

6 TRANSFORMING THE COMPUTING WORKFORCE AND THE SOCIAL ARCHITECTURE OF ITS LABOR VALUE

Cracking the Bro Code, with an intersectional theory of care grounded in women's lived experiences in computing, aims to help transform the cultural norms and moral codes that constitute high-tech worlds. Gender and racial discrimination within computing worksites correlate with the unethical and sometimes unlawful activities of powerful institutions whose profound influence on the globe's population amplifies their transgressions to crisis proportions. In its current form, computer science makes human society vulnerable to surveillance, unemployment, weaponry, climate disasters, objectification, and instrumentalized rationality that undermines civil liberties and civic engagement. Also, Big Tech is anti-tax, and its success in avoiding civic responsibilities is decimating the states and communities in which Big Tech operates. Here, let me echo Maria Klawe's directive to President Barack Obama—it is urgent that we focus on injustices in the computer science and engineering workplace specifically. Despite the successes of #MeToo, the growing public criticism of Big Tech, and the promises made by its leaders to do better, its failings pose a serious and far-reaching threat to society.

Throughout this book, I have argued that solving problems generated from a matrix of gender, race, technology, and labor requires cracking what I call the Bro Code. It is not my intention to spotlight the white, masculinized liberal subject in order to reinscribe his power. Rather, I invoke the frame to study what values break institutional commitments to equity and justice in US society and how we are increasingly enculturated to tolerate such transgressions.

TECH LABOR ON THE CRITICAL EDGE OF CARE

Because of the generosity of mentors in technoscience, I have had the opportunity to be a part of the social movement to broaden participation in engineering and computing. This afforded me access to many sites in which I could do “deep hang” in technoscience culture. Further, my mentors in anthropology have shared with me the tools to lend critical insights into Big Tech’s cultural failings that result in harms and social ruptures ripe for collective organizing.

By design, the majority of my participants are folks whom I call “tech persisters”—people who, despite facing steep barriers to access, opportunities, and respect in computing, continue to lend their labor and talents to the field. Many of them are change agents who challenge rather than serve the maldistribution of resources and regard in these worksites, often in collective efforts aimed at ending gender and racial segregation in science, engineering, and technology. They are the experts who have made my research possible, and I care about the role they are playing in challenging and resisting abuses of power in computing. Tech persisters are resilient. They navigate a culture trying to weed them out, often through harassment. I want you, esteemed reader, to care about the harms of incivility in computing workplaces and support those persisting in this labor force. Tech persisters take risks to tell their stories and organize, even in small ways. But is this enough to transform how the computing industry operates globally and correct its asymmetries of opportunities, power, prestige, and resources?

In the years following the completion of the formal interviews that comprise a substantial part of the data informing this book, more and more brilliant minds are defecting from tech and calling attention to its injustices from the vantage point of lands beyond Silicon Valley. Borrowing a term from Brian Barth (2019), I see people who leave tech and then agitate against its wrongdoings as “tech defectors.” Tech defectors trouble tech from the outside—as members of independent nonprofit research organizations, social sciences departments, and labor union organizations. The relationship between tech persisters and tech defectors in the fight to desegregate one of the most powerful, wealthy fields in the world needs greater care and attention.

Those who participate in gender equity in science, technology, engineering, and mathematics (STEM) organizations have led a discursive shift in

US politics that has strengthened the verve and rigor of public critique of Big Tech bosses. Many of the tech persisters in this study had individual moments of rupture, when they recognized the ideologies of the Bro Code shaping their everyday experiences. This rupture often sparked mutual solidarities with other women and nonbinary technologists. For example, in February 2017, Susan Fowler's blog post about sexual harassment at Uber went viral (Fowler 2017). She had the courage to raise her voice and share her lived experiences of gender violence in Big Tech. Fowler's visibility in the public sphere as a whistleblower catalyzed a snowball effect for other people to come forward—people whose talents and well-being have been squandered in computing.

When you see a tech persister take such risks, you know that they are standing on the shoulders of other brave folks. Fowler says she got the courage to tell her story because, in formative moments of collective consciousness-raising with women and nonbinary peers, she realized many others had experienced sexually harassment at Uber and that the company was covering up its male employees' violence. A critical mass of consciousness-raising like this example culminated in a rupture at the level of the body politic in the US, weakening Big Tech's ability to enforce a hegemonic rule by tapping into cultural mythologies, tech fetishism, and the geek mystique (Ames 2019).

Many interlocutors in this study had experienced similar moments of consciousness-raising and were thus spurred to collectivize against racism and sexism in more formal channels.¹ Formal organizations give validity to word-of-mouth campaigns. Further, this validation of a woman's word can inoculate the testifier against the gaslighting techniques of troglodytes. These agencies have played a meaningful role in archiving and disseminating scientific evidence and lived experiences of gender violence in science and engineering; thereby, they remind us that it is not in our heads and that, in fact, racialized sexism is woven into the very fabric of tech organizations' cultural values. Further, as I described in the introduction of this book, leaders in these communities can influence policy at the upper echelons of government like Klawe did during President Obama's administration.

While tech persisters organizing from within the field of computing helped to dim Big Tech's "charismatic" shine in broader public discourse (Ames 2019), further efforts are needed to strengthen coalitions with tech defectors and eliminate impediments to collectivity formation and solidarity in the world of computing knowledge production. Failing this, equity

advocacy in STEM may manifest greater fairness within workplace culture but will struggle to achieve justice.

Bourgeois politics undergirding technoscience are the “elephant” in the labs and boardrooms of computer science. This elephant is one “freighted with a legacy of having been built, in the first place, to shore up the positions of elite and powerful entities” (Dunbar-Hester 2020, 242). The social movement to broaden participation in science and technology, much like other progressive organizing efforts in information technology and communication fields, is in danger of being co-opted and commodified, thus reifying the very structures of power change that agents hope to undermine (Dunbar-Hester 2020; McInerney 2014). In other words, less harm and incivility in computing workplaces and greater representation of women and nonbinary coders will not alone solve socioeconomic imbalances of power wrought by computing technology.

In order to envision and enact social justice and a future for humanity beyond the dictates of Big Tech, I suggest forging formal and lasting coalitions between tech persisters and tech defectors in the quest to transform computing. The former have ample, streamlined organizational structures and wide networks; the latter have independent organization and a radical vision for the possibilities beyond the authoritative imposition of the tech commodity fetish and the logics of racial capitalism. While I have documented violence in high-tech workplaces, more research is needed to connect this violence to other forms of violence—for example, militarism, white supremacy, neocolonialism, tax evasion, surveillance, rapacious profit motive, wealth hoarding, and the amplifications of genocide and fascism around the globe. The good news is that labor organizing is already occurring in academic arenas of computing and industry. For example, Big Tech workers are protesting harassment and discrimination at their jobs (Wakabayashi et al. 2018; Schiffer 2021) and the racist and militaristic ends toward which Big Tech’s products are being used (Singer 2019; Schneider and Sydell 2019).

Of course, the binary between tech persisters and tech defectors is merely a heuristic that I have taken up to think with, to spur conversation about what it will take to have egalitarian distribution of resources, opportunities, and regards when it comes to the production of computing knowledge. Much like the boundaries between academic computing and industrial computer science, the boundaries between tech defectors and tech persisters are porous.

For example, though I defected from the computing industry, the Bro Code is still a constraint that affects me professionally in both my ethnographic research and interdisciplinary collaborations with technoscientists.

The people you have met in this book have shared their stories from inside the bundle of relationships that comprise Big Tech classrooms and workplaces. Their stories can add to growing agitation against the violence perpetuated by Big Tech and the collective resistance to its undemocratic impacts on society. All of the worlds I traveled in this study demand recognition. This has been my aspiration, one I have not been able to do in this book evenly. Even when the worlds that tech persists and tech defectors inhabit overlap, more work needs to be done to catalog their different goals and, more importantly, differences in their “epistemic cultures” (Rosner 2018a, 124–125).

To conclude this book, I will enact a politics of care that honors the lived experiences of those who work within computing while also mapping a path forward for more investigations into the social architecture of labor involved in creating and making computing technology. In the remaining sections, I suggest how the knowledge from this book can help to, first, build solidarity in the world in which computers are made and, second, envision and enact the world needed in order to realize a “type of democratic participation that a just society would require” (Dunbar-Hester 2020, 231).

BRO CODE ENFORCERS

In an effort to greater personalize harms in computing worksites, I offer five characters amalgamated from the narratives that emerged from this research. I recommend that women and nonbinary computer scientists look out for the following types of gatekeepers. Based on my own experience and the sentiments of feminist legal scholar Joan Williams (2000), I recommend that if you come across any or all of these characters, you send yourself an email documenting your experience, in case one day legal channels become necessary to your well-being and career.

THE LADDER KICKER

The Ladder Kicker is a woman in computing who purports not to see gender and emulates the norms and values of dominant group members, to the disadvantage of other women in the organizations. Elizabeth Parks-Stamm,

Madeline Heilman, and Krystle Hearn (2008) found that both men and women in male-dominated organizations penalize successful women. I found that women do so as a means to preserve their own perception of competency. More specifically, the Ladder Kicker understands that power relations in her organization can remain stable while allowing the token participation of women in its ranks and leadership. She therefore seeks professional advancement by, at best, ignoring female colleagues and, at worse, thwarting their advancement in the organization. Thwarting takes the form of either ignoring and diminishing the accomplishments and talent of other women, weaponizing tears when race relations are on the table, or showing preferential treatment to men when hiring, evaluating, and firing. In regard to firing employees, Ladder Kickers perceive their male peers as bathed in a halo of presumed competence and future success. Ladder Kickers help reserve power for men and raise the bar of evaluation for women peers. Unfortunately, they are often rewarded for kicking the ladder out from behind them as they rise. Their antitheses are women who lift other women as they climb, mentoring other women to persist and become leaders (Cech and Blair-Loy 2010).

THE OBSTRUCTIONIST

Diane, a foreign national senior leader in academia, described her mid-career phase this way: “It was just very difficult; everything I did there were barriers. It wasn’t only that people were overtly hostile in moments, but it was also barriers; it was just, like, every time you want to do something . . . it was just difficult.” Diane’s experience reminds me of Tara’s metaphor (described in chapter 4) for persisting in computing. She said she felt like she was beating her head over and over against a wall.² The Obstructionist cements that wall. The Obstructionist uses precision questioning technique—a method of questioning that borders on interrogation—to let women and other members of disenfranchised groups know they are doing or might do something wrong. The Obstructionist laments that they cannot work with you because your ideas hold little value. Janice, senior leader in academic computing, characterizes the Obstructionist as someone at the board meeting who is ready to tell you that your contributions are “little pieces of shit rolled into a ball.” Women in computing will often encounter the Obstructionist in the mid-career stage of a technical occupation, as Diane explains. Sexism in the early-career stages morphs into a more confrontational style once

women make their way to the tables where decisions are made. Variations of the Obstructionist include pretending to be an “advocate” while trying to stymie inclusive progress with precision questioning techniques framed as truth-seeking.

At the heart of the Obstructionist’s defensiveness toward the voices of feminists and people of color is a commitment to what Alison Wylie (2012, 65) called “conventional ideals of objectivity.” The Obstructionist truly believes that gender and race do not influence the pursuit or outcomes of science (objectivity) and that those who occupy the elite echelons of computing knowledge production are best and the brightest, not the blessed and the privileged (meritocracy) (Margolis 2008). My research and experience as a change agent in STEM supports Wylie’s insight. For example, Renee, a white professional working as part of a diversity and innovation team in Big Tech, told me that, in my research, I have to find a way to answer the question that most preoccupies Steve Ballmer, a white cisgender male who was once chief executive officer at Microsoft: “Why diversify? Apple is innovative and it’s not diverse.”³ Now, Ballmer is retired, and I am still fielding versions of his question from other senior technical men: “Why should I *care* about broadening participation in computing?” Like Renee, they believe my job as a feminist is to convince them to care about harassment and segregation. Like Dick (the man who mistook me as a wife at a strictly professional function), they cannot see my role in science as anything other than providing morally coded goods to men—as a nursemaid tasked with awakening their moral consciousness. Obstructionists camp out in science and technology Studies (STS), too, and encumber thinking about science as a common good. We who seek justice and meaning instead of generalizability as a matter of fact can be called normative and corrosive. We belong in the streets, not the ivory tower. The Obstructionist blends objectivity and meritocracy to try to discredit feminism and block widespread uptake of the movement to transform orthodox politics in technoscience.

THE CREEP

BECCA, THE WHITE PHD STUDENT: Some men are very, very cocky.

COLEEN: I’ve noticed that with computing. Some guys are really, really cocky. I went to interview some guy. We went out to lunch and he’s like, “This is a great date. You know this is a date, right?” And I was like, “What the . . . ?”

BECCA: Wait, did that seriously happen?

COLEEN: It seriously happened. And I was like, “Are you kidding me?” I was shocked—so when you talk about cocky. . . .

BECCA: That does not surprise me at all.

COLEEN: So, tell me why it doesn’t surprise you.

BECCA: I think [it is] the sexualization of females. . . . When I came to grad school, I was a target. I’m not even kidding. I had advances, like, full-on sexual advances by three guys. They didn’t care when I said I had a boyfriend. They kept asking me out.

Stephanie Shirley, one of the first woman in England to start her own software company in the 1960s, described the sexist dynamics of computing in similar terms: “You were someone to be laughed at, flirted with, somebody whose bottom you could pinch” (Abbate 2012, 139). Sixty years later, the Creep is still alive and well in computing, sexualizing, and preying on women and nonbinary people early in their careers and, too often, protected by their institutions. For example, when sexual harassment allegations piled up for University of Michigan computer science professor Walter Laseck, the Information School severed its affiliation with him, but it was business as usual in his computer science and engineering department (Molina and Sussman 2021).

My own favorite story of the Creep will always be Tim, my “naked in the office” boss at Colossus (recounted in chapter 4), whom the executive leadership thought was qualified enough to serve as a vice president. Of course, Tim’s unsettling behavior—getting naked in the office, calling his 23-year-old administrative assistant at home at 9:00 p.m. to tell her about it, and opening our first team meeting with this story—makes much more sense considering that Joe Buppo, Colossus’s chief operating officer at the time, was widely referred to by women employees as “King Leer.”

THE TROGLODYTE

The days of overt discrimination are not over, and the Troglodyte is living proof. In fact, reactionary politics are alive and thriving in Silicon Valley, and the Troglodyte is their spokesperson. Women with advanced degrees from the most prestigious computer science and engineering departments in the US academy told me how misogynistic the cultures were. In sum,

not only were women faculty a rarity, but faculty members were very vocal about saying that women should not be computer scientists.

The Troglodyte appeared several times in chapter 4. Shawna recounted a story of a tenured professor in computer science who said it was okay that she was switching to a “lesser” subfield of computing because she was a woman, and Julie connected Troglodyte behavior to the “hate issues” some men have toward their women students and peers. Meredith Whittaker framed James Damore, a former Google employee who circulated a sexist manifesto at the company, as a quintessential Troglodyte (Whittaker and Taylor 2020). She notes that Damore’s highly orchestrated distribution of a screed against his women colleagues (pivoting on *that* musty old chestnut—you guessed it—the Larry Summers Hypothesis) exposed the extent of far-right-wing extremism at Google and how it made transgender technical workers especially vulnerable.

THE HIGH PRIEST OF TECH

The High Priest is one who lords their technical skills over others. Like the priests from my childhood parish and my Catholic college, they feel called to their work. This sense of calling makes them vulnerable to illusions of grandeur and pedantic communication styles. The High Priest often uses acronyms to demonstrate an insider’s privileged knowledge and embraces the meritocratic philosophy that manifests in a belief that those who are around the table are the ones who deserve to be there. High Priests are found in classrooms, bragging about their long history of tinkering with computers to impress professors and intimidate classmates. They are also the “geek ruling class” (Hakken 2003, 5) in high-tech corporations and academic institutions who perpetuate microaggressions against their peers to intimidate them in the name of maintaining the mystical prestige of their ascendant profession.

SEIZING THE MEANS OF COMPUTING PRODUCTION

In chapter 2, I argued that institutional transformation in technoscience will only be possible with the inclusion of outsiders’ perspectives on its culture because their expert knowledge on power pairs formidably with the lived experiences of tech persisters. I extend this logic to claim that tech

defectors and cultural scholars have unique assets in the fight for justice in computing production and outputs—namely, greater freedom and cognitive resources with which to critique the economic structure around which all computing firms are designed and operate: capitalism.

The US economy is predicated on the subjugated labor of people who have been and continue to be barred from leadership in structures of power based on their gender, race, or sexuality. The social movements to rectify long-standing violence and prejudice in US society, such as the American Indian Movement, the Black Power Movement, the Women's Liberation Movement, and Gay Liberation, have been under assault since the early 1980s. At this pivotal juncture in history, Ronald Reagan, a B-list actor, became the figurehead for a far-right activist movement in the US, whereby capital demanded the redistribution of wealth, recognition, representation, and political agency to the historically enfranchised. At this same time, in 1984, the advent of the personal computer positioned computing bosses to help lead this corporate takeover of public institutions (Dean 2009). Computers help to promote the cultural acceptance of neoliberal austerity policies that externalize social reproduction from the state to individual households. This economic regime externalizes many of its costs to women and communities of color, skimming astronomical profits from the spheres of reproduction and the exploitation of women's labor in both the home and the workplace. The voices that I center in this book are remarkable in that they are able to persist in sites that produce such immiseration and precarity. They persist despite the fact that their values and aspirations are in conflict with those of their bosses, the algorithmic lords of capitalist accumulation.

Earlier in this chapter, I suggested that sexual and gender harassment in high-tech could be more effectively resisted and prosecuted by amplifying coalition-building efforts across organizations led by both tech persisters and tech defectors. We need to pair these efforts with more labor organizing around the architecture of digital capitalism—its material, ideological, and cultural dimensions—all of which need sustained interrogation. Thus, I recommend we pay careful attention to tech workers' collective reproductive aspirations to use technical skills and expertise to serve public welfare as an important means by which to build solidarity across identities, organizations, and fields of study. These aspirations are the key to reimagining how to seize power over computing knowledge and its production and

applications, “particularly that which could aid effective political action and constrain or eliminate predation by elites” (Táiwò 2020).

Tech workers who are women of color, and queer practitioners as well, are especially primed for labor organizing by a particular rupture—their elite status in the algorithmic workforce contradicts the alienation and harassment they experience along *multiple axes of identity* in said workforce. Further, as I have sought to demonstrate in this book, their shared aspirations to serve the social good positions them in direct opposition to their bosses who lean into the tenets of neoliberal regimes to erode social systems of support and bolster state control over the body politic. For example, Google’s first union, the Alphabet Workers Union, wrote in a *New York Times* op-ed, “Our bosses have collaborated with repressive governments around the world. They have developed artificial intelligence technology for use by the Department of Defense and profited from ads by a hate group. They have failed to make the changes necessary to meaningfully address our retention issues with people of color” (Koul and Shaw 2021).

Unfortunately, computing bosses have long been members of the military-industrial complex in the US. Computer science and engineering, like other engineering fields, grew out of military initiatives paid for by US taxpayers, using public funds (Abbate 2012; Ensmenger 2010b). Kelly, the white senior technical fellow in the corporate sector, explains: “Growing up during the Cold War, science and engineering was well-funded by the military—probably 80 percent of all engineering was military funded.” Without public funding from military initiatives, Big Tech and their bosses’ wealth would not exist. Microsoft has been under fire from its employees for continuing to collude with the US military (Schneider and Sydell 2019). The Advanced Research Projects Agency Network (ARPANET), the original platform for the Internet, was a Department of Defense project (Abbate 1999). Siri, Apple’s voice-activated command software, originated in Pentagon research on artificial intelligence and machine learning (Lohr 2012). Computing advances are often spawned from research funded by the military, with implications for the type of masculinities operating in computing organizational cultures and the purposes of computers in society (Rosser 2013).

Theresa, the white mid-career professional working in industry, shared how militarization in her workplace affected her: “I’d be in the bathroom crying ‘cause I’m living against my values, and then being, like, ‘Well, what the fuck is wrong with me? I need to toughen up. I need to, you know, just

like the military, I got to get out there and do my job.'" Theresa was one of the majority of my participants who aspired to use her technical skills in service of social justice. Theresa's emotional conflict however, deepens our understanding of the contradictions of care discussed in chapter 3. First, Big Tech is not changing the world for the better, nor is it idling in neutral. It directly contributes to global warfare, has privatized tools that were created with public money, and pays tens of millions of dollars to lobbyists every year to deny the public oversight over corporate activities. Second, the combative culture left Theresa emotionally bruised, encouraging her to not just mute but to betray her own intrinsic values. The context of Big Tech's historical and cultural ties to the military also further explains why, as discussed in chapter 4, so many of this study's participants felt so battle weary.

Siri was sired in the crucible of war. This can help explain its patriarchal impacts on civil society. Amanda Marcotte (2011) declared that "Siri is sexist" because it offers users a plethora of options for escort services and erectile dysfunction medication but could not return queries on women's reproductive health services like birth control and abortion. Marcotte (2011, 3) concluded that Apple, "the tech company that is the standard-bearer for . . . innovative technology, can't be bothered to care about the concerns of half the human race." First women's access to health care, agency, and autonomy were disappeared from digital platforms, and now, in the last decade, bodily bans to reproduction freedoms are proliferating in state and federal policies.

Apple created a sexist artifact not only because women were missing from the design and implementation phases of production but also because the tool was designed for the purpose of control. Its initial association with the military—its original sin—taints its outcomes. This sexist artifact is an example of how computer technology is meant to serve existing power structures, centralize control, and limit what can be epistemically accessed and collectively conceived and acted on. The sites in which these artifacts are created reflect the paradigms underlying dominant worldviews, and getting more women at the design table is just part of the problem. The historical legacies of computing must be reconciled with who currently benefits the most from its commodities and who is being harmed.

With the cooperation of Big Tech, the administrations of George W. Bush, Barack Obama, and Donald Trump have demanded warrantless searches of US citizens in the name of national security. Resisting these

kinds of violations of civil rights by going public often results in retaliation by the state and computing bosses (Au-Yeung 2021; Contreras 2021). This makes Emily Martin's (1992) suggestion that we imagine using technology to constrain elites' power much harder to implement because the risks are so high. To bring into starker relief the power of controlling technology and the possible outcomes if this power were collectivized, I ask you to imagine: What if workers and the public seize ownership and control of Big Tech institutions? What if individual citizens' freedoms and privacies were preserved? What if Big Tech's policies, practices, demographics, and artifacts were open to public review and revisions? What if the government was accountable to its people, and people's privacy was protected by a judicious balance of power?

My participants' aspirations for justice in computing worksites and outputs demonstrate how workers with specialized insight into computing commodities can make critical contributions to social justice causes outside their work, in broader public domains, like the preservation of civil liberties.

I do not conclude here with a *deus ex machina* but offer some strategies gleaned from my research and lived experiences. My recommendations are also inspired by the Level Playing Field Institute (2011),⁴ AI Now Institute (2019),⁵ and the National Academies report *Transforming the Trajectories for Women of Color in Tech* (2022).⁶ I suggest that we demand of Big Tech these eight transformational changes:

1. Believe people who report identity-based harassment, protect them from retaliation, and get rid of nondisclosure agreements that silence survivors (Vassallo et al. 2016). In addition, fire predators.
2. Pay your fair share of taxes. Close tax havens, and give up your offshore accounts.
3. Divest from Wall Street, and refuse to cooperate with the National Security Agency, the Central Intelligence Agency, and all other US military operatives.
4. Stop union-busting. Fire lobbyists. Think of the millions of dollars you will save annually! Do not interfere with workers' efforts to collectively organize, and bargain fairly through unions.
5. Make reparations. Your tax-dodging has crippled local economies, so it is time to invest in social reproduction, including affordable housing, education,

land conservation, roads and bridges, and other social services—especially in underserved communities.

6. Cast a wide net in calls for positions in departments, panels, and leadership positions. White cisgender men with degrees from Ivy League computer science and engineering departments are not the only folks with talent and vision.
7. Create pathways to leadership for women of color. Tie advances in this area to managers' performance reviews. Spend 1 percent to 3 percent of gross profits on inclusion efforts and worker benefits. Be transparent about your demographics—both real and aspirational. Express zero tolerance for identity-based harassment, sexism, racism, and homophobia. Proactively train all employees, and *senior leaders especially*, in best practices for fostering inclusivity every two years.
8. Limit salary disparities between entry-level positions and executives.

Transforming computing will require greater transparency and public oversight to hold academic departments and companies accountable for their influence and impact on the world. These eight recommendations address the broader social domains in which computing is practiced and revered. Activism aimed at social change by technologists, and particularly activism in coalition with other workers, can foster new paradigms for the design and use of computer technology.

CONCLUSION

I have traced the intersectional roots of power that constitute the Bro Code, which enables cisgender, avowedly heterosexual men from dominant racial groups to have an outsized influence on workplace cultures of computing. Since computing firms dominate global commercial markets, selling underregulated commodities that much of the world depends on, it becomes crucial to examine the conditions under which these commodities were made. If we can transform these inequities inside computing worksites, then perhaps the world-changing power of digital commodities and algorithmic systems could be further destabilized and refashioned in order to better serve billions of people around the globe.

Denying women of color, white women, and nonbinary people the opportunity to develop and perfect the skills required for leadership in this

century is part of a larger fundamentalist effort to roll back decades of progress toward a more just, egalitarian society. In fact, the Bro Code first was invented to exclude the aforementioned groups from the halls of learning and computer laboratories. Silicon Valley's current ethos of scaling up fast with little concern for social responsibility has its roots in the 1960s, when broad social movements for racial, economic, gender justice had significant influence over how engineers came to define themselves and the work (Wisnioski 2012). Now, given the field's wealth, reach, and power, it serves as a key ingredient in the solvent for erasing from public consciousness the ideas of collective responsibilities in civic society. In addition, it softens resistance to neoliberal austerity measures that transfer the responsibility for social reproduction from the state to the nuclear family, disproportionately affecting women.

The high-tech ruling class and the institutions they helm have been able to broadcast the Bro Code so widely, and with little opposition, because they are worshipped in the US. Part of their beguiling heroism, what I call the geek mystique, lies in the power to refuse the culturally devalued labors of care. The Bro Code mobilizes this disvalue in computing institutionally. For example, its culture of overwork and the exaltation of technical dimensions of computing work over social ones signal the lack of regard that computing corporations and academic institutions have toward modes of reproduction in our society. Given the great influence of computer technology, the effacement of social reproduction reflects and reproduces labor value within the US more broadly, with significant implications for gender and race relations.

Promoting proprietary computational machines as a revolutionary social project is thus a fantasy, one that we cannot afford (Dean 2009). For example, Oxfam, a global organization fighting poverty, has sounded the alarm that we are living in the time of greatest income inequality in human history, with the world's 10 wealthiest men now owning more wealth than the bottom 40 percent of humanity (Ruiz-Grossman 2022). Computing bosses top this list. Their leadership not only fails to contribute to the reproduction of the social collective but also operates in tandem with government officials and bankers to erode the social commons (Whittaker and Taylor 2020; Coleman 2013; Hakken 2003). As recent organizing activities by tech workers evince, lasting solidarities and durable coalitions across workers and communities are what scare this reigning bourgeoisie class the most.

By placing reproduction at the center of my analysis, I found that participants' reproductive aspirations exceed the bounds of the biological. Organizing around the social good and the right for computing workers to use their skills and expertise in service of public welfare is the best way to contain the threats posed by Big Tech. Feminist discourse needs to shift beyond balancing work and family to acknowledge workers' painful choice between job security and social aspirations. Let's imagine the institutional transformations that would come about if these highly trained workers were to use their "mystical" geek powers in the service of the higher good. Perhaps this collective action can transform not only computing culture, from exclusive to inclusive, but also the applications of computer technology, from tools of social control to tools of social liberation.

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