2006), Silicon Valley culture emerged from bohemian and anti-establishment origins. Writer and social entrepreneur, Stewart Brand, led this cultural revolution by positioning computer technologies as a cutting-edge means for addressing pressing global and environmental hazards in a post-World War II era (Turner, 2006). This cybercultural discourse persists today through reform languages of digital “disruption” and “revolution” but has largely been derailed by a shift from open source sharing to private market competition (Brouwer, 2005).

Like Brand, origin stories of the “Traitorous Eight”—a group of 8 white male employees who left Shockley Semiconductor Laboratory to found Fairchild Semiconductor—celebrate theories of risk-taking and innovation (Geller & Goldfine, 2011). Although the literal pooling of resources and collaborative investment belie theories of individual entrepreneurship, narratives of risk (“They saw opportunity where only others saw a risk”) and masculine strength (“Weak people don’t invest in
tough times”) are codified in popular film, texts, and cultural practices (Geller & Goldfine, 2011). These histories help to explain how and why it was natural for the CEO of Accelerate-Edu to claim:

Silicon Valley needs to innovate in education as it has done in cellphones as it has done in search engines, so that not one child falls through the cracks due to a lack of trying, or due to a lack of opportunity. That’s a Silicon Valley we can all be proud of.

Thus, in addition to the achievement tradition in educational research, cultural legacies of “innovation” animated the visioning work at Accelerate-Edu. Although perhaps not surprising, what is striking about Darren’s statement is the ways in which he translates discourses of innovation from the realms of communication and transportation to public schooling. Notably absent from this discourse of innovation are efforts to trouble institutionalized norms of teaching as a communicative transfer of knowledge (Haas, Fischman, & Brewer, 2014). Instead, innovation is primarily about the introduction of new devices that—by their very design—will innovate public schools.

**Philanthropic and nonprofit adoption of digital meritocracy.** In addition to cultural legacies of Valley innovation, policy discourses of digital meritocracy informed how Accelerate-Edu envisioned organizational activities and practices. The sponsoring philanthropic foundation authorized and mediated these discursive relations. Nina, the foundation officer overseeing Accelerate-Edu, sat on a “Personalized Learning Team” and spoke with conviction about the promise of individually-tailored and digitally-mediated pedagogies. She laid out her vision of change this way: “I would like to see a lot more of kids getting to be met where they are but still being held to rigorous expectations.” Wary of personalized learning as a
strategy for lowering expectations for students (e.g., allowing an 8th grader to learn 4th grade content), Nina added, “Like the idea of personalized learning is to really personalize and have that kid accelerate.” Nina hoped Accelerate-Edu would develop and scale local examples of effective personalized learning. How attempts to personalize and accelerate learning for each student might minimize gaps in achievement between students of privileged and underprivileged backgrounds remained unclear.

Nina’s words guided how Accelerate-Edu staff enacted the everyday work of digital education reform. Following a meeting with Nina, Iris, the managing director at Accelerate-Edu, posed the following questions to the team: “What part of the personalized journey do we want to be a part of? What flavor of personalized learning do we want to address?” Staff spent less time debating whether “personalization” was an adequate reform strategy and instead discussed how best to leverage personalization to achieve their organizational vision.

Discourses of personalization also discursively mediated actor networks Accelerate-Edu brokered. On one occasion, staff returned from an Education Summit at the large media, entertainment and technology conference, South by Southwest (also sponsored by Nina’s foundation). The Accelerate-Edu team was abuzz when I entered the room and recounted that personalized learning “was all over South by Southwest.” This reading of conference settings corroborates what Player-Koro, Rensfeldt, and Selwyn (2017) characterize as edtech trade shows as new sites of policy making and
interpretation where the ideas of private edtech entrepreneurs are translated into public sector school reform conversations.

Talk of personalization was also evident across interviews I conducted. When I asked Yurie, a founding member of Accelerate-Edu, to describe her vision for digital school reform, she explained: “I would want to see learning be much more personalized. So that every student’s needs are being met.” Yurie clarified that she did not envision massive labs of computer-based instruction that “spit out their next question,” and clarified,

I’ve seen a lot of great examples for underperforming students, but I haven’t seen a lot of that for acceleration. I would want to see more personalization that will advance some of our students and adjust speeds to those that might need more help.

Resonant with policy critiques of a “one-size-fits-all” model of K-12 schooling, Yurie argued that schools do not adequately tailor learning to individual student needs. For Yurie, achievement technologies offered a remedy for this organizational barrier to personalized learning. Yet, her vision of digital school reform reified a theory of change that naturalized hierarchies of achievement (e.g., students who were “underperforming” or in need of “acceleration”). Meanwhile, and consonant with policy discourses of digital meritocracy, Yurie elided attention to out-of-school barriers to educational opportunity consonant with digital meritocracy (Ladson-Billings, 2006; Carter and Welner, 2013).  

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7 Yurie’s interest in technology as a way to “adjust speeds” for individual students corresponds to institutionalized patterns of “pacing,” which are also evident in outdated learning technologies such as Science Research Associates Inc. (SRA) kits. SRA kits were individualized classroom reading exercises with color-coded cardboard sheets,
Personalization also shaped how digital technology companies designed and branded specific learning tools and games. Mentions of personalized learning emerged through products that promoted scaffolded curricula, self-paced learning, and individualized feedback. As one example, a digital math learning system utilized a “step by step approach,” which the company argued, “mirrors the personalized learning experience that a student has with a tutor.” Similarly, another math platform branded its product as promoting, “mastery-based, individualized, self-directed learning.” These companies adopted terms that reflected an assumed cultural legitimacy associated with personalization as a digital education reform discourse. Herold (2018, Nov. 8) corroborates this observation. In his effort to understand the rapid adoption of personalized learning programs, he observes, “Inside America’s schools, the term [personalization] is used to mean just about anything.” Rather than a word with which became popular in the 1960 and 1970s. Darling-Hammond (1996) offers an illustrative account of SRAs by reflecting on her schooling experiences. She writes, “I remember being dumfounded by programmed instructional texts that were intended to teach English grammar in endless series of one-sentence skill bites with mini tests after each. And I could not imagine why someone would make students stop reading books to march their way through color-coded SRA reading kits (I remember putting Dostoyevsky aside to demonstrate that I could make my way from green to purple cards featuring short decontextualized passages followed by multiple-choice questions)” (p. 7). The new technologies Yurie alludes to represent digital SRA kits. Her vision of technology-based instruction that “adjusts speeds” relies on a similar logic, which SRA developers employed through strategies of pacing and individualized instruction. For an extended historical analysis of digital technologies and SRA kits, see Watters (2015 Mar. 19).

8 In “What does personalized learning mean? Whatever people want it to,” Herold (2018, Nov. 8) traces the astounding variety of ways in which administrators and teachers articulate and implement “personalized” learning initiatives. A few examples include: grouping strategies based on digital data, utilizing adaptive software to allow students to learn at their own place, and customizing activities to support students in developing a growth mindset (see also, Kamenetz, 2018, Nov. 16). Herold synthesizes
substantive meaning, personalization emerged as a term cloaked in assumed legitimacy.

In addition to discourses of personalization, discourses of “everywhere” shaped how Accelerate-Edu articulated their vision and programmatic aims. One illustrative example emerged during a strategic advisory board meeting. A local business leader and advisory board member offered this leading question: “Given my Silicon Valley roots, I have certain biases… Do we want to be regionally focused, or be really Silicon Valley-esque and pick one thing and be the best in the world?” The advisory board advised Accelerate-Edu staff to reflect on the business principle of “First, Best, Only”: “What’s the first thing, the best thing, and the only thing you do in relation to a competitive marketplace?” Appeals to “Silicon Valley” thus operated less as a spatial geographic marker, and instead, as an aspirational market imaginary. Place often entailed attention to market-places. These findings corroborate what Williamson (2016, 2017b) identified in his analysis of a Silicon Valley approach that replaces political dilemmas with technical, market-driven remedies. To be “really Silicon Valley-esque” then is to invoke metaphors of a global marketplace and extend the inherent goodness of market innovation for public schooling.

the various expressions of personalized learning and concludes, “But for now, personalized learning continues to mean a little bit of everything, and nothing in particular. And that’s leaving K-12 at the center of a blizzard, with a limited vocabulary for describing the new practices, old philosophies, and big questions swirling around them.” I argue that these “old philosophies” are rooted in federal policy discourses of digital meritocracy and color-evasiveness. As discussed in Ch. 1, perhaps the most compelling attribute of “edtech” is its ability to absorb and obscure ideological differences in ways that reproduce existing relations of power.
Discourses of “everywhere” also informed what Accelerate-Edu excluded in their everyday efforts to accomplish their organizational aims. For instance, Yadin, the Program Manager elaborated on his “brokering” role this way: “We have VCs [venture capitalists], ‘Here’s a cool product’… We search, scour email, Facebook… message people we know to find teachers… who cares what district they’re from, to pilot our project” (emphasis added). Although Yadin acknowledged that each district encounters distinctive challenges, he enacted assumptions of “everywhere” by minimizing attention to district variation. Instead of interpreting place as an axis for addressing barriers and building on local community assets (Green, 2015), Yadin extended assumptions about place and space respective to global marketplaces. This inattention to place expressed digital meritocratic notions of “everywhere” even as it contradicted the stated goals of Accelerate-Edu to close the “achievement gap”; a mission perhaps best served by concentrating efforts within districts that serve students from historically marginalized communities and communities of color.

Importantly, even when actors made references to specific places, they defined inequities in digital terms. For instance, the CEO at Accelerate-Edu described place-based challenges of Accelerate-Edu’s work this way: “A valley where you find all the riches of the world, and another [less affluent] part of the valley where kids working on 30 computers in a classroom are crashing the network.” By reducing the multiple and gross inequities between Silicon Valley neighborhoods to questions of digital access and network accessibility, Darren enlivened assumptions about an “everywhere” imaginary. Notably, his enactment of an “everywhere” discourse occurred amid
growing political action among affordable housing and labor rights activists throughout Silicon Valley (Avalos, Oct. 19, 2017; Har, Nov. 7, 2017; Young, June 10, 2017). Attention to local activism remained remarkably absent from talk and practice at Accelerate-Edu throughout my 11 months of fieldwork.

Like Accelerate-Edu leadership, staff extended this digital interpretation of place-based inequities. At one district meeting, staff presented a “pitch deck” to district leaders, school technology specialists, and technicians. Their presentation framed the key challenges to schooling in terms of student performance on math assessments, issues of data privacy and security, and computational thinking for elementary students. Their presentation emphasized issues that technology might fix and framed learning in primarily individual, behaviorist terms. Yet, as Cuban (2001) reminds, “the most serious problems afflicting urban and rural poor schools—inequitable funding, extraordinary health and social needs growing out of poverty, crumbling facilities, unqualified teachers—have little to do with a lack of technology” (p. 189). Accelerate-Edu operationalized “complex problems” to include only apolitical, technical issues within schools.

Last, discourses of “everywhere” were also evident in how partnering digital technology companies marketed their products. The mission statements of digital edtech companies emphasized themes of global connectivity and collaboration. One international teaching platform branded itself this way: “Connect with and learn from the largest network of teachers in the world, with more than 7 million users in 279 countries.” Another teaching platform echoed themes of global connectivity: “Check
out samples from teachers around the world now.” Likewise, a Project-Based Learning e-curriculum, contended that their software “helps students everywhere discover a love of learning by doing.” This company drew on metaphors of a “global school community” and claimed to “empower teachers, schools, and districts.” Taken together, these discursive marketing strategies suggested that achievement technologies could be flexibly adopted regardless of place and that many are already legitimated, globally adopted tools. But again, how expanded access to personalized learning everywhere would reduce gaps in achievement remained unclear. Nonetheless, Accelerate-Edu “brokered” achievement technologies under pretenses that expanded adoption of such tools promised to “increase and accelerate student learning.”

‘Chasing’ or ‘baiting’? Access to material resources also motivated Accelerate-Edu to discursively align with their sponsoring foundation. Here, it is interesting to consider two contrasting ways that Accelerate-Edu narrated their relationship with their philanthropic foundation using metaphors of “chasing” and “baiting.” Many scholars consider the nonprofit landscape a largely determined space in which nonprofits “chase” dollars by molding their organizational aims in accordance with philanthropic agendas (Rodriguez, 2007). The words of Bernard, the Education Manager at Accelerate-Edu, validate this theory:

Remember I said earlier, you do what your funders want you to do. Programs last as long as their funding lasts too. I mean if the funding for Accelerate-Edu were to dry up and we try to find other sources, but failing that, you don’t run the program anymore. That’s just part of the nonprofit world. And it’s actually not that different than the for-profit world. If no one is buying your product you stop making it. Or, if no one is willing to invest in it, you never start making it.
Bernard’s analysis mirrors what Scott (2009) argues in describing how “foundations lead educational policy change” by aggressively identifying grantees and engaging in public advocacy (p. 108). Although Bernard posits a grim and determined perspective of nonprofit work, fieldnote observations tended to corroborate his assessment; both in Accelerate-Edu’s adherence to philanthropic agendas and as evident in the ways Accelerate-Edu mirrored a product delivery orientation to digital education reform characteristic of for-profit markets.

But actors at Accelerate-Edu also reversed this relation, insisting that they steered, or “bailed,” foundations too. Yadin explained:

Two ways about it. You can be totally strong and confident on what you do. Or you can be completely adaptive in terms of we’re just going to chase the money. Either way, I mean, it’s just you want to be upfront about it. About who you are as an organization. Are you going to be a paper-chaser? Or are you going to be strong and committed to the work that you do? Either one is not bad.

Although Yadin frames this dilemma in morally relativist terms, he objected to a “paper-chasing” approach reflective of Bernard’s observation that you “do what your funders want you to do.” On one occasion, Yadin reframed a meeting with a large philanthropic foundation by saying, “The meeting is just to bait them.” For Yadin, Accelerate-Edu was not a pawn within a philanthropically-determined education reform landscape, but actively participated in guiding and constructing digital education reform agendas. Yadin’s notion of “baiting” calls attention to the potential interests among foundations to partner with nonprofits who can legitimate their work and organizational status by supplying evidence of local reforms.
Both “chasing” or “baiting” were evident in how Accelerate-Edu approached working with their foundation, whose collective work upheld policy discourses of digital meritocracy. Nina also adopted notions of “everywhere” in her vision of school reform and cited her foundation’s mission statement: “Where any child could have a good education no matter what zip code they’re living in.” Like Accelerate-Edu, Nina acknowledged spatial inequities constrained school opportunities, but admitted, “Education is really hard because it’s so political.” Both Nina and Accelerate-Edu saw value in digital technologies as a way to avoid politically divisive and potentially risky programs tied to local struggles over material resources. In sum, Accelerate-Edu and their sponsoring foundation participated in sustaining efforts among mid-19th (Katz, 2001) and early 20th century professional reformers who sought to “take the school out of politics” (Tyack, 1974, p. 103; Trujillo, 2014). Despite the rhetoric of innovation, there was little that was innovative about Accelerate-Edu’s vision of school reform, which sustained hierarchical, industry-led approaches to school reform.

Organizing to Reform

Discourses of policy, place, and philanthropy also informed how Accelerate-Edu organized to materialize their goals. This section traces the organizational structures, or regularized patterns of action and interaction (Scott, 2003), that Accelerate-Edu adopted to achieve their vision of increasing and accelerating student learning by leveraging technology at scale. I discuss two main features of organizational design: Accelerate-Edu’s organizational identity as a “free, neutral broker” of private-public
partnerships and their adoption of private sector structures, such as “C-level” roles, hierarchical reporting structures, and exploitative labor practices.

**A ‘Free, Neutral Broker’**

When I first met Yadin, he invited me to accompany him to a local Silicon Valley public school and meet three teachers who were in their initial month piloting a new digital edtech product. The purpose of the meeting was to field any questions or concerns teachers might have during their free trial period. Yadin explained that Accelerate-Edu represented a “neutral third party” and that today’s meeting was about facilitating “feedback loops” between edtech designers and teachers.

We drove through a wealthy suburb: homes with 3-car garages, paved sidewalks, and festive Halloween decorations. During the drive, Yadin divulged that, as a former middle-school teacher, he knew how scarce and valuable time was for public school teachers. Since arriving at Accelerate-Edu, he made the personal commitment to driving to over a dozen partnering schools throughout Silicon Valley rather than have teachers meet at Accelerate-Edu’s offices.

When we arrived at the school, Nick, a 5th grade teacher, greeted us in the front office. Nick walked us to his classroom and in an apologetic tone expressed his inability to get a few of his students to log onto Google to use the edtech math game. Nick asked if he needed anything for the meeting. Jeanie, an older teacher with gray hair, and Michelle, a younger teacher running in from yard duty, arrived soon after we settled into our blue plastic stools. Jeanie asked, “Who are you? What’s your company?” Yadin responded, “I’m a broker, and I’m a free broker.”
This brief vignette offers a glimpse into how digital reformers at Accelerate-Edu articulated their organization as a “neutral third party,” “free broker,” and elsewhere, as a “free, neutral broker.” The intentional and repeated ways staff and leadership crafted Accelerate-Edu’s organizational identity drew boundaries between for-profit, “corporate reformers” who had become increasing targets of critique in education reform discourses (Ravitch, 2013; Saltman, 2007) and the neutral work Accelerate-Edu engaged in. Iris put it this way: “We’re a neutral third-party, dedicated person. A facilitator for a conversation… we’re not going to tell, but we’ll recommend.” I sought to understand the politics of digital recommendations and how Accelerate-Edu maintained an organizational understanding about neutrality in light of these recommendations.

What I found most striking in my initial field site visit with Yadin was the difficult-to-characterize tone in which Nick, Jeanie, and Michelle received Accelerate-Edu. Nick’s deferential apologies and Jeanie’s questions—“Who are you? What’s your company?”—revealed absences of any meaningful relationships between Accelerate-Edu and participating teachers. Yet, the initial tone of the conversation was one of apprehension and indifference; reactions that were perhaps indicative of a broader school reform context in which external auditors and accountability pressures shape the everyday realities of teaching and learning in U.S. public schools (Anderson & Cohen, 2018).
The absence of thick relations between Accelerate-Edu and teachers became less surprising when situating the face-to-face meeting within broader contexts of Accelerate-Edu’s work. Although Yadin drove to meet teachers in their classrooms and invited feedback, much of his “brokering” work tended to reflect the interests of edtech companies. Yadin collected media release and consent forms from Nick, Jeanie, and Michelle so that Accelerate-Edu could take photos of students using the edtech products for companies to use in their branding efforts. At one point in the meeting, Yadin even expressed that a key aspect of the “rapid cycle feedback” meetings was to provide companies data to be able to communicate: “This tech product was piloted and 80% of kids reported X results.” The meeting was one moment within a broader programmatic effort to facilitate the digital marketization of public schools.

In addition to the market slant of meeting conversations, there was a strikingly thin degree of implementation even amid the pilot phase of the partnership. Nick, Jeanie, and Michelle confided that they had not tested the edtech product themselves and simply observed how their students used the edtech game during unstructured class time. Michelle explained, “We use it in homerooms, they’re [her students] all on it.” She elaborated, “Some of them don’t realize they’re doing math!” Such statements offer insight into recurring patterns of technology use as a decorative, rather than a fundamentally distinctive approach to teaching and learning (Cuban, 2001). Yadin did not seem troubled by these admissions. Instead, he interpreted evidence of student enjoyment and engagement as indicators that implementation was moving along
smoothly with the exception of a few students who were unable to log onto the math platform.⁹

Even if we were to assume that Accelerate-Edu facilitated a “neutral” conversation between teachers and edtech companies and that the content and implementation of edtech tools resulted in actual achievement gains for students, the schools Accelerate-Edu selected undermine their purportedly neutral “brokering” labor. Given that access to hardware—in this case, Chromebook laptops—represented a prerequisite for teachers to pilot new edtech products, Accelerate-Edu reinforced existing material and digital inequities by partnering with schools who had financial resources to invest in Chromebooks and who were equipped to pilot digital math games. By this logic, students from predominantly white neighborhoods with 3-car garages were the primary sources of feedback for edtech companies. The particular school I with Yadin served a student body that was 63% white, 22.1% Latina/o, 6.5% Asian, and 0.4% Black. In addition, only 7.5% of students received free and reduced-price lunch (Education Data Partnership, n.d.), that, while an imperfect measure of socioeconomic inequity (Harwell & LeBeau, 2010), qualified the school as one of roughly 20% of public schools nationally considered “low poverty school” (NCES, 2015). Thus, only the already-advantaged schools and communities met the pre-

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⁹ Attention to the “adoption” of innovative products reflects a broader theme in edtech policy discourses, which Roumell and Salajan (2016) describe as an “economic dialectic”; that is, the translation of edtech policy queries away from questions, such as “‘Is it true?’, ‘Is it just?’, ‘Is it morally important?’” to questions like “‘Is it efficient?’, ‘Is it marketable?’, ‘Is it sellable?’, ‘Is it translatable into information quantities?’” (p. 536).
requisites for evaluating edtech products, undermining Accelerate-Edu’s own claims to broker technologies that close the achievement gap.

But this initial meeting also raised broader questions about why Accelerate-Edu still insisted on representing themselves as a “free, neutral broker.” Recent studies on increasing private sector participation in public schooling offer some insight here (Ball, 2007; Koyama, 2010; Lipman, 2011). Several scholarly and popular accounts document the intrusion of private, corporate interests into schools via new digital technologies (Burch & Good, 2014; Williamson, 2017a). These accounts argue that digital education reformers represent a new front of a broader neoliberal movement to reform schools (Watters, 2017, Aug. 17, 2014). Popular news media outlets like The New York Times (Alessandra, 2015, Oct. 31; Bilton, 2014, Nov. 25; Singer, 2015, Jan. 11), EducationWeek (Herold, 2018, Nov. 6; 2016, May 11), and even BusinessInsider (Smith, 2014, May 12) similarly question a Silicon Valley faith in technological progress and for-profit benefits of private-public edtech contracts. Singer (2015, Jan. 11) directly challenges the profit-incentives underlying tech-driven Silicon Valley reform projects and argues, “many start-ups are marketing free learning apps and websites directly to teachers in the hopes that their schools might eventually buy enhanced services.”

Although Singer uses different terms, she effectively

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10 Accelerate-Edu worked directly with teachers, but also school and district leaders to scale products. Other parallel efforts to directly market digital products to teachers include digital collaborative platforms like, Teachers Pay Teachers: an online marketplace for educational resources that recruits teachers to sell lesson plans and curricula to other teachers across the nation (Teachers Pay Teachers, n.d.). Digital platforms like TPT invite teachers to “moonlight” as entrepreneurs of classroom lesson plans with some teachers earning upwards of $150,000 annually and tripling their
characterizes the four-stage model of Accelerate-Edu’s theory of change. Related critiques charge that “edupreneurs” seek organizations like Accelerate-Edu as a means of gaining access to public schools and ultimately selling their products at scale (Ravitch, 2015, July 16). Efforts to navigate public bureaucracies are worthwhile given the potential windfall profits that come from winning over one local public school and “scaling” a digital product to millions of students (Picciano & Spring, 2013). Crafting an organizational identity as a “free, neutral broker” then potentially reflects a careful reading of this critical strand of market-driven school reform and Accelerate-Edu’s efforts to distance themselves from these critiques.

Problematically, Accelerate-Edu occasionally and misleadingly claimed to work in the interests of public schoolteachers. Accelerate-Edu crafted the Pitch Games as a way to redress historic school reform tendencies to dismiss the needs of teachers. This was the “flipped” design of the pitch games ostensibly designed in the best interest teacher salaries (Reinstein, 2018, Aug. 31). These platforms use technology to create markets for teacher resources, including, but not limited to digital technologies. TPT represents an understudied and potentially illustrative case for grasping the possibilities and constraints of collective labor organizing amid digital and neoliberal contexts. Increasingly, technologies appear to intensify a self-entrepreneurial and individualist orientation toward redressing traditional “bread and butter” labor organizing issues, such as low pay and limited benefits. Take the words of one teacher Reinstein (2018, Aug. 31) interviewed who used TPT to compensate for her salary. She explained that the collaborative platform required her to “reinvent” herself all the time and added, “as it’s [the market] become more saturated and people create similar things, you have to find a way to set yourself apart.” Platforms like TPT not only frame collaboration through individual market relations, but threaten the very values of collective organizing by recruiting teachers to view labor abuses as something that can be remedied through individual actions and forms of entrepreneurial market distinction. Further research might examine how platforms like TPT inform teachers’ orientations toward collective forms of labor organizing.
of teachers. Much of their work echoed an analysis that Crichton (2015, Nov. 9) outlines as a reform inattention to teachers.

We have always taken students to be the “ultimate” consumer in education – they are the ones who are receiving the education, and often paying for it as well. However, there is another side in this market, and that is the educators. Like Crichton, Accelerate-Edu sought to attend to “both sides of this market.” But what Accelerate-Edu offered in rhetoric, it failed to actualize in practice, ultimately ignoring the needs of teachers in pursuit of expanding district adoption of edtech products. Given multiple challenges to their neutrality, Accelerate-Edu also resorted to another discursive strategy to legitimate their brokering labor.

‘We’re a Nonprofit’

In addition to crafting an organizational identity as a “free, neutral broker,” staff and leadership emphasized the “nonprofit” status of Accelerate-Edu to justify the moral value of their digital education reform efforts. When I asked staff to describe their paths to working at Accelerate-Edu, nearly all interviewees described their interest in the “nonprofit world” or their desire to make a difference in the “nonprofit sector.” Ralph, a staff-level manager, put it this way, “The nonprofit space was always one that appealed to me.” When asked to specify what about the nonprofit space appealed to interviewees, many echoed progressive values of “doing good” (Lashaw, Vannier, & Sampson, 2017) set in contradistinction to values of individual wealth accumulation in the private sector. On repeated occasions staff distinguished Accelerate-Edu from for-profit companies without being asked to make such distinctions. Ralph explained that he was not a “used car salesmen” and clarified that his role with Accelerate-Edu was
simply “to share with districts what we offer.” Similarly, Yadin explained that team members at Accelerate-Edu were “not vacuum salespeople.” Still, both Ralph and Yadin drew on business terms to describe their work. Ralph repeatedly referred to Accelerate-Edu’s “product” and alluded to the “business” of reform. Similarly, Yadin advocated for more educators on the advisory board by stating, “We need educators because we’re an education company.” These repeated slips offered insight into the underlying economic and market framework through which Accelerate-Edu interpreted the business of digital school reform.

In addition to repeated efforts to elevate Accelerate-Edu as a nonprofit organization, staff alluded to the nonprofit sector as a space of progressive educational change. Take the following explanation by Renée, the Chief Financial Officer:

It’s really in education it’s I mean when working in the education space, [we’re] all working towards a similar goal. So, it’s more of a…. I like to think of it as a blue ocean approach. Like everything helps everyone regardless if there is another organization asking for funding from the same person, which is, more of… I don’t know that’s when you think of marketing, you think of a red ocean where you want to like, like I don’t know, everything helps everyone. We’re all working toward the same goal.

Although Accelerate-Edu was legally a nonprofit 501(c)3 organization, it was in the business of doing business on behalf of private edtech companies. The legal status of nonprofits thus operated as a progressive gloss that minimized critique by characterizing the sector as one in which “everything helps everyone.” These findings surface an urgent need to trouble what Vannier and Lashaw (2017) describe as “received moral categories” within the field of nonprofit organizing (p. 232). Here, the very term, “nonprofit” represents one such moral category that limits critical
understandings of how power operates in and through legally not-for-profit organizations.

Appeals to the “nonprofit” status of Accelerate-Edu were particularly jarring amid moments when staff and leadership attempted to distinguish themselves from competing nonprofit “partners.” Yadin characterized the organizational field of digital education reform as a terrain defined by norms he labelled, “co-opetition”: relations of cooperation and competition.\textsuperscript{11} Co-opetition combines assumptions of a collaborative “blue ocean approach” with market norms of competition and logics of distinction; what it means to be the “First, Best, Only” organization in relation to a competitive marketplace. Mark explained this market logic as a need to “find a sweet spot that differentiates us within this crowded landscape.” He concluded his interview by describing his vision for the organization: “For Accelerate-Edu to be the best nonprofit in the country. No reason why it can’t be.” Taken together, the term “nonprofit” signified little beyond the legal, tax-exempt status of Accelerate-Edu; an organization whose programs and self-articulated understandings of reform mirrored neoliberal efforts to marketize public schools.

Non-profit-as-Startup: ‘C-Level’ Roles and Labor Fluidity

\textsuperscript{11} Ishimaru’s (2017) analysis of the social relations within a cross-sector collaborative initiative reveals a similar melding of collaborative and competitive norms. One participant used the term “collabetition” to describe their experience of collaborating around a common vision amid contexts defined by competitive norms and structures, such as struggles over scarce material resources and media attention (p. 27). The notion of “co-opetition” expresses a similar logic.
Although staff spoke about Accelerate-Edu to external partners in ways that elevated their status as a nonprofit, leadership drew on for-profit organizational structures to organize internal operations. Leadership valued an assumed entrepreneurial dynamism evident in Silicon Valley “start-up” companies. Mark explained it to me this way:

Mark: Well by design, we are … by design we are trying to manage not as a nonprofit, but as a startup.

Ethan: What does that entail?

Mark: Agility, flexibility, resourcefulness, fast-paced.

Mark added with a chuckle, “I don’t want to waste anybody’s time, especially my own.”

His emphasis on speed blends neoliberal and Silicon Valley critiques of the assumed slow, bureaucratic government structures and fast-paced dynamism of private markets (McClelland, 2018).

Part of running a nonprofit as a startup involved “mimicking” for-profit organizational roles and hierarchical reporting structures (Burch, 2007). At Accelerate-Edu, there was a clear distinction between staff and “C-level” leadership: the CEO, COO, and CFO. C-level leaders at Accelerate-Edu assumed corporate roles and

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12 The re-inscription of nonprofit organizational forms through logics of efficiency and accountability represent a much broader phenomenon. St. Croix’s (2018) analysis of nonprofit youth work reveals a broader shift from democratic to managerial norms and values. She argues that a “new youth impact agenda” extends neoliberal and managerial relations of youth work that ultimately hems in “what counts as ‘good’ youth work” (p. 417). St. Croix’s analysis situates Mark’s interest in a “startup” organizational design as a reflection of Silicon Valley norms, but also, as a potential reflection of the systematic transfer of accountability and new managerial discourses from the private to the nonprofit sector (Anderson & Cohen, 2018).
responsibilities assumed to afford a more efficient organizational design. Aspirations for efficiency entailed managerial systems of translating discussions “up” from staff to leadership. Staff deliberated and translated programmatic updates to the COO, who then “briefed” the CEO, as new directives were handed “down.” Of the 40 field observations I conducted, Darren, the CEO, appeared at only 7 meetings; 6 of these events were public events. These managerial roles resonate with what Trujillo (2014), drawing on Callahan’s (1962) *Cult of Efficiency*, documented in her study of hierarchical roles and structures at an equity-oriented education reform organization. Yet, such organizational designs were far from efficient.

Two main inefficiencies emerged as a result of hierarchical reporting structures: misinterpretations between staff and C-level leadership, and relatedly, frequent labor turnover among staff. In the first instance, it was common for C-level leadership and Accelerate-Edu staff to leave the same meeting with competing interpretations of what transpired and logical next steps. On one occasion, Yadin and Iris insisted that a meeting with a funder went terribly awry; C-level staff showed up late and spoke “at” the funder. Whereas Darren felt the meeting would yield a future grant, the Accelerate-Edu staff was less hopeful. Yadin and Iris explained that C-level personnel did not understand “the weeds of education,” and instead, chased after new fundable projects, which staff disparagingly referred to as leadership’s “shiny objects” to chase. Such widely competing interpretations rationalized different work plans—such as designing new digital reform programs for an anticipated grant—that staff carried out half-heartedly.
Competing interpretations reflected contrasting professional and personal experiences in relation to schools. One quarterly review meeting Iris recounted made these distinctions apparent for me. She explained that during the meeting, Darren expressed excitement about the idea of a “Zone of Proximal Development.” Mark asked, “Is this a word we should be using?” Iris did not say anything during the quarterly review meeting, but later confided, “I wanted to scream, ‘That’s Vygotsky from the 1800s!’ Today it’s this thing, tomorrow it’s that thing.” Guided by a market quest to innovate, leadership spent little time attending to sociocultural theories of learning from the past.

Additionally, hierarchical organizational structures created emotionally tense relations between staff and leadership. Staff regularly worked long hours to prepare “pitch decks” for board meetings and quarterly reviews. These occasions were marked by a distinctive sense of fear and insecurity. Iris admitted, “I just don’t know where I stand with Darren.” Meetings also took visibly distinctive affective tonal shifts in the presence and absence of leadership. For instance, when Mark left meetings, Iris would often whisper to the team, “Now we can get to the actual work,” eliciting laughter among everyone present.

Intriguingly, contexts of labor exploitation contributed to high degrees of intimacy and mutual support among staff, who supported each other in coping with long hours and conditions of overwork. When I asked Laurel, a secretary at Accelerate-Edu, about her vision for Accelerate-Edu, she responded in terms of labor needs; a
significant contrast to Mark’s aspirations for Accelerate-Edu to become “the best nonprofit in the world.” Laurel explained,

I would want to see more staff. Iris and Yadin do so much… to the point where Iris tells Yadin to just go home sometimes. ‘Why are you here? Go home. Go to sleep.’ Because he’ll send emails at 10 o’clock late… or early in the morning.

Working after-hours and on weekends was a common routine at Accelerate-Edu, which mimicked working conditions of the for-profit startup world (Benner, 2008). These laboring conditions also impacted the health and energies of the Accelerate-Edu team. During one internal meeting, Iris stared up from her black Accelerate-Edu coffee mug and apologized, “I’m sorry Ethan. I’m just out of it today.” Although it was rare for Iris to apologize to me in this way, it was common to see Iris and Yadin overworked and exhausted, yet showing up for work to support the immediate team.

**Naturalizing labor exploitation and turnover.** But staff also participated in naturalizing labor exploitation and turnover even as they supported each other to survive grueling workdays. Bernard, a senior member of Accelerate-Edu, complained about turnover and the lack of continuity, but reasoned, “in the nonprofit world your staff changes all the time.” In addition to the entire Accelerate-Edu team, I was aware of at least four other individuals who left the organization. Quitting was such a common practice at Accelerate-Edu that new staff introduced themselves with the names of the people they replaced: “Hi I’m Chris, the new Jacqueline.” On another occasion, staff collectively gazed at a flat screen with a projected slide of the quarterly review pitch deck when an email notification appeared in the top-right hand side of Iris’s screen.
The message was from “Kyle” and the subject line read: “Stepping away from Accelerate-Edu.”

“Well, another one bites the dust,” Iris said with a slight roll of her eyes.

“It’s okay, it’s a cycle,” Yadin assured, minimizing labor fluctuations within Accelerate-Edu and in the nonprofit sector broadly.

These practices persisted, in part, based on attributions of exploitation and turnover to natural “cycles” associated with the nonprofit sector. Ralph used euphemisms to make a similar point and explained that when working at Accelerate-Edu, you’re often asked to “punch above your weight”: a creative and masculine euphemism that functioned to naturalize conditions of overwork. Laurel rationalized overwork by explaining, “Well, that’s the nature of nonprofits. You have one person doing like three jobs.” Similarly, Yadin explained during one internal team meeting, “We need at least 2 people for that job. But we’ll do it cause we’re a nonprofit.”

As noted, C-level leadership participated in crafting an organizational environment that reinforced these norms. From a management point of view, Mark often explained, “I need two bodies for that job.”13 Only one C-level leader quit during quitting was so common that hiring also became a ritualized practice. On one occasion, I sat next to Natalia, a recent hire at Accelerate-Edu. Natalia explained that she had recently received her MBA and was interested in returning to education, but not as a classroom teacher. When I asked about her role at Accelerate-Edu, Natalia explained, “My hiring was kind of a fluke.” Natalia was browsing organizations and edtech companies in Silicon Valley and attended an informational interview with Yonah, the vice president of Accelerate-Edu. On her way out of Accelerate-Edu’s offices, Mark hired her. Although the specific roles and responsibilities Natalia would assume had not been specified, Mark urgently needed someone for these tasks. These rapid hires corroborate Mark’s coarse understanding of organizational projects when he would express that he needed “bodies” on particular projects.

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the course of my study, offering some insight into the disparate impacts of labor exploitation and organizational turnover.

In many regards, staff accurately read a broader flexibilization of labor in the information economy (Castells, 2011). As Benner (2008) observes, Silicon Valley is at the leading edge of creating flexible labor markets that often result in increasing work demands and labor precarity. These are the very social relations of labor that C-level leadership and board members argued we are “so blessed” to have and that we ought to “protect” through investments in innovative digital tools.14

In summary, Accelerate-Edu worked to craft an identity as a “free, neutral broker” and as an innovative “nonprofit.” Yet, everyday talk and practice revealed how this category functioned more as a progressive cover for distinguishing Accelerate-Edu from corporate reform movements. Still, the formal nonprofit organizational status of Accelerate-Edu offered a way for actors to interpret their work as progressive in ways that resisted critique (Lashaw, 2013). Particularly troubling were the ways in which a

14 Just as Accelerate-Edu staff naturalized turnover through talk and practice, I found my own research procedures of conducting exit interviews oddly complicit in routinizing turnover. After Iris and Yadin left Accelerate-Edu, I invited them to lunch as a way to express my gratitude and better understand their perspectives on quitting. When I asked Iris if there was anything that would have made her stay at Accelerate-Edu, she replied, “Of all the people, it’s funny that you’re the only person that has asked me that.” During lunch, Iris and Yadin did not name individuals, and instead, spoke in generalities: “Effective leadership lets their leaders know that their behind them, that they matter.” Following Iris and Yadin’s departure, I invited Laurel to lunch for a chance to speak candidly about her experiences at Accelerate-Edu. Laurel shared that she planned to move in with her parents after taking out an $18,000 loan to pursue a second master’s degree in communications. Laurel reflected on her time with Accelerate-Edu and put it plainly: “You can’t have an organization without people.” C-level leadership understood this truism, but simply recruited new “bodies” to replace those who left.
nonprofit organizational status obscured materially exploitative laboring conditions within the organization. If the internal organizational climate of Accelerate-Edu reflected a tepid enthusiasm for the digital education reform, how was Accelerate-Edu so successful in recruiting funders and partners to achieve its aims? The next section delves into the public-facing and external socio-material relations Accelerate-Edu brokered.

**Engaging External Partners**

Accelerate-Edu was incredibly successful in recruiting and sustaining partners to advance their goals despite apparent intra-organizational tensions. Few partners—whether these included edtech entrepreneurs, corporate funders, or district leaders—contested the vision Accelerate-Edu sought to achieve. But minimal contestation came at a price; it tended to exclude any meaningful engagements with the needs of school leaders and teachers as well as families and young people who attended public schools in the Valley. Ethnographic attention to staff efforts to implement EduTech Assessments and the Pitch Games reveals how Accelerate-Edu incrementally depoliticized digital education reform movements, and in the process, betrayed commitments to their “free” and “neutral” brokering work.

**EduTech Assessments as Interrogation**

“So, are they doing anything right?” Alice, a private consultant for Accelerate-Edu, asked Yadin. Yadin shrugged his shoulders. Alice, Yadin, Laurel, and I stood in a small, fluorescent-lit break room at the offices of South San Francisco Unified School District (SFUSD). Everyone looked exhausted having just completed a 3-hour
EduTech Assessment that involved in-depth note-taking and dry logistical discussions about district technological capacities.

Although EduTech Assessments were designed as a way to support districts to understand the “plumbing” associated with district technology infrastructure—including hardware, curriculum, and teacher professional development—the actual meetings were less collaborative and more confrontational. But the content of EduTech Assessments did reflect what Yadin had previously outlined as an analysis of district needs that “is all through an edtech lens.” A glimpse into one EdTech Assessment offers some insight into the cultural politics of assessing districts technological readiness.

The South San Francisco Unified School District (SSFUSD) EduTech Assessment took place in their large conference room. Several computer technology instructors (CTIs), technology analysts, and school leaders attended the meeting. In total, there were 20 people in attendance. Yadin introduced Accelerate-Edu by explaining:

Accelerate-Edu provides capacity for school site leaders with an edtech lens. We’re a 3rd party and offer a gut check for all of you… Where are you in the state of edtech? And we’re working with close to half the districts in San Mateo county.

Alice explained her role in assembling the EduTech plan to “better understand how you’re doing in terms of edtech and improvement opportunities and what you can do better.” Framed as a “gut check” and an analysis of what districts “can do better,” EduTech Assessments devoted little time to understanding existing assets and
successful digital programs or practices within districts. This deficit and technological framing guided the entire 2.5 hours meeting that followed.

The bulk of the EduTech Assessment entailed Yadin and Alice asking SSFUSD personnel to clarify demographics, technology-to-student ratios, latest updates to Wi-Fi connections, and technology professional development offerings for teachers. One exchange captures the general flow of the meeting:

Yadin: What would you say your student to tech ratio is?
 Participant: Not sure.
Yadin: One-to-one? Two-to-one? Five-to-one?
Another participant: Yeah, probably five-to-one?

Other responses offered similar ballpark estimates. Several participants added that they aspired toward a one-to-one ration of technology to students, but the rate of technological innovation quickly made existing hardware outdated or obsolete. One school principal expressed, “I think about 80% of our teachers are tech-ready and the other 20% are more tech shy.” This principal added that they have a lot of younger teachers who are “tech savvy,” offering some insight as to how the principal used age as a proxy for estimating the percentage of teachers who were “tech savvy.” These exchanges raised questions about the validity of data Yadin and Alice collected as a basis for designing district edtech plans. Like the teacher feedback meetings, the substantive content of EduTech Assessments seemed less focused on questions of student learning, and instead, on ways of naming problems to rationalize expanded investment in digital technologies.
Although not all district and school personnel conceded to Accelerate-Edu, many participants were deferential in their communications with Accelerate-Edu as assumed experts in the field of digital education reform. One vocal participant, Valerie, apologized for her inability to answer Yadin’s questions about technology capacity and stated, “Well I don’t want to put my district down… I feel like we should be thinking about that, but we’re getting there…” These responses were largely reactions to the tone and demeanor of Accelerate-Edu, who ironically, enacted a form of superiority that they were often subjected to by C-level leadership within Accelerate-Edu. On one occasion, Alice remarked, “Are you saying there are no metrics around bandwidth per student?” I sunk into my chair.

Yet, the inability of Accelerate-Edu staff to answer straightforward questions, particularly regarding the relationship between the implementation of new digital technologies and achievement outcomes was most striking. A CTI named Brian asked, “In your work, is there a relationship between technology and achievement?” Alice explained that the research was inconclusive. A first-grade teacher seated next to me asked, “Is there an appropriate ratio between the number of students and a technician?” On this matter, the research was also inconclusive. Later in the meeting, Brian, clearly frustrated by the process, chimed in again: “What have you observed from other districts? Has technology helped?” These basic questions troubled the assumed expertise of Accelerate-Edu and core assumptions about Accelerate-Edu that staff and leadership were unable to ask even during internal visioning retreats.
In sum, EduTech Assessments utilized prepared, technical, and arguably overly specific questions to hem in conversations about digital constraints and possibilities for school reform. Tech jargon, such as “technology procurement plans” and “hardware refreshment schedules” dominated the conversation. Additionally, there was limited space for envisioning what digital technologies might make possible for long marginalized families and youth attending schools within SSFUSD. I left the meeting with little understandings of the people SSFUSD served and who might benefit from expanded investment in digital technologies.

‘Free, free, free, pay.’ SSFUSD represented one case within a much broader effort to render district technology needs amenable to private edtech companies. Over time, adoption—the number of districts who signed contractual agreements with edutech entrepreneurs—became the privileged stage in Accelerate-Edu’s pinwheel model of Assess, Plan, Partner, Adopt. One advisory board member explained:

Focusing on adoption seems like a powerful way... a concrete way... You can have all these other complex metrics. It’s [adoption] a binary that is easy to make metrics of... make it one of the metrics of success.

Accelerate-Edu heeded this advisory board member’s advice and privileged indicators that could be easily measured. Not only did this logic extend a neoliberal focus on quantitative metrics of success (Baldridge, 2014; de St. Croix, 2018) but it elevated the “Adoption” stage as the most critical and overriding dimension informing Accelerate-Edu’s work.

Contrary to discourses of technological “innovation,” Herold (2016, May 11) observes that most edtech companies define success by noting the number of districts,
teachers, or students who use their tools. But digital tools that are most widely adopted tend to be those that are least disruptive, such as devices that generate automatic reminders to students, or that teachers can use during homeroom. In the market for edtech products then, those tools that are least innovative are often the most “successful” when defining success in market terms of adoption. Accelerate-Edu took up this business approach to operationalizing organizational success. Mark concluded the advisory board discussion on adoption by noting: “We do expect that there be some adoption because if it’s none then it’s failure.”

Yet, several staff members contested adoption as a key way of defining success. During one internal team meeting, Yadin stared at the pinwheel model of change—Assess, Plan, Partner, Adopt—and, pointing to each step of the process explained, “We’re doing free, free, free, pay.” Renée chimed in, “Are we salespeople?” She added that it would be hard to “sell” the idea of Accelerate-Edu to funders if that were the case. On another occasion, Iris reacted viscerally to the word “adoption”: “Oh gosh, ‘adoption,’ don’t tell me that word.” Iris explained that as a former classroom educator, “adoption” sounded like mandated textbook adoption and an imposition that “locked” schools into extended contracts. But COO, Mark drove home a vision that the ultimate aim of Accelerate-Edu’s work was to increase the number of districts that adopted “Accelerate-Edu vetted products.” Brokering was thus a euphemism for creating markets and rendering school district needs amenable to for-profit interests of edtech startup companies.
The pursuit of district adoption also resulted in intensified labor demands on staff who were charged with maintaining relationships across multiple partnering districts. Rather than a product that could be delivered, EduTech Assessments catalyzed relationships between district offices and Accelerate-Edu. For Yadin and Iris, EduTech Assessments initiated an iterative, ongoing, and labor-intensive process of support. But this processual approach to long-term relationships were unintelligible within a market model of production and sales that C-level leadership endorsed. These competing understandings of the actual labor involved in EduTech Assessment resulted in intensifying patterns of labor exploitation that ultimately led to the team’s decisions to quit the organization.

Taken together, EduTech Assessments represented a way to forge contractual market ties between edtech entrepreneurs and public schools. Cloaked in the language of “free” and “neutral” brokering services, EduTech Assessments functioned as a way to elevate district technology needs and catalyze a search for an edtech company that could address those very needs. Here, the Pitch Games emerged as one way to orchestrate partnerships and steer districts toward particular edtech startup companies.\(^\text{15}\)

**Pitch Games as Political Spectacle**

\(^{15}\) Although it would be illustrative to follow one district partnership throughout the four stages of Accelerate-Edu’s work, intentional and ongoing linkages with districts across these four stages were not evident during my 11 months of fieldwork. Consequently, I rely on distinctive partnerships to discuss the “Assess” and “Partner” stages of Accelerate-Edu’s pinwheel theory of change.
Like EduTech Assessments, the Pitch Games departed significantly from the stated vision staff and leadership used to explain its aims. During the course of my fieldwork, I attended two Pitch Games events, both of which reflected shared performances of reform. Contrary to the name, the Pitch Games was not a competition. Instead, it was an event that publicly celebrated a pre-determined selection process that Accelerate-Edu coordinated in advance. Struck by the oddities of the Pitch Games, Laurel asked, “Are the pitch games more of a… kickoff event then?” Yadin responded, “This is all pomp and circumstance. It’s all made for T.V.” Yadin added that the Pitch Games is more of an in-person “match day”; one in which Accelerate-Edu pre-determined the matches.

In contrast to the sullen and muted tone of the EduTech Assessments, the Pitch Games were a lively affair. One invitation Accelerate-Edu sent to district leaders reflects the celebratory tone of the event: “The evening will consist of EdTech company pitches, a networking component, and matching products with administrator teams. Join us for an evening of hors d’oeuvres, fine wines and beer, and edtech product matching!” As a participant-observer, I arranged promotional “swag” (Souvenirs, Wearables, and Gifts) before guests arrived, including wristbands, re-usable grocery bags, pens, bumper stickers, and t-shirts—each with Accelerate-Edu’s signature logo imprinted in matching bright green and black colors. Invited district leaders, principals, and teachers selected several pieces of promotional SWAG and dined on samosas, pita chips, beer, and wine in the hour leading up to the main event. The room brimmed with chatter and laughter.
Smith, Miller-Kahn, Heinecke, Jarvis (2004) might theorize the Pitch Games as a “political spectacle” of education reform: a front-stage performance of reform that resembles theater propelled by directors, stages, actors, rituals, and plots that conceal backstage negotiations and relations of power (p. 13). At the Pitch Games, a hired photographer captured participants networking over hummus platters and photographed Chromebook lottery winners celebrating their luck. Ed-tech entrepreneurs gave pitches to sell their innovative products to administrators and teachers. A panel of judges questioned edtech designers in ways that allowed them to elaborate on the potential benefits of their digital innovations. These orchestrated moments were photographed, uploaded to social media, and channeled to print news media outlets (Chang, 2019a). Rather than an “invisible hand,” organizations like Accelerate-Edu actively brokered market transactions.

Notably, the actual content of the meeting—what took place between the hors d’oeuvres and lottery giveaways—reflected a general dismissal of district and school-community needs. The Pitch Games were organized through an agenda called: “Learn, Link, Launch.” School leaders and teachers were allotted one-minute to share a “problem of practice” so that the audience and edtech entrepreneurs might “Learn” about actual school needs (a stage that was oddly divorced from EduTech Assessments). Educators and administrators would then “Link” with an edtech company before the end of the event as the pairs set off to “Launch” ahead in raising the achievement for all students. I discuss events from one Pitch Games event to contextualize what unfolded across these stages.
During the “Learn” stage, school and district leaders shared problems associated with linguistic and cultural diversity and poverty; challenges not easily amenable to technological fixes. Eve, a district leader, explained that her district is home to over 1,300 multilingual students and families speaking 49 different languages. Her district was interested in a digital tool that would support multilingual forms of school-community communication and collaboration. Annalise, another school leader, explained that her district is 83% free and reduced-price lunch and was interested in supporting the technology proficiency of teachers and students to extend learning across formal and informal learning contexts.

When the Pitch Games shifted to the “Link” stage of the agenda, no edu-tech companies addressed the stated problems uttered by teachers or administrators. I found no evidence that they had heard anything during the “Learn” portion of the event. Instead, edtech entrepreneurs performed their elevator pitches. One company, PearCase, discussed how their platform digitized flyers for parents to learn about college preparatory and local nonprofit opportunities. Another company, Digital Pen Pals, connected young people to peers in different countries and supported standards-aligned writing outcomes. These findings not only ignored the stated needs of administrators and teachers but also reified an everywhere dimension of digital meritocracy that disregarded the specificities of place. Additionally, these events corroborate what Player-Koro, Rensfeldt, and Selwyn (2017) found in their analysis of edtech trade shows organized according to “the top-down delivery of messages rather than the mutual sharing of emergent knowledge” (p. 15). Most strikingly, this failure
to “Link” occurred despite Accelerate-Edu’s use of two projection screens to broadcast a fill-in-the-blank statement for edu-tech entrepreneurs that read: “This is how our product addresses ___ need for ___ administrator team.”

Yet, a difficult-to-name affective energy, what Lashaw (2010) might call a “reformist zeal,” recuperated a faith in the possibilities of digital tools to materialize structural transformation (p. 323). Several teachers left the event with smiles and expressions of gratitude. A fourth-grade teacher from San Jose commented, “Let’s do it again.” Another middle school teacher from Sunnyvale added, “I liked being a part of this.” These exchanges do not indicate that teachers were “duped” in any way, but rather, offer insight into how Accelerate-Edu effectively designed the Pitch Games events in ways that enlivened a progressive faith in digital innovation for problems administrators and teachers did not know they had. Ultimately, the Pitch Games established a social venue through which edtech companies incrementally made their way into local Silicon Valley classrooms and mobilized a broader digital meritocratic

16 A closer look at the content of PearCase and Digital Pen Pals offers some insight into the kinds of digital services, curricula, and pedagogies Accelerate-Edu brokered. When I asked the CEO of PearCase how they developed the company name, he said, “We like to think of pears as the children, who are delicate and need to be preserved.” He added that the “case” represents the services that PearCase connects parents too, which help to “protect” the children. This paternalistic understanding of youth as vulnerable made its way into classrooms through the critical brokering efforts of Accelerate-Edu. Digital Pen Pals also displayed problematic assumptions about youth and learning. During their sales pitch, the CEO provided an example of a writing unit titled, “Discrimination long ago.” The unit invited students to respond to questions like, “Why do you think some people discriminate against others?” The unit framed inequity as a past and inter-personal issue, raising questions about how young people are invited to communicate across contexts in ways that might reify ahistorical and “color-evasive” approaches to understanding social worlds (Annamma, Jackson, Morrison, 2017).
Digital Education Reform Outcomes

During my 11 months of fieldwork, 4 Silicon Valley districts received EduTech Assessments but with little promises of ongoing support. Additionally, 2 edtech companies received district contracts at a financial sum I was unable to locate. Accelerate-Edu also hosted 2 Pitch Games and recruited participation from 14 local school districts and 16 companies. Each edtech startup company also received a 1-page “external, third-party” evaluation from Accelerate-Edu. Additionally, 40 individual administrators and teachers received a check for $2,000 in exchange for piloting edtech products. By the end of my fieldwork, Accelerate-Edu also received an unsolicited $1 million-dollar grant from Google and $250,000 from its board members in an annual and informal $25,000 “give-get” corporate social responsibility contract. Three new reformers received jobs with Accelerate-Edu following the exit of Iris, Yadin, and Laurel.

Yet, as evident in this ethnographic analysis, quantifiable outcomes obscure less tangible reform consequences, including the (re)production of norms, values, and social ties associated with digital meritocracy and Valley discourses of innovation. The intersection of policy, place, and organizational structures created a context that deeply constrained digital education reform actions. C-level interests in “adoption” functioned as a figurative north star for digital reform action despite evidence of staff-level concerns. Taken together, these practices extended digital meritocracy across local
districts and elaborated a view of teaching and learning that elevated the inherent goodness of personalized technologies for “all” students regardless of zip code.

Paying attention to the intersections of policy, place, and organizational structure also surfaces moments of critique, or “good sense” enshrouded in seemingly singular reform projects (Gramsci, 1971; Pedroni, 2007). This “good sense” was most evident in informal team conversations, which critiqued assumptions about the efficacy of markets and technologically-oriented approaches to education reform. Yet, even when staff questioned the assumed goodness of digital technologies, they simultaneously reified cultural narratives about public schools as the “great balance wheel” of unequal societies (Mann, 1957). In this sense, even internal critiques of the brokering work Accelerate-Edu engaged in relied on liberal visions of school reform that assumed public schooling could create a more equal society.

The most outspoken critic of digital education reform was also the most overlooked member of the Accelerate-Edu team: Laurel. On repeated occasions, Laurel was the first to call attention to contradictions immanent in the theory of change informing Accelerate-Edu’s work. One analytic memo helps to illustrate this point:

*Analytic memo – “Laurel’s Rejoinder” (March 13, 2017)*

An interesting exchange occurred today when Laurel troubled assumptions implicit in Accelerate-Edu’s theory of change. Laurel asked, “Aren’t we already assuming… assuming what the problem is when we ask about the ‘enabling conditions of edu-tech’? I mean, does that mean we think edu-tech is the thing impacting student achievement?” A pause followed Laurel’s questions. Iris then asked me what I thought. I shared something to the effect of: “Well, I think Laurel is onto something…” and recall asking the group to explore assumptions that Laurel invited us to consider.
Iris chimed in, “That’s what we’re trying to get at — what are the ‘condition enablers’? What are the factors?” She explained that we would begin with state dashboard data and the LCAP [Local Control Accountability Plan] to explore these conditions. Iris’s questions did not engage Laurel’s concerns. Ultimately, conversation and energy shifted toward what the team interpreted as the most pressing problem at hand: how to finish the day’s task-item of writing a 2-page report for Nina at the Foundation.

Laurel asked questions that were unintelligible within a broader digital education reform discourse constituted by a faith in digital meritocracy and Valley discourses of innovation. Further, hierarchical organizational roles and structures reflective of “startup” companies diminished efforts even among program-level leaders to take Laurel’s words seriously. To meaningfully engage Laurel’s questions would call into question the entire organizational identity of Accelerate-Edu and perhaps the very identities of reformers involved in digital education reform.

But Yadin too, uttered moments of critique. Although he articulated his day-to-day work through a neoliberal focus on “brokering” contracts, Yadin also raised critiques about his own work.

I think we fall in the realm of ‘it’s easy.’ We do, we… it’s about edu-tech products, ‘It’s this.’ Oh, ‘we increase achievement’… and we take these buzz words and we plop it in and it’s… it’s not about that.

Yadin explained that leadership often tried to “sell the bacon to pigs”; a practice of compelling districts and schools to believe that they needed digital technologies, even when it might not be their most urgent need. Ironically, Yadin was the key staff member responsible for facilitating processes of “sell[ing] the bacon to pigs” through his work at EduTech Assessments and the Pitch Games. Still, Yadin’s words offer insight into
the multidimensional lives and perspectives of Accelerate-Edu staff and the organizational constraints that stifled tacit critiques staff members held.\textsuperscript{17}

In addition to internal critiques of Accelerate-Edu, external leaders also occasionally questioned the boundaries of a digital echo-chamber reflective of a Valley faith in innovation. During a public forum on digital literacy Accelerate-Edu hosted, a state-level leader urged the audience to consider the following:

We need to think deeply about the impact of computers on society and civic culture. Computers are having an enormous impact on our lives. We need to consider the lower-end… for example, how driverless cars impact truck drivers’ employment. Part of our responsibility is to understand who’s winning and who’s losing with computers and how we deal with that.

The language of “responsibility” and explicit engagements with questions of inequity were rare. Yet, like the questions Laurel raised, these words were not taken up by fellow panelists. His comments were unintelligible within cultural narratives that insisted digital technologies were “always the cure, never the cause” (Li, 2007, p. 21).\textsuperscript{18}

Following this comment, the moderator moved to the next question: “Why has computer science not gained traction in our schools?”

\textsuperscript{17} On a separate occasion, Yadin explained that he utilized a “pinhole” vision to get through the day: “You have these buckets, you make your checklist, and complete it one by one.” Yadin developed coping strategies to get through the day, “brokering” private-public edtech contracts “one by one” despite having his own critical analysis of his everyday work.

\textsuperscript{18} To consider the impact of digital innovation on inequitable labor conditions was tantamount to unbridling the very project of expanding digital technologies and computer science literacies. Fellow panelists did not engage this state leader’s critique even as the trucking industry has undergone a massive de- and re-regulation of labor on capital’s terms and digital advances further threaten to intensify labor precarity in the truck driving industry (Viscelli, 2016).
Regardless of the speaker’s positionality or authority then, critical questions rarely invited a thorough self-critical analysis about the relationship between digital technologies and education (in)equity. This finding resonates with my interview with Laurel when she expressed concerns about digital tools displacing the arts. She admitted that voicing such critiques was “weird because I work at Accelerate-Edu where all we do is technology.” When an organization is governed by the notion, “all we do is technology,” attention to alternate forms of curricula or learning practices are often excluded. These shared concerns reflect the constitutive effects of digital meritocracy, which channels scarce resources in ways that include technical, apolitical concerns, and exclude other cultural-historical and political-economic ones (Ball, 1990).19

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19 Beginning with technology as a solution through which problems are defined tends to obscure inequities and assets within and beyond schooling. For example, housing segregation played a considerable role in the rise of Silicon Valley and enduring inequities of educational and social opportunity. Rothstein (2017) offers a compelling example of state-driven formation of racial inequities in Palo Alto. Not only did the Federal Housing Authority and Veterans Administration refuse to ensure mortgages for African Americans, but racist real estate brokers like Floyd Lowe, then president of the California Real Estate Association, utilized practices of blockbusting to panic white families into selling their homes in Black neighborhoods. Collectively, state governments, local housing associations, banks, and real estate brokers conspired to create a Black slum in East Palo Alto, where separate Black schools were later built to insulate white schools in the surrounding neighborhoods. The racialized construction of place constitutes present inequities evident between East and West Palo Alto. In an ironic turn of events, people of color long excluded from communities beyond East Palo Alto are now the targets of gentrification. Median home values in East Palo Alto are currently $980,000 and have emerged as desirable options for predominantly White and Asian families (Zillow Inc., n.d.a). Attention to state projects of racial formation receive little mention when local barriers to school opportunity are viewed through a “tech lens.”

Yet, Accelerate-Edu also excluded attention to local community assets and decades of resistance among communities of color in Silicon Valley. As one example,
In summary, Accelerate-Edu advanced digital education reforms that reproduced a broader policy discourse intent on personalizing learning and maximizing achievement gains. Attention to the concerns, hopes, and desires of historically marginalized families and youth in Silicon Valley were notably absent from reform action. The next chapter explores digital education reform across the San Francisco Bay in Oakland, California, where place-based discourses of inter-racial solidarity persisted alongside emergent moral discourses of innovation.  

throughout the 1960s, the East Palo Alto Municipal Council pushed back against discriminatory housing practices and lobbied for labor and educational equity, even appealing to President Lyndon B. Johnson (East Palo Alto Municipal Council, n.p.). Attention to such stark inequities is lost amid a theory of change in which “all we do is talk about technology.”  

20 When I first met Mark to conduct an interview, he thought I scheduled an interview to acquire a position at Accelerate-Edu. About five-minutes into the conversation, I restated the purpose of my interview that I had unsuccessfully communicated via email. When Mark realized that the interview pertained to my interests in learning about his work (i.e., not to interview for a job), he laughed and asked to reschedule another time to meet. On my way out of his office, Mark asked where the other digital organization I studied was located. When I responded, “Oakland,” Mark reacted with a confused look: “Why would you go there?” Although parts of Oakland are rapidly gentrifying in ways that are increasingly blurred under the banner of “Greater Silicon Valley,” Oakland maintains a distinctive legacy of undesirability; as evident in Mark’s question and physical reaction. Assumptions about Oakland as a place where innovation does not happen motivated my interest in studying digital education reform across the Bay.
Chapter 3: The Town

“…the Town was always bigger than one person. And it was never about money. The root of Oaktown is love.”

~ Peter Hartlaub, (2017, Nov. 3).
“Origins of Oaktown”

Well I keep on knocking
Well I keep on knocking but I can’t get in
I keep on knocking
Well I keep on knocking but I can’t get in.

~ Fantastic Negrito, (2016)
“Working Poor” from his album The Last Days of Oakland

On a Tuesday afternoon in February 2018, I arrived at the fourth of eight downtown planning meetings designed to develop a community-based vision for Oakland families, youth, and community groups. The community meeting was held at a local arts venue in downtown Oakland that described itself as a space for “practical radical acts of imagination in the heart of downtown Oakland.”

I waited outside for the doors to open and spoke with Chris, a white technology engineer in his 30s, who moved to Oakland a few years ago. We chatted about life in Oakland; local places to eat, traffic, the price of rent. Without asking, Chris added, “But I don’t think only tech people should be able to live here.”

When 5 p.m. approached, members of the downtown Oakland planning department (“the City” hereafter) arrived. I helped to carry Safeway platters of Mediterranean wraps and Kalamata olives into the venue. Approximately 50 people sat in auditorium seats and waited for the community-engagement meeting to begin. Bright pink and orange post-its were stacked at each table with a large poster and planning
“matrix”—a grid for weighing the pros and cons of development strategies—were posted at each table.

Given the constraints of attendance and limited time for input, Isaac, the co-leader of InnovateEquity, chose to forgo an overview of CommunitiTech, a web-based platform that allowed “everyday people” to digitally map community assets and barriers to opportunity. Isaac explained, “If you want to learn more about it, you can see me, Anna, or Alicia.” When Yvan, the workshop facilitator, implored Isaac to provide a quick overview of CommunitiTech, Alfonso, an African American man and local Oakland resident stood and explained, “I can do it. I’ve been here the past three nights.” The room erupted in laughter.

Alfonso launched into his understanding of what CommunitiTech promised to achieve.

CommunitiTech is a digital platform that provides real-time data about street-level experiences… It fills gaps by more standardized data sets that don’t capture how community folks experience the Town.

Isaac nodded along. Alfonso concluded his overview of CommunitiTech by pointing to Alicia and Anna and announcing, “And the real brains behind this is Anna and Alicia!” Alfonso took Isaac’s description of CommunitiTech—and even Isaac’s distinctive way of acknowledging his co-designers and team members—and made it his own. More than a moment of levity, Alfonso’s overview of CommunitiTech reflected exactly what InnovateEquity hoped to achieve: a digital web-based tool that made intuitive sense to local residents, who could then teach other community members to upload their digital stories and participate in local democratic processes.
CommunitiTech enlivened a theory of change that elsewhere, the InnovateEquity team described as, “people-powered place making”: community-driven and community responsive approaches to imagining and re-creating local places to live, learn, work, and play.

This opening vignette offers a glimpse into the distinctive terms, relations, and contexts through which InnovateEquity strove to enact their vision of building power and self-determination in low-income communities and communities of color. Given this overarching aim, InnovateEquity occasionally declined efforts to promote CommunitiTech, particularly when the potential value of digital tools were embedded in questionable and largely undemocratic processes; socio-political tensions I elaborate on later in this chapter. Importantly, InnovateEquity approached digital technologies as one among many means of extending opportunities for minoritized and long marginalized youth and community members, including individuals from disabled, houseless, indigenous, immigrant, youth, multi-lingual, and queer backgrounds and intersections therein.

It is important to note that, for InnovateEquity, education reform was inseparable from questions of economic and environmental justice. This chapter delves into seemingly “non-educational” topics like housing, transportation, and urban design precisely because InnovateEquity deemed these issues as enmeshed in questions of youth opportunity, digital civic engagement, and education reform. Such cross-sector approaches to problematizing education reform reflect Anyon’s (1997) cogent
observation: “Attempting to fix inner city schools without fixing the city in which they are embedded is like trying to clean the air on one side of a screen door” (p. 168). Consequently, this chapter explores how InnovateEquity sought to use digital tools to confront inequitable social and economic policies—such as laws concerning livable wages, adequate health care, and safe housing—which they deemed inseparable from questions about equitable education reform (Anyon, 2005; Berliner, 2006).

This chapter illustrates the cultural work InnovateEquity enacted in seeking to achieve educational, economic, and environmental equity in downtown Oakland. As in my analysis of Accelerate-Edu, I organize this chapter beginning with an attention to how place, policy, and partnerships mediated the cultural work of visioning digital education reform. I argue that InnovateEquity and a broader team of experts I describe as the InnovateEquity Downtown Team (IDT) animated a cultural-historical and political vision of Oakland driven by grassroots community members. Not only did IDT craft a vision that contested an austere development vision of Oakland, but they also envisioned a participatory process that animated legacies of activism and solidarity in downtown Oakland; a place local residents endearingly referred to as “the Town.”

1 In 1987, James Copes branded the slogan, “Oaktown is kickin it” (Hartlaub, 2017, Nov. 3). Copes explained that “he was creating a flavor for our city”; a flavor similar to the nicknames of major cities like the “Big Apple” for New York City or “Motown” for Detroit. Copes wanted a name that signified a love of place given that “Oakland” invoked imagery of crime and drug use. Copes did not patent the name “Oaktown,” which has since been adopted by over a half-dozen local businesses, songwriters and rap artists, and even the professional basketball team, the Golden State Warriors. But Copes expressed little concern over private property rights, and instead, remarked: “I love Oakland with all my heart. The people, the neighborhoods, the community. I’m appreciative that people appreciate the name, the city and the culture and its people. That’s respect. And it can only make us more popular and help to create the flavor and
Digital tools represented one complementary mode of engagement amid grassroots struggles for self-determination and democratic participation.

To achieve this vision, InnovateEquity organized to reform in ways that reflected horizontal and distributed forms of leadership. They recruited cross-sector and interdisciplinary actors who expressed commitments to racial justice. As “equity people”—a phrase leadership and IDT members used to describe themselves—they enacted sociocultural relations that they sought to actualize in the world. Like the copies of Gloria Anzaldúa’s *Borderlands* filtered throughout their shuttered offices, InnovateEquity mediated ways of knowing between groups (such as between community groups and urban planners) and among past, present, and future moments in Oakland.

Yet, the IDT encountered a hostile inter-organizational environment that deeply constrained their efforts to achieve their transformational aims. Section three, *engaging partners* in digital education reform, synthesizes three thematic barriers that the IDT encountered, particularly in their relations with representatives from “the City” and Miami Planning Partners (MPP). These barriers included: (1) competing understandings of “equity”; (2) hierarchical client-consultant relations that minimized a need to sincerely engage the IDT’s input; (3) cycles of delayed payment and micromanaging that one team member described as a process of cyclical inertia, or “revertia.”

Taken together, inter-organizational tensions constrained the abilities of the IDT to

spread the love all over so people will know about Oakland.” I refer to “Oakland” and “the Town” interchangeably and privilege terms that respondents used in distinctive situational contexts.
realize the kinds of transformative digital education reform outcomes they set out to achieve despite internal consistency in values and mission.

Project Contexts and Key Actors

Before delving into the organizing efforts InnovateEquity enacted, an overview of the key actors, organizations, and cultural-political contexts is warranted. In September 2015, the City of Oakland hosted a downtown planning process to develop a vision for downtown development for the next 20 years. When Rachel Flynn, the Director of Planning and Building observed, “There is no housing in crisis in Oakland”—adding that those who cannot afford to remain in Oakland can find roommates—Oakland residents and activists protested the process (BondGraham, 2015 Oct. 7).<sup>2</sup> Carl, a member of the IDT, explained, “We protested the charrette [public design workshop]. That’s how excluded we felt. We attended the first engagement meeting at the Rotunda Building and it was all business and developer community people.”

In reaction to community protests, the City of Oakland halted the process and allocated $200,000 to hire an “equity team” to lead a revised, community-engaged

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<sup>2</sup> Census and housing data compete with Flynn’s observation. At the time of Flynn's statement, BondGraham (2015 Oct. 7) observed, “Oakland's median rent is now $2,650, according to Zillow. Oakland’s median household income is $52,583, according to the US Census. Thus, the median household must spend 60 percent of its total income to rent the median home, considered affordable.” BondGraham elaborated that 60% of household income allocated for median-rent in Oakland represents a percentage twice as high as what the Department of Housing and Urban Development considers affordable.
process for developing a process that centered “social equity” and could yield a more participatory vision for downtown Oakland. The City selected InnovateEquity to lead this process, based in part, on the potential of CommunitiTech as a digital tool for expanding participation and engagement.

As outlined in the introduction, the InnovateEquity team included a small staff of 3 team members, Anna, Alicia, and Isaac. InnovateEquity played a central leadership role in convening the IDT, which included 9 individuals. Collective impact researchers describe organizations like InnovateEquity as, “backbone organizations”: central organizing hubs that lead and align broader collective actions and interactions (Brown, Kania, and Kramer, 2012, p. 2). In practice, the IDT was divided into two teams: the “Power to the People” (P2P) team, which included 5 team members who specialized in community outreach, public engagement, and meeting facilitation; and the “Badass Technical Team” (BAT), which included 4 team members who were racial equity analysts and policy experts. Although I use these sub-divisions sparingly, these internal descriptors reflect the terms and phrases members of the IDT regularly used and offer a glimpse into the relational norms and internal organization of the IDT.

Although successful, the need for such protests and the statements offered by Flynn speak to deep political-economic and empathic divides in Oakland. One community leader succinctly described these contexts by noting, “There’s like two worlds happening simultaneously… and it’s almost like one group, they’re not, is not aware of the other.” Before the revised planning process unfolded, Flynn left her position in the City of Oakland to work for naval base developer, FivePoint: an affiliate of Lennar Corporation, a multibillion-dollar housing company (Li, 2016, Sep. 13). Li (2016, Sep. 13) concludes his report of Flynn drawing on her words, which underscore her inattention to housing inequities. He quotes Flynn remarking, “When reporters call, that’s always the first question: Gentrification. But why don't we talk about the benefits of this growth?”

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The primary inter-organizational collaborators on the downtown Oakland plan included the City of Oakland and Miami Planning Partners. I use the term, “the City” in ways that the InnovateEquity team used the descriptor to signify actors housed primarily within the Urban Planning Department in the City of Oakland. References to the City broadly pertained to two actors: Avery, a middle-aged white woman and urban planner; and Dylan, a middle-aged white man who served as a strategic planning manager for the City. The City was the primary “client” on the downtown Oakland plan that hired IDT as consultants. The City retained the power to review the work of the IDT, to accept or refuse feedback, and to manage payments.

Last, I use the term, “Miami Planning Partners” (and MPP) to refer to the primary development consultant that the City contracted for the downtown planning process. MPP included a team of 6 development and design consultants. A nationally renowned firm, MPP develops “revitalization plans,” which, as they describe on their website, “nurture valuable places where people want to be.” As the lead contractor, MPP received the majority of financial investment from the City and was charged with coordinating consultant teams and synthesizing data from community engagement meetings.4

**Visioning Digital Education Reform**

Founded in 2010, InnovateEquity sought to leverage digital tools to “meet the economic, educational, environmental challenges of the twenty-first century.” For

4 I was unable to locate exact figures of payment for each consulting firm. This difficulty speaks to a general lack of transparency in the City’s budgeting process.
InnovateEquity, educational and social change was not confined to measures of school achievement, but broader questions of meaningful educational and social opportunities. Language drawn from InnovateEquity’s website helps to translate their approach to digital education reform:

We believe that through deep investments in people, place, systems and structures we can fundamentally transform the built environment – heal social and environmental trauma – and provide opportunities for all children and families to reach their full potential.

This community-based approach to problematizing and envisioning educational change emanated from multi-disciplinary fields of expertise at InnovateEquity, including ethnic and gender studies, public health, environmental studies, and education. Although not opposed to promoting student achievement, InnovateEquity was primarily interested in promoting broader youth civic engagement designed to develop organizing power and critical consciousness among historically excluded youth and youth of color.

In theory, CommunitiTech provided a way for InnovateEquity to bridge traditionally siloed conversations across educational, economic, and environmental concerns by beginning with how youth experienced their local contexts. For InnovateEquity, young people do not experience their education lives as distinct from their economic and environmental realities; they live intersectional and dynamic lives. Consequently, CommunitiTech offered a digital means for grasping the “everyday experiences” among youth in an integrated, participatory, and holistic way. In this sense, digital technologies afforded a way to digitally curate the hopes, aspirations,
and concerns of “everyday people” and mobilize local organizing movements for social and educational transformation.

**Problematizing a Planning Perspective**

Across their projects, InnovateEquity problematized what they termed “the social determinants of educational outcomes”: intersectional structures of inequality, including gender, race, class, sex, and ability that constrained educational opportunities and outcomes. In partnership with the IDT, they applied this framework to an analysis of the original downtown plan constructed by MPP.

The IDT regarded the original downtown plan as a “desktop economic analysis” that obscured vulnerable populations, especially Black people, in education and housing statistics and maps. Carl described the original plan as a “lab coat” approach to understanding urban space, which relied on national data sets and obscured a qualitative sense of the culture, history, and vibrancy of the Town. He added, “The plan assumes there is nothing here already. It’s like someone parachuting from afar trying to tell us about the city we live in.” Isaac echoed, “Everything is a built description, not about how the civic space is used… There’s no sense of soul, history, culture [in the plan].”

The IDT added that even when MPP integrated qualitative data, such instances were superficial and decontextualized. “I’ve highlighted a bunch of things that just don’t mean anything,” Heather, a media and engagement strategist on the IDT team, explained. Heather identified terms like “art,” “history,” “culture,” and “diversity” that, from her perspective, MPP inserted in ways that were unmoored from a cultural-
political understanding of the culture and history in Oakland. These findings resonate with Dávila’s (2004) ethnography of development projects in El Barrio (East Harlem), which documents how urban planners articulated culture toward economic development projects by creating a “marketable ethnicity” (p. 24). Taken together, the team asked: What kind of art? Whose culture? Whose history ought to be preserved?

Similarly, the IDT found a word cloud MPP constructed particularly troubling given that the image glossed over distinctive challenges and barriers that were also a part of the Town. The word cloud represented the most frequent words participants used in response to the prompt, “What is one word that describes your hopes for the future of Oakland?” The word cloud included terms like, “Vibrant,” “Active,” “Diversity,” “Beautiful,” “Thriving,” “Inclusion.” Although these terms reflected the actual words of community participants, they minimized deeper efforts to garner a qualitative, lived experience of downtown places. Further, terms like “densification” and “net positive” raised questions about who exactly attended the original engagement meetings. Carl captured the collective sentiment of the IDT well when he observed, “The problem with MPP is that they have zero knowledge of Oakland as a city. They have statistics, but do not know the people.” Eli, another member of the IDT observed that through the lens of MPP, downtown Oakland emerged as a “west coast version of Miami.”

Such thin understandings of Oakland yielded a narrow vision for what Oakland might become. Again the words of Carl were helpful in distilling the broader IDT’s perspectives of the original downtown plan:
The plan assumes we are either going to have a gentrified Oakland, or we can stay where we are. But there’s a third way. Our way, transformative change. Applying the entire process through an equity framework.

For the IDT, “transformative change” entailed a community-based process for devising a more just and fair vision of downtown Oakland. Rather than impose their own vision for downtown Oakland, the IDT discussed extended channels for participatory planning that engaged most marginalized Oaklanders as experts of their own lived experiences.

‘A Vision that is Half-Complete’

For the IDT, “apply[ing] the entire process through an equity framework” entailed a two-fold effort: (1) a technical analysis of environmental, economic, and educational barriers in downtown Oakland with an explicit (though not exclusive) attention to racial disparities; and (2) creative efforts to engage most marginalized members of the downtown Oakland community to guide technical concerns. In theory, these bi-focal efforts would guide the IDT’s understanding of issues that members of most marginalized communities cared about and deemed most urgent, while simultaneously fostering trust and organizing power among local residents to then hold the City accountable for implementing the plan beyond the conclusion of the planning process. As one example, the IDT team synthesized technical data on housing insecurity, which indicated African-Americans accounted for nearly two thirds of downtown Oakland residents without homes even though African Americans constituting only one quarter of downtown Oakland’s population. The IDT team identified and engaged local Black leaders to gather their interpretations of these
statistics and to elevate community-based visions for reform projects already underway and that could potentially be integrated into a city-wide plan. This example illustrates the team’s place- and asset-based approach to crafting a participatory vision for downtown Oakland.

In terms of their organizing process, the IDT repeatedly insisted on the incompleteness of this working vision. As Anna reminded the team during one internal meeting: “We’re coming to community with a vision that is half-complete”; the other “half” of this vision, depended on the perspectives of those the IDT sought to engage, namely, individuals from groups and communities historically excluded from democratic processes. In addition to envisioning who to engage, the IDT discussed how they imagined engaging a vast cross-section of groups in the Town. The team proposed an array of ‘creative engagement’ strategies, such as “pop up” engagements at local farmers markets and events; place-based engagements in familiar neighborhood settings like recreational or community centers; collaborations with local artists to develop culturally-relevant posters and flyers to distribute throughout downtown; and even beautifying tin trashcans as a means of extending public excitement and energy around the downtown planning process.

But recruiting Oaklanders to participate in a downtown planning process was only part of the challenge. Another critical task the IDT invested considerable time and energy entailed designing culturally relevant pedagogies for community members to interpret existing data, dialogue with others, and meaningfully communicate their vision for downtown Oakland in ways that the City and MPP could understand. The
IDT designed community engagements that reflected the maxim of “minimal reporting and maximum conversation.” Heather offered one example of a creative approach to solicit feedback among community residents that reflected this principle and attended to multiple learning modalities and literacies:

Why don’t we bring in some fun sparkly hearts and stars [for youth and community members] to add what they’re really proud of in their community in a more playful way. Getting at desire lines… non-language ways to interact with maps that are all age appropriate. Or we could also have people make their own postcards. Use double-sided postcard stock as a way of capturing what they find sacred in their neighborhood… more of a treasure. And on the other side, something that’s challenging. It’s another non-written approach to design.

These multilingual and multiliteracy approaches to crafting community-driven problematizations and “desire lines” of social change draw affinities to critical pedagogies Paulo Freire developed. Freire utilized symbolic codifications to re-present social worlds to Brazilian peasants and to invite them to critically understand social worlds in order to articulate and act to transform those very worlds (Brown, 1978). Heather’s suggestions elaborate assumptions evident in a desire tradition of educational research that approaches place as constrained by structural inequities and as a place rich in cultural assets (Green, 2016; Tuck, 2009).

As evident in the kinds of tools and pedagogies the IDT prioritized, much of their vision-setting work reflected a reluctance to frame their work through the lens of what digital technologies might solve. Attention to non-digital practices were a common dimension of the IDT’s iterative and participatory approach to identifying problems and co-developing solutions. At one event, I overheard Anna mention to a few community members: “We know technology isn’t the solution, but it can be a part
of it.” InnovateEquity spoke of their work as “leveraging cutting-edge technology,” but simultaneously resisted tendencies to simplify complex processes of urban change through a technical or technological lens (Sims, 2017). Further, their reluctance appreciated inherently messy and unpredictable aspects of development processes (Li, 2007). For InnovateEquity, digital technology was not a solution through which problems in Oakland emerged, but rather, a complementary means through which the IDT might better understand what community members experienced and desired to see in the future of the Town.5

Civic technologies. When I first spoke with InnovateEquity over the phone, I expressed my research interests in studying “edtech.” Isaac clarified that much of what they did pertains to “civic tech”: digital means of engaging youth and community members in civic processes of community and school transformation. InnovateEquity designed CommunitiTech by beginning with the digital know how and everyday cultural practices among youth and community members in formal and non-formal educational settings. For InnovateEquity, learning was less about achievement and more about developing what Cahill (2000) terms, “street literacy”: experiential forms of knowledge production and self-construction rooted in young people’s developing critical analyses of public space. Like Cahill, InnovateEquity privileged the collective

5 InnovateEquity enacted practices that rejected modernist, linear, rational orderings of time and space. This refusal resonates with what Popkewitz (2008) and Pettersson, Olsson, and Popkewitz (2007) document in their analysis of standard approaches that attempt to control and rationally organize for the future. For InnovateEquity, a vision of the future was not something that could be pinned down, or even fully planned (even within the contexts of a planning process). They constructed a vision of the future that was contingent and permanently open to revision.
wisdom of youth whose knowleges are often excluded in school curricula or urban reform processes. But InnovateEquity also envisioned CommunitiTech as a way to facilitate ongoing dialogue among youth and community residents outside of formal democratic processes. For InnovateEquity, civic technologies were not confined to formal ballot measure or state initiatives, but included the development of an emergent critical understanding of power, the built environment, and young people’s capacities to change their neighborhood conditions (Akom, Shah, Nakai, Cruz, 2016; Mitchell & Elwood, 2012).

Informed by these values and sensibilities, InnovateEquity designed CommunitiTech: a web-based platform that invited youth and community members to digitally “map the boundaries of their communities” through text, video, or audio. CommunitiTech represented a digital means for curating a qualitative, community-grounded sense of the “good stuff” (community assets), “bad stuff” (local barriers), and “fix stuff” (grassroots aspirations) that young people experienced within and across distinctive neighborhoods. A few examples help to concretize how Oakland youth and residents utilized CommunitiTech within the contexts of the downtown planning process. One entry identified Youth Radio as “good stuff.” The participant uploaded a photo of the nonprofit organization and noted: “This is a great center that focuses on engaging youth! Its [sic] interactive and has a variety of programs and resources that students can access.” Another CommunitiTech user flagged “bad stuff” and noted that

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6 InnovateEquity adopted this typology based on what residents communicated as most intuitive.
along 10th and Webster there were often broken car windows. Another user created a “fix stuff” entry at the corner of 17th and Alice Street: “I walk here every day and cars almost never stop for the cross walk. Add a stop sign on 17th.” These examples offer a glimpse into how CommunitiTech facilitated open, shared, and community-driven data designed to co-construct a vision of urban transformation.

A key dimension of CommunitiTech also entailed equitable access. When a housing rights advocate asked how much CommunitiTech would cost residents, Anna explained that it was “Free for everyday people, always and forever.” Aware of inequities in access to hardware, InnovateEquity also designed CommunitiTech as a web-based platform so that community residents did not need cell phones to participate. Instead, civic users could visit public libraries and other community-based digital access points to participate. InnovateEquity even explored ways to use paper maps with quick response (QR) codes to integrate analog data with digital platforms. Last, and particularly important in the contexts of downtown Oakland, InnovateEquity designed CommunitiTech to be available in five languages (Chinese, Korean, Vietnamese, Spanish, English).

The origin story of CommunitiTech is also illustrative. When I asked the InnovateEquity team to explain how the idea for CommunitiTech emerged, Anna recounted a youth participatory action research (YPAR) project she and Isaac were working on. Anna explained that youth and community members felt that clipboards made them stand out in local community contexts. Youth and community co-researchers began talking into their phones and taking pictures to avoid sending a “distancing” message to neighbors and local residents. When Anna and Isaac discovered there were no digital tools for aggregating digital community stories, they developed CommunitiTech. Since then, CommunitiTech has combined new geo-mapping technologies, and based on user-feedback, an enhanced web-based platform.
Taken together, the IDT’s efforts enlivened a long-standing tradition in Oakland as a “people’s city”: a town governed and managed according to social, economic, and educational priorities set forth by everyday people (Self, 2000, p. 770). CommunitiTech represented one tool in a broader political process of (re)making place. The IDT envisioned using digital and nondigital means to construct a more robust downtown plan that better represented the cultural vibrancy, history, assets, and barriers in the Town as experienced by local Oaklanders.

**Situating the Work of Visioning Reform: Place, Policy, and Activism**

Cultural and historical legacies of Oakland as a place of grassroots resistance animated how the IDT approached their work. Several scholars situate a collective orientation to social change within a distinctly Black radical tradition, which rejects individual theories of change in favor of collective pursuits of liberation (Dawson, 2003; Lipsitz, 2011). Reflective of these accounts, the IDT drew on these and place-based legacies of “collective striving” to displace discourses of digital meritocracy and articulate digital tools toward the possibilities of learning for collective neighborhood empowerment.

‘Collective striving’ as a moral discourse in the Town. In addition to denoting a physical location, “Oakland” signified a collective way of being rooted in

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8 Ewing (2018) cites political scientist, Michael Dawson, to elaborate on a collective sense of Black struggle in Bronzeville, Chicago. Dawson argues that for many Black people, “the advancement of the self, the liberation of the self, is a meaningless concept outside the context of one’s community” (Ewing, 2018, p. 128)
histories of inter-racial solidarity. These commitments were evident in the ways that members of the IDT articulated their personal and professional reasons for working on the downtown planning project. Elena, an IDT member, mother of two, and longtime resident of Oakland explained, “this is very much a place that I want to see grow and to be supportive of one of its greatest assets, which is its diverse people and diverse racially, ethnically, culturally, and economically.” Similarly, Carl stressed the value of culture, food, and people in Oakland:

> As a person of color, as a resident of Oakland, as someone who appreciates and enjoys cultural diversity and multiculturalism, I really like the fact that within 5 blocks of my house, I can probably get 10 different types of cuisine. And I enjoy interacting with people from different cultures and the shared learning experiences that happen.

Like Carl, Eddie, a team member from the Chinatown community enlivened Oakland-based legacies of multicultural solidarity. He elaborated on what Carl briefly mentioned as, “shared learning experiences that happen”:

[...] for Oakland in general, our strength is, you know our diversity… and diversity more than just like different restaurants and different public arts, but just really an expression of different viewpoints and cultures and being able to you know, um… not just like tolerate each other, or co-exist together, but really grow together as a community.

When I asked Eddie what he valued most about working with the IDT, he identified moments of racial solidarity that Carl and others expressed. As Eddie put it, when other non-Asian team members paused discussion to state, “Hey, what about stuff going down in Chinatown,” it reflected the very best of Oakland. He added, “From a City standpoint, they need to hear it not just from the Asian guy, or the guy who works in
In this sense, Oakland as a place was actively made in and through expressions of co-existence and collective thriving (Irby, 2015).

Fieldnote observations of downtown Oakland corroborated these narrative representations of the Town as a place rich in diversity and collective thriving. During my 1-mile walk to InnovateEquity’s downtown offices, I passed the African American Museum Library, Uncle Willie’s Original BBQ Fish, Yen’s Cleaners, and Bhugay’s Katsu Curry. During midday lunch hours, I would often observe people carrying “Thank you” take-out bags underscored with Chinese characters and pass young Black men congregating at Frank Ogawa Plaza playing music from a loud-speaker. Graffiti art strewn throughout the Town depicting multicultural musicians, artists, community leaders, and labor organizers also symbolically constructed the Town in ways that evidenced values of collective thriving. This was the very “sense of soul, history, culture” that the IDT found missing in MPP’s original vision for downtown Oakland.9

In addition to the IDT, local community leaders from youth organizing, small businesses, and cultural arts centers also invoked a sense of Oakland as a distinctive place of shared struggle.10 One community leader shared, “You know what makes

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9 In *Blues city: A walk in Oakland*, Reed (2007) describes the Town this way: “Oakland is a city where identities blur. Where one encounters hip-hop dancers at a festival in Chinatown; where the mistress of ceremonies at a Kwanzaa celebration is a white woman in Yoruba dress; where, perhaps less surprising, about a fifth of the audience at a Native American powwow is black” (pp. 26-27). The principles of Kwanzaa, a celebration of the African diaspora, also reflect this broader sense of collectivity in Oakland. These principles include, Umoja (unity), Kujichagulia (self-determination); Ujima (collective work), Ujamaa (supporting black businesses), Nia (purpose), and Kuumba (creativity).

10 These 18 interviews of local community leaders were led by the P2P team and were made publicly available as a way to extend engagement and invitations to community
Oakland special really is our commitment to everyone, right, to being all inclusive and making sure that everyone’s at the table.” She tied this “commitment to everyone” to legacies of inter-racial solidarity and the Black Panther Party. Another community leader described Oakland in poetic prose: “Oakland means home. Oakland means culture. Oakland means determination. Oakland means solidarity.” This community leader’s statement echoes what Self (2000) emphasized in his historical analysis of Oakland. Self writes against interpretations of the Movement for Black Power as an unplanned reaction to the Civil Rights movement and distills the collective and tactical organizing that Black organizers in Oakland implemented to challenge a white, suburban, and individualist orientation toward property rights (e.g., Proposition 13 – People’s Initiative to Limit Property Taxation), urban disinvestment, and policy brutality (c.f., Murch, 2000). Elsewhere, Self (2005) describes Oakland as, “a kind of

members. As a participant-observer, I helped to facilitate and transcribe these interviews for the team to use as a part of their communications strategy. Interviews asked community leaders to respond to the following questions: What does Oakland mean to you? What are your thoughts on what is going on in downtown Oakland right now? What is your vision for the future of downtown? How could downtown better serve you? When you think of equity in Oakland what comes to mind? What changes would you suggest to improve the social, racial, and economic equity in downtown Oakland?

11 Murch (2000) traces cultural legacies of Oakland solidarity to the Second Great Migration (1940 to 1970) in which more than 5 million African Americans resettled from the South to the Northeast, Midwest, and West in search of better political, economic, and social opportunities. Factors motivating the Second Great Migration reveal the historic role of technology in the displacement of Black people. In addition to “pull factors” that recruited black migrants to the north—such as new economic opportunities made possible by northern employers, which were also a reflection of more restrictive immigration policies—Tolnay (2003) argues that “push factors” like behavioral restrictions of Jim Crow laws, poor school opportunities, and racial violence also motivated migration. But a lesser cited “push factor” includes technological advances in farm mechanization, which reorganized southern agriculture and displaced
national Mecca of radical black nationalism” (p. 760) and traces a broader history of collective struggle perhaps tacitly underpinning community leaders articulated by stating: “Oakland means solidarity.”

Community leaders also distinguished Oakland from the Bay Area in ways that elevated a distinctive flavor and sense of place in Oakland. Take this community leader’s words for example:

You can live in any city in the Bay Area, you can work in any city, you can bring business to any city in the Bay Area. The Bay Area has great weather, the Bay Area has diversity, but *what it really means to be an Oaklander, to live, work, play, and thrive in this city is a commitment to equity. It is a commitment to a collective striving towards equity and towards inclusivity.* (my emphasis)

Beyond celebrations of diverse foods or holidays, what it “really means to be an Oaklander” was to engage in efforts rooted in a commitment to equity and collective thriving. Another community leader who supported local survivors of sex trafficking similarly framed the challenges and opportunities of downtown Oakland in terms of a collective struggle. She stated,

We collectively got into this mess, and we collectively marginalized and locked out certain people, and so we have to realize that it’s all of our mistake, and it’s all of our issue, and it has to be all of our love and effort together in order to correct the problem.

For community leaders, the essence of Oakland—“what it really means to be an Oaklander”—is about a commitment to solidarity; what Taylor (2016) defines as, “standing in unity with people even when you have not personally experienced their

large numbers of Black tenant farmers (c.f., Fligstein, 1981). Technology then, has been constitutive of the displacement of Black people for centuries; a point I take up in Chapter 4 by investigating the entanglements of race, place, and digital technologies.
particular oppression” (p. 215).12 These views afforded discursive resources for the IDT to trouble prevailing policy discourses associated with digital meritocracy and outline alternative options for digital education reform action (Dumas, Dixson, Mayorga, 2016).

Re-articulating digital meritocracy. I found little evidence of talk or practices associated with digital meritocracy during my 13 months of fieldwork with the IDT. Rather than develop digital tools to “personalize” learning for “everywhere” opportunities, InnovateEquity designed digital tools in ways that animated critical analyses of structural barriers in distinctive place-based settings. The IDT was less interested in individualized solutions for youth to climb social ladders, and instead, invited young people into shared and intergenerational forms of critique and neighborhood organizing (Chang, 2019a). Such approaches mirrored what Lipsitz (2015) describes as critical pedagogies that aim to foster, “Students who lead, not students who leave” their communities (Lipsitz, 2015).

When digital technologies are used to support forms of collective, place-based, and politically engaged forms of learning, mentions of “technology” were not uttered

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12 Additional examples are also illustrative. One community leader quoted Margaret Atwood—“Better never means better for everyone”—to describe how she felt about the current status of Oakland. She elaborated, “And that’s how I feel about Oakland. I’m worried that it’s going to be better for big corporations and for that to be at the expense of people that have lived here for generations and are slowly seeing their hope for what’s better diminish. Another community leader put this plainly, “I just hope that we can all stay here.” As a place of collective thriving and struggle, Oakland represented a town in which individuals seemed less concerned with individual fates (e.g., whether “I” can stay here) and instead to collective striving; that is, whether “we can all stay here.”
without critique. For instance, the IDT and community leaders often spoke candidly about their fears and even abhorrence for “tech companies.” When I first asked Anna to describe the impetus for the revamped downtown planning process, she explained, “There’s a lot of fear about what you see in alternative reports… condos going to bring in tech companies and continue displacement prices.” Similarly, and in response to a shared reading of “12 Ways not to be a Gentrifier,” Carl slyly explained: “Well, number one [way to not be a gentrifier] is don’t work for a tech company.” Unmoored from discourses of innovation and couched in place-based legacies that expressed shared commitments to equity, digital technologies enabled and constrained the expansion of social and educational opportunities. In this sense, InnovateEquity explored alternative career paths for youth that still utilized digital tools, but that oriented such tools to addressing, rather than exacerbating structural inequities.

Local community leaders and housing advocates also expressed disdain for tech companies. One Chinatown activist explained, “We are looking into policies that require retail companies to re-invest a percentage of earnings back into Chinatown… that way, technology companies can’t buy up property in our neighborhood.” Youth attending a Chinatown community engagement also stressed a need to preserve local nonprofits and guard against “tech companies that are pushing people out.” These anecdotal observations resonated with rapid housing prices. In Oakland alone, median home values rose from $390 million to $760 million between 2009 and 2019 (Zillow Inc., n.d.b), paralleling surges in growth among high-tech investors in Silicon Valley. To reiterate, rather than a liberatory tool to prepare youth for the so-called twenty-first
century (Moe & Chubb, 2009), “technology” signified both possibilities and a threat to place and community.

On other occasions, the IDT and community leaders expressed disdain for “everywhere” aspirations, which diminished a distinctive sense of downtown Oakland. In fact, the IDT branded the revamped downtown planning process using the byline, “Keeping the town in downtown.” According to Carl, “When you do something that is local it’s called, ‘Town business.’ It’s Oakland-y... there’s a baked in sense of authenticity without being over the top gritty and grimy.” This slogan signaled IDT’s awareness of and intention to resist gentrification in order to preserve local assets in the Town—even if this meant resisting the expansion of a high-tech economy.13

Commitments to local Town politics were also rooted in historical precedent. When Mayor Jerry Brown announced his “elegant density” plan in 1999, he set forth a vision of what Oakland might become and remarked, “Instead of a vision of Pleasanton, we could have a vision of Manhattan. In fact, at one meeting, I said, ‘Think Hong Kong’” (Reed, 2007, p. 21). Community activists met Brown’s proposal with organized resistance. There was little desire to “revitalize” Oakland in ways that emulated a white, suburban culture of Pleasanton, a wall street ethos of Manhattan, or a global business environment of Hong Kong. Black ministers and community leaders chanted in the streets, “We are the people” (Walsh, 1999, June 23); a protest slogan that re-centered

13 Other bylines are also illustrative. The team considered, “Putting the town in downtown,” “People first,” and “People first in da town.” These options reflected the IDT’s efforts to guide urban planners who, according to Elena, “think about the built environment without thinking about people.” But the team ultimately favored “Keeping the town in downtown” since the byline evoked resistance to gentrification.
the actual people living in downtown Oakland, who were invisibilized in Brown’s rush to render Oakland available global financial and real-estate investors.¹⁴

By contrast, community leaders animated cultural-historical legacies that elevated affective and emotional ties to place. One community leader explained:

We have a lot of dreamers here in Oakland. But you know, I think that the mishmash of cultures and peoples is what makes Oakland special and the people of Oakland are really what Oakland is, right? People talk to each other, people say hello on the street, right? It feels like a town even though you know, we’re over 400,000 people. Feels like a town, that’s why we call it “the Town.”

More than an emblem emblazoned on the Golden State Warriors’ jersey, allusions to “the Town” invoked a commitment to local people and places. Another community leader emphasized local strategies for the Town that enlivened a local politics of place. Her vision for the future Oakland sought to recover a raw, grittier version of “old Oakland.”

That was more raw… it was more back to, you know, people skating in the middle of the street, having fun, closing down Telegraph and having bands down there. Having more things with different ethnicities involved and allowing their culture to shine, rather than stopping drum circles at Lake Merritt. Things like that would bring back more social atmosphere for

¹⁴ Brown ultimately succeeded in passing his 10K plan despite local activism. The 10K plan offers insight into city efforts to re-narrate Oakland in ways that were attractive to investors and that tended to diminish attention to longtime community groups and residents in Oakland. Recent estimates suggest that approximately 5,000 people moved into Oakland as a part of construction contracts tied to Brown’s 10K plan (Temple, 2009, July 12). But beyond physical construction, the plan marked an initial turn toward development-friendly processes captured best by Michael Covarrubias, chief executive officer of TMG Partners, who remarked: “Mayor Brown's posture was, come to Oakland, we’ll get it (approved) overnight.” This historical context represented a looming specter throughout the downtown planning process, as residents, community leaders, and members of the IDT questioned exactly what they could control in an effort to foster a community-driven vision of downtown Oakland.
Downtown Oakland. More of the urban setting that it used to have… The rawness of Oakland.

Preserving the “rawness” of Oakland entailed devising strategies to sustain a way of knowing and being unique to Oakland. When this community leader mentioned “stopping drum circles at Lake Merritt,” she referenced a 2015 incident in which a white resident called the Oakland Police Department on SambaFunk!, a Black artistic group who drummed at Lake Merritt, a public park on the eastern flank of downtown (Levin, 2015, Sept. 29). Moments such as these reveal how place is not static but practiced and made. Thus, “Keeping the town in downtown” entailed protecting physical places but also the cultural rituals and practices distinctive to the Town.

In summary, the IDT displaced policy discourses of digital meritocracy in ways that drew on collective ideas of place-based thriving. Attention to global horizons of possibility did not emerge at the expense of local, place-based struggles, but rather, connected distinctive struggles across distant lands and seas. Although my analysis of CommunitiTech is specific to Oakland, InnovateEquity worked with national and international communities in ways that animated Huey Newton’s notion of “intercommunalism”: “a way of thinking outside of structures of nations, and instead, forging solidarities between communities, including the Black people of Oakland and the Vietnamese” (Murch, 2010, p. 193). Rather than redress perceived deficits within individual children, CommunitiTech enlivened a distinctly Oakland-based legacy that

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15 Lake Merritt is also home to the controversial barbeque confrontation in which a white woman called the police on a Black family barbequing at 4:30 p.m. The event sparked community protests against the policing of Black families (Asperin, 2018, May 15).
aspired “to strengthen the power of individual neighborhoods and enable them to assume a larger share in decision-making” (Murch, 2010, p. 194).

Organizing to Reform

“People on the computer, you’re missing really good food,” Isaac announced. Laughter and chatter of team members dialing into the IDT meeting echoed from Anna’s computer. I was seated across from Anna and could barely see the top edge of her laptop. Babybel cheese, a box of Triscuits, turkey jerky, half a blueberry pie, baby carrots, and snap peas were piled on the table in front of her. Anna held up a bowl of curry to the computer screen with a smile and passed it to Elena, another IDT member, who was seated next to her.

The purpose of the internal IDT meeting was to address unanticipated barriers working with the City. Elena recapped her understanding of the obstacles preventing a more effective collaboration with the City: “There were a lot of invisible assumptions that we all had about goals, outcomes, strategies on getting there... Once surfaced, we can help align them.” Elena moved toward the whiteboard and drew two separate columns with the headers: “priority outcomes” and “actions.”

“We can’t see the board,” a voice chimed in from the online conference.

“Anna, can you Vanna White this for us?” Elena requested in a joking tone.

“It’s impossible for Anna to Vanna White this…” Isaac added jokingly, calling attention to Anna’s race.

The team laughed as Anna gave the IDT her best Wheel of Fortune-inspired Vanna White impression, holding her laptop in her left hand and gesturing to the white board with her right hand.
After the team brainstormed priority outcomes, Elena facilitated a quick round-robin where each member of the team commented on actions we are currently doing that are leading to a dead ends and actions that we need to prioritize moving ahead. Yvan expressed a need to change the City’s processes in ways that emphasized listening. Alicia suggested that we prioritize small scale, creative forms of engagement that can build trust between community members and the City. When Elena turned to me, I resurfaced an earlier point the IDT had discussed regarding a need to clarify the relationship between community engagement and decision-making power.¹⁶

Later in the meeting, Rachel, a white racial equity policy expert, accidentally mixed-up Carl’s and Isaac’s names. Isaac quickly countered, “It’s because we all look the same, don’t we?” The room and online discussion platform erupted in laughter.

This anecdote offers a glimpse into the internal organizational norms, roles, and structures within the IDT. InnovateEquity convened the team to work, but also to eat, deepen relationships, and enjoy the labor of organizing for community change.¹⁷

¹⁶ Group norms that stressed equitable participation placed new demands on my researcher positionality. Although defined by much awkwardness during the initial stages of fieldwork, over time, I unlearned positivist norms of non-participation and adapted to the distinctive relational norms the IDT organized. As in this example, one way I participated was by resurfacing prior conversations that were relevant to the topic at hand. Instead of trying to be “objective,” I sought to acknowledge how my presence shaped what was said or unsaid, while also participating in ways that re-surfaced members’ meanings.

¹⁷ Wary of stretching micro details and macro historical narratives, this moment too, is resonant with the values of the Black Panthers and their “A Chicken in Every Bag” campaign, which offered free food, education, and medical care to black communities in Oakland (Murch, 2010, p. 202). From this perspective, activism and organizing were not distinct from holistic attention to people’s lives.
Notably, explicit attention to race was not only a dimension of how the IDT analyzed social and educational problems, but a way of engaging with each other. Commitments to ongoing self-critique and open disagreement were also norms of collaboration.

In this section, I discuss the internal organization of InnovateEquity and the IDT. Although these structures and roles were shaped by the organizational environment and interactions with the City, I emphasize three ways in which the values and interests of InnovateEquity leadership informed internal organizational roles and structures. These include: (1) the IDT’s self-identifications as “equity people”; (2) horizontal structures of participation and accountability; and (3) commitments to mediating grassroots perspectives by adopting a “policy to pavement” approach. I illustrate how equity was interwoven throughout these structures, or regularized patterns of action and interaction (Scott, 2003).

‘We Are Equity People’

Members of the IDT invoked “equity” to describe their personal and professional identities and to craft an organizational identity. By “equity” the team expressed a political stance that interpreted fairness as allocating “unequal resources for unequal needs.” They defined equity in contradistinction to “equality” which reflected the principle of “the same resources for everybody.” Interestingly, the IDT rarely defined equity within internal team meetings; an omission that suggests “equity” functioned as a given, taken-for-granted framework of meaning among team members (Colyvas & Powell, 2006). Instead, explicit definitions of equity took place during interviews and meetings that the IDT participated with the City and MPP. For example,
on one occasion Isaac explained his interest in fairly compensating artists of color who supported the IDT in developing a logo by stating, “We are equity people.” Isaac added that it was a priority important to maintain relations with local artists and ensure that they did not feel exploited in the process of participating in the downtown planning.

When I asked Isaac to elaborate on what he meant by this statement during a focus group interview, Isaac stated, “We infuse equity in everything we do,” including how decisions are made on who to collaborate with, how to design community engagement strategies, and how to allocate finite resources as a nonprofit. This commitment to imbuing equity in the everyday work of InnovateEquity reflects how Selznick (1948) defines institutionalization as the practice of infusing organizational structures with value.

Fieldnote observations of the IDT talk and practice during community meetings offered additional insight into how the team infused equity in organizational roles and structures. When speaking to a group of community leaders, Isaac described his personal, rather than professional investments in a more equitable downtown.

I think one the most important things about my personal identity is that like some of those in this room, I too have been evicted…. I experienced eviction here in Oakland 10 years ago, before it got hot hot. Came back on Christmas, to my apartment at the time… on the door, ‘You need to be out in X-number of weeks.’ Right, so I was like…

Isaac paused, dropped both hands below his waist with his palms facing toward the audience, and widened his eyes and jaw. He continued,

So I was pissed. And most recently, our nonprofit, we started right next to the SROs [single room occupancy]. Five years later, that became really hot and we were displaced. My point in sharing that with all of you is we’re not just going through… jumping the hoops with you. This is lived experience.
Several participants nodded in ways that suggested a shared understanding of displacement. In this moment, what it meant to be “equity people” then entailed enacting vulnerability and articulating a shared narrative of inequities in downtown Oakland. This was not “jumping the hoops” as a way to profit off a community design process but a professional and personal effort to accompany the most marginalized in surviving and thriving in downtown Oakland.

Other team members also expressed personal motivations for participating in the downtown planning process. At a different community meeting, Yvan introduced himself this way,

I’m a West Oakland resident. I’ve seen my neighborhood change rapidly. I cry every time I pass an encampment because I think people shouldn’t be living like that and we gotta be doing better as a city.

Like Isaac, Yvan enacted a professional sense of what it meant to be an “equity person.” Professional work was largely inseparable from personal anguish of witnessing inequities in his own community.

Likewise, Roxy, another IDT member, led a group discussion on technical equity indicators in Oakland. She pointed to a map of new developments in downtown Oakland but paused to offer this aside:

As someone who was born and raised in Oakland, there were things in stores that were vacant as long as I can remember, and it’s exciting that those stores are now being built. But I also understand from firsthand experience that the pace of development can also be a little scary. It makes you wonder, ‘Is the city changing without me? Am I going to be able to afford to live here?’

Roxy described her own fears in ways that added a qualitative, lived understanding to the somewhat austere bar graphs of displacement patterns she was professionally
equipped to discuss. What it meant to be “equity people” for the IDT entailed translating personal and political commitments into professional practices oriented toward redressing historical injustices and providing “unequal resources for unequal needs.”

‘Jazz It Out with Me’

In addition to enacting identities as “equity people,” InnovateEquity infused equity into organizational structures by creating and sustaining horizontal structures of collaboration and participation. Isaac often invoked metaphors of jazz and invited fellow team members and community participants to build on, critique, and revise ideas he contributed to group discussions. On repeated occasions, Isaac would invite others to “jazz it out with me.” Metaphors of jazz animated relational dynamics that were improvisational and fluid.18 Equity emerged through these practices in its intentional ways of including perspectives of those traditionally silenced. Examples included

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18 Related scholarly invocations of jazz are instructive. Ginwright (2010) draws on jazz as a metaphor to describe collaborative knowledge generation: “Good scientific work, then, just as in jazz, should both inform and inspire, and in its doing so, we pose new questions, challenge assumptions, and ultimately move together in an entirely different direction” (my emphasis, p. 21). Similarly, Lipsitz (2016, June 30) observes, “Jazz music has no final chord,” and as a music genre, invites the audience to “think beyond the end of the song.” Community-based anthropologist, Michael Montoya, riffed on Lipsitz’s concept of jazz to develop his own interpretation of engaged scholarship. I quote his understanding of jazz at length, as it offers an illustrative account of relational dynamics evident among members of the IDT. Montoya explained, “Somebody has a song they’re doing, and you come in and you’re the accompanist. You’re not leading, you might have a chance for your riff in jazz, your solo piece to add to the gestalt of the music, but your job is to lift up what’s going on there. You’re not holding the melody line all the time—sometimes you might, sometimes you might play the baseline, but you’re accompanying and together you are making the song better than it would be if you played it alone. Together it is a much richer piece of art” (Chang, 2015, Jan).
conversational turn-taking patterns, shared interrogations of individual and group assumptions, extending formal group conversations from team meetings into text message threads—what Anna jokingly referred to as “hotline bling.”

In addition to metaphors of jazz, Isaac cited the African principle of ubuntu—“I am because you are”—as one of the defining features of InnovateEquity. Ubuntu was engrained in the design of meetings InnovateEquity facilitated that considered the holistic health and well-being of participating team members and collaborators. Ubuntu was also evident in meeting norms that allocated additional time to support team members with urgent or frustrating tasks, such as several occasions in which Carl struggled to acquire City approval for community blog posts. The team postponed other urgent tasks to support Carl in devising a collective appeal to the City to ensure he could accomplish his media engagement tasks.

Ubuntu philosophy also informed the organizational roles that IDT members assumed. Leaders engaged in labor that might otherwise be considered “below” them, such as participating in event breakdown and setup of community events. During one meeting, Isaac accidentally used plant fertilizer to clean a white board. Alicia corrected him, and the team laughed. Isaac grabbed a clean rag and called out to Anna, “You write, I’m the scrubber.” Scrubbing was not something below organizational leaders, who also participated in an array of other mundane forms of labor like contacting community partners.

In addition to meeting reminders, “hotline bling” also served as a digital means for sharing photos of Halloween costumes, newborn babies, and vacation updates.
Additionally, project leads intentionally and repeatedly expressed appreciation for labor that Alicia, the project manager, and other team members contributed. Anna would offer sentiments to Alicia such as, “I know you’ve been calling a lot today, and I really appreciate that.” Subtle expressions such as these rendered otherwise invisible labor evident for the broader IDT to collectively appreciate and were enshrouded in relations of care that also emerged in moments when Alicia referred to Alicia by her nickname, “Amaza.” On another occasion, Isaac participated in acknowledging the collective labor of all team members by stating, “The team did an amazing job. Everyone on the team. There’s a lot of invisible work that happens that isn’t as easily seen.” He went on to critique himself for failing to bring out more of the African American community in Oakland, who did not appear at the early community meetings in the numbers he anticipated.

Sustaining a relational politics of jazz and ubuntu ethics also required ongoing correction. When a team member cited Isaac as having articulated a key point, Isaac corrected, “We were all saying it. It wasn’t just me.” During another internal team meeting, Heather suggested the team brand the process, “Celebrating Oakland” to which Isaac explained that the word “celebrate” carries a temporal and superficial connotation as in celebrating “black history month” or “indigenous people’s day.” He added, “That’s just something that came up for me. You all can help me work through it.” These practices honest disagreement, openness to revision, and collective and shared ways of strategizing to achieve organizational aims.

A ‘Pavement to Policy’ Approach
These values and sensibilities collectively informed how the IDT envisioned the team as an intermediary between formal policy and urban government decision makers and everyday people. Carl described this as a “pavement to policy” approach; a metaphor that situated the IDT in between grassroots communities and urban planners as a part of the City and MPP. One way that the IDT enacted a “pavement to policy” approach involved consistently exploring ways to craft and frame messages in ways that resonated with families, youth, and community members they aimed to serve. A debate among Carl, Isaac, and Elena regarding how to message the renewed downtown planning effort to everyday Oaklanders illustrates this point.

Elena: I talk about equity every day, but I’m searching for a better way to translate it to others that’s more than a picture of people standing on boxes.

Carl: I’m all for vibrancy, but equity is the very concept we’re trying to get people to relate to. Why should we mask it?

Isaac: But there might be an easier way to talk about equity than the word “equity.”

Elena’s reference to “a picture of people standing on boxes” referred to a common image used to conceptualize equity in which three people of different physical heights are stationed atop three different sized boxes. Different resources (number of boxes) are provided for different needs (individuals of different heights) so that everyone can see over the fence and view a baseball game. Elena and Isaac’s search for “an easier way to talk about equity” did not diminish the knowledge of community groups, but rather, sought to identify a community-grounded way of talking about equity. This extensive attention to language and framing enlivened rhetorical commitments.
InnovateEquity posted on their website, which attested to working “at the intersection of local knowledge and professional knowledge.”

Again, such practices tacitly reified place-based legacies of minimizing inequities between groups who held symbolic and political power and those who did not. Murch (2010) argues that Malcolm X and Huey Newton bridged university and community worlds by engaging in cultural forms of “street speaking” (p. 92). She considers these practices as critical drivers of a more radical vision Malcolm X and Newtown offered in relation to a more liberal, Civil Rights discourse of equality. Her expanded explanation is instructive:

The street and the university had cultural as well as economic dimensions. The street promised a special knowledge born of conflict and deprivation that connected one to the deepest resonance of black urban life. It functioned as a trusted measure of experience that contrasted the remote culture of academic learning. Immediate, visceral, and mired in the most intractable aspects of segregation and the poverty it engendered, the streets addressed problems that the discourse of civil rights and equality never could. (Murch, 2010, p. 92)

Street speaking sustained a fidelity to everyday hardship and resiliency among the most marginalized communities and groups in Oakland. This cultural legacy might have animated Elena and Isaac’s search for better ways of talking about equity. Cultural legacies of street speaking may also explain Anna’s interest in what she described as a “grittier” way of cogently translating the purpose of the downtown Oakland planning process to the public.

Anna: We need something less polished, more gritty. Something with more ‘streetyness.’

Isaac: We just make up words now?
Carl: Yeah, Shakespeare added something like hundreds of words in his works.

Isaac: Black people… and all people really have been making up words.

The conversation drifted off into a discussion of Black cultural and linguistic creativity. Yet, as evident in this brief aside, the IDT consistently explored forms of “street speaking”; a cultural form that Murch (2010) considers a precursor to rap that engaged large crowds of young, marginalized people to expand critical consciousness and foster organizing power.

In these ways, the IDT occupied an inter-organizational niche similar to what Anzaldúa (1999, 2002) theorizes through the Nahuatl word, “Nepantla.” Nepantla characterizes a place of change, transition, and transformation. “Nepantleras” were subjects who occupied spaces between worlds and were distinctively positioned to advance relational theories of change and transformation. The concept of Nepantleras offers a useful language to grasp how the IDT situated their work in-between worlds of urban development and everyday struggle.

Yet, in addition to mediating the worlds of city planners and community groups, the IDT also bridged an old, raw Oakland, and a new, rapidly gentrifying one. At each stage in the process, the IDT sought to appreciate the stubbornness of social inequities and redress the historical roots of community distrust in City-led planning processes. Isaac put it this way, “We have to make that lineage very clear, what has taken place and make it clear this is a new process so that the community can engage in a positive way.” This attention to history reflects what Fantastic Negrito imagined in writing the
lyrics to his album, *The Last Days of Oakland*: “[…] we can be a bridge, us people that are from the old Oakland. We can remind, let’s respect those roots” (Making Contact, 2017, Nov. 22). Fantastic Negrito used music as a bridge. InnovateEquity used digital tools like CommuntiTech and traditional forms of community engagement to bridge groups, sectors, and moments in the history of Oakland as a basis for organizing struggles for justice. Digital technologies thus functioned as one among many ways that the IDT sought to mobilize local Oaklanders and collectively communicate to the City: “let’s respect those roots.” But such internal organizational structures and external engagement strategies were not without conflict.

**Engaging Partners in Digital Education Reform**

InnovateEquity struggled to materialize their commitments to equity despite internal cohesion and conceptual clarity. Rather than organize this section

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20 The expanded statement from Fantastic Negrito is also useful. In response to a question about the deterministic tone of his album title, Fantastic Negrito explained, “My mom thought that title [The Last Days of Oakland] was so morbid, but I thought the opposite, you have to accept that something is gone in order to start something new. And Oakland was amazing, my god… what it produced was… unmatched. It was an incredible time, but wanting that to come back is only a source of… and a road to misery and to unhappiness. So those days are gone, we have an opportunity, and we live in a new Oakland, and we can be a bridge, us people that are from the old Oakland. We can remind, let’s respect those roots” (my emphasis, Making Contact, 2017, Nov. 22). Although Fantastic Negrito seems to contradict himself—uttering on the one hand, “you have to accept that something is gone,” while simultaneously demanding, “let’s respect those roots”—these statements reflect an interest in building an Oakland in ways that are attentive to the past. It is not about nostalgia; something the IDT also resisted in choosing not to brand the efforts using terms like urban “preservation.” Instead, Fantastic Negrito approaches history as animating present action and elevates an attention to those “bridges” who can help create future visions rooted in historic legacies of Oakland.
chronologically, I highlight three thematic sources of tension that impeded effective collaboration among the IDT, the City, and MPP. These included: (1) competing interpretations of equity; (2) hierarchical client-consultant relations that minimized a need to sincerely consider and act on input the IDT provided; and (3) cycles of delayed payment and micro managerialism. These barriers to collaboration culminated in what one member of the IDT described as a process of cyclical inertia, or “revertia” and insincere forms of community engagement.

A ‘Magic Equity Bean’?

One fundamental point of contention among IDT, MPP, and the City pertained to competing interpretations of equity. Whereas MPP and the City approached equity as a product to be delivered—often using the very language of “deliverables” that suggested equity resided “in” published reports—the IDT interpreted equity as both a product and a process. For the IDT, reports and tools meant little if local residents did not have an opportunity to meaningfully participate in a planning process and develop organizing power to ensure that the City implemented equity commitments (such as affordable housing guarantees, community benefit agreements) with fidelity.

These tensions surfaced during one internal team meeting. Elena recounted her interpretation of the process.

Elena: We are saying, “Here’s where we can go to get to equity,” and the City is saying, “Where are our deliverables?”

Carl: It’s not like there’s a magic bean and the bean stalk will take us to equity heaven… as if there’s no hard work around this.

Elena: Thank you for clarifying what a magic equity bean is, Carl?
The exchange elicited laughter among the team but revealed fundamentally competing interpretations of equity between the IDT and the City, which constrained the equity outcomes of the downtown planning process. Elena summarized why attention to defining equity was so critical: “The potential concern is that without sharing a common understanding of what we think equity practices are, we could be working at cross-purposes from each other.” Elena’s observation was prophetic. Conceptual divisions among the IDT, MPP, and the City made the everyday work of collaboration a confused and frustrated process.

The sources of competing interpretations of equity emanated from distinctive lived experiences and professional training. Few moments illustrate these sources of contrasting conceptual understandings of equity than the initial in-person meeting among the IDT, MPP, and the City. Yvan, a member of the IDT, facilitated the meeting and asked each participant to share their name, role, and earliest memories of Oakland. Members of the Equity Team shared early recollections of Fairyland, an Oakland amusement park founded in the 1950s, and memorable nights at “The Spot,” a Black night club in the center of the Town. Nikki, the lead consultant from MPP, introduced herself by stating, “I know every parking space and every tree in the City.” Nikki’s reference to objects revealed an urban planning understanding of place, which

Although cognizant of the impossibilities of an “insider” status (Van Maanen, 2011), the introductions revealed my outsider status as a participant-observer of the IDT. My earliest memory of Oakland was watching Dominican born, All-Star shortstop for the Oakland Athletics, Miguel Tejada. In 2002, the Oakland A’s broke the Major League Baseball record of most consecutive wins, propelled by several game-winning hits by Tejada. Like other consultants in the room, my memory was distant and far removed from a rich, lived understanding of the Town.
surfaced even amid informal moments like personal introductions. Before moving to the next participant, Nikki added, “Lake Merritt is the best thing in this City.” Echoing this orientation toward place, Bobby, a white, self-described “transit geek” who worked for the City described how much potential Oakland had given its “wide roads” that offered multiple transportation alternatives. These contrasting conceptions of place revealed deep divisions among participating consultants and distinct personal stakes in its future transformation. Perhaps these competing values and interests were exactly what Yvan sought to make transparent by asking each participant to share their earliest recollection of Oakland. But to revisit the current section focus on equity, for MPP and the City, equity was largely about technical ways to improve the physical infrastructure of downtown Oakland. By contrast, for the IDT, equity was about rectifying historic inequities and making downtown a place where historically marginalized and minoritized communities could survive and thrive.

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22 I found moments like these particularly jarring. I etched in my fieldnotes: “Does MPP know that people live in Oakland?” Such statements contrasted significantly with how community leaders emphasized the best part of Oakland, as evident in one community leader’s words quotes earlier in this chapter “[ . . .] the people of Oakland are really what Oakland is, right?”

23 The City and MPP adored Yvan, whose charismatic and light-hearted demeanor made him an excellent facilitator for consultant and community engagements. But careful attention to the subtleties of Yvan’s tactics reveal much behind his joyous and inviting presentation of self. During another public meeting, Yvan presaged a conversation about streets and mobility by asking how far people traveled to get to downtown Oakland and their means of transportation. He then introduced the director of MPP by stating, “I think Ryan traveled the furthest… from Miami.” This warm invitation coupled with an explicit reference to Miami clued community residents into the different actors working on the plan. As I later describe, Yvan expressed concerns about how his participation in the planning process might impact his own legitimacy in relation to community groups.
Another moment in which competing understandings of equity emerged unfolded during an introduction MPP provided. The following fieldnote memo offers some insight into the underlying conceptual frameworks at odds between the IDT and MPP.

Fieldnote memo – Equity as Choice (May 19, 2017)

Approximately 40 people packed into a small conference room on the 6th floor of the City Hall offices in Downtown Oakland. Nikki introduced the revamped planning process by self-critically explaining that, while their original plan mentions “equity,” there was not much definition around the term. She added, “One thing we started to look at was the American Planning Association’s (APA) principles of equitable development.” These 11 principles focused on choice—for example, a choice of transportation, a choice of housing. Nikki added that “some in the room may have helped to write these principles.” The room was quiet.

Nikki then pressed a key on her laptop and displayed a graphic image of 7 arrows connecting equity principles defined by the APA with elements in the MPP’s original plan. At this moment, a member of the racial equity office within the City interjected, “Equity is not about choices, but about not having choices. These principles emphasize the wrong thing. It’s about barriers to opportunity, not what choices people are making. People aren’t choosing to live under freeway overpasses. They don’t have access to housing.” Isaac added gently, “We agree, but were going to wait for the right time and place to offer our thoughts.”

MPP tried, unsuccessfully, to narrate the original plan in ways that recovered their organizational status.24 Their use of APA definitions of equity signal a broader echo chamber approach MPP enacted throughout the planning process. MPP sought to validate their work by relying on principles and concepts from within professional fields of knowledge such as the APA.

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24 This memo also troubles the inadequacy of the term, “the City” by revealing how actors in other departments within the City contributed their own critical analyses. In fact, disagreement between departments within the City of Oakland was yet another key point of tension. My limited access to internal discussions within the City constrain the kinds of claims I can make about these disputes.
When the IDT met for an internal meeting the following week, Rachel recounted how awkward it was that MPP began their meeting with a definition of equity. “That backfired” Isaac commented, engendering laughter among the team. “Yeah, the APA is the last place I’d turn to define ‘equity,’” Carl added. On another occasion, Yvan remarked, “You can’t ask someone to paint your house and then tell them how to prime and paint it.” Yvan alluded to an odd division of labor unfolding in the planning process. The City hired the IDT to serve as consultants for “social equity,” yet, both MPP and the City continued to assert conceptions of equity that they found favorable, namely, those that did not require a redistribution of decision-making power and resources.

Efforts to claim expertise on “equity” and re-assert the efficacy of the original plan surfaced repeatedly during ensuing bi-monthly meetings focused on “deliverables” “schedules” and other “action items.” Take this opening invitation from Nikki, speaking on behalf of MPP, as one example of an enduring grasping for control:

It’s important for you all to understand the process of how we got here. Feel free to give a call. We have been working on it for a while and want to make sure that you understand our process so we can have a better product moving forward.

Nikki expressed sentiments of ownership over the plan, which emanated from the contractual position of MPP as the “lead consultant” hired by the City. Her remarks suggest that the process of envisioning the future of Oakland began when the contract started; that is, when MPP arrived in Oakland. Rather than inviting the IDT to share existing, community-based visions for Oakland, or to situate the planning process within broader legacies of struggle that informed “how we got here,” MPP positioned
themselves as central protagonists in a quest to “revitalize” Oakland. They repeatedly called attention to the arduous three months of engagement in which they hosted a public charrette to craft the initial downtown report. “Lots of review work and phone calls,” they reminded. Another member of MPP added, “And lots of stakeholder input. We set up a design studio for 10 days in downtown.”

Such statements were particularly at odds with the words of longstanding Oakland community activists and leaders. Estelle, a Black woman and culture and arts activist, offered her understanding of the history of Oakland in ways that trouble narrow, ahistorical interpretation of Oakland that MPP advanced. Estelle remarked,

There are a lot of people, myself included, who have chosen Oakland as a place of origin. Who have poured a lot of love and a lot of blood on these streets to make Oakland be a place that the world pays attention to. In many ways the time we have all been waiting for has come. Where Oakland is once again on the national mind and in many ways poised to teach lessons internationally.

Estelle cited histories of inter-racial organizing struggles to protect and preserve cultural and arts institutions in downtown Oakland. MPP was largely unaware of these histories. From the vantage point of community members, the downtown planning process was not a product—and certainly not one owned by MPP—but a moment amid generations of struggle for a more just and fair way of life in Oakland.

Debates over Chinatown—a neighborhood that was originally excluded in the original downtown plan—also surface competing interpretations of equity between the IDT and MPP and the City. According to the IDT, excluding Chinatown was not only unjust but did not resonate with the ways local Oaklanders experienced and navigated downtown. For urban planners, the decision to exclude Chinatown reflected historic
census boundaries that did not “cooperate” with available data for urban planners. MPP offered to include the downtown map “where the data naturally includes Chinatown.” This privileging of existing data sets rather than the lived experiences of the people in Oakland, revealed the inherent conservativism MPP tended to reify by relying on prior planning conceptions of segregated places and spaces. Ultimately, MPP agreed to “add the Chinatown streets”; a statement that reflected an attention to place as objects and erased the people, culture, and history of Oakland’s Chinatown. Problematically, this attention to “streets” minimized a need to engage and listen to what residents in Chinatown wanted for their community and the historic ways of knowing and being they sought to maintain in downtown Oakland.25

Problematically, the City echoed MPP’s transactional view of “equity.” The City often invoked the phrase, “We’ve already collected 1,500 comments” as a way to suggest that community engagement had already taken place.26 Isaac summarized the City’s interpretation of the revamped downtown planning process this way: “They’re doing the planning thing where they check things off a list. They don’t have intentions to build an equitable process. They don’t grasp what equity work entails.” This box-

25 There exists a rich history of community resistance in Chinatown. As one example, Asian activists successfully resisted an Asian developer’s efforts to displace 50 affordable housing units in the Pacific Renaissance building (Ping, 2009). These accounts elevate histories of exclusion and call attention to forms of resistance within Asian communities that were largely influenced by the movement for Black Power (Fujino, 2008).
26 Interestingly, the figure of 1,500 comments changed over time. On other occasions, Avery referenced “1,300 comments.” On another occasion, Dylan cited “over 1,000 comments.” These shifts in statistics suggest that the substantive content mattered less than the symbolic force of citing a large number of comments that had been gathered.
checking approach to equitable engagement competed with how the IDT interpreted equity as an ongoing process of engagement. Much of the labor I observed—identifying communities excluded in the original plan, lifting up organizations and leaders who served those groups, conducting personal emails and phone calls to key individuals who could broaden engagement across Oakland—reflected evidence of equity infused in social practices and social processes.²⁷ Although the IDT also utilized a checklist for advancing equity, checklists alluded to much broader, ongoing processes of building sustainable and authentic relations with community leaders in an effort to ensure that their voices would meaningfully shape the future of downtown Oakland.

‘You’re the Equity Experts’

On occasions when the City and MPP did concede space for the IDT to enact their conceptions of equity, the IDT’s suggestions were often considered a discrete and parallel organizing process. Although uttered by MPP on only one occasion, the phrase, “You’re the equity experts,” symbolized tacit and habituated ways of sustaining a “business as usual” approach to urban planning that afforded passing attention to what the IDT recommended. Moments when the IDT suggested alternative, grassroots approaches to engagement, design, and input, Nikki and other members of MPP would signal to the IDT, “You’re really the lead on that.” But MPP lifted up the IDT as “leads” even as they maintained boundaries between their planning work and the work of the IDT.

²⁷ On a separate occasion, Carl explained that when working with communities of color, “You can always do more.”
Over time, the IDT emerged as a symbolic lead of all things “equity,” which the City and MPP did not engage. As a few examples, the IDT encouraged the City and MPP to rethink the form of community engagements by drawing on more dialogic and participatory practices. The IDT also advocated for community members to have decision-making power to veto development projects. The City and MPP were happy to entertain these suggestions but expressed minimal commitment to adopting these more politically contentious strategies. Heather put it this way: “They see our feedback as more information or extra information, rather than replacing. They see this as ‘business as usual.’”

Observational fieldnotes of practices the City enacted during inter-organizational meetings corroborated Heather’s “business as usual” observations. During one meeting, Avery, a member of the City, explained,

In planning, you start with goals, develop a set of objectives, and all action and programs should each be in support of larger goals. It’s a critical exercise, but also understand goal-setting can be a lengthy discussion. Feedback on how to use time effectively is welcomed.

Although Avery expressed a need to attend to processes for developing goals, she expressed little interest in feedback regarding how to devise more equitable goals. She also invited feedback, but specified that such feedback might pertain to “how to use time effectively.” Rather than saying, “We welcome your feedback,” she preferred the passive construction—feedback “is welcomed”—a subtle, but noteworthy distinction that potentially signals her desires to not receive feedback.

Even when considering the City’s interest in efficient planning processes, their procedures for integrating input provided by the IDT were far from efficient. One way
the City controlled the revised downtown planning process was by requiring that the IDT receive City approval before publicly disseminating engagement materials such as blog posts, flyers, or postcards. This required the IDT to send all materials to the City to receive “edits and sign-offs” at each stage of engagement. From the City’s perspective, media oversight afforded coherency and consistency of messaging among consultants to the public. From the IDT’s perspective, this micro-managerial approach limited their abilities to sustain public interest in the downtown planning process. Carl captured the IDT’s perspective well when he explained, “I’m concerned about the City not allowing us to do engagement work, particularly the artist-engagement piece. The City is requesting overwhelming control over process.” One artist-engagement piece included filmed interviews with a cross-section of Oakland-based leaders designed to peak broader public interest in the plan. Although the IDT filmed, edited, and prepared the videos for public viewing, they waited 2 months for the City to approve and post their first video.

Another way the City constrained the IDT’s community engagement efforts was by constantly revising and refusing to incorporate suggestions on how to conduct a series of 8 community-based meetings. The City redacted language for engaging community groups, delayed input on meeting agendas and postponed dates for community workshops. Such practices created more work for the IDT, who had to send and resend clarifying messages to community leaders regarding upcoming engagements. At one point, Heather explained, “They’re delaying us to the point of us not being able to function.”
Ultimately, repeated resistance from the City and MPP led Carl to sarcastically observe, “It’s that government inertia…” to which Heather responded, “At this point, it’s like revertia.” The team laughed and commiserated with what I interpreted to be a shared sense of Heather’s lamentably accurate observation. The City’s and MPP’s continued disregard for contributions the IDT offered ultimately moved the team to demand clarity on the “equity end game.” Eli urged the team to demand answers from the City and MPP by raising the following questions:

What is your intention on how to infuse equity work? How do you envision us being helpful? We are consultants on equity… everything ‘equity’ is drilled toward us. How are you going to move equity in this conversation?

Eli captures the double-bind of the IDT’s position: a division of labor that symbolically elevated the IDT as the “lead” on equity issues; but at the same time, as equity leads whose advice the City and MPP did not need to heed.

Over time, the team developed new humorous ways to cope with fundamentally competing conceptions of equity and fraught relations with MPP and the City. Eli jokingly proposed an idea for an opening activity at the next meeting with MPP and the City, “We can do an exercise about ‘Do you care about equity?’ Then we can ask, ‘Do you really care about equity?’” Ultimately, feedback that the IDT provided did not foster a community-driven approach to planning and tended to reflect underlying premises of urban design that community activists initially protested during the original planning process in the fall of 2015.

‘A Budget for Socks’
Competing understandings of equity and fractious inter-organizational relations culminated in disputes over fair compensation, which persisted throughout the planning process. Practices of under-paying and delaying payment to the IDT emanated from competing interpretations of the “scope”: a large spreadsheet that detailed the “task items” for each client and the number of hours per task each consultant was allotted. This rigid way of allocating funding required the IDT to quantify the percentage of tasks they completed (e.g., “Summary of stakeholders and engagement is 45% complete”). The City would allocate payments according to their interpretation of what percentage of each task the IDT completed. Meanwhile, the IDT constantly contested the percentage of tasks that the City deemed complete. Elena used a shopping metaphor to characterize the process, “They had a budget for socks and came in looking for a Gucci handbag.” Elena elaborated on her handbag metaphor by introducing another illustrative way to characterize the state of affairs:

There is a lack of understanding on their part about what it takes to get to success… what I’m hearing from them in some respects is like, ‘Go have an Olympic award-winning figure skating routine’ but not understanding what it takes to do a triple axel, what it takes to train for that… ‘We want this good thing, but don’t know what it takes.’

Elena alludes to the City’s focus on equity deliverables without an understanding of the hours of labor involved in building equity in processes and outcomes. Yet, Elena also offers a generous interpretation of the City’s intentions. On a few occasions, the City did express interest in a more robust, community-driven process. But my field observations suggest that the City may not have sincerely wanted “this good thing”
from the start. Instead, seeking ways to minimize community activism and resistance in order to conduct a business as usual approach to urban design.

Regardless of the City’s intentions, delayed payments contributed to waning commitments and aggravated relations even within the IDT. One source of tension concerned the IDT’s interest in maintaining their community-facing relationships and legitimacy. Yvan put it plainly: “We have a real credibility problem.” Eddie, a Chinatown activist, expressed a similar concern about legitimacy from a community perspective: “The community doesn’t care who or what’s responsible for the delays. From the community’s perspective, it’s the same old story... unkept promises.” Eli added, “I don’t want to be associated with another set of meetings that’s just what the City was doing a year ago and we lose credibility we think we just built.”

Taken together, the IDT found themselves in a constrained space: demanding pay but unwilling to stop working in order to preserve their own legitimacy with local community groups. For independent consultants and small business owners, continued participation in the planning process without pay deeply constrained their abilities to continue working on the downtown project. Isaac explained:

The whole chess map is to move us to where we quit and they can blame us... not paying, underfunding, blocking. They have their scapegoat. We need to have our own ways of making sure that we get the word out of what really happened.

In keeping with Isaac’s metaphor, several members of the IDT felt materially burdened and unable to move a single chess piece. Yet, at the same time, several IDT members felt compelled to continue and uphold verbal promises made to community leaders.
These pressures reached a tipping point when the City went on strike. On my walk to InnovateEquity one day, I came across “Scabby the Rat”: a large inflatable rat that symbolized union protests. City workers chanted and held “SEIU” (Service Employees International Union) signs. The IDT expressed solidarity with city workers, but at the same time, Alicia remarked, “I don’t like the double-standard.” Anna added, “me neither.” The following exchange lifts up how members of the IDT interpreted city protests.

Elena: I was supposed to have another meeting with Avery and Cecilia, but it was cancelled because Cecilia is not properly hired and she won’t come unless she’s paid… [Laughter from team]

Isaac: Eli, your thoughts?

Eli: I’m not even going to answer that question unless I get paid! [Laughter from team]. That’s a mic that can be dropped if need be.

Carl: We have to come prepared with like 5 mics for Avery.

Isaac: I think it’s jazz, so we’ll have to iterate accordingly.

The team took a moment to marvel at the irony of not getting paid by the City, even as the City went on strike for not being paid. Amid moments of lamentation, humor resurfaced.

Elena: It’s like we’re being yo-yo’d around.

Anna: It’s beyond being yo-yo’d, if there’s a stronger word for that.

Heather: Well… there is…. [laughter]

But moments of levity winnowed as the downtown planning process continued. Conceptual misunderstandings and hierarchical client-consultant relations resulted in
real material and socioemotional costs to the IDT. Rather than a singular event or actor that constrained the IDT from advancing their organizational aims, he accumulation of micro misunderstandings and managerial practices manifested in what Heather described as “Death by a thousand cuts.”

‘Smoke and Mirrors’

This intersection of conceptual, political, and material barriers constrained the abilities of IDT to enact a sincere and transformational community-driven planning process. The IDT advocated for the provision of child care, multilingual translation services, locally sourced, culturally-relevant foods, and importantly, dialogic and culturally responsive pedagogies during community meetings.\textsuperscript{28} Carl commented on an early agenda designed by MPP and the City and put it bluntly: “It’s like a trap the City is setting. Here’s your 15 minutes to share your thoughts on a policy that’ll impact your lives for the next 20 years.” He added, “This is all just smoke and mirrors.”

\textsuperscript{28} The IDT approached catering as one way to integrate equity into the process and provide immediate, material benefits for local restaurant owners. For example, the team contracted la Oaxaqueña, a small mother and daughter business in West Oakland whose livelihoods were threatened by rising rents. Although la Oaxaqueña went out of business three months later, the IDT approached these measures as incremental ways to build equity into the process. The City, however, did not see attention to food as a central concern. During an internal IDT meeting, Heather remarked, “I’m profoundly disappointed that they’re catering from Safeway. Their own lack of vision and laziness… such a problem. There’s a million and one [food vendors]. I don’t understand why we have to have Safeway Mediterranean food wraps, when we could be supporting local businesses. Bringing in some cultural aspect… no art, video, photography… anywhere in these meetings, then at least we could hire a local caterer to bring in some cultural dimension to these meetings.” Other members of the IDT agreed. Although seemingly ancillary to the process of visioning downtown Oakland, the IDT approached attention to local food as another way to deepen trust and relationships with community members. Again, this was an effort to make this process “feel different” and forge new relations of trust between the City and local Oaklanders.
But several community members attending public engagement meetings peered through the “smoke and mirrors.” I selected two anecdotes from community meetings to offer insight into the constrained (un)democratic processes that manifested during community engagement events. Although seemingly divorced from questions about digital technologies, these anecdotes reveal the fraught sociopolitical processes through which digital technologies like CommunitiTech were curtailed from advancing an asset-based understanding of downtown Oakland and what it might become.

‘Lovely candor.’ During one community engagement meeting in downtown Oakland, a member of MPP presented a slide that encouraged participants to craft a vision for a Black arts neighborhood in downtown Oakland. The slide listed a community organization I refer to as “White Ally Arts,” which MPP assumed was part of the Black arts community in Oakland. Estelle, a local community and arts leader cited earlier and leader of an organization I refer to as “Black Theater,” interrupted the process. I quote this exchange at length to reveal the depth and nature of Estelle’s critique and how members of the IDT responded.

*Estelle’s Interruption and Call for ‘Anti-Frame’ (February 10, 2018)*

<table>
<thead>
<tr>
<th>Estelle:</th>
<th>I’m the founder producer and owner of the oldest Black theater company. We’re going into our twenty-eight year of business. I am happy to be in relationship with the White Ally Arts. This is not anti-White Ally Arts…. This is anti-frame…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estelle:</td>
<td>How is it that the White Ally Arts gets listed on there? Now we appreciate White Ally Arts. They were one of the first arts organizations to recognize and sign an MOU [memoranda of understanding] with Black Theater. Black Theater is a recently incorporated community development corporation that’s</td>
</tr>
</tbody>
</table>
invested in being self-determined. So, when I see White Ally Arts on that list, I can’t even let the small “b” go no more [referencing lowercase “black” organizations in a previous slide].

Isaac: Yes.

Estelle: I can’t even let the small things…

Isaac: There you go.

Estelle: Go no more. I want you [speaking to participants in the room] to look around you. Look around you, pay attention to your table mates, and I know it’s impolite to talk about race, but look at your table mates… do you really feel that the people around you should decide what Black Theater should look like… This is an equity room. [inaudible] Self-determination, okay.

So first of all, Black Theater exists. It’s been moving and working even though the city allotted no money, had no budget, had no plan… we’ve been underground organizing. And we’ve collected a small pot of money, we’ve incorporated, we’ve reached out… to Black and other spaces like White Ally Arts.

Isaac: Yes yes.

Estelle: So I’m talking about how important the input is in the people who are in this room. There are people who shouldn’t even be in this room deciding what should happen in the Black Theater about the legacy and contribution of Black arts in this city. Is that not part of the problem? It’s perspective. I am seated at a table with lovely people… with vibrant ideas… and 90% of the ideas have been good. I’m sorry but,…

Isaac: Sister, sister, first of all, thank you… thank you for… thank you for increasing my awareness.

Estelle: You’re welcome.

Isaac: For… Thank you for appreciating. [inaudible cross talk]. I have a voice and I’m going to use it. I love, appreciate, and value you. I was not the one who put together that deck [slide show presentation]. But I want to apologize for misrepresenting information. I want to apologize to you for that. And I
appreciate you… and no… [Estelle shaking her head… Isaac pausing].

Estelle: Isaac, first of all. You didn’t put the deck together. And I’m aware that the person who did is sitting in the room. And I don’t need you to apologize because you didn’t do anything wrong. And as a member of the IDT, if you want to show appreciation to me, then show it by appreciating the fact that I want to keep the limbs equitable.

Isaac: I love what you’re doing. I hope you feel my support. Do you feel my support because we’re wearing the same shirt? [Laughter. Isaac and Estelle were both wearing black shirts with yellow letters that read: “Black History Month is Golden” with a Golden State Warriors logo on it]

Lisa: I’m the founder and director of White Ally Arts. Whoever prepared the deck did not actually consult Black Theater, the people who are actually organizing the Black Theater. So I feel like this is the bigger issue. Where is Black Theater? It’s in its seed stage, it exists, it feels that that the organization should be here. But also framing the conversation about what the Black Theater is to become… [inaudible]

Yvan: I want to thank you, thank you, thank you. This is the lovely candor we need to have. Often we get to the next meeting, next meeting, and next meeting, and no one says anything…. So thank you.

With the exception of one moment of laughter that Isaac elicited, this charged exchange took place amid absolute silence among a room of roughly 80 people. Members of MPP and the City nodded along but did not respond.

A closer look at the concerns Estelle expressed offer some insight into what she meant by framing her critique as “anti-frame.” When Estelle turned to the audience and demanded, “Look around you, pay attention to your table mates” and invited an explicit discussion of race, she disrupted an MPP- and City-driven process of routine engagement. Even “lovely people,” Estelle insisted, should not be determining Black
Theater “from the outside.” For Estelle, equity entailed process; it was about participatory design and self-determination.

But Estelle’s critique went beyond a politics of representation, and instead, critiqued the “frame” and underlying theory of change upon which the notion of a community engagement plan was premised. When Estelle repeatedly called attention to the notion that Black Theater “exists”—later echoed by Lisa of White Ally Arts—she troubled discrepancies between City investment in MPP and a legacy of inattention to existing community groups like Black Theater.

Finally, Estelle instructs Isaac not to apologize. She peels back the “smoke and mirrors” and invites others in the room to do so as well. By omission, she calls out MPP and the City for promoting this problematic way of framing Black Theater, expressing to Isaac and other participants that the person who did prepare the slideshow “is sitting in the room.”

Beyond the pain and frustration in Estelle’s words, this exchange also lifts up moments of solidarity. Throughout Estelle’s comments, Isaac offered words of affirmation. He accompanied the jazz she chose to play. This dialogic form of communication represented what elsewhere, Isaac termed, “Black church style participation.” The enactment of racial solidarity that the IDT and community leaders expressed as the best part of Oakland was interwoven throughout this. Lisa, the founder of White Ally Arts, seconded Estelle. Her words and critique of “Whoever prepared the deck” troubled essentializing narratives of white people as oppressors and outlines
possibilities for radical acts of racial solidarity that critique structures of white supremacy and not only white people.

Estelle’s words were welcomed with appreciations by Isaac and Yvan, but problematically, the meeting agenda proceeded with little deviation from the set agenda. After Estelle’s interruption, a projected slide appeared at the front of the room “Tell Us Your Ideas” with an accompanying slide in bright green, “Breakout sessions. 1 hour GO!” But Estelle’s interruption was not dismissed by other community participants. I revisit possibilities evident in this seemingly temporal interruption despite evidence of a continuing business as usual approach to an ostensibly democratic urban planning process.

‘What’s our power?’ Whereas Estelle’s interruption troubled the overarching framework of community engagement, another exchange at a different community meeting elicited concerns about how the City would ultimately use the feedback community groups provided. I quote one community leader’s words and the response of Avery, a member of the City, at length also to offer insight into potentially insincere forms of engagement unfolding within but also outside the downtown planning process.

Community member: How does the work we’re doing impact the development community? We’re doing all this, but what’s our power? What’s our interface with development?

Avery: Transparency is a key word of our process. Really what we’ve tried to do at each step. We had 1300, 1400 comments from the community. We already did an issues matrix… from that we drafted visions and goals. Publishing our work so you can see… we’re trying to make sure we’re publishing every step of the way… and you see,
we can have a conversation about that and we’ll actually be explaining if we don’t move something forward, ‘Here’s why.’ Transparency is one of the things we’re focusing on... and feedback loops, going back to the community, we’re not really having separate meetings with developers. The development community is invited to all these meetings. We did the big public meetings but then we went to all the small groups. We took the first steps of doing that in the last round of meetings. We’re constantly going out to the community and trying to hear more... and say how we are doing.

Avery’s scattered response is revealing. She cites prior community engagements and the number of comments collected in ways that reflected the City’s and MPP’s insistence that community groups had already been sufficiently engaged. These asides had little relevance to the community leader’s straightforward question: “What’s our power?” When Avery began to address how community perspectives “interface with development,” Avery admitted that the City is “not really having separate meetings with developers.” Although developers were invited to community meetings, Avery’s response raised questions about whether community members were invited to City meetings with developers. In addition, Avery and the City were reaching out to the community, but to communicate “how we are doing” rather than consulting community groups and asking, “How are we doing?”

Again, this informal and improvisational exchange offers insight into community members’ savvy abilities to peer through the “smoke and mirrors.” Community leaders were attentive to the politics of disingenuous engagement. Although they raised key questions, they received few answers. These omissions
elicited broader questions about whether the revised downtown planning process is merely a second iteration of Brown’s 10K plan in which the City yielded to the interests of investors and developers at the expense of local Oaklanders (Reed, 2007).

These two moments reveal broader relations of insincerity and duplicity that characterized the revamped downtown planning process, despite the IDT’s efforts to infuse equity throughout their work. Notably, the political uses of CommunitiTech were similarly hemmed in by these hierarchical relations. By the conclusion of my fieldwork, I observed no evidence of the City making a concerted effort to synthesize digital, community-driven data generated through CommunitiTech. In theory, CommunitiTech created digital “two-way feedback loops” between everyday people and policy makers. But within the contexts of the downtown Oakland planning process, CommunitiTech was a one-way transfer of digital data about the “good stuff,” “bad stuff,” and “fix stuff” throughout downtown Oakland that received little promises of meaningful integration into a vision for what Oakland might become.

**Digital Education Reform Outcomes**

In sum, the labor and efforts of the IDT were largely curtailed by the MPP and the City and an underlying urban planning approach to imagining place. Inequities in participation are evident when comparing demographic data that MPP collected across the 8 community engagements with census data of the City of Oakland. Although demographic descriptors can obscure more than they reveal, these descriptive statistics corroborate fieldnote observations.

**Table 3.1. Participation at Downtown Planning Engagements in Comparison to Population in the City of Oakland**
### Demographic Category

<table>
<thead>
<tr>
<th>Demographic Category</th>
<th>Participants in Downtown Planning Process (N=420)</th>
<th>*Population in the City of Oakland (N=390,724)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White:</td>
<td>52%</td>
<td>26%</td>
</tr>
<tr>
<td>Black:</td>
<td>15%</td>
<td>27%</td>
</tr>
<tr>
<td>Asian:</td>
<td>21%</td>
<td>17%</td>
</tr>
<tr>
<td>Latinx:</td>
<td>7%</td>
<td>25%</td>
</tr>
<tr>
<td>Other:</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At least B.A. degree:</td>
<td>84%</td>
<td>35%</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;25K:</td>
<td>13%</td>
<td>22.6%</td>
</tr>
<tr>
<td>$25K-$999,999K:</td>
<td>45%</td>
<td>45%</td>
</tr>
<tr>
<td>Over $100K:</td>
<td>43%</td>
<td>32%</td>
</tr>
</tbody>
</table>

*Figures are drawn from American Factfinder (n.d.). I collapsed categories of income between $25,000 and $999,999 given that the City and census utilized different cut-off points for quantifying income.*

As evident in Table 3.1, participants identifying as White were over-represented at community engagements by a factor of approximately 2:1 (52%: 25.4%). Asians were also over-represented, whereas Black, Latinx, and other racial groups were under-represented. Participants with at least a college degree more than doubled the city average (84%: 25%). Additionally, individuals earning less than $25,000 were under-represented (13%: 22.6%), in stark contrast to the over-representation among individuals who earned over $100,000 (43%: 32%). These descriptive statistics undermine the City’s stated commitment to develop a plan that “reflects the needs and hopes of the entire range of Oakland residents.” As one participant cogently put it, this was a case of “All community also no community.” The process reflected a community
of experts that simultaneously excluded most marginalized community members from minoritized and divested backgrounds.

Additionally, instances of meaningful engagement did not accumulate into substantive equity guarantees during the planning process, such as affordable housing zones. Instead, MPP translated explicit community demands into lukewarm commitments to “consider” or “encourage” developers to acknowledge and not displace local assets or housing projects. Take the following equivocations in a report MPP authored as one example of City commitments:

“Consider different mechanisms for impact fees.”

“Encourage or require incoming companies to contribute to housing for employees or to an affordable housing fund.”

“Encourage or require incoming businesses and developers to hire X% of workers locally.”

“Consider alternative policing for more user-friendly parks.”

The language of “Consider” or “Encourage or require” allowed the City to avoid posing explicit demands on developers or investors. That this language only emerged in relation to community challenges to capital and prevailing relations of power offers insight into the underlying interests among City staff whose private conversations with developers—as alluded to by Avery—may have functioned as a conservative political backdrop throughout the entire downtown planning process.

Although InnovateEquity strove to enact a desire tradition of education reform—inserting CommunitiTech as a digital means of lifting up grassroots community members’ desires, aspirations, and barriers to local opportunities—such narratives
were not meaningfully incorporated into the planning process. Spivak’s observation, “The question ‘Who should speak?’ is less crucial than ‘Who will listen?’” (Spivak, 2010, 594), cogently reflects a politics of not-listening evident in a rhetorically equitable and democratic planning process. Digital and traditional mediums of engaging community members mattered little when such input did not drive the formation of the plan.

It is worth noting that the IDT anticipated these potential political barriers. One month into the process, the team offered this reading of potential pitfalls in working with the City:

Julia: My question is if they’re asking for input, what are they going to do with it? Ultimately, what is their process for integrating our concerns?

Isaac: Yes, we need to know what is the City willing to commit? We don’t want communities to engage if there’s no “there there.” How are they going to change?

Eli: They want to respond to what the community recommends, but not knowing what it is, they’re nervous saying, ‘We’re going to commit.’

Concerns about a “there there”—political and material commitments from the City to embrace community recommendations—proved prescient. Rachel echoed these concerns, “I worry about who we engage for what we can deliver.” Like community leaders who read through the “smoke and mirrors,” the IDT was well aware of potential
barriers to advancing equity but assumed good intentions on the part of the City in a spirit of collaborative work.  

Problematically, assumptions about the City’s intentions positioned the IDT in the position of a “rubber stamp.” Towards the end of the process, Isaac explained: “Us showing up puts the stamp of equity on these plans. That’s why the city wants us to be there… to legitimize what’s presented.” Repeated cycles of “revertia” and delayed payments contributed to a shared sense that the IDT was a symbolic lead of equity that MPP and the City did not consider integrating. Rachel echoed Isaac’s observations and

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29 One way that the City deflected attention to a political and material “there there” involved their repeated efforts to circumvent questions about the decision-making power of the Community Advisory Group (CAG). The CAG was a patchwork group of community stakeholders that included professionals from real estate, business, artistic, public health, and neighborhood and youth advocacy backgrounds. The composition of the CAG was a key point of contention throughout the process. Although the IDT sought to shift the composition of the CAG in ways that represented the demographic composition of most marginalized populations in Oakland, they were simultaneously wary about enlisting local advocates if the CAG would be sapped of decision-making power. On multiple occasions, Dylan, a member of the City made his political stance on the CAG clear: “The CAG does not have decision-making power.” The City was unwilling to offer community groups decision-making power even as they worked to appoint investment and real-estate friendly members to this group.

It is also worth noting the IDT’s interest in assuming good intentions. Early in the process, Isaac encouraged the team to “assume good intentions on their [the City’s] part… that they’re here to advance equity.” This was not a misguided strategy. But it does raise questions about the extent to which community advocacy organizations can reasonably trust departments who are also working with powerful political and economic actors. The IDT’s interests in assuming good intentions contrasted significantly with one community resident’s polite refusal to participate in the downtown planning process. She explained that she often had “the rug pulled from under her” and expressed little faith that this process would be different. She added that the city doesn’t have the “guts” to protect the most vulnerable.
remarked, “It sounds like we’re asked to be the face of things we’re not contributing to.”

The case of InnovateEquity reveals the limits of potentially emancipatory digital tools amid political struggles over decision-making power. In many ways, the place, people, and organizational aims of InnovateEquity represented an ideal case for studying a successful case of radical digital citizenship in action (Emejulu & McGregor, 2017). InnovateEquity convened professionally and personally motivated racial equity reformers to join the IDT, enlivened a sense of place distinctive to a collective politics of shared solidarity in Oakland, and designed and implemented civic technologies as a complementary tool to developing a community-based vision of downtown Oakland. Rather than teaching youth technological skills to adapt to social contexts of inequity, the IDT advanced a praxis of engaging youth and community members in critically analyzing structural inequities and taking collective action to build alternative practices and solutions (Akom, Shah, Nakai, & Cruz, 2016; Emejulu & McGregor, 2017). The IDT did not engage in an apolitical exercise of teaching community members how to become “effective” citizens (Emejulu & McGregor, 2017, p. 3), but approached technology as a means of augmenting nascent critiques of inequitable social worlds.

Yet, this explicit attention to critiquing and interrupting prevailing relations of power was met with fierce opposition. The City and MPP sustained a “business as usual” approach to urban community and school reform (Stovall, 2016, p. 48); a pattern reflective of what Reed (2007) characterizes as an historic tendency among Oakland
policy makers who claim to “know what is best for Oakland if only Oaklanders would move out of the way” (p. 40). In this sense, multilingual, elderly, homeless, and People of Color represented barriers to urban revitalization rather than valued partners and sources of local wisdom.

Engaging contradictions

This re-presentation of InnovateEquity and the IDT does not adequately capture moments of contradiction that occurred outside of the formal downtown planning process. Parallel to the role InnovateEquity provided for the IDT, they also pursued a contract with the professional baseball team, the Oakland Athletics. John Fisher, the son of Gap Incorporated founders, Donald and Doris Fisher, privately financed a new stadium for the Oakland A’s (Leuty, 2018, Nov. 28). Fisher needed two things: a location for his new stadium and public approval. Although Fisher and the A’s invited InnovateEquity to participate in conversations regarding ways to mitigate potential displacement associated with the construction of a new stadium, several team members questioned whether InnovateEquity was signing onto a potentially overdetermined process. As one team member remarked, the A’s sought InnovateEquity to “drum up community support after they have picked a site.” Yet, InnovateEquity’s interest in working with the A’s offers potential evidence of compromises the organization made,

30 Reed (2007) uses this description to describe, “Brownies,” members of the Oakland city council who appeased the development hungry aspirations of Jerry Brown and his 10K plan.
which threatened the participatory and equity aims of the downtown planning process.31

Ultimately, InnovateEquity was not selected as a consultant for the Oakland A’s. In November 2018, the A’s announced that they would construct a new stadium west of downtown Oakland near Howard Terminal. Writing for the East Bay Business News, Leuty (2018 Nov. 28) explained, “‘Community benefits,’ the use of tax dollars and other issues have stalled past attempts at building new stadiums — whether for the Raiders or A’s — and it is unclear exactly how much public money the A’s will need for their projects.” Framing community interests as “stalling” past development efforts positioned community groups as stubborn and resistant to development. But even Leuty admitted that public tax dollars would be needed to support the development of roads, sewer lines, and other public infrastructure for the new stadium, contradicting his own framing of community benefits as a barrier to development.

Nonetheless, construction of the A’s stadium reveals the decidedly political and largely undemocratic nature of urban development. The observed ease with which Fisher selected and succeeded in advancing a plan for a new stadium in downtown Oakland with minimal community input offers insight into the double standards through which actors in positions of power can transform urban places. Powerful political-economic actors do not need community input but can leverage their wealth

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31 As an alternate example, Asian representatives on the IDT explained that the A’s were very active in Chinatown. But community leaders were wary of accepting funds from John Fisher. They expressed concerns that receiving funds would be used as evidence of what the A’s had done for “the Chinatown community” and ultimately leveraged as a justification for constructing a new stadium near Chinatown.
and influence to seize land and orchestrate ceremonial community-engagement processes to legitimate their pre-determined choices. Although InnovateEquity leadership communicated that they “pick funders that are mission and values aligned,” their interest in working with the A’s offers some insight into strategic financial compromises needed to ensure organizational survival.

Evidence of tactical compromises were also evident in Isaac’s interest in developing new business models to sustain community-based work. He explained that the organizational field of nonprofit organizing is increasingly “squeezed” by philanthropic foundations and added,

I think increasingly nonprofits should be thinking about digital tools that are for-profit. And I think that part is so important because you don’t want to be dependent on philanthropic organizations to keep funding you whose interests may change even though your mission hasn’t changed.

Isaac spoke of for-profit alternatives in relation to InnovateEquity’s broader interests in developing new business and financing models to drive “truly more democratic and liberating models for nonprofits.” For Isaac, becoming “for profit” did not compromise the mission of InnovateEquity. I revisit this point in the following chapter, but for now it is worth raising some concerns whether CommunitiTech would remain “Free for everyday people always and forever.”

In addition to contradictions within InnovateEquity’s work, this re-presentation of the City does not adequately capture the diversity of perspectives within the urban planning department. One of the more revealing moments in the downtown planning process occurred when Lamar, Person of Color and urban planner well-versed in racial equity, was appointed as the director of the planning department midway through the
planning process. Much of what Lamar uttered reflected the very aspirations among members of the IDT, such as: “Planning is too important to be left to planners,” and “We’re more interested in getting it right not getting it right now.” These witty one-liners expressed a reflexive awareness of the limits of urban planning epistemologies and sincere commitments to engage community perspectives. But the fact that Lamar’s leadership did not dramatically interrupt the planning process speaks to institutionalized routines, roles, and hierarchical structures that tended to reproduce inequities in who participated.

Like Lamar, Avery, a key member of the City, also enacted critically conscious talk and practices that challenge a one-dimensional view of her as an urban planner. During one community event, I managed a sign-in table when Avery stopped by and remarked, “You weren’t sitting at the table at the front left, were you?” I explained that I was not sitting there when she replied, “Oh, because someone said that table was filled with diverse perspectives, and I was like…,” Avery leaned over to whisper to me, “these are all white people from different departments in the city or different consulting firms.” Despite her focus on “deliverables,” Avery had her own critical analysis of inequities evident in the downtown planning process. Although her critique did not fundamentally challenge a planning orientation to the design of downtown, it reveals moments of possibility and shifts in perspective that trouble flat, or reductive views of her subjectivity.

A final instance of contradiction was evident in subtle shifts in perspective and practices among a smaller, Berkeley-based consulting firm. Contrary to MPP, this firm
incorporated feedback that the IDT conducted. Members of the IDT sought to elevate this Berkeley-based urban planning firm as an exemplar of the kinds of substantive changes urban planners might make to integrate equity in their analyses and reports. How and why this firm was more responsive to feedback and whether their location in neighboring Berkeley informed their less doctrinaire approach to planning represent some possibility for working within existing institutional structures to advance equity. The following chapter theorizes across cases to ask how and why the work of Accelerate-Edu “snowballed” across districts, whereas the work of InnovateEquity hung in cycles of “revertia.”
Chapter 4: Redacted Imaginaries

“If the problem of the twentieth century was, in W. E. B. Du Bois’s famous words, ‘the problem of the color line,’ then the problem of the twenty-first century is the problem of colorblindness, the refusal to acknowledge the causes and consequences of enduring racial stratification.”

~ Naomi Murakawa (2014)
*The First Civil Right: How liberals built prison America*

“Through a very engrained technology of racism as state policy, the most radical of educational projects are soon framed as failures, while corporate ‘reformers’ are not only given the opportunity to fail, but fail on numerous occasions.”

~ David Stovall (2016)
*Born out of struggle: Critical race theory, school creation, and the politics of interruption*

Readers may be surprised how little this study has focused on digital networks, algorithms, or platforms, and instead, on the intersections of social practices, cultural legacies of place, and organizational designs enmeshed in digital education reform projects. As I have argued, by de-centering a focus on digital technologies as essentialized objects and ethnographically exploring what Selwyn (2015) describes as, “the social problems that digital technology is being presented as a solution to” (p. 250), we might better understand a cultural politics of digital education reform. Such findings have implications for grasping the opportunities and constraints of ostensibly liberatory digital education reforms.

As the opening quotes from Murakawa (2014) and Stovall (2016) indicate, the enactment of “twenty-first century” educational futures unfolds in constant and ongoing tension with historical legacies of racism. This chapter takes a closer look at
structures of racism across policy, place, and even the practices reformers enacted to materialize distinctive visions of digital education reform. As Murakawa (2014) argues, the problem of the twenty-first century is the problem of “colorblindness”: a framework of meaning that denies the salience of race but proves equally effective as Jim Crow policies in reproducing a racial caste society (Bonilla-Silva, 2014, p. 17). What is “new” then—and what digital education reformers “innovate”—are interwoven with questions of racism, “a structured system of advantages that channels unfair gains and unjust enrichments to whites while imposing unearned and unjust obligations in the way of Blacks” (Lipsitz, 2011, p. 181).

In this chapter, I deepen an analysis of what the cases of Accelerate-Edu and InnovateEquity reveal by situating these reform projects within broader histories of racism in the U.S. Although CPA and new institutionalism provided analytic guidance for studying the intersection of policy discourses and organizational practices, I turn now to two complementary theories to deepen an analysis of salient patterns that emerged from the data.1 Here, I turn to theories of “sociotechnical imaginaries” (Jasanoff & Kim, 2015, p. 6) and “racially specific spatial imaginaries” (Lipsitz, 2007, p. 13) to argue that Accelerate-Edu and InnovateEquity represent more than empirical cases of contrasting approaches to digital education reform, but also, distinct digital and racial projects. I use the conceptual resources of sociotechnical and racial

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1 Burawoy (2009) argues that we begin with our favorite theory and seek out anomalies and contradictions to guide our search for new theoretical tools. This chapter applies Burawoy’s suggestion by exploring what sociotechnical and racially specific spatial imaginaries might afford in deepening analytic inquiries.
imaginaries to bring the social practices of digital technologies (Bromley & Apple, 1998) into conversations with political narrations of desirable, racialized futures. This combined framework allows me to put new questions to the data regarding (1) how each organization considered past and present forms of racial discrimination in developing a vision of digital education reform, (2) the use- and/or exchange- value of digital technologies, and (3) the norms of sociality/selfishness that inform these digital reform projects.

A note of caution before proceeding: My goal is not to explore the statistical “representativeness” of these cases but to generate analytic categories (Luker, 2008; Mills, 2000; Pring, 2000) or what Luker (2008) describes as interpretive efforts to craft a “generalizable logic” (p. 103). Drawing on these philosophical assumptions, I aim to illustrate how Accelerate-Edu and InnovateEquity represent theoretical cases reflective of broader phenomenon, not populations. In this sense, the purpose of this chapter is to develop a language for guiding educational research, policy making, and advocacy in ways that attend to the possibilities (and limits) of digital education reform in a fraught and racialized twenty-first century landscape.

I begin by problematizing scholarship that does not take questions of desirable narrations of the future into account, such as studies of digital “amplification” (Toyama, 2015) and “technology as a social practice” (Apple & Bromley, 1998). Though

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2 Following Mills (2000), I aim to generate inquiry that has “genuine relevance” to questions of social structure (p. 73). This approach to inquiry guards against discrete and unmeaningful applications of the scientific method, which focus narrowly on the interrelationship between two variables; what Mills calls, “abstracted empiricism” (p. 50).
constructive, these concepts are limited in their inattention to racialized and sociotechnical imaginaries. Next, I distill my interpretation of “sociotechnical imaginaries” (Jasanoff & Kim, 2015, p. 6) and “racially specific spatial imaginaries” (Lipsitz, 2007, p. 13) to guide a comparative re/analysis of data across the Valley and the Town. Based on these analyses, I develop the main conceptual contributions of this chapter: white and Black sociotechnical imaginaries. A white sociotechnical imaginary is a materially-based discourse that (1) deflects attention to past and present forms of racial discrimination, (2) brokers social connections that privilege the exchange value of digital technologies, (3) and reifies digital meritocracy and individual social mobility aims of schooling. By contrast, a Black sociotechnical imaginary is a materially-based discourse that (1) directly engages past and present forms of racial injustice, (2) privileges the collective use value of digital technologies over market-exchange value, and (3) interrupts digital meritocracy by inviting young people and community members to articulate their concerns, desires, and aspirations for neighborhood transformation.

I then crosswalk these contrasting conceptual cases with the achievement, opportunity, and desire traditions of educational research outlined in the Introduction (see Table 1.1 Contrasting Traditions of Educational Research). This theoretical exercise elaborates a contingent typology of concepts at the intersection of race, digital technologies, and education research. Here, I argue that few imaginaries are as dominant as a white sociotechnical imaginary of achievement. This domain represents a prevailing common sense of digital education reform that combines tenets of white
sociotechnical imaginaries with the hyperbolic logics of “twenty-first century” workforce opportunities and the taken-for-granted structures and practices associated with schooling, such as controlling student behavior, assigning letter grades, and preparing youth for future hierarchical stations in life (Tyack & Tobin, 1994, p. 476). I argue that there is nothing innovative about white sociotechnical imaginaries of achievement. It is a market, not an educational innovation.

In a final analytic move, I situate conversations about “imaginaries” within fraught struggles over resources and legitimacy in shared “organizational fields” (DiMaggio & Powell, 1983, p. 143). I revisit new institutionalism in organizational theory to explain why organizations that design organizational structures and programs that align with white sociotechnical imaginary of achievement profit, whereas those that do not are penalized. I argue that Accelerate-Edu thrived based on its congruence with a white sociotechnical imaginary of achievement. By contrast, InnovateEquity contested the norms and assumptions associated with this imaginary and encountered repeated barriers to survival.

I conclude by theorizing a politics of redaction, by which I mean the historically conditioned ways actors in positions of power seek to depoliticize justice-oriented organizations in ways that further the reproduction of inequitable social structures. The notion of redaction links micro practices of censoring racially explicit justice talk and practice to broader material efforts to delay a more just distribution of resources and outcomes. I consider how a politics of redaction might “travel” to other fields of (digital) education reform, such as contests over school closures. In doing so, I aim to
generate theories that can facilitate more equitable and ethical interventions in the
cultural politics of twenty-first century education reform.

**Beyond ‘Amplification’ and ‘Social Practice’**

Thus far, I have drawn on the tools of Critical Policy Analysis (CPA), new
institutionalism, and Critical EdTech (CET) to explore the ways in which policy
discourses of digital meritocracy shaped and were shaped by the everyday organizing
efforts at Accelerate-Edu and InnovateEquity. Chapters 2 and 3 offered agency-based
accounts that revealed the contingency and contestability of digital meritocracy as a
policy discourse. These chapters also extended the research aims of CET by illustrating
the relations of power through which competing digital technologies emerge and gain
traction (Bigum, Bulfin, & Johnson, 2015; Bulfin, Henderson, Johnson, 2013). But
these theoretical devices explain some but not all of what unfolded over the course of
my fieldwork. Toyama’s (2015) “amplification” thesis and Bromley and Apple’s
(1998) notion of “technology as a social practice” sharpen findings evident in the Valley
and the Town but still leave an adequate conceptual understanding of empirical findings
wanting.

In the first instance, Toyama (2015) drew on his previous experiences as head of
Microsoft Research India to challenge a doctrine of technological solutionism that he
once proffered. His “amplification thesis” suggests that technology does not fix social
problems, but rather, “amplifies people’s capacities in the direction of their intent”
(Toyama, 2015, p. 29). We need look no further than the Nazi Germany’s use of the
Hollerith-based card tabulating machines developed by the International Business
Machines (IBM) to stress the ways in which technologies “amplify” intentions; in this case, using technologies to expand the scope and scale of European Jewish genocide (Black, 2001). In the Valley and the Town, digital devices “amplified” the intentions of digital education reformers; in this case, the intentions of Accelerate-Edu leadership to minimize the achievement gap and the aspirations of to build organizing power among historically marginalized communities. Notions of amplification call attention to how digital tools codify political values and beliefs and co-produce history and culture.

But metaphors of “amplification” diminish attention to the social forces beyond individual capacities and intentions. Policy discourses of digital meritocracy, cultural legacies of place (e.g., “innovation” in the Valley and “collective striving” in the Town), racialized worldviews, and contrasting organizational structures mediated what reformers ultimately deemed worth pursuing and the very social practices they enacted to achieve these visions. Although Toyama troubled a naïve faith in technology-centric approaches to change, his amplification thesis does not adequately account for historically given social forces that constitute the terms and categories through which individuals articulate their intentions.

Yet, a focus on individual intentions misses the metaphorical forest for the trees. It decontextualizes individual agency from the cultural frameworks of meaning that deem some intentions morally worthy and desirable, while simultaneously excluding others. As I have argued elsewhere (Chang, 2019a), discourses about desirable “twenty-first century” futures represent one social force that articulates digital school reform toward the aims of entrepreneurship and efficiency, and away from civic engagement
and youth activism. We require a framework that preserves attention to individual capacities and intentions, but that is situated within broader sociological, ethical, political, and historical contexts.

Earlier studies of CET offer some guidance. Bromley and Apple (1998) develop the notion of “technology as a social practice” to call attention to the ways in which technology both “reflects and affects” social contexts (p. 5). They encourage researchers to trace how relations of power are imbued in and reconstituted through digital technologies (Bromley & Apple, 1998, p. 47; c.f., Bigum, 1998). As one example, they investigate Channel One news, the satellite-delivered news program that carried paid advertisements and that were required viewing alongside news content. Channel One was broadcasted at over 10,000 schools, the majority of which were disproportionately low-income and reliant on private investment. Bromley and Apple argue that implementation of Channel One “reflects and affects” the values, norms, and material interests of corporations; findings that more recent studies on virtual and e-learning tools corroborate (Burch & Good, 2014; Picciano & Spring, 2013). Such an

3 Ferneding (2003) also offers a helpful critique that resonates with Bromley and Apple’s interest in technology as a social practice. Her analysis of a “cultural bias” in technology debates is instructive. She observes, “It is a paradox that our cultural bias is to depoliticize the phenomenon of technological innovation as a mere tool when it is clear that through our social construction of technology-based policies, it constitutes sociopolitical processes, and in the case of telecommunications infrastructures, economic processes” (p. 2). For Ferneding, technology “constitutes” social contexts in ways that “reflect and affect” the interests of industry. Similarly, Noble (1977) asserts, “Like every other social process, technology is alive. People—particular people in particular places, times, and social contexts—are both the creators of modern technology and the living material of which it is made” (p. 167). Noble encourages research and action that decouples technologies from corporate social processes and for-profit ends.
approach invites inquiry toward the intersection of agency and structure; individual intentions and the broader political-economic and cultural historical forces that position digital tools as amenable to specific school problems.

How technologies “reflect and affect” prevailing relations of power builds toward a more sociologically situated analysis of “amplification.” Yet, attention to what specific dimensions of prevailing “social contexts” researchers might prioritize remains limited. I turn to “sociotechnical imaginaries” (Jasanoff & Kim, 2015, p. 6) and “racially specific spatial imaginaries” (Lipsitz, 2007, p. 13) to sharpen this analytic approach and interrogate how racialized “twenty-first century” futures shape, and are shaped by digital education reform efforts.

**Sociotechnical and Racially Specific Spatial Imaginaries**

Jasanoff and Kim (2015) developed the notion of “sociotechnical imaginaries” to theorize the co-production of digital technologies and aspirational futures. By sociotechnical imaginaries, they mean:

… collectively held, institutionally stabilized, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology. (p. 6)

Sociotechnical imaginaries sensitizes inquiry to the relations between micro sociological practices and macro political narrations of desirable, technologically-mediated futures. Wentland’s (2016) analysis of the electronic vehicle (EV) offers one illustrative application of this concept. He argues that collectively held visions of sustainable futures—advanced by mobility experts, information and communication technology companies, and grid operators—ignored the needs and uses of individual
drivers, which contributed to the limited adoption of the EV in German contexts. The EV animated normative political values and ideals of transportation experts, but excluded those of the very drivers they were built to serve. Like visions of sustainable transportation futures, political narratives of “twenty-first century” digital education reform specify dimensions of macro social contexts researchers might problematize. Further, it politicizes digital tools that shape, and are shaped by these specific dimensions of “social contexts” that concern Bromley and Apple (1998).

Jasanoff and Kim elaborate that not all individually-crafted “visions” become collectively-held, taken-for-granted “imaginaries” (p. 4). The extension of local visions into common sense imaginaries bumps up against historically given “understandings of forms of social life and social order” that tend constrain visions generated from subversive ways of knowing and being (p. 4). Understanding why some visions remain constrained to local contexts, whereas other visions are widely adopted requires complementary analytic languages. If, as Murakawa (2014) observes, “the problem of the twenty-first century is the problem of colorblindness” (p. 7), then explicit engagements with race and racism offers one promising starting point for guiding analysis of twenty-first century educational futures.

4 Jasanoff and Kim add that “multiple imaginaries can be spun from the same raw materials of invention and will” (p. 339). They encourage comparative inquiries that offer insight into how imaginaries constrain, but do not determine the creative talk, practices, and inventions of new tools. This comparative study extends these theoretical interests by exploring how digital education reformers differentially craft imaginaries out of shared, but also distinctive material and discursive contexts.
Many critical educational researchers argue that race colors visions of (un)desirable futures (Dumas, 2016; Horsford, 2019; Leonardo, 2003). According to Leonardo (2003), “Race is not just a *figment* of the imagination, it is a *pigment* of the imagination” (my emphasis, p. 41). Race is socially constructed. It is a fiction, or “figment” of the imagination. But it also paints our world-view by imbuing differential meanings and values upon racialized differences.

Beyond the field of education research, Lipsitz (2007) argues that race is an inherently spatial concept. Like Leonardo (2003), Lipsitz emphasizes how race “pigments” the imagination but in ways that he considers spatially specific; from redlined neighborhoods and segregated schools to racialized neighborhood policing practices.5 He considers race as a key shared understanding of “social life and social order” through which past and present inequities are reproduced and resisted. For Lipsitz, what society considers desirable tends to reflect the situated perspectives of powerful political actors intent on reaping symbolic and material advantages tied to histories of race and place. In this sense, paying attention to the “racialization of space and spatialization of race” (Lipsitz, 2007, p. 10) can supply greater analytic depth for analyzing how digital education reforms reproduce or interrupt education injustices.

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5 Lipsitz (2007) offers historical examples to clarify the mutual constitution of race and place. He elaborates: "From the theft of Native American and Mexican lands in the nineteenth century; to the confiscation of black and Latino property for urban renewal projects in the twentieth century; from the Trail of Tears to the Japanese internment; from the creation of ghettos, barrios, reservations, and Chinatowns; to the disproportionate placement of toxic hazards in minority neighborhoods, *the racial projects of American society have always been spatial projects as well*" (my emphasis, pp. 16-17).
Lipsitz also helpfully distinguishes two “racially specific spatial imaginaries”: a “white spatial imaginary” and a “black spatial imaginary” (p. 251). Both white and black spatial imaginaries are rooted in histories of racial discrimination but reflect competing orientations toward visions of desirable futures. A white spatial imaginary “disregards racism and the realities of racialized space, legitimates existing racial disparities in society, reifies individual narratives of mobility, and encourages whites to believe ‘that hiding social problems is the same as solving them’” (Lipsitz, 2011, p. 251). A white spatial imaginary is evident in norms that prioritize the exchange over use value of people, objects, and places, values selfishness over sociality, and sanctions practices that sustain forms of exclusion over inclusion. Taken together, a white spatial imaginary reproduces racialized relations of power and privilege, which emanate from explicit racial inequalities tied to private property ownership. As one example, Lipsitz argues that collective associations, such as renters or real estate associations, codify whites’ material interests in maximizing the exchange values of properties through racially exclusive laws and covenants. Recent disaggregated data on homeownership corroborates Lipsitz’s theory. The rates of Black homeownership (roughly 40%) have remained largely unchanged since the 1968 Fair Housing Act when racial segregation was legal (Turner, 2018, Apr. 3) and offers a glimpse into the strategies of social reproduction and exclusion associated with a white spatial imaginary.

By contrast, Lipsitz (2011) defines a “black spatial imaginary” as a product of the “creative and generative dynamics” of the African American experience (p. 61). Rather than hoard material property values accrued over generations of colonial land
acquisition, a Black spatial imaginary reflects values resonant of early struggles through which “ghetto and barrio residents turned segregation into congregation” (Lipsitz, 2007, p. 14). Barred from opportunities to acquire private property, Black Americans instituted cultural practices that privileged “use value over exchange value, sociality over selfishness, and inclusion over exclusion” (Lipsitz, 2011, p. 61). A Black spatial imaginary reflects norms of collective critique and mobilizes pan-neighborhood coalitions to secure public goods. Inter-generational struggles to materialize neighborhood improvements—such as fair and affordable housing, desegregated schools, or lead-free drinking water—represent distinctive expressions of a Black spatial imaginary (Lipsitz, 2007). Rather than pursue homogeneous spaces (white neighborhoods and schools) as a means of increasing individual property values, a Black spatial imaginary pursues shared public goods for collective gain.

Combining sociotechnical and racially specific spatial imaginaries allows me to ask new questions to existing data across the Valley and the Town, in particular:

(1) To what extent do Accelerate-Edu and InnovateEquity consider past and present forms of racial inclusion and/or exclusion in crafting visions of desirable, digitally mediated “twenty-first century” futures?

(2) What assumptions about the use and/or exchange value of digital technologies animate the kinds of programs, partnerships, and practices that each organization coordinates?

(3) What norms of sociality and/or selfishness do achievement and civic technologies advance?

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6 Elsewhere, Lipsitz (2011) provides an illustrative example of the black spatial imaginary by citing collective acts of resistance among residents of Houston’s Project Row Houses. Drawing on the Black Christian concept of “Beloved Community,” residents pooled their resources to preserve everyone’s homes, rather than seeking to maximize profits on the sale of individual houses.
Rather than explore each case separately, I analyze data across cases in ways that elevate points of comparison and contrast. Answering these questions affords potential analytic insight into the digital and racialized relations of power and politics in twenty-first century education reform.

**Contrasting Racial Sociotechnical Imaginaries**

I argue that Accelerate-Edu represents a case of a *white sociotechnical imaginary*. It (1) ignored past and present forms of racial injustice in crafting a vision of digital education reform, (2) privileged exchange over use value of digital tools, and (3) reified digital meritocratic norms of individual social mobility. By contrast, InnovateEquity represents a case of a *Black sociotechnical imaginary*. It (1) directly engaged past and present forms of racial injustice and utilized digital tools to craft community-based visions of neighborhood transformation, (2) elevated the use over market-exchange value of civic technologies, and (3) interrupted digital meritocratic understandings of schooling by mobilizing public pedagogies of collective critique and civic engagement.

**(In)attention to Racism in Visions of Digital Education Reform**

At Accelerate-Edu, attention to past and present forms of racial injustice were notably absent. This inattention to race emerged through (1) a narrow focus on achievement disparities that naturalized deficit and color-evasive discourses of minoritized youth, (2) a focus on global visions of edtech markets that diminished attention to the geo-spatial patterns of racial segregation, and (3) a way of articulating local places through the lens of corporate social responsibility “territories” and corporate grantmaking constructions of space.
As illustrated in Chapter 2, Mark framed the central problem that Accelerate-Edu sought to address by bluntly stating: “The reason we’re [the U.S.] underperforming is because of minorities. It’s a fact.” Although not all staff at Accelerate-Edu ascribed to Mark’s deficit views, they enacted a color-evasive approach to partnering with edtech companies and selecting local districts. Relatedly, partnering edtech companies also advanced a color-evasive orientation to designing digital tools that drew on the fields of neuroscience and behavioral psychology and tended to exclude attention to past and present forms of racial inequity. Thus, their ostensibly neutral efforts to close “achievement gaps” reflected a disregard for past and present forms of racism.

Inattention to racism was also evident in the selection and recruitment of advisory board members and the global, place-less horizons of market innovation that these board members propagated. Accelerate-Edu’s fourteen-member board member included five women and no People of Color. It mirrored prevailing racial inequities in Silicon Valley’s high-tech economy in which 83% of Silicon Valley executives identify as white, 10.5% identify as Asian, and only 3% identify as Hispanic and 2% as Black, (U.S. Equal Employment Opportunity Commission, 2016). As far as I could discern, the selection of board members did not reflect explicit racist intentions, but nonetheless instantiated racially inequitable outcomes (Omi & Winant, 2014). I did not observe

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7 The distinction between intentions and outcomes is a key component of the “new racism” (Bonilla-Silva, 2014, p. 17). Omi and Winant (2014) clarify that “colorblind” policies and practices mobilize liberal intentions in seeking to move conversations “beyond” race but problematically reproduce racially disparate outcomes. Consequently, attention to outcomes is crucial when interrogating the racial implications of racist policies and practices.
any instances in which staff or leadership questioned or even explicitly addressed the racial composition of the advisory board. Instead, critiques of board member representation elicited these well-warranted, but color-evasive charges form Iris: “Where are the women? Where are the educators?”

But race was not only a marker of demographic distinction, it also “pigmented” the imaginations of leadership and staff at Accelerate-Edu. The advisory board at Accelerate-Edu crafted visions of global markets that diminished attention to racial injustices throughout Silicon Valley neighborhoods (Rothstein, 2017). Mentions of “place” pertained less to local geography and more to a global edtech market-places. Recall moments when advisory board members recommended that Accelerate-Edu consider the principles of “First, Best, Only” and locate a “sweet spot” in a competitive marketplace of edtech organizations. Programmatic aims disregarded local needs and aspirations of parents, youth, and communities in the Valley, and instead, hinged on business principles that stressed how Accelerate-Edu fit within a competitive field of nonprofit organizations moving similar digital reform agendas.

One particularly illustrative example of how advisory board members interpreted place through a market lens emerged during one advisory board meeting. Clive, a CEO of a publicly traded company, patched into one advisory board meeting with these words of caution:

I came into Accelerate-Edu believing we’re unique here doing something no one else has done, but I recently read this article, ‘Edtech distribution in an evolving marketplace’ and was struck by—‘Wow, there’s a lot of people doing things that are similar to what we’re doing.’ Are we trying to be a local version of what’s been done in other places? Or, are we trying to do breakthrough stuff and move
the ball down the field in terms of edu-tech? I worry more about being a mile wide and an inch deep than anything else.

Several members of the advisory board nodded in agreement. Masculine metaphors of football coupled with competitive, capitalist aspirations to “do breakthrough stuff” appeared to resonate with other board members and staff at Accelerate-Edu, who engaged Clive’s provocation over the next half-hour of the meeting. Clive added that he was interested in doing something “really Silicon Valley-esque”; a statement I interpreted as designing programs in the style of Valley norms of “disruption” and “innovation” (Williamson, 2017b, p. 270). Once again, spatial boundaries pertained less to local racialized neighborhood places, and instead, to symbolic imaginaries of global market-places.

Even when Accelerate-Edu did mention local contexts, neighborhood places were articulated through color-evasive, corporate frameworks of meaning. During one internal team meeting, the staff discussed which districts to concentrate their work. Yadin listed local neighborhoods in terms of distinctive zones of corporate social responsibility: “Salesforce in San Francisco,” “Apple in Cupertino,” “the 49ers in Santa Clara.” The naming of place through this corporate lens became a focal point for prioritizing where Accelerate-Edu would concentrate their efforts to avoid “stepping on the toes” of other philanthropic and corporate reform efforts. On another occasion, Yadin expressed concerns about how Accelerate-Edu would recruit district leaders in Mountain View, a local Silicon Valley district. He remarked, “In Mountain View, there’s a lot of Google money… it’s their territory” (my emphasis). Place was not invoked with reference to people or racialized inequities of opportunity, but talked
about in relation to distinctive “territories,” or zones in which corporations and nonprofits performed a politics of “doing good” (Lashaw, Vannier, & Sampson, 2017).

It is also worth noting that such statements were not merely rhetorical, but also material. Racism was actively “taking place” in the Valley through corporate investment in new tracts of land that spiked affordable housing crises and displaced families, teachers, and other blue collar service laborers (Avalos, Oct. 19, 2017). These discursively-mediated material relations further invisibilized attention to histories of racial discrimination in Silicon Valley, such as the formation of East Palo Alto and installment of the Romic waste management facility in this predominantly Black neighborhood (Cutler, 2015, Jan. 10). Accelerate-Edu did not intervene in these historically unjust legacies of place. Instead, it sought to navigate this terrain in a way that sustained a white spatial imaginary that disregarded the needs of a service-sector workforce in the Valley. Although local Silicon Valley movements for affordable housing for teachers peaked after the conclusion of my fieldwork, these grassroots struggles speak to a broader climate in the Valley that privileged worries about declining real-estate values over the actual housing needs of local workers and workers of color (Goldstein, 2019, Jan. 4).8

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8 Recent media coverage of affordable housing for public school educators offers insight as to how a possessive investment in property values undermines the possibilities of racial justice (Goldstein, 2019, Jan 4). According to Goldstein (2019, Jan. 4), the median price of a home in Silicon Valley is $1 million. For local teachers, affording a permanent home in the Valley is practically unfathomable given that annual salaries range between $55,000 and $79,000. Affordable housing is essential to retaining teachers. Yet, as one resident in Almaden, a Silicon Valley neighborhood, argued: “Low-income housing doesn’t belong in Almaden [. . .] This would devalue home prices in the area significantly.” Goldstein weaves opposing narratives such as
Last, Accelerate-Edu expressed obligations to particular neighborhoods based on contractual grants with local districts that also diminished attention to past and present racial injustices. On a separate occasion, Nicole, the project director who replaced Iris, described her interest in reconnecting with a local Silicon Valley district. She rationalized, “because they’re our Google district… I feel a bit more responsibility.” Rather than prioritizing high-need districts to realize the organizational aim of closing the “achievement gap” or describing places in terms of a responsibility to places subject to state and corporate divestment and exploitation, Accelerate-Edu expressed obligations to place that were mediated through a philanthropic grantmaking lens.

These ways of not talking about race shaped internal color-evasive conversations among Accelerate-Edu staff. During one internal staff conversation about “equity,” Ysabelle, a lead researcher on the team, cautioned: “Equity and justice is [sic] not the kind of language our advisory board uses. They’re more charged and politicized in a lot of contexts.” Ysabelle suggested that the team “signal our work without a heavy hand of equity and social justice that this organization might not be prepared to do yet.” Thus, even terms that hinted at the mention of race, like “equity” and “justice,” were considered too political. Ysabelle uttered a keen observation though. My fieldnotes of advisory board meetings affirmed her own analysis of leadership’s reluctance to talk

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these with local school actors like Jesse Escobar, a middle school counselor. Escobar explained: “Families trust us with their kids from 8 to 3 every day. I don’t know why it wouldn’t be the case that they would trust us in their communities.” A white spatial imaginary—animated by interests in selfishness and the maximization of property exchange values—helps to explain why Silicon Valley parents oppose the development of affordable housing for teachers that might bring their property values down yet still entrust these very same individuals with their kids between 8 a.m. and 3 p.m.
about equity, which did not appear in any “C-level” meetings I had access to. As evident in Ysabelle’s observation, a white spatial imaginary enacted by board members represented a spectral force that shaped how the team carried out their everyday programmatic work. Within the contexts of this internal team meeting, the staff ultimately agreed with Ysabelle and explored ways to talk around equity and justice by sampling districts based on low math scores and free and reduced-price lunch.

In summary, the collective work of Accelerate-Edu advanced a color-evasive inattention to past and present forms of racial discrimination. Whether through explicit deficit discourses of minoritized youth, utopic narratives of market-places, or the representation of local neighborhoods through discourses of corporate “territories,” Accelerate-Edu paid little explicit attention to past and ongoing forms of racial discrimination. Instead, they approached digital technologies in ways that propelled a white spatial imaginary that insisted “hiding social problems is the same as solving them” (Lipsitz, 2011, p. 251).

Unlike Accelerate-Edu, InnovateEquity explicitly confronted past and present forms of racial discrimination in their efforts to envision desirable digital futures. They enacted elements of a Black sociotechnical imaginary by (1) explicitly framing their organizational mission and values in terms of race; (2) “over-sampling” historically excluded communities and communities of color in their engagement efforts; and (3) repeatedly advocating for the City and MPP to confront histories of racism in order to
design a more equitable, participatory, and community-driven process to planning downtown Oakland.

At InnovateEquity, leadership and staff spoke explicitly about race. When I asked InnovateEquity what distinguished their work, Isaac remarked, “So, I think the fact that we are a tech nonprofit and that there are very few Black and women-led tech nonprofits makes us really unique.” InnovateEquity articulated their work in racially explicit terms and emphasized how their work troubled existing racial hierarchies of white- and Asian-led nonprofit organizations in Silicon Valley (U.S. EEOC, 2016). Likewise, at public community events, Isaac often wore short-sleeved t-shirts that symbolically re-presented the organization’s racially explicit mission and values like: “A just nation, not discrimination,” or “Black Lives Matter.” His attire contrasted significantly with Accelerate-Edu’s more muted business casual attire that often included blue jeans, khakis, and polo shirts. Dress and style of the IDT also situated their personal and professional identities in relation to national political movements for racial justice.

InnovateEquity also led the IDT in enacting commitments to racial equity by “oversampling” community groups that, they explained, “have historically been locked out of decision-making processes.” They invited local community experts to join the IDT, who then expanded engagement to local community leaders across Black and Chinese neighborhoods. Their work was not about market places, but racialized neighborhood places. In fact, upending the links between race and place constituted a guiding tenet of their digital web-based application, CommunitiTech, which offered a
digital means of mobilizing collective critique and neighborhood transformation within and across communities of color.

Additionally, a key dimension of the IDT’s approach to community engagement entailed lifting up distinctive histories of place. As one example, Yvan expressed caution whenever the team selected a place to host community meetings. He cautioned, “Some spaces have history, some people say that new parish… that was originally the club so it has a certain energy to it, but if it was something a long time ago, I think that’s kinda ideal.” Yvan’s attention to the cultural-historical construction of distinctive places was also evident in the opening words he used to invite community participants within the contexts of engagement meetings. He remarked, “In Mexico you have the zócalo… In Greece it was the polis… In Arkansas it’s the barbershop… and in Oakland it might be the nail salon.” Such statements situated participation the downtown plan within historical legacies of democratic participation. For the IDT, creating visions about the future was a decidedly historical, racial, and spatial process tied to locally situated cultural ways of knowing and being.

Collectively, this racially-explicit and locally-rooted approach to organizing animated distinctive Oakland-based legacies of pride, resistance, and inter-racial solidarity. Community leaders explained, “what makes Oakland special really is our commitment to everyone.” As I argued in Chapter 3, this commitment that was not just talked about but evident throughout my observations and experiences at IDT meetings and along my walks to InnovateEquity’s offices. In particular, CommunitiTech extended this “commitment to everyone” and spirit of “collective striving” to digital
spaces. It invited local Oaklanders to share their knowledge of community assets and barriers in specific local terms: Youth Radio off Broadway in Uptown, broken car windows along 10th and Webster, unsafe intersections at the corner of 17th and Alice. These locally specific ways of constructing place advanced a community-driven epistemological foundation for imagining the future of downtown Oakland.

Attention to the racialization of space was also evident in the IDT’s commitments to engaging past histories of racial discrimination. Although the City redacted political expressions (as I elaborate later in this chapter), the IDT communicated a commitment to be “direct and honest in our discussions about the history of discrimination in our city.” In this sense, the IDT stressed pedagogies and relations that emphasized collective healing and honest engagements with histories of unkept promises between the City and local Oaklanders. Ultimately, the IDT advanced a vision of Oakland that rejected global aspirations evident in what former Oakland Mayor, Jerry Brown, aspired to manifest by rhetorically constructing Oakland as the next “Hong Kong” (Reed, 2007, p. 21). Contrary to Brown’s market vision of Oakland, the IDT’s vision of Oakland emanated from commitments to local culture, history, and most of all, the people. It was about “Keeping the Town in Downtown” and sustaining cultural legacies of people and place; ways of knowing and living that constituted what one community leader described as, “a thriving diverse heartbeat for this city.”

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9 Another notable example of the IDT’s distinctive pride in Oakland took place during a city-wide celebration of the Golden State Warriors 2017 NBA championship. Several team members wore shirts that read: “Oakland Against the World” and “Warriors Against the World.” Rather than wearing a jersey that celebrated an individual player, members of InnovateEquity enacted their love of Oakland, particularly in...
In summary, InnovateEquity and the broader IDT enacted a Black sociotechnical imaginary of downtown Oakland in which digital innovations supported political and racial projects of neighborhood transformation. InnovateEquity integrated digital tools into local organizing campaigns that directly confronted legacies of racial disinvestment.

**Exchange and Use Values of Digital Technologies**

Competing racialized understandings of digital education reform also guided the ways in which each organization approached the exchange and use value of digital tools. For Accelerate-Edu, visions of global edtech markets animated practices and programs that explored ways of elevating the exchange-value of private-sector edtech products. Their brokering” services facilitated private-public partnerships in ways that ultimately sought to enhance the profit margins of edtech companies; whether through readying districts for technological adoption, pairing companies with district and school leaders, or even gathering photographic or statistical evidence of product effectiveness to support companies in marketing their products. Like real-estate brokers, Accelerate-Edu explained that they were not in the business of “telling” companies what to buy, and instead, as Iris explained, “we’ll recommend.” Although Accelerate-Edu identified as a nonprofit organization, they functioned as an arbiter of private market exchanges that propelled for-profit interests in public schools. A job review of one former, dissatisfied employee succinctly captures the organization’s \contradistinction to “the World.” InnovateEquity drew on these discursive and material resources and crafted a vision that emphasized “deep investments in people, place, systems and structures.”
focus on profit and exchange value: “Stop focusing on the money for a second. I thought we were a non-profit?”

This overriding interest in the exchange value of achievement technologies was also evident in the ways that Accelerate-Edu deployed the term “adoption” as a euphemism for market sales. On multiple occasions, the blurring between neutral “brokering” and for-profit pedaling of edtech markets was apparent.10 Darren spoke of local Silicon Valley districts as “56 companies” and encouraged the team to expand the adoption of “Accelerate-Edu vetted products” across these companies. On other occasions, Yadin gazed at a flow-chart of organizational operations and astutely observed: “We’re doing free, free, free, pay.” Accelerate-Edu provided “companies” with free needs-assessments, free technology plans, and free participation in matchmaking Pitch Games, but ultimately facilitated district “adoption” of achievement technologies through signed contracts with private edtech entrepreneurs. Analyses of the relationship between digital tools and achievement gains were largely neglected in Accelerate-Edu’s efforts to scale the “adoption” of edtech products. In this sense, the everyday practices at Accelerate-Edu minimized an emphasis on the introductory clause of their mission statement—“To increase and accelerate learning”

10 Elsewhere, I discussed the “brokering” labor of Accelerate-Edu as productive of policy knowledge (Chang, 2018). This piece draws on the etymology of the term, “broker,” which stems from the Anglo-French brocour and refers “contemptuously of peddlers and pimps, ‘one who buys and sells public office’” (Merriam-Webster Online). I argue that AccelerateEdu “peddled” policies by suturing specific policy solutions to particular problems. In the context of white sociotechnical imaginaries, Accelerate-Edu also peddled particular racial and spatial understandings of digital education reform.
–and elevated attention to the latter portion of their mission, “by leveraging technology at scale.”

Watters’s (2016) analysis of “innovation” and “disruption” helps to situate Accelerate-Edu within broader market contexts of digital innovation. In her analysis of Christensen’s (2013) “The Innovator’s Dilemma,” Watters observes that disruptive innovation was never about revolutionary curricula or pedagogy, but instead, about destabilizing products and services “at the bottom of the market” that eventually move “up markets” and displace competitors (Watters, 2016, p. 40). For innovators and researchers like Christensen, the adoption of technology products and services mattered more than the efficacy of digital tools. Watters warns that market discourses of “innovation” conflate technological progress with actual progress and confuse market disruption with the meaningful interruption of historical inequities of school opportunity. She cautions: “We forget that ‘innovation’ does not give us justice. ‘Innovation’ does not give us equality. ‘Innovation’ does not empower us” (p. 40). Such was the case at Accelerate-Edu where organizational programs and activities conflated innovation in edtech markets with the presumed good of innovation for education equality.

Taken together, Accelerate-Edu brokered edtech markets in ways that disregarded attention to the use-value of digital tools that might support student learning. Ostensibly “free, neutral” brokering services like EduTech Assessments and the Pitch Games rendered the digital demands of school districts amenable for for-profit edtech companies to supply (Burch, 2009). These collective activities sought to
increase the exchange values of achievement technologies, and in turn, Accelerate-Edu’s own financial and symbolic legitimacy within a competitive nonprofit organizational landscape.

Conversely, InnovateEquity emphasized the collective use value of digital technologies over its market exchange value. There was no “adoption” stage fastened to InnovateEquity’s theory of educational change. Instead, as Anna explained during a community leaders’ workshop, CommunitiTech was “Free for everyday people, always and forever.”

Instead of brokering market transactions, InnovateEquity and the IDT sought to forge cultures of solidarity with the most marginalized community members in downtown Oakland. CommunitiTech represented one digital means “to keep the conversation [about downtown Oakland] going.” It represented a digital means of lowering barriers for “everyday people” to use technology and participate in democratic and civically engaged planning processes.

InnovateEquity also spoke of the “disruptive” potential of digital technologies with reference to political, rather than economic processes. Isaac explained the value of CommunitiTech in terms of its political use-value: “CommunitiTech crowdsources information and uses social media to put pressure on City Council members. It’s about finding different pressure points for decision-making or holding people accountable.” CommunitiTech represented a digital and material intervention in traditionally exclusive democratic processes. It animated social relations that disrupted undemocratic politics not competitive markets. InnovateEquity thus extended a Black
spatial imaginary in their efforts to implement CommunitiTech to materialize collective neighborhood changes.

Yet, InnovateEquity was not exclusively focused on use-value. As noted in Chapter 3, InnovateEquity also spoke about the potential exchange value of CommunitiTech. On a few occasions, they referred to themselves as a distinctive “tech-oriented company with that strong of a commitment to the people who generally don’t get a seat at the table.” The language of “company” instead of “organization” offers a glimpse into their interests in digital markets as well, which Isaac emphasized elsewhere by remarking, “I think increasingly nonprofits should be thinking about digital tools that are for-profit.”

At first glance, InnovateEquity’s interest in the exchange value of digital tools affirms critical analyses of a “nonprofit industrial complex” in which philanthropic foundations determine organizational aims and structures (Rodríguez, 2007). In particular, Isaac’s comments might reflect his frustrations with the ways in which philanthropic funding tends to curtail the political aims and aspirations of social justice nonprofits (Rodríguez, 2007). Yet, InnovateEquity approached exchange value from a strategic and subversive standpoint. Whereas interests in exchange value governed nearly every aspect of programs and social relations at Accelerate-Edu, InnovateEquity only mentioned exchange value in closing interviews when asked to reflect on their work within broader horizons of future organizational possibilities. Interests in enhancing the exchange value of CommunitiTech then may have represented a way to
de-couple their work from philanthropic foundations, that Isaac explained, “whose interests may change even though your mission hasn’t.” For InnovateEquity then, increasing the exchange value of CommunitiTech represented a means of insulating their work from philanthropic agendas, and by implication, from market trends. Isaac added that innovative business models could sustain longterm, grassroots efforts for structural transformation; an orientation to intergenerational community transformation that seeks to cope with what Jackson (1968), writing about technology reforms over 50 years ago, described as the “cycled parade of fads and fashions that drift across the educational scene” (p. 27). Couched in this broader ethnographic analysis of InnovateEquity’s commitments and values, their interest in exchange value was not about blindly reproducing the norms of “white civil society” (Rodríguez, 2007, p. 22), but tactically negotiating a field to challenge these very norms of material and cultural exclusion.

**Individual and Collective Orientations to Digital Education Reform**

Last, Accelerate-Edu and InnovateEquity also enacted distinctive orientations toward individual and collective approaches to digital education reform. Competing views of social action and interaction spanned internal organizational norms, inter-

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11 The notion of silver bullet reforms is common in education reform research. Tyack and Cuban (1995) offer an historical analysis of the persistent search for “pedagogical nirvanas” that sweep across the educational scene (p. 121). Sahlberg (2011) talks of the “winds of market-driven education policy changes” (p. 34). Similarly, Payne (2008) critiques a “deification of the new” (p. 64); what he describes as an ongoing quest among education reformers to search for whatever is considered “Bold!” or “Revolutionary!” (p. 146). I reference these studies to situate Isaac’s concern within a broader context of shifting market and philanthropic agendas, which may thwart InnovateEquity’s abilities to adhere to their organizational mission and values.

An emphasis on individual social mobility was evident throughout my fieldwork with Accelerate-Edu. Organizational leaders sanctioned individualism through public recognitions of individual board members, local media publications that centered the imaginative genius of “C-level” leaders, and framed photos of individual “pioneers” that financially backed the organization. Leadership also enacted personal understandings of individual mobility in casting a vision for Accelerate-Edu that drew on values associated with entrepreneurial startup cultures in the Valley. Depictions of Accelerate-Edu as a “nonprofit managed like a startup” institutionalized these values into organizational structures and roles. In fact, values of individualism were so intense that, when staff expressed concerns about feeling devalued at Accelerate-Edu, leadership organized “individual development plans” (IDPs). This move to incorporate IDPs took place following a retreat in the year preceding my fieldwork. All staff I interviewed recalled this retreat with mixed feelings.¹² Staff explained that Darren did not attend the retreat and that, in practice, IDPs became programmatic task meetings, rather than spaces for staff to reflect on areas for potential growth and improvement.

¹² Laurel described her experience of the retreat this way: “I’m Catholic and I’ve gone on a lot of retreats. I was shocked by how much people shared their emotions.” Her statement offers a glimpse into two realities at Accelerate-Edu: the absence of sharing emotions as a part of organizational life and the powerful and frustrated emotions that staff communicated when leadership afforded them an opportunity to do so.
Even when staff voiced concerns with the organizational climate at Accelerate-Edu, leadership construed these challenges as a problem of individual employees; an issue of “bad apples” rather than a rotten tree. The move to implement IDPs reified organizational norms that Mark considered characteristic of effective startup companies—“Agility, flexibility, resourcefulness, fast-paced”—leaving little room for norms of collective healing, joy, or celebration.

Labor exploitation and labor fluidity thus constituted a discernable social force at Accelerate-Edu, which reified an individual orientation to life and work in the Valley (Benner, 2008). C-level staff requested “bodies” for particular jobs and regularly channeled staff input through hierarchical reporting structures. But staff, too, participated in naturalizing individual explanations of a hostile organizational climate. Although one former staff member used the Glassdoor website to demand that leadership “Stop pushing your staff away,” my field observations revealed few instances where staff rejected the norms of a startup culture. Instead, staff participated in naturalizing the routine nature of labor exploitation and turnover. When employees quit, staff uttered phrases like, “Another one bites the dust,” or “It’s okay, it’s a cycle,” and scanned neighboring organizations in the Valley for alternate places of work.

Norms of individualism also animated a general approach to associating with district and corporate partners. At the Pitch Games, efforts to “Link” edtech entrepreneurs and educators instantiated individually-based, transactional market relations. Although edtech entrepreneurs, administrators, and teachers likely participated in the Pitch Games based on a milieu of private and public motivations,
Accelerate-Edu stressed the personal benefits of participation. Accelerate-Edu stressed promises of future district contracts for entrepreneurs and a $2,000 stipend for participating administrators and teacher teams.

This individually-oriented and entrepreneurially-driven approach to human connections was also evident in the social norms at public events, such as invitations to “network.” For instance, at one Pitch Games event, Nicole directed participants’ attention to the beer, wine, and hors d’oeuvres at the back of the room and encouraged us to “use this time to network” while we waited for other guests to arrive. Although invitations to network need not reflect a market, or individualist mode of engaging, my experiences of these moments—rife with the chatter of sales pitches and the exchange of business cards—infused Nicole’s invitation to network with norms of individual self-interest. Staff even theorized the attendance among organizational leaders at public meetings by referencing a “WIFM,” or “What’s In it For Me” principle. Iris explained Darren’s absence at one public event this way: “Well there’s no money and no wine, so that explains why he’s not at the event.”

Collectively, intra- and inter-organizational norms of individual social mobility framed how Accelerate-Edu crafted visions for youth in the “twenty-first century.” Leadership and staff enlivened policy discourses of digital meritocracy and celebrated the inherent value of digital technologies that could “adjust speeds” for differently-abled students. Accelerate-Edu also explored ways to personalize learning and extend the adoption of digital technologies assumed to prepare individual youth to succeed in
the Valley; what one advisory board member described as, “the center of new business creation and innovation.”

Labaree (1997) describes this focus on getting ahead the “social mobility” goal of schooling (p. 54), which approaches schooling as a commodity with an “exchange value” whereby grades, credits, degrees, and increasingly “badges” (Ferdig & Pytash, 2014, Feb. 26) represent symbolic markers of societal distinction. Likewise, the vision of youth and future opportunity Accelerate-Edu endorsed resonates with what Pope (2008) describes as “doing school”: an approach to learning that diminishes values of curiosity and collaboration in the rush to get ahead. Accelerate-Edu re-articulated norms of “doing school” by emphasizing the competitive advantages that more personalized digital technologies afforded. Achievement technologies represented a means of digitizing longstanding social mobility goals of schooling that simultaneously diminished collective and civic purposes of teaching and learning.

But perhaps the most troubling effect of this individual mobility orientation to schooling pertained to the ways in which it minimized efforts to confront structures of racism. According to Labaree (1997), the social mobility aim “puts a democratic face on the inequalities of capitalism” (p. 72). Labaree is right but misses how the inequalities of capitalism are built on and through structures of racism that have historically advantaged whites and burdened Blacks and People of Color. From the

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13 Ferdig and Pytash (2014, Feb. 26) define “badging” as “digital recognition for accomplishing a skill or acquiring knowledge after completing an activity (e.g., a course, module, or project).” They consider badging an improved way to recognize individual achievements, which the expansion of massive online open courses (MOOCs) also makes possible.
vantage point of Accelerate-Edu, digital achievement technologies represented a means of digitizing meritocracy and preparing youth to succeed in a placeless, global horizon of twenty-first century workforce opportunities.

InnovateEquity directly challenged norms of selfishness and individual mobility embedded in policy discourses of digital meritocracy and social mobility aims of schooling. Horizontal relations of power enlivened through Ubuntu ethics (“I am because you are”), repeated invitations to collective problem-solving (“Jazz it out with me”), and refusals to accept individual recognition (“We were all saying it. It wasn’t just me”) emphasized a Black spatial imaginary.

Moreover, jazz and Ubuntu ethics were not mere rhetoric but also organizing frameworks of action. One notable example occurred during a moment of internal strife between InnovateEquity and the broader IDT. Partnering consultants wanted InnovateEquity to take a more aggressive leadership role in demanding pay from the City. Anna, the project director, explained InnovateEquity’s rationale for not enacting a hierarchical approach to decision-making by stating:

As People of Color/women-led organizations we know different folks have different circumstances and so for us to unilaterally mandate top-down directives on what needs to be done would be insensitive, inequitable, and unmindful... and go against who we are and what we believe in as an equity-driven organization.

Anna enacted a commitment to Ubuntu ethics and analogized their decisions with what she characterized as “an equity-driven organization.” These boundaries challenged
norms of individual mobility and selfishness and reflected an attention to shared, power-attentive, and participatory forms of decision-making.

Ubuntu ethics also constituted how InnovateEquity led the IDT to consider ways of engaging community members in downtown Oakland. The principle of “minimal reporting and maximum conversation” exemplified the team’s efforts to honor forms of “street speaking” and other grassroots ways of knowing excluded from urban planning epistemologies. Rather than the top-down sharing of business pitches or invitations to “network,” community engagements that the IDT organized reflected place-based efforts to collectively heal and dream. One field note excerpt illustrates how the IDT stressed norms of collectivity as a way to invite participants to engage in a process of visioning downtown Oakland.

Fieldnote Memo – Community Leaders Workshop (June 15, 2017)

During one community-based event, Yvan, a lead facilitator and long-time Oakland resident, summoned the audience’s attention through a jali song. Tapping on a djembe drum, Yvan invited the audience to join him: “How many of you can clap?” Forty-five attendees paused and raised their hands. Yvan jokingly added, “But how many of you can clap… in rhythm?” Participants laughed and joined in Yvan’s beat as he tapped on his drum and sang.

After Yvan’s song, he explained that the word, “jali,” a West African term meaning “blood,” is also the root word of “storyteller.” Yvan explained that just as blood provides nutrients and oxygen for our bodies, so too, do stories transmit knowledge that is essential for preserving communities like those in downtown Oakland. Yvan added, “If we don’t foreground the stories of those living in Oakland historically, we will develop a plan for Downtown that does not appreciate the people, culture, and history of those living here.”

Yvan invited participants to join in his song, which served as a cultural way of recruiting participation and establishing non-market norms of reciprocal reactions. Participants would not benefit directly or materially from participating, but through
collective struggle, might help to guide the development of downtown Oakland in ways that preserved cultural-historical legacies of place. Yvan’s explanation of jali as “blood” and also as “the root word of storyteller” also underscored the potential value of CommuniTech as a digital repository of stories that could form the basis of devising a shared vision of downtown Oakland. These collective and place-based uses of digital technologies represent a direct challenge to digital meritocracy and the norms of individual mobility.

Notably, even market transactions were articulated through a spirit of collectivity and community solidarity. In preparation for one community engagement that the IDT was allowed to direct, the team discussed who they might ask to cater the event. Team members suggested locally-owned, People of Color businesses: A taste of Africa, Tamales la Oaxaqueña, Kingston 11, Yung Kee, Kam Huong. Carl added, “It would be great to contract la Oaxaqueña. They are a small mother and daughter business who are losing their west Oakland restaurant due to rising rents, so I’m sure they could use the business.” The team agreed. Carl articulated an approach to market transactions that not only de-centered culturally agnostic approaches to designing engagements (e.g., Safeway-bought sandwiches and wraps), but that also incrementally materialized a vision of an equitable future by allocating material resources to those actively being displaced from living and working in Oakland.

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14 I acknowledge that metaphors of “blood” are subject to multiple interpretations across diverse contexts, and thus, represent a potentially risky organizing concept. My aim is not to romanticize “blood,” but to analyze the metaphor in accordance with what I interpreted as Yvan’s intended meaning.
Taken together, these practices forged inter-generational platforms for community residents and youth to articulate their dreams about the future of downtown Oakland. Contrary to values of individual advancement, principles of collective thriving and “place-making” guided the work of the IDT. Isaac summarized these aspirations during the conclusion of one community-based meeting:

This process is an opportunity for us to say what we want… what would satisfy us as a community. We’re trying to meet somewhere beyond where we’ve been historically… We’re willing to take all the hard shots, we are honored and feel like we have the right team… The way you show up, we’re going to show up, we’re going to follow up.

Isaac blurs boundaries between the IDT and community participants through the use of the pronoun “we.” Further, his second use of the pronoun, “we,” expressed solidarity among the IDT to advocate on behalf of grassroots communities (“We’re willing to take all the hard shots, we are honored…”). In this sense and as I argued in Chapter 3, the IDT functioned as Nepantleras (Anzaldúa, 1999), who represented and advocated on behalf of local community needs in deliberations with actors in positions of power. This was a culturally and historically responsive vision of place-making that expressed commitments beyond a liberal democratic tolerance for difference (Brown, 2006), and instead, enacted what Eddie summarized as Oakland’s greatest strength “to not just like tolerate each other, or co-exist together, but really grow together as a community.”

**Black and White Sociotechnical Imaginaries**

This discussion of Accelerate-Edu and InnovateEquity reveals the possibilities and constraints of racial equity in digital education reform. Table 4.1 below
summarizes the main dimensions of Accelerate-Edu and InnovateEquity as cases of white and Black sociotechnical imaginaries, respectively.

Table 4.1. Comparison of Accelerate-Edu and InnovateEquity as Cases of Racially Specific Sociotechnical Imaginaries.

<table>
<thead>
<tr>
<th>(In)attention to Racism in Visions of Digital Education Reform</th>
<th>Accelerate-Edu as White Sociotechnical Imaginary</th>
<th>InnovateEquity as Black Sociotechnical Imaginary</th>
</tr>
</thead>
<tbody>
<tr>
<td>(In)attention to Racism in Visions of Digital Education Reform</td>
<td>Ignored past and present forms of racial injustice; pursued a Silicon Valley inspired vision of global innovation, which situated digital education reform in relation to edtech marketplaces</td>
<td>Confronted past and present forms of racial injustice; drew on cultural legacies of “collective striving” in Oakland to design and implement civic technologies that advance cultural and material place-based changes</td>
</tr>
<tr>
<td>Exchange and Use Values of Digital Technologies</td>
<td>Brokered contracts on behalf of edtech startup companies in order to maximize the exchange value of achievement technologies and “disrupt” edtech markets</td>
<td>Bridged ‘street’ and ‘expert’ communities and sought to maximize the use value of civic technologies to “disrupt” historically exclusive democratic processes and build organizing power within and across historically marginalized communities</td>
</tr>
<tr>
<td>Individual and Collective Orientations to Digital Education Reform</td>
<td>Drew on norms of individual competition and selfishness to organize internal action, network with corporate and school district partners, and reify digital meritocratic conceptions of schooling for individual social mobility</td>
<td>Practiced an interpersonal ethics of Ubuntu to organize internal action, partner with members of most marginalized communities, and upend digital meritocratic conceptions of schooling in favor of collective forms of civic engagement</td>
</tr>
</tbody>
</table>

As evident in this discussion, structures of race and place emerged inseparably from sociotechnical ways of imagining educational progress. This analysis takes up
Jassanoff and Kim’s (2015) suggestions for inquiry of sociotechnical imaginaries that traces “where transformative ideas come from, how they acquire mass and solidity, and how imagination, objects, and norms, become fused in practice (p. 322). Combining sociotechnical and racially specific imaginaries offers insight into how past and present forms of racial discrimination (Lipsitz, 2007) animated the cultural politics of digital education reform in the twenty-first century.

Importantly, critical analyses of race and place allow CET scholars to ask new questions that can sharpen an analysis of educational equity. Attention to the discursive effects of race, place, and sociotechnical futures complicates an exclusive focus on race as phenotype. As Lipsitz (2007) observes, “White supremacy is an equal opportunity employer; nonwhite people can become active agents of white supremacy as well as passive participants in its hierarchies and rewards” (p. viii). Similarly, white sociotechnical imaginaries do not exclude individuals who identify as Asian, Black, or Brown from becoming active agents of white supremacist practices. Paying attention to imaginaries deflects attention to reductive analyses of race as representation, and instead, to race as a constitutive imaginary that reproduces racially disparate outcomes.

Cross-walking Cases with Traditions of Educational Research

Theorizing the intersection of Black and white sociotechnical imaginaries (Table 4.1) in relation to traditions of educational research (Table 1.1) offers one additional way to extend a “generalizable logic” from existing data (Luker, 2008, p. 103). By examining these theories relationally, I aim to explain how and why some digital education reforms are legitimated, while others are incrementally undermined.
Across the six fields represented in Table 4.2, only three were evident in my ethnographic fieldwork (denoted with *). I discuss these three fields separately and speculate about what other fields might represent in a contested landscape of digital education reform.

Table 4.2. Cross-walking Racialized Sociotechnical Imaginaries and Traditions of Education Reform

<table>
<thead>
<tr>
<th>Field</th>
<th>White Sociotechnical Imaginary</th>
<th>Black Sociotechnical Vision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>*A) White sociotechnical imaginary of achievement</td>
<td>D) Black sociotechnical vision of achievement</td>
</tr>
<tr>
<td>Tradition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunity</td>
<td>B) White sociotechnical imaginary of opportunity</td>
<td>E) Black sociotechnical vision of opportunity</td>
</tr>
<tr>
<td>Tradition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desire</td>
<td>*C) White sociotechnical imaginary of community desires</td>
<td>*F) Black sociotechnical vision of community desires</td>
</tr>
<tr>
<td>Tradition</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field (A) white sociotechnical imaginary of achievement represents a taken-for-granted approach to digital school reform. This field combines an inattention to racism with a taken-for-granted organizational structures of schooling (i.e., the “grammar of schooling” including age-segregated classes, letter grades, Carnegie units; Tyack & Tobin, 1994, p. 454). Digital innovations in this field tend to address cognitive deficits of young people and foster an orientation toward learning that supplants the goals of civic engagement for school-based achievement. School reform projects within this tradition tend to reify digital meritocracy and prevailing inequitable structures of opportunity, resources, and power. Accelerate-Edu is a representative example of organizational action within this field.
Field (C) white sociotechnical imaginary of community desires falls less within the purview of education reform and more within mainstream approaches to urban planning and urban design. Like (A), this field disregards the enduring relevance of racial inequities but construes urban spaces—not just schools and youth—through the lens of exchange value and individual social mobility. This field advances a theory of change that ceremonially recruits community desires and systematically denies any political claims to redistribute power and resources. Its guiding logic is profits over people. From this vantage point, communities are not defined in terms of culture or history, but rather, property values, such as lakefront lots or central downtown office real-estate. MPP embodies one example of this field.

Field (F) Black sociotechnical vision of community desires represents an emergent approach to digital education reform. I characterize this field as a “vision” instead of an “imaginary” to signal the ways in which this field is not widely-shared, or collectively-held by members of society (Chang, 2019a; Smith & Tidwell, 2016). Digital education reform projects within this field directly confront past and present forms of racial injustice and are not hemmed in by existing school standards of achievement. Instead, these reform projects utilize digital tools to support broader public pedagogies of collective civic engagement and shared dreaming of community transformation. Digital educational reform projects within this tradition seeks to disrupt digital meritocracy and the inequitable distributions of outcomes, opportunities and resources this policy discourse legitimates. InnovateEquity represents one organizational example of this field.
Fields (B), (D), and (E) were not explicitly evident in my fieldwork. Intriguingly, the opportunity tradition was absent across both cases. Yet, it is worth noting that InnovateEquity was not opposed to the aims of achievement or opportunity. They mobilized a political project rooted in a desire tradition that simply exceeded a focus on minimizing gaps within (achievement tradition) or beyond schooling (opportunity tradition). As such, the desire tradition best represents the epistemological assumptions evident in their digital organizing work.

It is also worth noting that, though beyond the scope of this project, evidence of a (D) Black sociotechnical vision of achievement was evident among a select group of partnering edtech companies Accelerate-Edu recruited. One notable example is MosaMack. This People of Color-led achievement technology company reflected staff from Oakland and Silicon Valley. MosaMack featured an animated, Brown female detective who solves science mysteries. Although MosaMack represented a more culturally responsive life sciences game, the digital tool replicated pricing plans and marketing strategies evident in a white sociotechnical imaginary of achievement. Further, it organized learning practices that were fundamentally oriented toward individual student mobility rather than collective civic engagement. In this sense, a Black sociotechnical vision of achievement represents related movements for more culturally relevant and culturally responsive approaches to teaching that seeks to integrate youth of color into existing structures of opportunity (Delpit, 2006). Such an approach problematically assumes that tinkering with schooling represents a viable way to enact broad social transformation (Lashaw, 2013).
Taken together, Table 4.2 offers an initial analytic effort to distill the social forces, actors, practices, and digital technologies within a fraught “twenty-first century” field of digital education reform. Following Pedroni (2007), I consider these fields “embodied tendencies” rather than “ideal types” to challenge monolithic categories of distinctive kinds of reform projects or reformers (p. 37). These six fields are thus contingent categories of meaning that open conceptual space for polyvocal movements for education reform that might challenge more dominant, institutionalized imaginaries, such as white sociotechnical imaginaries of achievement.

Cross-walking racially specific sociotechnical imaginaries with the traditions of education research also surfaces the potential for reform alliances; what Apple (2012) describes as “de-centered unities”: “a richer and more diverse ‘we’” considered “crucial to strategies of interruption” (p. 94). Table 4.2 illustrates possibilities for alliance work within and potentially across each column. For example, advocates of a (F) Black sociotechnical vision of community desires might find fruitful partnership with school actors advancing a (D) Black sociotechnical vision of achievement. More transformational “non-reformist reform” aspirations of (F) that aim to tackle the root causes of injustice in schools and society (Fraser & Honneth, 2003, p. 79) might benefit from exploring reformist efforts to address inequities within schools that lead to discrete organizational reforms (Bang et al., 2016). By contrast, actors within the field of (D), might turn to movements within (F) to explore ways of working at the intersections of communities and schools to couple the aims of school achievement with efforts to address the root causes of community and school barriers to opportunity
(Green, 2016; Ishimaru, 2017; Warren, 2018). Although justice-minded reformers might also forge alliances horizontally—that is, across Black and white sociotechnical traditions—this framework plainly illustrates a need to confront competing values and orientations toward systemic racism in order to make such collaborations viable.

Last, this discussion also reveals the scope and scale of equity-oriented reform. It is not sufficient to interrupt policy discourses (“digital meritocracy”), challenge for-profit schemes in the organizational field of school reform (“free, free, free, pay”), or simply contest racially specific, sociotechnical frameworks of meaning (“white sociotechnical imaginary”). Instead, advancing equity requires an ongoing attention to each of these projects simultaneously, and targeting the ways in which power is encoded within and across intersections of assumptions tied to meanings about the digital, racism, and schooling.

Still, missing from this analysis is an understanding of how and why some visions become imaginaries. In a final analytic move, I revisit new institutionalism in organizational theory to explain how and why Accelerate-Edu profited, whereas InnovateEquity was penalized in a shared organizational field of digital education reform.

**Situating Racial Sociotechnical Imaginaries in an Organizational Field**

A fundamental premise in new institutional theory is that organizations adopt elements of institutions, or “taken-for-granted classifications, scripts, and schemata” to survive (Meyer & Rowan, 2006, p. 6). Thus far, I have traced the formation of white sociotechnical imaginaries of achievement to “sources” of institutionalization
including the state, media, markets, and professions (Ogawa, 1994; Rowan, 2003). In the Introduction, I examined how media and research narratives elided attention to racism and stressed the affordances of digital tools to revolutionize historic inequities based on “zip code” (Monahan, 2015, Aug. 20; Moe & Chubb, 2009). These cultural scripts complemented a market orientation toward schooling that assumes expanded distribution of edtech products would allow student to “escape” local conditions (Hess, 2010, p. 25). Chapter 1 illustrated the historic formation of present edtech programs and practices, which narrow a focus on individual social mobility (“personalization”) and reify a longstanding policy inattention to structural racism (“everywhere”). These preceding analyses reveal the institutional sources of a white sociotechnical imaginary of achievement as a legitimated and taken-for-granted institution shaping present digital education reform organizing (Colyvas & Powell, 2006).

A new institutional framework provides a language for investigating how prevailing institutions mediate inter-organizational actions and interactions in distinctive “organizational fields,” or “recognized areas of institutional life” (DiMaggio and Powell, 1983, p. 143). I assume that Accelerate-Edu and InnovateEquity operated within a shared organizational field of digital technology education reform given that both organizations are: technology-based nonprofit, 501(C)3 organizations founded within the past ten years; shared a geographic proximity in the San Francisco California Bay Area; engaged in distinctive kinds of “brokering” labor associated with digital technologies and learning (Trujillo, 2014, p. 254); and mediated relations across private foundations, state and district actors, corporations, media outlets, and families and
communities. Drawing on new institutionalism, I assume that Accelerate-Edu and InnovateEquity competed over scarce resources within a shared organizational field in ways that shaped, and were shaped by, prevailing institutions and imaginaries.

The remainder of this section traces the (in)congruence between organizational aims, structures, and activities between each organization and prevailing institutions (Dowling and Pfeffer, 1975, p. 122). I illustrate how Accelerate-Edu strategically adopted elements of institutions associated with white sociotechnical imaginaries of achievement in ways that legitimated their work and recruited financial resources. By contrast, InnovateEquity adopted organizational aims and structures that contested prevailing cultural scripts, and consequently, encountered repeated barriers to legitimacy.

**Organizational Profits at Accelerate-Edu**

Congruence between the organizational actions of Accelerate-Edu and white sociotechnical imaginaries of achievement recruited political legitimacy and overlapping financial investments. Although Accelerate-Edu recruited districts, corporations, and philanthropic foundations, these partners also actively sought Accelerate-Edu as a key partner and source of investment. These sociomaterial relations diminished Accelerate-Edu’s concerns about survival within the organizational field of education reforms driven by digital technologies.

From school district leaders standpoint, Accelerate-Edu represented a viable partner whose programs melded easily with apolitical, color-averse, and top-down approaches to education reform. The words of one Accelerate-Edu team member
illustrate this perspective. When asked about what role research played in recruiting district partners, Ralph corrected me:

It seems to me that momentum has a lot to do with it. We’ve met with a few new districts, that have said… when we show them who… who we’re working with. They’ll literally go through and underline folks and go like, ‘Our neighbors are doing this.’ You know… ‘Why aren’t we on board?’ kind of thing. I think it’s sort of a snowball effect. It’s going to keep growing and growing and growing. As more districts do it, that has a very big pull too.

Ralph reveals how districts’ interests in Accelerate-Edu created a cyclical legitimizing effect. His description of a “snowball” process represents an instance of “structural isomorphism”: the adoption of practices that organizations interpret as exemplary or legitimate (Burch, 2007). Districts may have partnered with Accelerate-Edu to communicate their own technological savviness to parents and neighboring districts. This snowball effect increased the number of districts Accelerate-Edu could claim as partners, which further legitimated Accelerate-Edu. Accelerate-Edu tactfully negotiated this “numbers game” to legitimate themselves (Baldridge, 2014, p. 461), as evident across several meetings with potential district technology teams. During one meeting in South San Francisco, a team member introduced Accelerate-Edu and stated, “We’re a third party and work with close to half the districts in San Mateo county. That’s thirty districts in the Bay Area and beyond.” Similarly, Accelerate-Edu’s holiday postcard read, “Accelerate-Edu helped 20 districts plan and assess new EdTech.” Ultimately, districts chose to partner with Accelerate-Edu because it offered a technical remedy that simultaneously bolstered districts’ legitimacy and posed minimal political risks.
In addition to district partnerships, Accelerate-Edu received multiple foundation grants, and even received an unsolicited grant for one-million dollars from Google designed to support “Latina/o students.” Accelerate-Edu staff explained that Google was engaging in a “diversity push” and was interested in giving back to local Silicon Valley school districts. The potential receipt of a million-dollar grant occasioned strategic uses of “race talk” at Accelerate-Edu; what Pollock (2004) might describe as a moment in which “race doesn’t matter, but it does” (p. 14). Race did not matter as a system of structured advantages and disadvantages that shaped prevailing distributions of educational opportunities and resources, but it did matter as a demographic marker of individual students who the organization could cite as beneficiaries of digital school reform. This ethical sleight of hand allowed Accelerate-Edu to avoid accountability for racial injustices even as it positioned the organization to receive corporate financial investments. Intriguingly, the grant from Google overlapped with four of the 56 districts the Gates Foundation previously funded. These shared grantmaking patterns, what Reckhow & Snyder (2014) call “convergence grants” (p. 6), doubly benefited Accelerate-Edu. To my surprise, the substantive content of the Google grant Accelerate-Edu received had yet to be defined at the time they were awarded the funds. Still, Accelerate-Edu’s status as “The trusted adviser for school districts” may have proved sufficiently amenable to Google’s aims to provide a million-dollar grant in support of something indeterminate.

Based on these profitable sociomaterial relations, Accelerate-Edu expressed few concerns about their political or fiscal longevity. Recall Renée’s notion of a “blue
ocean approach” to describe her understanding of where Accelerate-Edu sat within a broader field of digital education reform. She argued that “[. . .] when working in the education space, [we’re] all working towards a similar goal.” From Renée’s perspective, mutual aid and beneficence were the norm for digital education nonprofit organizations. District partnerships and convergent grants from Gates and Google represented material instances of this “blue ocean approach.” Ultimately, Accelerate-Edu strategically mobilized their board as resources, crafted programs that aligned with legitimated institutions, which ultimately “snowballed” into added financial resources. This was not the case for InnovateEquity.

**Organizational Penalties at InnovateEquity**

Incongruence between InnovateEquity’s values and a prevailing (A) white sociotechnical imaginary of achievement and a (B) white sociotechnical imaginary of community desires encountered repeated barriers to organizing. The barriers that InnovateEquity encountered reflected intentional efforts to undermine their efforts, but also, unintentional actions that emanated from institutionalized approaches to developing solutions for rather than with communities of color.

As I argued in Chapter 3, a major source of inter-organizational friction pertained to working relations among the IDT, the City, and MPP. Attention to racial injustice was a key source of friction that the City repeatedly censored or redacted. One notable example of redaction occurred in the days after a community leaders’ workshop: a three-hour session designed to invite local community leaders into a downtown planning process and provide leaders with an initial tutorial of
CommunitiTech. InnovateEquity penned a letter to attendees to express their gratitude for community members’ time and to foster ongoing participation. Although InnovateEquity intended to send the letter a few days after the workshop, they received an approved electronic copy of the letter from the City 6-weeks later. The following passages were deleted from the approved version:

InnovateEquity believes it’s important for residents of our city to examine their own identities and engage in meaningful dialogue about race, power, and privilege. We are direct and honest in our discussions about the history of discrimination in our city, how it manifests in our lives, and the need for identifying and prototyping community-driven solutions.

These deleted passages in the community-facing letter mapped onto the very racially explicit terms InnovateEquity used to describe their organizational mission. In fact, throughout communications with the City, explicit mentions of “race, power, and privilege” and “the history of discrimination in our city” were targeted as explicit objects of redaction. This final line from InnovateEquity’s letter to the community was also censored: “Let us be clear: we will not step back from the important task of institutionalizing equity and making a downtown that works for all Oakland residents.”

Although barriers that InnovateEquity encountered might also be traced to other limitations within the City (e.g., inefficient bureaucratic arrangements, understaffing within city governments), multiple corroborating fieldnote observations suggest that the City was especially concerned about InnovateEquity’s explicit racial commitments to justice. City staff physical self-segregated from community members of color at public events. On other occasions, they explicitly delayed efforts among the IDT team to engage communities of color by postponing approvals for engagement materials,
such as blog posts, videos, and postcards. In these moments, redaction was not required given that the City did not even make themselves available to potential social justice demands.

These inter-organizational norms also reflect institutionalized routines associated with a white sociotechnical imaginary of community desires that assumed “community engagement” was a product that could be captured and delivered, rather than an ongoing process of healing and trust-building. The City assumed a lock-step approach to engaging local community members, which, in the words of one InnovateEquity team member, interpreted community engagement as “boxes to be checked.” Anna offered one specific example of the challenges she faced partnering with city staff who were “very entrenched in their ways”:

We had to fight them to say, ‘You all should not be standing in front of community presenting things.’ How many times did we have to say that? And yet every single meeting, people stood in front of the community and presented things and it was not often well received.

Rather than align with institutionalized top-down approaches to transactional reform, InnovateEquity implemented a grassroots approach that adhered to their organizational values. Anna elaborated by stating that the City did not understand what it meant to do ongoing deep engagement with historically marginalized populations; an effort that was difficult to quantify and that often exceeded contractual hours. Isaac expressed a similar sentiment when he characterized the city’s “business as usual way of working with communities.” Understandings of engagement as an ongoing process cultivated through repeated practices of trust-building were not only potentially uncomfortable
for City staff to navigate, but largely considered unnecessary from a transactional, product-focused orientation of urban planning.

Ultimately, intentional redaction practices and institutionalized “business as usual” approaches for working with historically underserved and minoritized communities manifested in severe financial burdens on InnovateEquity. Unlike block grants from philanthropic foundations that provide a reserve fund for organizations to cover expenses and pay salaries, InnovateEquity sent a list of “completed tasks” and corresponding hours to city staff at the end of each month. Delayed payments placed the team in a precarious position and hampered levels of engagement and motivation among the IDT. Still, despite an onslaught of delegitimizing efforts, the team explored ways to work within inter-organizational constraints and uphold their commitments to local leaders and community groups throughout downtown Oakland.

**A Politics of Redaction**

Whereas Accelerate-Edu successfully solicited overlapping economic investments and political legitimacy that “snowballed” across districts, InnovateEquity encountered repeated efforts to fiscally and politically undermine their efforts. I use the term *politics of redaction* to theorize these contrasting empirical patterns. A politics of redaction refers to the historically conditioned ways actors in positions of power seek to depoliticize justice-oriented talk and practice in ways that further the reproduction of inequitable social structures.

As evident in the case of InnovateEquity, concrete examples of redaction politics include the deliberate censorship of race-critical language, a begrudging willingness to
share power with historically excluded community members, and repeated insensitive delays in financial payments. These political practices exacted a cumulative toll on InnovateEquity that tended to position their organization in a nominal, tokenizing role of “a rubber stamp.” These effects are not the product of unconstrained agency, but rather, actions mediated by standard operating procedures (Scott, 1995) that normalize practices that develop solutions for rather than with communities of color. Further, these institutions reflect and reify social boundaries, including historic inequities in community control over education reform processes (Katz, 2001).

A politics of redaction also explains the assumed legitimacy and ample resourcing that AccelerateEdu received. Accelerate-Edu mobilized a project that aimed to diversify but ultimately preserve existing hierarchical opportunity structures within the Valley. AccelerateEdu selectively appropriated digital technologies in ways that cohered with taken-for-granted institutions, which assumed the purpose of schooling was to integrate individual young people into a stratified, high-tech economy. This vision of reform stemmed from members of their advisory board, who acted as surrogates of legitimacy within the organizational field of digital education reform. Rather than censorship or resource delays, Accelerate-Edu received widespread district approval and multiple investments from philanthropic foundations and corporations.

A politics of redaction also extends to studies of education reform beyond the field of digital technology. Studies of school closures attest to similar patterns of a politics of redaction at play (Ewing, 2018; Green, 2017; Stovall, 2016). Stovall’s (2016) participatory analysis of a community-based effort to establish the School of Social
Justice (SOJO) in Chicago reflects these very incremental efforts to depoliticize and destabilize grassroots organizing for justice reform. Stovall illustrates the ways in which Chicago Public Schools fired school leadership and delayed community hearings to tacitly undermine their efforts. Similarly, Ewing (2018) draws on the words of one community organizer to describe a “phantom process” (p. 36) that Chicago Public Schools enacted after closing a school in South Chicago. Ewing’s reflections are instructive and speak to the IDT’s engagements with a politics of redaction:

When you can’t get basic answers about how a supposedly democratic process is going to take place, it feels like a restriction of your ability to act as a citizen. As constituents in a system that seems constantly posted to wriggle out of our grasp, how much power can we ever really have? (Ewing, 2018, p. 37)

Ewing’s analysis resonates with the candid question one community member posed to the City: “What’s our power?” As in grassroots resistance to school closings, InnovateEquity facilitated a racially explicit and community-driven process of neighborhood transformation but was “soon framed as failures” for challenging prevailing distributions of power, opportunities, and resources (Stovall, 2016, p. 139). A politics of redaction forecloses the political content and the windows of time in which grassroots communities are allowed to respond to decisions made by those in positions of power.

Within the organizational field of digital education reform, organizations that align with white sociotechnical imaginaries of achievement thrive, whereas organizations that challenge these institutional logics are penalized. A politics of redaction thus reveals the constrained political possibilities of digital education reforms amid a moment dominated by narrow, race-evasive, schooled imaginaries of young
people and digital technologies. Ultimately, organizations like Accelerate-Edu thrive and extend a misleading democratic veneer of digital school opportunities as a gateway for “all” students to succeed.

Despite this bleak depiction of the organizational field of digital education reform, findings from InnovateEquity reveal fissures of possibility. A politics of redaction “seeks to depoliticize” and constrain justice organizing efforts but does not determine internal organizational actions. The second definition of redaction, “the action of driving back; resistance, reaction” (Oxford-English Dictionary, 2019c), alludes to creative possibilities amid historically engrained constraints. Further research might explore a counter-politics of redaction, as evident in Isaac’s provocation to the team:

As a team, we’re being used to rubber stamp a transactional process. What I want us to think about… as this keeps going deeper and deeper... Are we sure we want to keep doing that? Can we seek more transformational ways? How do we lift those transformational ideas and really stand our ground and have the city change their processes?

Rather than determined subjects mired in a “nonprofit industrial complex” (Rodríguez, 2007), actors at InnovateEquity persistently explored subtle tactics of resistance and ways of co-opting a politics of redaction (Cruz, 2013; Kelley, 2002). In particular, the team debated key leverage points that could maximize equity in the downtown planning process, such as volunteering to attend critical decision-making meetings or leveraging community connections to mobilize political action. These findings resonated with one of my earliest fieldnote recollections in which Isaac divulged: “We’re subtle and move
quietly and know internally.” What possibilities remain for negotiating an organizational field that sanctions reform projects that align with white sociotechnical imaginaries of achievement and redacts organizations that contest these institutionalized scripts? How might grassroots organizers incrementally build toward more just, anti-racist, digital futures?
Chapter 5: Toward More Just Innovations

“When you watch the crowds of Blacks, Asians, and Hispanics coexisting peacefully in the late afternoon on Broadway and Fourteenth, near the Tribune Tower, you get a glimpse of what the world could look like.”

~ Ishmael Reed (2007)
Blues city: A walk in Oakland

“Technology is like fire, right? It’s neither good nor bad. It is whatever we use it for.”

~ Pamela Weiss, Zen Buddhist
As quoted in McClelland’s (2018) Silicon City

About midway through my fieldwork in Oakland, I began participating in “pick-it-up” street cleaning events in Chinatown. Eddie, a member of the IDT and Chinatown organizer, invited me to attend these events on the first Sunday of each month. During my first Sunday trip to Oakland, I was reminded of how little I knew about the people and culture that constituted this place called the Town.

On one of my early Sunday trips to Oakland, I pulled off the 880 freeway near Laney College and saw a bustling flea market that I had only perceived as a vacant lot during weekday field-site visits. I weaved my way toward free parking spaces along the outskirts of Lake Merritt: a large urban lagoon that one IDT member described as “the connective tissue” of downtown Oakland. Parents walked with their children hand-in-hand, grandmothers leaned heavily on their mobile walkers, runners wove their way through the crowds enjoying a moderate, sunny, 65-degree morning.

From Lake Merritt, I walked down Alice Street and bypassed a mural that depicted local artists, community leaders, and labor organizers surrounded by dancers
and musicians. Around the corner, another mural with several large dragons symbolized what I later come to discover as strength, power and good fortune. I peered into a Buddhist temple and smelled incense burning in a large ceramic vessel on the sidewalk. A congregation of what looked like 75 to 100 people bowed in prayer.

I then headed through Lincoln Street Park, where a group of Asian seniors were engaged in the slow rhythmic movements of Tai chi. They moved the air with their hands and planted their feet on the asphalt without making a sound. Just behind me, a large hand-drawn sign with painted watermelons, strawberries, and other misshapen but colorful fruit informed park visitors: “Lincoln Children Garden Please Be Respectful and Do Not Pick!”

I made a final detour on my way to meet Eddie and stepped into the Lincoln Community Center. Hand-cut, crayon drawings of basketball players, ballerinas, teachers, police officers, paleontologists, video-game designers, artists, lifeguards, pilots, and scientists hung from a blue and green entryway exhibit. A sign above the career exhibit read: “Our Center Our Community.” In the background, several Asian seniors were singing in a language I could not comprehend. As I left the community center, I came across a sign that pictured multi-ethnic and differently-abled children singing, reading, and playing music. The sign read: “Read Together in Rhythm.”

This hour walk through Chinatown revealed my limited grasp of the everyday cultural worlds unfolding in Oakland. My racial identity allowed me to navigate Chinatown as if it were my own neighborhood, even though I was very much a stranger.
to this part of the Town and far removed from a deep historical and lived sense of the place.

My Sunday walk through Chinatown also reminded me of entire neighborhoods and communities in Oakland that I had yet to grasp in any substantive way. Although I critiqued Accelerate-Edu for flattening local variations across districts and similarly critiqued MPP and the City for reducing conceptions of Oakland to trees and parking stalls, this Sunday walk surfaced self-critical assumptions guiding my own efforts to understand and re-present the Town. I wondered what was distinctive about my account and about the story I chose to tell about digital education reform in the Bay Area more broadly. As in Carl’s critique of the initial downtown plan MPP wrote, would he regard my dissertation as akin to “someone parachuting from afar trying to tell us about the city we live in”?

I was not a part of the “we” Carl alluded to here. Although ethnographers are always already “insiders” and “outsiders”—never fully accessing the interiority of those whose lives we seek to understand but also rarely complete foreigners to strange social contexts (Stein, 2010)—my limited connections to the Valley and the Town undoubtedly constrained the kinds of data and analyses other researchers might have produced. Yet, what I consider distinctive about this text are the critical and self-reflexive questions that guided this inquiry. I began by asking questions about power: Whose ideas and values prevail in policy debates about digital education reform? Who participates and who doesn’t? Ultimately, who benefits from legitimated approaches to education reform driven by digital technologies? I attempted to trouble what Selwyn
(2019) describes as “the hyperbole that tends to cloud discussions of ‘new’ technology” (p. 22) by weaving analyses of policy discourses with the everyday cultural talk and practices in particular places. Still, this account of digital education reform in the Valley and the Town represents an inherently situated and partial truth (Haraway, 1988).

In this final chapter, I add an additional perspective to this situated account of digital education reform. I draw on the words of community leaders in Oakland as an empirical basis for theorizing how to trouble normative assumptions about race, digital technologies, and schooling. This turn to the perspectives of community leaders does not diminish attention to creative and subversive organizing efforts in the Valley (Wong, 2016, Jan. 28), such as the collective campaigns for dignity and livable wages organized by Silicon Valley Rising (SV Rising, n.d.; Wong, 2016, Jan. 28). They too, to draw on the words of Reed (2007), “offer a glimpse of what the world could look like” (p. 27). Turning to the words of community leaders in Oakland represents my attention to specific place-based contexts in which “discursive openings” might emerge and gain traction (Christensen, Morsing, & Thyssen, 2015, p. 141). Like Reed, I found

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1 Silicon Valley Rising is a coalition of labor, faith leaders, community-based organizations and workers. In addition to organizing for livable wages and affordable housing for cafeteria staff, security workers, and bus drivers throughout the Valley, SVR works to secure equity protections in tech-driven development plans, such as Google’s proposed “megacampus” in San Jose. These collective organizing campaigns animate less visible histories of community organizing in Silicon Valley, such as the transformative community-based leadership of Gertrude Wilks; a daughter of Louisiana sharecroppers who organized community schools in East Palo Alto and also campaigned Stanford University to implement affirmative action (Cutler, 2015, Jan. 10).
possibilities inherent in ongoing struggles for just community and education transformation in the Town where everyday ways of being and knowing seemed further removed from fantastical claims of digital liberation.

I begin by weaving analytic threads between the perspectives of Oakland based community leaders and digital sociology to argue that attention to subjugated knowledges offers a basis for designing digital, place-based tools and solutions. I synthesize street and scholarly epistemologies to build toward a vision of digital innovation rooted in and responsive to historically excluded and minoritized people and places.

Next, I delve into the social processes that enact commitments to sincerely listen to and hear excluded ways of being and knowing as a basis for designing digital solutions. Community leaders collectively expressed that more just innovations entail participatory democratic processes and ongoing efforts to engage, resource, and support community-driven aspirations for place-based change. As one community leader, Estelle, argued, community must have “a real seat at the table” and “some sort of disruption in the frame of development.” I combine Estelle’s recommendations with recent scholarship on “disrupting the disruptors” (Foks, 2015; Sims, 2016) and outline practical policy, research, and pedagogical disruptions. A focus on practical action is not a reformist move, but contributes concrete actions and longterm, transformational aims associated with displacing white sociotechnical imaginaries of achievement. Taken together, this chapter considers the ethical and political obligations of scholars to not only “show how” but “intervene in” contexts of injustice (Decuypere, 2019, p.
I conclude by inviting readers to explore ways of challenging the underlying values and frameworks of meaning that sustain racial exclusions in a digital era and building toward more just innovations.

**Practical Solutions and Subjugated Knowledges**

When asked how to forge a more equitable Oakland, local community leaders emphasized a need to elevate perspectives and experiences of those historically excluded from democratic processes. Given rapid rates of displacement and eviction in Oakland, several community leaders specified a need to draw on subjugated knowledges of houseless people most directly impacted by urban development. Colin, a local community leader, put it this way,

> I live in a house, so it shouldn’t be up to me what homeless people get from the city. The city needs to be asking homeless people themselves, ‘How could you best be served?’ Because they have the solutions. They have the solutions.

Colin doubly emphasizes a need to elevate the perspectives and experiences of houseless people. He elaborated that houseless people do not only possess knowledge of how they can best be served but can offer insight into more structural solutions to housing crises in Oakland. Veronica, another community member echoed Colin’s point:

> In a sense the most impacted population of development doesn’t get a voice. They’re not here being interviewed. They’re sleeping in tents, under freeway underpasses. Their voices are important too. They are the proof, the sign, and the symbol of what rapid development without intention is currently costing us. And for all I know, the solution for our problems is somewhere sleeping under an overpass right now.

Veronica named inequities in the process of drafting a vision for downtown Oakland that excluded the most marginalized communities. She interpreted houselessness as
evidence of inequitable development, but also as a key epistemological basis for developing potentially transformational community solutions.

Critical digital sociologists agree that attention to marginalized epistemologies offers a generative basis for designing digital innovations. Lynch (2015) describes the ways in which technology is “storied into existence” (p. 145) and encourages researchers to privilege those stories that have been historically excluded as a way to build digital tools that respond to social injustices. Similarly, Bryson and de Castell (1998) draw on Foucault (1980) and argue:

We suggest, then, that probably the most important job for researchers concerned to understand the scope and limits of the educational uses of technology is to seek out those stories that are not being circulated, to stop ‘making sense,’ to look for educational technology’s version of Foucault’s ‘subjugated knowledges’ within which the complications, contradictions, and complexities of this new educational domain are most likely and most productively to be discerned. For it will most likely be in these tales, we suspect, that radically innovative possibilities for the transformation of hegemonic practices might best be found. (Bryson & de Castell, 1998, p. 84)

Their call “to stop ‘making sense’” challenges mainstream achievement orientations to digital innovation and research, which attempt to discern the “impacts” or “effects” of particular technology tools on achievement scores. Bryson and de Castell argue that subjugated knowledges represent an epistemological basis for designing “radically innovative possibilities”; novel digital practices that disrupt hegemonic relations of power and privilege.

If technologies “reflect and affect” the social contexts of their use (Bromley & Apple, 1998, p. 47), then designing tools in ways that reflect subjugated knowledges and ontologies can affect the contexts of ongoing racial injustices that a high-tech
economy reproduces. Rather than just more innovation, we might enact a participatory ethics that builds toward *more just innovations*: digital tools, practices, and processes that emanate from historically excluded epistemologies, foster collective critiques of structural inequities, and mobilize organizing power among youth and families from long-marginalized communities. More just innovations can complement demands for justice rooted in the words and lived experiences of historically marginalized communities. InnovateEquity and the iterative approach to digital and community design they enacted with and through CommunitiTech represents one example of more just innovative practice. Although hemmed in by a politics of redaction, their everyday efforts exemplify one concrete example of place-based efforts to disrupt normative white sociotechnical imaginaries of achievement. Given the affordances and constraints evident in the work of InnovateEquity, how then might critical and digital sociologists anticipate a politics of redaction and build toward more just innovations? The following section revisits the words of Oakland-based community leaders for guidance on this issue.

**From Participation to Disruption: A ‘Real Seat at the Table’**

For Oakland-based community leaders, a “seat at the table” represented one way to ensure that subjugated knowledges were included in decisions about community development. Resonant with the chorus of Fantastic Negrito’s (2016) “Working Poor”—“Well I keep on knocking / Well I keep on knocking but I can't get in”—community leaders demanded access to closed-door decision-making conversations between the City and real-estate developers and investors. Still, other community
leaders demanded more than access and participation and called for processes in which community voices are not only present in decision-making circles but actively heard and acted upon. I synthesize these views as a basis for imagining community-driven and community-responsive approaches to more just innovations.

‘If we’re not at the table, we’re on the menu’

Community leaders collectively advocated for a “seat at the table” as a way to ensure subjugated ways of knowing actively shaped decision-making conversations. But community leaders also articulated contrasting understandings of who was most marginalized and most deserving of a seat, revealing the challenges and possibilities of working across intersectional lines of difference (Collins, 2017; Lorde, 1993).

Arguments for expanding who is “at the table” often drew on historical understandings of traditionally excluded groups. One community leader remarked: “I think that there has to be greater outreach into communities that have not been at the table. Being a Black American man, I think about equity as inclusion of Black men. But, rarely are Black men even in the equation.” He emphasized a distinction between “Black people” and “Black men”; a group he described as historically “locked out of the process” of democratic governance based, in part, on his own experiences of exclusion as a Black man. Additionally, he argued that the inclusion of Black men was critical given the underrepresentation of Black men on the boards of philanthropic foundations and nonprofit organizations sponsoring community-change efforts in downtown Oakland. Although Black men encounter distinct forms of violence and normalized suffering (Dumas, 2016), this community leader advanced demands for a
seat at the table rooted in identity politics that tended to minimize possibilities for intersectional coalition building.

Another activist and community leader similarly recommended a need for community members to have a “seat at the table” but cited a broader range of traditionally excluded groups. She argued, “One of the most important things that I think we need right now in Oakland is for communities of color, low-income communities to actually have a seat at the table when you talk about planning, right?” She explained that developers did not have any legal responsibilities to engage community members in the construction of new buildings, which hampered the efforts of community activists who often successfully contested one development project only to re-engage and re-organize community members to challenge a new developer the following week. As a member of the Chinatown community, she expressed solidarity with Black, Latinx, and indigenous groups but emphasized histories of displacement in Chinatown, such as historic covenants that barred Chinese people from acquiring land. She cautioned that absent a “seat at the table” downtown Oakland would likely witness “the disappearance of our neighborhoods… of our cultural neighborhoods that make Oakland what it is.” This community activist extended a more intersectional analysis of a seat at the table and an emergent basis for coalitional and interracial solidarity.

A final community leader offered an even more expansive analysis of traditionally excluded groups. When asked what supports might be put in place to realize his vision of Oakland, he remarked:

I think about the people who have been in power, taking a step back and really listening and creating space for people who have been at the margins to really
be at the center of the conversation and have a seat at the table, right, because as they say, ‘If we’re not at the table, we’re on the menu.’ And actually, it’s communities of color, women, poor people, disabled people, Black people, indigenous people, who… homeless people, low-income people who need to be, not just at the table, but at the head of the table.

This community leader advanced an intersectional analysis of democratic exclusion in downtown Oakland politics. He alluded to the potential inadequacy of merely acquiring a seat at the table—even when it included intersectional groups of marginalized community members—and spoke figuratively about a need for real decision-making power by demanding a seat at the “head of the table.” This focus on self-determination and power within democratic processes troubles the rhetorical inclusion of community groups in urban planning processes.

Taken together, these suggestions reveal the possibilities and challenges of organizing solutions that weave distinctive past and present legacies of exclusion. Still a sense of the cultural and discursive operations of power—how discourses and imaginaries may constrain justice even when community groups achieve a seat “at the head of the table”—remain limited.

‘A real seat at the table’

Other community leaders extended intersectional analyses of what it means to have a “real seat at the table” by questioning the very practices and processes through which community voices would be heard. Estelle, a community leader of Black theater, defined a “real seat” as “Truly listening to what people in community say.” She added:

I think that it is disingenuous to collect information and to conduct studies and then to not act on the fruit of those studies… or to [not] incorporate some sort of strategy to really embody those suggestions. I think that community access to processes is a crucial thing in Oakland right now at this time. And I think that
the inclusion of ways in looking at things, not just looking at things from top
down, not just looking at things from a market rate perspective, but also looking
at things from a grassroots perspective. Looking at things from the lens of those
who have been marginalized and continue to be marginalized. (my emphasis)

Like other community leaders, Estelle sees value in having a “seat at the table,” what
she articulates as “community access to process.” But Estelle sees democratic inclusion
as insufficient. She elaborated, “there has to be some sort of disruption in the frame for
development in the downtown.” Estelle argued that expanded participation will mean
little if the framework for interpreting community voices reduces or confuses
community aspirations. Her call for a “grassroots perspective” expresses, through
clearer and more cogent prose, what I described in Chapter 4 as transformative
possibilities evident in a Black sociotechnical imaginary. Both a grassroots perspective
and a Black sociotechnical imaginary trouble power at the level of social practices and
policy discourses. It is about a politics of solidarity that confronts histories of racialized
exclusion and enacts commitments toward collective striving.

Other community leaders shared Estelle’s vision and demanded more than a
“seat at the table.” Another community leader stressed the importance of ensuring a
process “where people feel like they have a say in not just participating but prospering
in what Oakland will look like in the next few years.” Notions of “prospering” carry an
implicit guarantee that voices are not just spoken, but heard (Spivak, 2010). Another
community leader drew on metaphors of prosperity to extend analyses of the social
contexts needed to advance equity in downtown Oakland:

To me, I mean equity means a fair and just inclusion in society and so that
would be a local framework here in Oakland… where the people feel like they
have not just a seat at the table, but their agency, their creativity, their intellect,
their passions are given space to flourish. They have the resources to do that. And that the individuality that we each bring and also our different and shared histories really contribute to uplift and make sure the people can really prosper and participate in their best way.

This community leader contested empty notions of representation, and instead, advocated for cultural and material spaces to realize community aspirations. Metaphors of flourishing also parallel what Lipsitz (2011) describes as the “creative and generative dynamics” of a Black spatial imaginary (p. 61). When applied to debates over digital education reform, notions of having a “real seat at the table” invite further inquiry into how subjugated knowledges might infuse the design, use, and sociomaterial consequences of new innovations.

**Scholarly (Re)iterations of ‘Street’ Knowledges**

Recent calls to “disrupt the disruptors” (Foks, 2016) echo the demands among Oakland leaders for “some sort of disruption in the frame.” Foks (2016) argues that we must challenge assumptions about disruptive innovations as inherently morally valuable and re-orient a more critical analyses toward the political contexts and origin stories through which technologies are brought into being. Similarly, Sims (2017) illustrates how philanthropic-funded digital school reformers claim to “disrupt” schooling but organize practices that end up reproducing the very inequities they claim to challenge. Like Foks, Sims encourages further research into the cultural work of technology “disruptors” and aims to trouble taken-for-granted notions of “disruption” in media and research circles to advance more equitable digital alternatives (c.f., Herold, 2018, Nov. 6).
Critical race and policy scholars also encourage research efforts to disrupt prevailing deficit frameworks that occlude subjugated knowledges from prospering. Stovall (2016) develops the notion of a “politics of interruption,” which invokes deliberate acts of disrupting the speeches of public officials, participating in hunger strikes, and engaging in sleep-ins in order to demand powerful actors listen, value, and redistribute material resources to support community struggles. He regards a politics of interruption as necessary for uprooting a “business as usual” approach to tokenized inclusion and continued patterns of divestment in communities of color (p. 12). Like research aims that aim to “disrupt the disruptors,” a politics of interruption intervenes in discursive and material relations that sanction paternalistic approaches to working “on” or “for” communities of color.

Similarly, Baldridge (2014) argues for a need to reimagine Black youth by “relocating the deficit” from the minds and bodies of youth to the structures that constrain their full humanity. She writes: “A deficit does exist, but it is not inherent within Black youth. Rather, the deficit is within a society and a school system that has failed Black youth” (Baldridge, 2014, p. 467). Like the words of Oakland leader, Estelle, Baldridge sees a shift in perspective as fundamental to the project of materializing racial and education justice.

Taken together, more just community and digital educational transformation entails elevating subjugated knowledges and interrupting prevailing frameworks of meaning that tend to invalidate these subversive ways of knowing. Acquiring “a real seat at the table” thus entails more than democratic inclusion but dislodging prevailing
discursive frameworks of meaning such as a white sociotechnical imaginary of achievement.

**Getting Practical: A Justice-Oriented Disruptive Praxis**

If one of our central tasks as educational researchers is to not simply “show how” inequities are reproduced through digital and cultural practices, but also to “intervene in” these unjust processes (Decuypere, 2019, p. 137), then what kinds of interventions then might researchers make to reclaim metaphors of “disruption” and advance education justice? This section considers distinctive kinds of “disruptions” researchers might engage in including: (1) *policy disruptions* in discourses of digital meritocracy; (2) *research disruptions* of mainstream studies of technology, CET studies, and achievement and opportunity traditions of educational research broadly; (3) and *pedagogical disruptions* that invite youth to engage in a counter-politics of digital redaction. These various interruptions aim to disarticulate white sociotechnical imaginaries of achievement as they manifest across overlapping professional, personal, and political domains of social life.

**Policy Disruptions**

Findings from *Just Innovation* pose rather unsatisfying implications for policy scholars: we cannot legislate our way to racial equity but must incrementally destabilize sedimented policy discourses associated with digital meritocracy. To turn toward

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2 Similarly, Lipsitz (2016, June 30) argues, “We ought to be something other than performers, something other than people with a romantic image of ourselves in the world as oppositional” (p. 56). He encourages researchers to explore engaged forms of scholarship that mirror Decuypere’s (2019) notion of “intervening in” social processes, particularly in relations of solidarity with most marginalized community groups.
prescriptive solutions plays within a reformist framework that stresses technical over systemic solutions. The deep-seated nature of digital meritocratic “ways of seeing” (Stein, 2004, p. 5) is evident in the astoundingly similar policy solutions offered by Ralph Steetle, President of the Joint Council of Educational Television in 1958, and Betsy DeVos, Secretary of Education speaking at the Arizona State University Global Silicon Valley Summit some 60 years later:

“The question is, then, not do we need educational television, but rather, how can we facilitate its growth and development, how can we strengthen it?” (Educational Television, 1958, p. 151)

“I only have to look at my young grandchildren to see how powerful tech is. It is a thousand flowers, and we haven’t planted the whole garden.” (DeVos, 2017, May 9).

Contrary to Steetle’s observations, we need to question edtech and trouble its assumed progressive and morally righteous consequences. Likewise, rather than plant more gardens, as DeVos advises, we might facilitate critical conversations that question the tacit behaviorist theories of learning and naïve assumptions about educational progress that digital innovations recuperate. In keeping with DeVos’s garden metaphor, we might ask instead: What values and visions nourish the “thousand flowers” of digital education reform? What other possibilities are pruned, or altogether excluded in efforts to transform schools using digital technologies?

*Just Innovation* reveals how school reformers, disability and “gifted” advocates, military, and corporate leaders advocated for and sustained digital meritocracy. Although the actors of twenty-first century education reform may have changed (Watters, 2019, Jan.), the prescriptive technology promises of edtech
reformers reflect an astounding lack of innovation when considering the kinds of technological solutions reformers posed in the 1950s (Herold, 2016 May 11). Where previously the Radio Corporation of America, Xerox and Encyclopedia Britannica, Inc. dominated digital education reform debates, Facebook, Google, and Microsoft have emerged as leading corporate proponents of digital meritocracy. As Watters (2019, Jan.) observes, “Stories about the future of education—particularly a market-friendly, tech-directed future—are ubiquitous, repeated in all sorts of prominent venues, by influential storytellers.” In this context, we need stories that destabilize digital meritocracy that simply recuperate traditional logics of ranking and sorting associated with schooling.

In Chapter 2 illustrated how these policy discourses informed how Accelerate-Edu brokered private-public partnerships and translated edtech devices from startup companies into public school classrooms. While reformist solutions might look to establish district level protections against private intrusion of public schooling, more transformational educational outcomes require a slow and cumulative effort to craft what Dumas and Anderson (2014) describe as an “alternative common sense”: a subversive epistemological framework rooted in marginalized texts, histories, cultural values, and relations and that pose alternative languages and practices for doing and making policy (p. 16). In other words, the intervention I encourage is not only at the level of district policymaking but policy discourses.

Discursive openings evident across policy texts and ethnographic fieldnotes offer instructive resources to build toward an alternative digital common sense. Komoski’s concerns about the relation between industry and achievement technologies
(Technology in Education, 1966) later enfolded into broader concerns with “problems that may not be solvable by the technology” (Information Technology and its Impact on American Education, 1982, p. 179). These discursive openings challenged a common sense of their time as did moments when Laurel, a staff member at Accelerate-Edu, expressed concerns about the consequences of expanded access to technology and admitted: “[. . .] which is weird because I work at Accelerate-Edu where all we do is technology.” Forging an alternative common sense might also begin with assumptions like those Anna communicated to the IDT: “We know technology isn’t the solution, but it can be part of it.” The IDT challenged prevailing policy discourses of digital meritocracy and forged novel coalitions with marginalized groups to reveal possibilities for alternative action even amid deeply constrained policy and organizational contexts.

Broadly, an alternative digital education policy common sense might also mobilize a shift from just more innovation to more just innovation. Rather than enhancing the exchange value of products predicated on taken-for-granted understandings of schooling and society, more just innovations entail confronting underlying assumptions associated with a white sociotechnical imaginary of achievement. Such efforts would resist tendencies to narrowly prescribe solutions, and instead, frame solutions through political, ontological, epistemological, and ethical questions, such as:

- Political: Who participates in the design of new technologies? Who are such tools made responsive too?
 Ontological: What ways of being do new tools facilitate, particularly in relation to youth, families, and community members from historically marginalized communities?

 Epistemological: What kinds of knowledge do innovative technologies sanction?

 Ethical: How do innovative technologies inform our understandings of what we consider to be just and fair in society?

These questions can support critical dialogue for advancing more just, historically responsive, and digitally-mediated futures. Rather than flatly asking how to “facilitate” or “strengthen” digital technologies (Educational Television, 1958, p. 151), these questions stress the mixed political effects of digital technologies absent a critical and historical attention to power. Community-based design experiments that partner with historically marginalized youth and community groups to consider these questions and design new technologies and practices offer additional promising ways to incrementally intervene in policy discourses of digital meritocracy (Bang et al., 2016).

In summary, policy disruptions might draw on discursive openings to question digital meritocracy and build toward an alternative common sense. Although such disruptions may be unsatisfying for readers seeking quick solutions, the scope and scale of resilient policy discourses requires patient and sustainable work. Such efforts extend what Green (2017, Nov. 16) describes as efforts to “critique and oppose” and also “create and propose” novel ways of working toward education justice amid constrained contexts (c.f., Diem, Young, Sampson, 2019; Dumas & Anderson, 2014).

Research Disruptions

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Findings from *Just Innovation* also have implications for scholarship on digital technologies, CET, and broader approaches to education research. First, *Just Innovation* challenges fundamental premises about the assumed liberatory possibilities of digital tools as articulated through white sociotechnical imaginaries of achievement. Interests in optimizing achievement (Kanna and Gillis, 2009), supporting youth to “escape geographic constraints” (Hess, 2010, p. 25), or “escape their local conditions” (Moe and Chubb, 2009, p. 176) reify color-evasive discourses that exclude attention to patterns of state divestment in communities of color. Scholars interested in the effectiveness of technology might begin by studying the (dis)continuities between their digital interventions and the desires, aspirations, and concerns of most marginalized young people they claim to want to support.

*Just Innovation* also has implications for CET scholarship. These studies helpfully “show how” inequities are reproduced (Decuypere, 2019, p. 137), such as through an “education technology industrial complex” (Picciano and Spring, 2013, p. 7) and novel forms of state complicity in advancing the private interest of for-profit technology companies (Burch, 2009). Further research might explore ways of building on these critiques to examine alternative options for action and intervention. Emejulu and McGregor’s (2016) notions of “radical digital citizenship” offers a theoretical basis for imagining collective, decolonial critiques of the (in)equitable implications arising from digital education reforms. Researchers might explore novel forms of participatory and engaged scholarship “to build alternative and emancipatory technologies and technological practices” (Emejulu & McGregor, 2016, p. 1). Watters (2019, Jan; 2016)
research and journalism represents another significant intervention in this domain. Her public scholarship beyond the constraints of IRBs explicitly names actors in positions of power and opens possibilities for mobilizing alternative approaches to digital innovation.

*Just Innovation* also has consequences for education research broadly. As discussed in the Introduction, the desire tradition of educational research challenges narrow achievement and opportunity traditions by drawing on the cultural wisdom and aspirations of long-marginalized community groups (Green, 2015; Oakes & Rogers, 2006; Rose, 2009; Tuck, 2009a, 2009b; Tuck & Yang, 2014). CommunitiTech represents a complementary digital means of mediating these visions. Research inquires that extend desire traditions might explore the role of digital tools and digitally-mediated practices in relation to traditional forms of organizing, especially in light of the increasing ordinariness of the digital in everyday life (Selwyn, 2019). Indeed, educational researchers and reformers interested in achievement traditions increasingly turn to digital tools as novel ways to regulate and govern forms of teacher productivity and student efficacy (Williamson, 2017a). Justice-oriented educational researchers might explore how digital innovations might be used to support the flourishing of community desires, rather than the more efficient schooling of young people.

**Pedagogical Disruptions**

Beyond policy and scholarly debates, *Just Innovation* also contributes pedagogical implications for interrupting a white sociotechnical imaginary of
achievement. Recent apolitical efforts to support youth creativity and imagination represent a need for pedagogical disruptions. In a recent column for *EduWeek*, educator and school leaders, Starr Sackstein (2019, Jan. 4) argues, “As educators, we have an obligation to bring wonder and curiosity to our classrooms to engage students with the everyday magic of learning and how our imaginations are the only things that can possibly limit us in this world.” Sackstein’s naive view of unconstrained agency minimizes structural violences that youth from minoritized and disinvested communities daily encounter. Rather than teach young people how to wonder, we might explore their existing curiosities about the structural conditions of their everyday lives and their own lived expertise on ways to dismantle barriers that impede them.³

Rather than encouraging educators to bring imagination to youth, we might disrupt assumptions about young people and the knowledge they are assumed to lack by appreciating their sophisticated, creative, and everyday uses of technology; what McDougall and Potter describe as “dynamic literacies” (p. 2). Koyama (2017) illustrates how Latinx youth use social media to stay “woke” and organize grassroots policy campaigns on issues that are personally and politically meaningful to them, such as policy making protections of the Deferred Action for Childhood Arrivals (DACA) executive order (p. 16). Koyama argues that unrecognized and undervalued forms of

³ Starr adds, “Our imaginations are very powerful tools, and there is no reason why we can’t allow students, even encourage them, to explore those places of themselves in the learning they do, straight up through college.” Here, a white spatial imaginary of twenty-first century achievement individualizes notions of learning in relation to place, and instead, invites students to explore “those places of themselves” in ways that reify an individual, entrepreneurial focus on learning for social mobility.
digital civic engagement offer an empirical basis for renovating formal civics curricula. Similarly, Mirra & Garcia (2017) shift research and pedagogy about civic engagement “from one merely about participating toward one about interrogating normative practices of civic engagement and innovating new forms of civic action” (my emphasis, p. 145). Like Koyama, Mirra & Garcia understand innovation not as something done to or on youth, but rather, something youth are already engaged in as they seek to make meanings about social realities and their role in relation to these worlds. By lifting up the creative and sophisticated ways youth use technology—such as through #BlackLivesMatter campaigns—researchers and educators can explore more just digital and pedagogical innovations (c.f., Garcia & Morrell, 2013).

These examples of critical digital and civic inquiry interrupt assumptions about youth as “empty vessels” who enter the classroom to be “filled” with knowledge (Haas, Fischman, & Brewer, 2014). Further, these critical digital media scholars craft the “global” as a contested and practiced sphere of life driven by the creative practices and know-how of young people (Akom, Shah, Nakai, & Cruz, 2016; Middaugh & Kirshner, 2014). By drawing on these pedagogical interruptions, educators might advance new digital curricular, tools, and practices that invite youth to author identities in addition to, and perhaps other than, global workers in a high-tech and inequitable society (Mitchell, 2018).

Appreciating the cultural and epistemological assets of youth, however, does not mean simplistically valorizing youth knowledge (Ginwright, 2010; Kirshner, 2015). Instead, and as Ginwright (2010) advises, culturally relevant and critical
engaged pedagogies for working with our most marginalized youth must honor youth agency without “romanticizing resistance” (p. 142). Instead, researchers might search for pedagogies and tools that can support youth in developing as leaders of tomorrow, but also of today (Kirshner, 2015). Digital technologies like CommunitiTech can facilitate youth in developing critical orientations toward edtech but also other social, political, and economic policies that impact their daily lives.

Finally, translating a politics of redaction into an exercise of digital critique and possibility offers another way to facilitate critical forms of wonder and curiosity. Educators might explore redaction within critical pedagogies for fostering novel interpretive, civic literacies. As one example, I implemented an assignment called, “Redacting Headlines, Re-narrating ‘Urban’ Communities” that encouraged students to digitally strikethrough and re-articulate deficit narratives of “urban” youth in mainstream policy and popular texts. One Latina student redacted a popular press headline that read, “Latino students still lagging behind academically,” and re-articulated this deficit news headline to read: “Latinx students still lacking appropriate academic resources.” Her corresponding written analysis drew on concepts from course readings (e.g., Baldridge, 2014) and forcefully argued for a moral need to relocate deficits from individual students to structural inequalities. Such assignments advance forms of connected civics outside of formal “big P” politics and invite youth to enact everyday forms of “little p” politics and engagement (Ito et al., 2015, p. 14), such as through micro efforts to re-articulate relations of power in digital and social media (Jenkins, Ito, & boyd, 2015). Contrary to pedagogical movements that frame
digital technologies as a diversion from rigorous student learning, assignments like these approach digital tools as a means of engaging students’ cultural practices and scaffolding rigorous conceptual and publicly engaged analyses.

A Few Concluding Remarks

When Estelle interrupted MPP and asserted that Black Theater exists, she challenged a “frame” of community engagement that tended to sustain prevailing relations of power in Oakland. Estelle’s interruption seemed to register little impact within the contexts of the expert-facilitated community engagement meeting, which promptly pivoted to “Breakout sessions” directly after Estelle invited the audience to appreciate equity as a process of self-determination among minoritized and historically excluded communities. Yet, temporal interruptions like those Estelle uttered afford discursive resources to challenge a white sociotechnical imaginary of community desires. Horton and Freire (1990) might describe such moments as “pockets of hope” where ordinary people assert authority as experts of their own lives (p. 67).

A more careful look at the wisdom Estelle offers is instructive. Elsewhere, Estelle elaborated on what her vision of Oakland might entail. She explained:

If my imagination could just have its way, it [Oakland] would be a thriving and bustling space. There would finally be removed barriers that have existed in the past to adjacent neighborhoods like the Lower Bottoms… that it would be a place for all citizens would be welcome. That everyone would find a point of access and value in the availability of Oakland space, the ability to enter into civic dialogue and be civically engaged in downtown. I envision downtown being a world class downtown because Oakland is a world class city. […] So I think that potentially… it could be this wonderful, fully populated, fully thriving diverse heartbeat for this city.
Estelle spoke with a calm assertive tone; one that may have reflected her enduring hope but reasoned skepticism informed by decades of broken promises. What is most striking about Estelle’s vision are the words she drew on to introduce this dream: “If my imagination could just have its way…” Racial equity has yet to be a reality in Oakland not due to a lack of dreaming. Instead, persistent racial inequities endure due to stubborn frameworks of meaning that routinize racial violence and delegitimize community dreams (Fujino, Gomez, Lezra, Lipsitz, Mitchell, Fonseca, 2018). Estelle’s opening clause thus reflects historical precedents of broken promises and failed plans; what Carl described as a distinctly Oakland based history of “coming up with extensive plans that ultimately get shelved.”

Yet, this opening clause suggests something more: that community leaders like Estelle have, despite historical precedents, continued to imagine and dream. Community dreams exist and are actively announced. There is no need for paternalistic efforts to “give voice” to such visions (Bang & Vossoughi, 2016, 182), only a praxis of accompaniment in relation to aggrieved communities to heal and redress historical trauma (Glass et al., 2018). New digital tools forged in constant tension with subjugated knowledges can advance more equitable and community-based struggles for justice. *Just Innovation* marks an initial effort to name the social forces that limit community visions from thriving and to foster a critical, yet hopeful outlook on the prospects of incrementally building toward more just, digital futures.
Appendix A: Researching as a Critical ‘Secretary’

Perhaps more challenging than writing *Just Innovation* was navigating the uncertain and messy processes of discerning what and how to go about the work of doing research in the first instance. This methodological appendix elaborates on the personal, political, and professional experiences that informed my methodology, the particulars of my efforts to conduct interviews and fieldnote observations, and unanticipated findings that emerged in the process of conducting this inquiry.

I begin by discussing my broad personal and professional interests in collaborative, community-based research (CCBR) as a distinctive epistemological orientation to social scientific inquiry. I read about CCBR but also served as a “peripheral participant” (Lave & Wenger, 1991, p. 68) to CCBR projects through my graduate student research position with the Center for Collaborative Research for an Equitable California (CCREC). I selected two illustrative moments that offer insight into how engagements with this CCBR project and scholars informed how I conceptualized ethical research and what was possible within the contexts of compressed dissertation timeline.

Given financial, material, and ethical constraints associated with a CCBR dissertation, I turned to notions of researching as a critical “secretary” of educational movements for guidance (Apple, Ball, Gandin, 2010, p. 5). By researching as a critical secretary, I mean a method of participant-observational data collection that investigates how power and politics are encoded in everyday talk and practices from the situated
perspectives of those understood to hold the least decision-making power in education organizations. Such an approach facilitated opportunities to enact philosophical assumptions associated with CCBR, while at the same time, affording a more ethically responsible and peripheral role in relation to longterm place-based struggles. Researching as a critical secretary also allowed me to study education movements relationally across the “grassroots” and “treetops” (Green, 2017, Nov. 16), and in doing so, theorizing fraught political struggles in twenty-first century digital education reform debates. This section also delves into the particulars of my efforts to implement data collection and analysis processes associated with my critical secretarial duties, namely, inquiry into federal policy texts (Chapter 1) and ethnographic fieldwork (Chapters 2 and 3). I also elaborate on my interpretation of access, rapport, and ethical tensions at each field site.

In a final section, I reflect on unexpected findings that researching as a critical secretary afforded. Critical reflexive memos offered insight into how the trace of academia—institutionalized pressures to publish, procure funding, and secure university employment that exert a difficult-to-detect influence on data collection and data analysis research processes (Gray & Gómez-Barris, 2010), exerted a structuring influence on my research processes. I conclude by extending metaphors of disruption to the norms and structures that impressed themselves on me as a graduate student and outline possibilities for my own understanding of scholarship and activism in my future work within the university.

**Collaborative Community-Based Research**
My entrée into research came through CCREC, a multi-campus research center that centered ethics and the needs of historically undeserved communities in processes of conducting collaborative community-based research (CCBR) and supporting grassroots movements for education and social justice. I was employed as a graduate student researcher with CCREC between 2013-2016 and drew on texts and social others—my adviser, graduate colleagues, community leaders and engaged researchers at different campuses—to craft a scholarly identity. Rather than trace my work at CCREC over these 3 years, I selected two moments that bookended my participation with CCREC that shaped my understanding of the tensions inherent in collaborative research within the university. These nonformal moments played a significant role in how I imagined and chose to design my dissertation project.

The first moment took place during my first quarter in graduate school. Two other graduate student researchers and I were collectively taking notes at a CCREC advisory board meeting when a recently tenured professor and engaged researcher announced, “I can finally do the work I have wanted to do my whole life.” A senior researcher swiveled her chair and whispered to us: “See, how do we change the institution so that you don’t have to wait until tenure?” I scribbled the senior researcher’s words on a post-it note. When waves of over-qualified colleagues graduated from my university only to encounter an academic labor market marked by contingent and precarious adjunct instructor positions, I wondered what it would mean to “wait” to do engaged work when such waiting might exist in perpetuity. At a moment when nearly fifty-percent of faculty appointments have been turned into part-time faculty positions (US
Department of Education, 2013 Apr.),¹ questions about waiting were not simply a personal, but a public problem (Mills, 2000). Waiting, I surmised, made little practical, political, and professional sense.

Another formative moment occurred toward the end of CCREC’s formal operations as a multi-campus research center. In 2015, the University of California Office of the President opted not to renew funding for CCREC. During the final governance council meeting, I observed tears, uncomfortable silences, and frustrated conversations among CCREC governance council members, who debated what kind of research is possible within the university. The words of one advisory board member were particularly poignant. He expressed,

The shared understanding of what work can be is a wonderful thing. You don’t know how precious, how long we’ve waited for scholarship like this to come about. The sadness is bracketed by this extraordinary feeling of gratitude. That’s been extraordinary.

Listening to community-based scholars express “how long we’ve waited” revealed the distinctive moment in which I began graduate school; a “discursive opening” in its own right and through which alternative, community-based approaches to research emerged as possible (Christensen, Morsing, & Thyssen, 2015, p. 141). This particular faculty member then invoked Stan Weir, a merchant fisherman, labor organizer, and professor

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¹ Between 1975 and 2011, part-time faculty grew 305.3% (US Department of Education, 2013 Apr.). Several scholars argue that this shift toward more contingent and precarious labor in higher education reflects a broader neoliberal takeover of societal institutions in which the norms and values of market rationality constrain alternative ways of being and acting (Giroux, 2014).
at the University of Illinois, to describe the possibilities of future collaborations despite the formal end of CCREC.

You’d go on ships for 3-4 months… and the whole thing about being a merchant seaman is getting the right ship and the right crew. Sometimes, you got a bad captain, a bad crew. But occasionally what made it so great is that you would get these crews… some you know, from here or there, but once you had been together you could do anything, anywhere… and you would look for another ship down the road that you knew who you could count on. You come to shore and the next time we ship out it won’t be exactly the same configuration, but we’ll be able to do these things.

Acknowledging the gendered dimensions of this metaphor, this story underscored the long horizon of institutional and social change. These words encouraged me to locate mentors, colleagues, and community partners—many of whom I cited in the Acknowledgements of this project—as social others that could sustain my work within but also beyond the contexts of a dissertation project.

Taken together, these moments offered competing suggestions for how I might approach graduate school and a dissertation project. On the one hand, the idea of “waiting” for an opportunity to conduct an engaged project that resonated with my political and ethical sense of research seemed foolish given the difficulty of finding stable employment to assume such projects later in my career. Yet, by contrast, I sought to design a project that would allow me to think deeply and prepare me for a long horizon of doing justice work; a project that might allow me to grasp “a shared understanding of what work can be” to join in partnership with other scholars and organizers. These concerns guided my interest in conducting a CCBR dissertation.

Considerations of a CCBR Dissertation
A CCBR dissertation combines the participatory and ethical sensibilities of traditional CCBR within the timeframe of an individual research project (Herr and Anderson, 2014). It reflects a research commitment to conducting inquiry “by or with insiders to an organization or community, but never to or on them” (Herr & Anderson, 2014, p. 3). Several timely and compelling CCBR dissertations provided useful concrete evidence in relation to how I might imagine designing my own CCBR dissertation (Guishard, 2009; Lac, V. T., & Fine, M., 2018; Warren, Park, & Tieken, 2016). But concerns about university-based research tendencies to romanticize, depoliticize, and domesticate CCBR made me wary of pursuing this path (Glass et al., 2018; Stovall, 2016; Tuck & Guishard, 2013). Patel (2013) warns of university trends that appropriate CCBR as a method, rather than a distinctive epistemological and ontological orientation toward whom research is made accountable. Others critique applications of CCBR that assume expanded participation to marginalized groups represents an inherently progressive tack on university-based knowledge production (Kemmis, 2006; Tuck, 2009; Tuck & Yang, 2014). I worried that institutional pressures to legitimate myself in the process of completing a dissertation muddied this process even more. I was also uncertain whether I would remain in the particular locales where I conducted my research, thereby limiting the ongoing and longterm collaborative nature of CCBR.

These concerns also emanated from my path to educational research training through Teach for America (TFA). Like other critical policy scholars (Brewer, 2014; Trujillo, Scott, & Rivera, 2017; White, 2016), my experiences with TFA humbled
romantic impressions I had about the kinds of educational changes I might enact as an individual classroom teacher. I was taken by a school reform discourse that equated teaching with the “Civil Rights issue” of our generation (Kopp, 2008, p. xii); a discursive strategy that minimized attention to past and ongoing racial justices (Taylor, 2016) and substituted movements for racial equity with reformist efforts to tinker and diversity public schools. I found that my actions were complicit in perpetuating unjust systems despite my intentions and despite what I claimed I wanted to challenge (Applebaum, 2018). These prior failings animated a cautious approach to taking up a CCBR dissertation and animated my search for potential alternative methodologies.

Recent scholarly interest in studies of “grassroots” and “treetops” organizing also motivated my interest in not conducting a CCBR dissertation (Green, 2017, Nov. 16). CCBR projects often entail partnerships with grassroots organizations, and in doing so, enable analyses of grassroots organizing tactics but limit in-depth understandings of strategies of power. This analytical elision is evident in Anderson and Scott’s (2012) call for more “vertical” and intersectional analyses that explore how grassroots organizers push policies “upward” even as corporate actors “sell” policies to publics (p. 682). Similarly, Fine and Ruglis (2009) develop the idea of “circuits of dispossession” and encourage scholars to link inquiry with disadvantaged youth brandished as “at-risk” (such as queer/trans youth and youth of color) to analyses of the systems, organizations, and actors that benefit from structures that fail our most marginalized young people (p. 31). These scholars argue that studying youth voice alongside institutional betrayal can support research and advocacy efforts in recasting
a neoliberal tendency to responsibilize failure to individual young people (Baldridge, 2014; Varenne & McDermott, 1999). I wanted to design a project that extended these scholarly interests in vertical and comparative approaches to critical analysis.

**Researching as a Critical ‘Secretary’**

Professional, personal, and conceptual concerns motivated my search for an alternative methodology that animated the fundamental premises of CCBR but guarded against tendencies to romanticize participatory methods. Here, I turned to studies within critical sociology of education. Like CCBR scholars, critical sociologists have questioned university structures that are unresponsive to diverse publics and political movements (Boyer, 1990; Burawoy, 2005). Apple, Ball, and Gandin (2010) offer specific research practices to interrupt traditional, colonial forms of unresponsive research inquiry. They outline several critical research tasks that overlap with fundamental tenets of CCBR, such as: taking seriously the lived experiences and narratives of those afflicted by injustice, sustaining radical work amid organized attacks, and developing novel tactics to critique and mobilize radical traditions.

Of these critical sociological tasks, Apple, Ball, and Gandin’s (2010) notion of researching as a critical “secretary” offered a fitting metaphor to think through in designing a dissertation project. They write:

> At times, this [supporting counter-movements] requires an expansion of what counts as ‘research’. Here, we mean acting as critical ‘secretaries’ to those groups of people and social movements who are now engaged in challenging existing relations of unequal power or in what elsewhere has been called ‘non-reformist reforms.’ (Apple, Ball, & Gandin, 2010, p. 5)
Like CCBR approaches, researching as a critical secretary entailed a relational politics of joining movements—be they grassroots or treetops movements—and using research to understand the aims and outcomes of such work. To be a critical secretary then is not to conduct research for education movements, but to conduct research of these movements; a distinction that preserves analytic distance between researchers and movement organizers to study processes of social resistance and social reproduction (Tuck, 2009). Apple, Ball, and Gandin (2009) add that “thick description” (Geertz, 1994) represents one possible method for conducting research as a critical secretary. They cite Gandin’s (2006) analysis of the Citizen School in Porto Alegre, Brazil and Apple and Beane’s (2007) analysis of justice-oriented school practices in Democratic Schools as exemplars of this approach. In both cases, researchers utilized participant-observation methods to study “non-reformist reforms”: movements that aimed to address the root causes of oppression and “alter the terrain on which later struggles are waged” (Fraser & Honneth, 2003, p. 79).

Rather than developing an independent CCBR project, and one that might emerge and collapse according to my dissertation timeline, I approached researching as a critical secretary as way to observe, but also participate in contrasting political movements to reform education. Taking creative liberties in interpreting Apple, Ball and Gandin (2010), I approached researching as a critical secretary as a way to study “grassroots” and “treetops” education movements. Further, the etymology of the term, “secretary,” helped to outline concrete methods I might employ. According the Oxford English Dictionary (2019), the term “secretary” refers to, “one whose office is to write
for another; one who is employed to conduct or assist with correspondence, to keep records, and (usually) to transact various other business, for another person or for a society, corporation, or public body.” I approached these practices as potential ways to enact a politics of “accompaniment” consistent with CCBR lineages (Lipsitz, 2016, June 30). As I later discovered, direct participation in secretarial work also proved instructive for understanding political exclusions evident in treetops and grassroots organizing, especially for those who embody overlapping gendered and racial forms of privilege like myself.

**Critical Secretarial Methods**

In the first instance, I enacted secretarial practices of collecting and analyzing records of correspondence to conduct a history of present digital education reform (Oxford-English Dictionary, 2019). I used Pro-quest Congressional and queried all hearings, testimonies, appropriations debates, bills, or acts that included the term, “technology” and that were published by the House Committee on Education and the Workforce, the Senate Committee on Health, Education, Labor, and Pensions. I then added key policy reports and white papers that scholars of school reform and digital technology cited (e.g., Science and Education for National Defense Act of 1958, A Nation at Risk, etc.). In total, I collected and analyzed 53 texts published between 1958

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2 This includes prior iterations and committee organizations. For the House committee, the Committee on Education and Labor (1947-1995), Committee on Economic and Educational Opportunities (1995-1997), Committee on Education and the Workforce (1997-2007), Committee on Education and Labor (2007-2010). For the Senate Committee, the Education and Labor Committee (1884-1999).
and 2016 (see Appendix B). These included 28 congressional hearings and testimonies, 14 reports, 6 laws, and 5 national plans or initiatives.

I began by descriptively characterizing who was invited to testify. Table 1.1 disaggregates data on congressional hearings and categorizes for policy hearings across all testimonials (N=248). Representatives from corporate or industry sectors overwhelmingly comprised those who testified before Congress (27.6%), followed by university-based researchers (18.9%) and district and school leaders (12.6%). The perspectives of parents (0.4%) and young people (1.2%) are notably underrepresented across congressional hearings and testimonies.


This descriptive data informed my interests in how invited speakers and congressional representatives articulated digital technologies as solutions to particular problems (Selwyn, 2014). Following Foucault (1972), I then sought to grasp how policy makers formed and sustained discourses to affect power relations. I thematically
analyzed major themes in policy texts chronologically to avoid imposing an analytical presentism that began with current policy texts. Yet, given that archival analysis of federal policy texts unfolded in relation to ongoing fieldwork—where themes like “personalization” emerged as so apparent in organizing the everyday work of reformers—I also deductively traced the origin of key terms.

Taken together, my process was eclectic and employed a mix of inductive and deductive approaches. Chapter 1 represents my effort to avoid misleadingly representing digital education reform actors (Chapters 2 and 3) as unconstrained free agents “cut off from the world and from history” (Burawoy, 2009, p. 4), and instead, shaped by discourses frameworks of meaning in the historical present (Emerson, Fretz, and Shaw, 2011).

In the second instance, I enacted notions of secretary as a participant-observer, typist, and keeper of correspondence (Oxford-English Dictionary, 2019). Here, I turned to ethnographic interviews and fieldnote observations to guide inquiry into how digital education reformers took up, challenged, and transformed policy discourses. In the field, I was fortunate to discover that typing was a regular feature of team meetings and a practice that contributed to organizational record-keeping needs. I typed two sets of notes. During meetings, I included as much verbatim text and observational fieldnotes as possible. Following each meeting, I created a duplicate copy of notes that included only the substantive content of the meeting that each organization might need and that removed all fieldnote jottings and personal reactions. For lengthier verbatim
transcripts—such as the anecdote titled, “Lovely Candor” that featured an exchange between Estelle and Isaac—I reviewed video footage that the IDT recorded of stakeholder engagements to acquire a more accurate analysis of the terms, pauses, and crosstalk that unfolded. Table 6.2 offers a descriptive overview of data collected at each site.

**Table A.2. Summary of Ethnographic Data Collection.**

<table>
<thead>
<tr>
<th></th>
<th>Accelerate-Edu</th>
<th>InnovateEquity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration of fieldwork</strong></td>
<td>11 months</td>
<td>13 months</td>
<td>24 months</td>
</tr>
<tr>
<td><strong>Fieldnote observations</strong></td>
<td>40</td>
<td>66</td>
<td>106</td>
</tr>
<tr>
<td><strong>Interviews</strong></td>
<td>13</td>
<td>11</td>
<td>24</td>
</tr>
<tr>
<td><strong>Texts</strong></td>
<td>210</td>
<td>50</td>
<td>260</td>
</tr>
</tbody>
</table>

*Texts include: brochures, grant applications, flyers, newspaper articles, reports.

In conducting ethnographic observations, I sought to attend to the ways in which fieldnotes do not “mirror” but “construct” reality (Emerson, Fretz, & Shaw, 2011, p. 46). Fontana and Frey (1994) posit the idea of “researcher *qua* field-worker *qua* author” to call attention to the ways in which researchers do not discover, but author truths (p. 327). Drawing on these interpretive and philosophical assumptions, I wrote analytic memos to critically assess how my writing style, theoretical assumptions, and prior experiences filtered into the ways I “authored” my findings.

Data analysis took place throughout my data collection efforts (Kamler & Thompson, 2014, p. 12). Excepting a few rare occasions, such as whole-day field observations, I typed fieldnotes and brief analytic memos the same day that I conducted
fieldnote observations and interviews. These analytic memos addressed broad
categories of inquiry, such as what I found interesting, what I learned, and what new
questions emerged in the process of conducting fieldnote observation (Weiss, 1995). I
approached these analytic jottings as moments to self-critically reflect on “troublesome
worries” that emerged in the research process and that might enfold in what Van
Maanen (2011) calls, “confessional tales” concerning the accuracy and generality of
our cultural representations researchers write (p. 59). The following anecdotes offer
some insight into my efforts to establish trusting relations with each organization and
my understanding of participants’ openness with me.

**Access and rapport at Accelerate-Edu.** My efforts to study Accelerate-Edu
unfolded over 4 months of communication. After several email and telephone inquiries,
I managed to organize an informational interview with Yadin, the project manager at
Accelerate-Edu. Our shared racial background and personal paths to the Bay Area
formed the basis of what I interpreted as a mutually trusting and respectful relationship.
Yadin was a key “informant” for me. It was largely through Yadin’s efforts that the
organization invited me into their organizational space.

My initial field visit with Accelerate-Edu took place in October of 2016. When
I first arrived at Accelerate-Edu, I sat in one of the four leather chairs in the office
waiting area. Current issues of *Silicon Valley Business Journal, Education Week,* and
*Techonomy* were situated on a small rectangular coffee table. On the front cover of *The
Gentry,* a magazine “about notable people and noteworthy philanthropy for the affluent,
sophisticated leaders of San Francisco, the Peninsula, and Silicon Valley” (Gentry
Magazine, 2018) there was a title that read: “From Connecting to the World to Saving It.” Another article title read: “Start ‘em Young” – Passing the Philanthropic Torch.” These texts offered an initial glimpse into cultural and political norms at Accelerate-Edu. I wrote about these initial impressions as a way to explicate personal biases that lurked beneath the surface of ostensible “neutral” orientations toward research (Pring, 2000). Based on these memos, I actively pursued contradictions that troubled a structurally determined depiction of Accelerate-Edu, such as probing staff and leadership orientations toward “saving” the world through digital technologies.

Although I established trust and consent with the initial team at Accelerate-Edu, the decisions among Iris, Yadin, and Laurel to quite roughly three-quarters of the way through my fieldwork revealed the limits of transactional notions of consent (Sabati, 2018; Foster & Glass, 2017). When the team restructured in the ninth month of my fieldwork, I faltered in my efforts to renegotiate consent. As one example, I had grown accustomed to typing extensive conversational and observational fieldnotes during internal team meetings. This was a taken-for-granted practice for me and normalized by the patter of pressed keys among Accelerate-Edu team members. But when Nicole joined the team, she observed, “You’re taking a lot of notes.” An excerpt from my fieldnotes during this first meeting captures my failures to re-establish consent:

*Fieldnotes – Internal Accelerate-Edu Meeting (June 26, 2017)*

At the start of today’s meeting, Nicole turned to me and asked, “Are you the longest standing member of Accelerate-Edu?” I nodded, realizing that I was, in fact, the longest standing member of Accelerate-Edu. Nicole was patient and inviting when she inquired: “So what exactly is your role here with Accelerate-Edu?” I squirmed and offered some obtuse remarks about my dissertation. Nicole then rightfully requested: “I think as a ‘subject’ of your research”—
placing air quotes with both hands around her use of the word “subject”—“I’d like to know what’s going in the notes.” I nodded, quite embarrassed by my failures to anticipate this ethical breach.

This fieldnote excerpt reveals my inattention to the ongoing nature of consent and how shifts in labour demanded that I revisit and re-establish consent. Lost in my own efforts to make sense of organizational rhythms and perhaps selfishly motivated to carefully analyze these transitions, I reified the very norms of hierarchical reporting structures at Accelerate-Edu by assuming I had a right to observe given that I had received permission from organization leadership.

A few weeks later, Nicole asked if I could record my meeting minutes in a shared “GoogleDocs” file. I realized that whatever trust I thought I was incrementally building was actually not the case. I jumped at this chance, seeking a more transparent way to communicate my intentions. Still, relations with the new Accelerate-Edu team lacked depth and trust that, though “ethical” by narrow standards of signed consent forms, felt unethical and unduly constraining on the staff; many of whom travelled across the country to assume a new job in the Valley. I wrote to Nicole and the team about my interest in concluding the study. We discussed a mutually beneficial moment to conclude my research at the end of the second Pitch Games. As noted in the Introduction, the total time I spent with this second iteration of the Accelerate-Edu team amounted to 2 months.

**Access and rapport at InnovateEquity.** My efforts to study InnovateEquity were similarly slow and uneven. Roughly 10 months unfolded between my first contact with InnovateEquity and my first field observation. I interpreted this delay as a
potential lack of need and lack of interest in what I might contribute and my own inability to articulate my dissertation research project. Yet, the revised downtown Oakland planning process marked a mutually beneficial moment for me to join InnovateEquity and the broader IDT. I began fieldwork in the spring of 2017 and, following my initial meeting, interpreted an immediate shift in transparency and trust. I recorded this in an early fieldnote observation.

*Fieldnotes – Internal InnovateEquity Meeting (March 17, 2017)*

Already, I sense a closer connection to the group in light of my ability to offer something by way of reciprocity. After forwarding my notes to the team, Alicia and Anna responded warmly. We had a nice email exchange about ways to synchronize Alicia’s and my note-taking. Anna even helped to re-assert a role for me by communicating to the IDT team: “Below are key next steps from today’s meeting – followed by Alicia’s and Ethan’s notes (major THANK YOU to both of you for capturing key points during a fast-moving conversation and through the ‘bubble-sonic-sound-vortex’).”

Alicia was my primary point of contact, and together, we conducted much of the day-to-day record-keeping of organizational events. Alicia was also the first person I met, who invited me to share more about my interests in studying InnovateEquity.

My initial fieldwork visit offered much insight into the distinctive transitional moment in the life of InnovateEquity and rapid patterns of displacement in Oakland. When I opened the door to InnovateEquity’s offices in downtown Oakland, I noticed large rounds of pink bubble wrap and black trash bags strewn throughout an emptied main room. I peeked into one of the cardboard boxes and saw copies of Sandra Cisneros’s *House on Mango Street* and Gloria Anzaldua’s *Borderlands/La Frontera: The New Mestiza*. Alicia explained that after five years, InnovateEquity was downsizing to a shared downtown office space. Portraits of global and moral leaders,
including Kenyan environmental rights activist, Wangari Maathai, Buddhist peace activist, Thich Nhat Hanh, and Black novelist and social critic, James Baldwin hung from the brick walls. Opposite a reclaimed brick interior was a large painting of an Oak tree painted in green and yellow that symbolized InnovateEquity’s transformational theory of change and rootedness in Oakland. I noted feelings of sadness and frustration at the onset of my fieldwork given that the very forces of gentrification and displacement InnovateEquity sought to challenge dramatically reshaped the material contexts of their work.

My early fieldnote observations admittedly contained romanticized depictions of InnovateEquity and their work. Contrary to analytic distance that invited critique at Accelerate-Edu, shared languages for interpreting reality at InnovateEquity (e.g., “equity,” “justice”) resisted critique (Lashaw, 2013). It was only through ongoing conversations with mentors and colleagues that I understood my reluctance to critique as ethically and epistemologically problematic; a tepidness that reified essentializing and one-dimensional depictions of People of Color. As in my fieldwork at Accelerate-Edu, I pursued contradictions in daily fieldnotes and analytic memos. Rather than operating from a modernist framework that encourages a symmetrical approach to data collection and analysis across cases, I instituted greater standards of self-scrutiny with InnovateEquity, such as consistently comparing what the IDT said during internal meetings and fieldnote observations of their actions.

Following an informal conclusion to fieldwork in May 2018, I remained in touch with InnovateEquity. As a way to reciprocate for the opportunity to study their
digital organizing efforts, I volunteered at related public health projects beyond the scope of the downtown Oakland project. I also remained in contact with Eddie and continued to participate in monthly Chinatown cleanup events.

**On Leadership, Labor, and Dignity**

To my surprise, researching as a critical secretary reshaped my own understandings of organizational leadership and issues of labor and dignity. In the remainder of this section, I discuss how my social position and data collection processes availed new conceptions of ethical research and professional practice.

Very little of this dissertation would have been possible without the time, labor, and energies of two key individuals at each organization: Laurel, a mixed-race woman from Los Angeles and Project Manager at Accelerate-Edu; and Alicia, a mixed-race Puerto Rican woman from Oakland and Project Manager at InnovateEquity. Laurel and Alicia occupied actual secretarial roles at each organization, coordinating actors within and across organizations, designing meeting agendas and explicating next steps, and streamlining organizational content to sustain collaborative partnerships. In this sense, researching as a critical secretary functioned as a method of collecting data that often took place alongside actors engaged in literal forms of secretarial labor.

In addition to an array of logistical and coordinating activities, both Laurel and Alicia were charged with the added labor-intensive task of specifying and communicating my roles and responsibilities. These delegated secretarial tasks varied, but generally included: recording notes at internal meetings and advisory board sessions, tracking down and synthesizing information from organizational records,
facilitating small group discussions at events, transcribing post-meeting data, creating posters and other materials to support events, and shopping for snacks and coffee. With the exception of my participation, Alicia and Laurel engaged in labor that was primarily reserved for women and women of color; a finding that reflects structural inequities in the technology sector in the California Bay Area in which 20% of high-tech firms in Silicon Valley are led by women of which only 2.79% are led by Hispanic women and only 1.16% are led by Black women (U.S. EEOC, 2016, pp. 23-28).

Although Laurel and Alicia assumed similar roles and responsibilities, project leads and team members valued their labor in demonstrably different ways. Researching as a critical secretary made these relational practices more readily available for analysis, especially given the racialized and gendered privileges I embodied within these spaces. As a participant deeply involved in secretarial work, I also encountered various forms of acknowledgement and non-acknowledgment through my participation in these less visible labor practices.

At AccelerateEdu, leadership often overlooked and undervalued much of the labor that Laurel enacted. Although the organization spoke highly about external “collaboration” and “flipping” the paradigm by having edtech companies compete for teachers (though this too, proved unfounded as I argued in Chapter 2), there was little attention to “flipping” power relations within the organization. Across my fieldnote observations, I did not observe any instances in which organizational leadership explicitly acknowledged Laurel for her labor; even in moments when I was acknowledged. Instead, Laurel explained to me during an exit interview that Mark, the
COO, requested that she be more “assertive” and better “demonstrate her value” to the team.

Laurel’s words resonated with a broader organizational culture at Accelerate-Edu, which one staff member described as, “punching above your weight”: a creative and masculine metaphor that participated in naturalizing exploitative and gendered labor relations. But rather than “lean in” (Sandberg, 2013), Laurel explained that she did not feel a need to demonstrate her value. Instead, she lamented a lack of opportunities and structures to support her existing skills. I agreed, and upon concluding my fieldwork, forwarded potential organizations where Laurel might be valued for her knowledge and skills. Like Laurel, I also found myself less inclined to fulfill my organizational tasks, such as synthesizing meeting minutes or supporting with event setup and clean-up, given the ways in which such work was unevenly and unfairly recognized.

When I asked Laurel what she would miss at Accelerate-Edu, she laughed and responded, “A paycheck.” Her response illustrates how a white sociotechnical imaginary of achievement that sanctions transactional relations of market exchange shaped labor practices within Accelerate-Edu as well. When I asked Laurel to describe what she would not miss, she answered, “I’m not going to miss doing work I already know how to do.” She added, “You can’t have an organization without people”; a phrase that captured the milieu of little indignities I observed, and also tangentially experienced given the nature of the work I enacted alongside Laurel.
Contrary to Laurel’s experiences at Accelerate-Edu, Alicia’s behind-the-scenes labors were often lifted up and acknowledged by organizational leads and team members (Chapter 3). Attention to her invisible labor, nicknames (“Amaza”), and frequent acknowledgements of her work contributed to an organizational ethos of Ubuntu ethics. In addition, leadership entrusted Alicia with roles and responsibilities that might otherwise be reserved for what might be considered “C-level” responsibilities at Accelerate-Edu. Alicia regularly facilitated IDT meetings when Isaac and Anna were unable to attend and also represented the organization at bi-monthly meetings with the City and MPP. Explicit valuations of Alicia, and recognition of my own contributions, motivated my interests and willingness to support the IDT’s broader organizing efforts.

Taken together, these observational and experiential forms of data collection built toward a refined conception of researching as a critical secretary, by which I mean a method of participant-observational data collection that investigates how power and politics are encoded in everyday talk and practices, especially from the situated perspectives of those observed to hold the least formal power in educational organizations. In addition to processes of data collection and analysis, researching as a critical secretary invited me to viscerally empathize with the value of dignifying leadership practices in organizational and movement building. Of course, one need not experience oppression to enact a politics of solidarity (Taylor, 2016). Still, such participation proved instructive for me, particularly as someone who considered his work and practice in alignment with a feminist and anti-racist politics. The pivotal roles
that Laurel and Alicia assumed, and the contrasting ways in which organizational leadership valued their labor, informed how I began to scrutinize organizational norms. As I outline in the following section, this scrutiny made places within the university uninhabitable given much overlap between norms and practices in the Valley and my university.

Researching as a critical secretary also afforded an extended opportunity to engage in what Fujino and colleagues (2018) call, “learning to listen and listening to learn” (p. 73). Contrary to academic practices that value speaking—presenting findings, giving lectures, publishing articles—these methods of inquiry privileged deep listening and revealed a micro understanding of the hidden, racialized, and gendered labor vital to sustaining education movements.

Paying attention to how structural inequities of gender and race are not “out there” but interwoven throughout the particulars of collaborative processes is particularly urgent given that inequities in academia mirror those evident in the high-tech sector. According to a 2013 report by the U.S. Department of education, women of color hold only 9% of all faculty positions in the U.S. (this percentage combines Black, Latina, and Asian female faculty). Although much scholarly attention is devoted toward forging equitable relations between university and community partners (Strier, 2011), analyses of inequities within university teams remain limited. Like Accelerate-Edu’s focus on “flipping” power relations with external partners, CCBR scholars rightfully emphasize power inequities between community and university partners, but do not often explicate how inequities play out within university teams. Inattention to
inequities within university partnerships risks overlooking, and in turn, reproducing raced and gendered inequities within university teams and CCBR projects broadly. In this sense, researching as a critical secretary afforded opportunities for me to “dwell” in the work of collaborative practice and develop a limited, but foundational understanding of the micropolitics of collaborative relations (Baloy, Sabati, Glass, 2016).3 In sum, researching as a critical secretary was not only an illustrative, but a timely approach to supporting my development of a more sustainable, equitable and CCBR research agenda.

**Disrupting the Trace of Academia**

Unanticipated findings associated with my efforts to research as a critical secretary also rendered the norms and structures of academia available for critical analysis. Gray & Gómez-Barris (2010) develop the notion of “the trace” to encourage inquiry into what is less readily observable, but nonetheless exerts a structuring force on social life (p. 5). Although the term, “academia” was not evident in any of my fieldnote memos, the trace of academia exerted a difficult-to-detect influence on my research process. Such traces take the form of pressures to publish, procure funding and employment within academia that shaped the kinds of questions and frameworks I saw as (il)legitimate as I sought to legitimate myself within various subfields of educational scholarship. As one example, competitive logics of “publish or perish”

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3 Baloy, Sabati, and Glass (2016) use the concept of “dwelling” to invite researchers to inhabit spaces of unresolved ethical tensions. Rather than move to solve or recuperate notions of ethical purity, they reposition ethics with/in constellations of intersectional issues that no single technical “fix” might solve.
motivated me to formally specify what was emerging in my fieldwork for journal audiences. But attention to journal audiences pulled analyses in directions that, while theoretically interesting, may not have proved the most fitting conceptual tools for making sense of emerging patterns in the data. Similar efforts to read the landscape of what foundations were looking for or who schools and departments of education were interested in hiring became entangled in my efforts to make meaning of empirical data.

Attentive mentorship helped me to make the trace of academia available for critical analysis. After I submitted a manuscript or grant application, I worked with my adviser and colleagues to disrupt narrative arcs that began to emerge in these texts as a way to distinguish a search for funding from a search for findings. These practices re-invigorate a search for contradictions in my data rather than telling a neat, linear story of complex social realities. Still, even as I critiqued manifestations of digital meritocracy and narrow social mobility aims of K-12 schooling, I also ran my own race of obtaining greater academic and symbolic distinctions (Labaree, 1999). These powerful discursive and structural forces surfaced throughout my process of dissertating and grew more intense as the prospects of unemployment loomed nearer.

One way that I have sought to enact my political commitments in academia is by partnering with other graduate students to better understand and contest the trace of academia and make available alternative, more emancipatory possible future researcher selves (Decuypere & Simons, 2016). In partnership with graduate student colleagues, Decuypere and Simons (2016) apply the Deleuzian notions of “untimely empiricism” to consider ways of (to quote Deleuze [1994]), “acting counter to our time and thereby acting on our time and, let us hope, for the benefit of a time to come” (p. 3). Their
we have extended conversations concerning who our work is made “answerable” to (Patel, 2013) by posing questions about advocacy in professional development forums on navigating the academy. We have also begun to engage in more formal efforts to rewrite institutional rules as we play by them (Diamond, 2012), organizing sessions at national conferences that make competitive norms in academia objects of collective critique (Chang & Jenkins, 2018, Nov. 16). These more formal projects accompany our everyday efforts to disrupt norms of individual entrepreneurship in academia, which include concrete interventions like sharing job applications and prior grant applications with peers, infusing graduate spaces with a relational ethics of jazz, or articulating confessional tales in confidence with peers, as I have set out to accomplish in this appendix.

Taken together, researching as a critical secretary placed new ethical demands on what I understand to constitute a praxis of engaged scholarship. These demands include an attention to the trace of academia that animates transactional approaches to knowledge production and reduce pursuits of truth to efforts of enhancing a researcher’s symbolic exchange value or line on one’s vita. It is my hope that more collaborative and equitable relational bonds might extend the political aims associated with CCBR by reclaiming and re-articulating university rules in favor of local movements for education and racial justice.

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analysis positions the university as always in the making and traces distinctive practices (e.g., purifying, authorizing, communing, and mobilizing) to unearth possibilities of resilience amid intensifying “neoliberal” pressures.
Appendix B: Education Technology Policy Texts (1958-2016)

<table>
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<tr>
<th>Date</th>
<th>Artifact Title</th>
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<tbody>
<tr>
<td>1984</td>
<td><strong>Hearing on Computer Education</strong>: Hearing before the Subcommittee on Elementary, Secondary, and Vocational Education of the Committee on Education</td>
</tr>
<tr>
<td>Year</td>
<td>Title</td>
</tr>
<tr>
<td>------</td>
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<tr>
<td>1994</td>
<td>Improving America’s Schools Act: Public Law 103-382. 103rd Congress.</td>
</tr>
<tr>
<td>Year</td>
<td>Title</td>
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<tr>
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<tr>
<td>2001</td>
<td>No Child Left Behind: PL 107-110.</td>
</tr>
<tr>
<td>2002</td>
<td>Education Sciences Reform: PL 107-279.</td>
</tr>
</tbody>
</table>
Appendix C: Interview Protocol

Could you begin by telling me a bit about yourself and your path to working at X-org?
  o  Current role, duration, prior experience.

How would you describe the mission of X-org?
  o  Who crafted? Has it changed? What would you want to change?

Could you describe current projects that you’re working on?
  o  Objectives, who’s involved, funding?
  o  How were objectives crafted?
  o  How are decisions made?
  o  Current status, sustainability, future plans?
  o  What do you like most/least about your work?

What organizational partnerships do you have with _____?
  o  Community groups, parents, youth, other non-profits, foundations, K-12 leaders/teachers.

What do you consider the primary challenges facing young people today?

What are the most important measures for addressing these challenges?
  o  What role do digital technologies play in these reform efforts?
  o  What, if any, are the limits of digital technologies?
  o  What barriers get in the way of the solutions you identified?

How does your work with X-org address these challenges?

Is there anything I didn’t ask that you feel is important to understanding you or your work with X-org?

Is there anyone else that you feel is really important for me to speak with to get a sense of X-org’s work?

Final question: What is the importance of digital technology in the lives of young people today?
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