The Cruel Optimism of Tech Work: Tech Workers' Affective Attachments in the Aftermath of 2022-23 Tech Layoffs

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Abstract

The aftermath of industry-wide mass layoffs has led to an increasingly discontent and disillusioned tech workforce. Our empirical study with 29 laid off tech workers presents critical reflections on tech work and the tech industry in the aftermath of mass layoffs. Through weekly creative reflection activities over 5 weeks as well as focus groups, we find that tech workers experience alienation and unfulfillment with their work. Tech workers expressed conflicted emotions in assessing their attachment to tech work as a site of labor, oscillating between discomfort with the current status of the tech industry and lack of agency in choosing alternatives. We argue that tech workers are embroiled in cruelly optimistic relationships with tech work, and trace the implications of this on conflicting sociotechnical imaginaries shaping tech work, affective attachments in the tech industry, and tech worker resistance and organizing.

CCS Concepts

• Human-centered computing \rightarrow Collaborative and social computing; Empirical studies in HCI.

Keywords

tech layoffs; tech workers; labor

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1 Introduction

The glossy narratives of the U.S. tech industry as an ideal workplace for passionate, innovative, and successful individuals has experienced friction in recent years. High-profile controversies such as the Cambridge Analytica data scandals have attracted distrust for the tech industry not only from the general public [137], but also from the designers, engineers, and developers who work for these companies [39, 97]. Tech workers are increasingly voicing their concerns and discontent with the tech industry, as demonstrated by worker-led campaigns against companies' military and police partnerships [1, 2], formation of rank-and-file tech worker organizing [3], and ex-employees whistleblowing on their former employers' unethical and discriminatory practices [22, 58]. While discontent has been steadily brewing within the tech industry, the recent tech layoffs signify a major deviation from the tech industry's grand narratives due to the sheer scale of workers directly impacted, as well as the callous communications of these layoffs [59].

In fall 2022, high-profile technology companies such as Meta, Microsoft, and X (then Twitter) announced mass layoffs impacting hundreds of thousands of employees [23]. Business magnate Elon Musk's acquisition of Twitter and subsequent dismissal of half of Twitter's workforce signalled the first of several high-profile layoffs from Big Tech companies [87]. Since then, several waves of mass layoffs have rocked the tech industry, with as many as 500,000 employees laid off since 2022 as of this writing [79]. Industry insiders and tech journalists considered the scale of these mass layoffs to be unprecedented [122], rivalling only the layoffs in the aftermath of the dot-com crash [32, 74]. Compared to the dot-com bubble crash, however, these mass layoffs came at a time of relative economic growth, with tech companies posting record profits in 2022 and 2023 [30, 36, 45] and some tech conglomerates announcing highprofile multi-billion dollar investments in AI [139]. This garnered widespread criticism of tech leadership from ex-employees, who accused company leadership of executing mass layoffs to drive down wages and boost stock prices [70, 80]. Some industry reporters speculated that the layoffs were companies' attempts at winning back power from workers, who were previously able to command higher salaries and benefits, and switch jobs with relative ease [45, 52, 67].

Prior to the layoffs, tech workers were characterized in scholarship through concepts such as the "coding elite" [27] or "entrepreneurial self" [48], underscoring tech workers' relative economic and social privileges as well as their roles in building digital technologies that have expansive reach and societal impact [49]. HCI and CSCW scholarship has conceptualized the tech worker through their roles as practitioners, with a growing body of scholarship showing how tech workers negotiate their ethical responsibilities in the design and development of technology products [93, 124, 140]. At the same time, recent literature has observed the contradictory class locations of tech workers [43, 48, 118], questioning whether tech workers identify more with their employers or as workers [52, 131]. Events such as mass layoffs-which arguably reduce workers' individual and collective bargaining power-prompt critical re-examination of the assumptions underlying tech work, tech workers, and the tech industry at large. As our findings show, this interrogation not only reveals an increasingly disillusioned and discontent workforce, but also points to implications for how sociotechnical imaginaries around tech work are being re-shaped in the aftermath of layoffs. The U.S. tech industry's dominant sociotechnical imaginaries-"collectively held, institutionally stabilized, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and order attainable through advances in science and technology" [65]—were contested by tech workers, which has implications for recent efforts of workerled collective resistance to the tech industry's harms.

Our work picks up on the affective and subjective threads of prior scholarship on tech workers [11, 48, 115, 128], as we seek to understand how the recent tech layoffs have re-shaped laid off workers' perceptions of, and their affective attachments to, the tech industry. As explored in literary and cultural studies [12, 20], we understand affective attachments as the structures of relation that bring individuals closer to an object of desire (which may be anything from a person to an idea [101]), often with the consequence that proximity to the object of attachment begins to feel like a necessary way of life. We focus on affective attachments as theorized through Berlant's concept of cruel optimism [19], as we are interested in how these relations can become an impediment to one's flourishing, and how that, in turn, shapes and reshapes sociotechnical imaginaries of tech work. Prior work such as Rider [115] has investigated tech workers' affective attachments to their professional lives, showing how workers repair their disappointment with their jobs by volunteering in "Tech for Good" initiatives. In our case, we examine how tech workers' attachments to the promises of the tech industry and its "good life fantasies" can give insight into tech workers' responses to the mass layoffs. Our paper poses the following research questions:

- (1) How do tech workers' post-layoff experiences provide insight into their affective attachments to tech work?
- (2) After being laid off, how do tech workers envision preferable futures of the tech industry?

This paper provides qualitative insights into tech workers' subjective experiences and perceptions of the tech industry in the aftermath of the layoffs, as we document workers' emotions and shifting affective attachments to tech work after being laid off. Our theoretical application of Lauren Berlant's *Cruel Optimism* [19]

offers an affective lens through which to understand labor relations in the tech industry, which we argue is important to understand how workers engage with, contest, and reformulate the tech industy's dominant sociotechnical imaginaries. We discuss how the tech workers in our study appear to be in cruelly optimistic relations with tech work, reluctantly staying committed to the tech industry despite its individual and collective harms. Finally, our findings and analysis pose both opportunities and barriers for collective resistance to the U.S. tech industry and its ethical harms, monopolistic power, and capitalist labor relations. Understanding workers' post-layoff experiences through the lens of cruel optimism requires attending to the affective dimensions of workers' imaginaries around tech work, and subsequent efforts toward worker-led collective resistance must take into account these affective attachments and attempt to mobilize them.

2 Related Work

To understand tech workers' shifting affective attachments to the tech industry, we situate our work in prior research on the U.S. tech industry and tech worker scholarship. Then, we introduce our theoretical framing of *cruel optimism*, drawing on prior examinations of tech work and affect theory.

2.1 The U.S. Tech Industry and the Californian Ideology

While mass layoffs may have been unexpected in an industry that experienced a decades long growth period, layoffs signify a symptom of-rather than an exception to-the structural forces of financialization and speculation as well as the ideological regimes propping up the U.S. tech industry and its global expanse. We turn to literature on digital capitalism to contextualize the recent layoffs in historical patterns of the U.S. tech industry. Digital capitalism broadly refers to the increasing confluence of information and communication technology (ICT) infrastructures with processes of capitalist reproduction (e.g., capital accumulation, production, management) [55, 108, 116]. Compared to modes of production under industrial and agricultural capitalism, digital capitalism is characterized through the proliferation of knowledge work and immaterial labor [55, 77]. For instance, sociologist Rivera [116] argues that digital capitalism is the latest stage of cognitive capitalism, which they define as "the intertwining of a complex set of transformations, including financialization, the commodification of culture and digital technologies, all of which revolve around the centrality of knowledge and immaterial labor in the process of value extraction and capital accumulation" [104, 116]. Financialization refers to the broader structural phenomena of prioritizing financial incentives, markets, and actors over productive activities [51, 133]. In their report on financialization of Big Tech companies in China and the U.S., Fernandez et al. [51] find that tech corporations increasingly resemble financial institutions by growing their financial reserves through cheap debt (or debt financing), a key component of the "Big Tech" business model that has fostered economic concentration and monopoly power [72]. As Big Tech corporations comprise the infrastructural core of increasingly digitized networks and economies

[72, 136], understanding the processes and qualities of digital capitalism can elucidate structural, industry-wide phenomena in the tech industry, including mass layoffs.

In addition to structural analyses of digital capitalism and the ascent of Big Tech corporations, a growing body of scholarship has investigated the symbolic and ideological dimensions of global tech industries. In their foundational 1996 essay, media theorists Richard Barbook and Andy Cameron conceptualized the "Californian Ideology" to describe the "hybrid faith" of anti-authoritarian, countercultural beliefs, and free market economics that characterized the U.S. tech industry at the time [17]. Barbrook and Cameron argued that what united this virtual class of writers, hackers, capitalists, and artists was a shared affirmation in the "emancipatory potential of new information technologies" [17], or technological solutionism [86, 98, 103]. These ideals of freeing society through "a commitment to market fundamentalism, big finance, founder genius, tech solutionism, and an impeccably libertarian forms of politics" [81] provided the ideological basis for industry leaders to move forward with rapid growth and monopolization. Journalist Malcolm Harris argues in Palo Alto [61] that these meritocratic ideals and white male founder narratives obfuscate the factors behind Silicon Valley's wealth accumulation, which include expropriation of land, racialized labor market segregation, and the conversion of public resources into private assets [46, 61]. These meritocratic legacies persist, as seen through vocal opposition from tech elites to systemic intervention on social inequalities due to their understandings of the tech industry as a post-racial digital meritocracy [106].

Since then, the Californian Ideology and its afterlives [62] has been used to summarize the collective imaginaries of the U.S. tech industry. For instance, Metcalf and Moss [98] identify three dominant tech industry logics of meritocracy, market fundamentalism, and technological solutionism, and Marwick [95] similarly identifies three myths of the tech industry of openness, meritocracy, and entrepreneurialism. Despite its name, the Californian Ideology articulates an increasingly globalized ideology, with scholarship showing how Silicon Valley logics are reproduced in transnational contexts and in social movements beyond the workplace [10, 84, 96, 144]. The Californian Ideology and its reformulations can be viewed as "sociotechnical imaginaries", which STS scholars Jasanoff and Kim [65, p. 6] define as "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." Attending to sociotechnical imaginaries involves understanding how technology policy, production, and development are tied to nation-state and corporate-driven visions of identity or the "good life" [65, 69, 85, 89, 142]. These imaginaries are not merely disseminated top-down from one institution, with prior work showing how hegemonic sociotechnical imaginaries are actively contested and re-articulated as "counter-imaginaries" at grassroots or local community levels [34, 69, 89].

Toward investigating the Californian Ideology and tech industry logics as sociotechnical imaginaries, we review how workers might resist, negotiate, and reconfigure these imaginaries. The following section threads tech worker scholarship in HCI and CSCW with sociological perspectives on tech worker subjectivities.

2.2 Tech Worker Scholarship in HCI, CSCW, and Beyond

As the U.S. tech industry continues to amass global power and reach, an increasing body of scholarship has placed the figure of the tech worker under scrutiny. This work has questioned how canonical and stereotypical depictions of the tech worker-often a cis-gendered, heterosexual, and white male prodigy that constitutes a form of "nerd machismo" through dedication to work [42]—are being reshaped as the tech workforce becomes more ideologically and demographically heterogeneous [7] (while acknowledging that critical gaps in diversity persist [6, 105]). In absence of a concise criteria of "tech worker", this scholarship has focused on attempting to situate tech workers' class positioning between the industry's precarious "digital workers" [56] and upper-level executives and bosses [52]. Tech workers occupy an ambiguous and contradictory class location [143] between ownership and labor, as they share traits with petty bourgeoisie of autonomy, flexibility, and relative material wealth, but do not own the digital means of production behind their work [49, 52, 113, 131].

HCI and CSCW scholarship has largely engaged with tech workers on the basis of their inscription power, which resides in shaping, building, and maintaining digital technologies that define contemporary society [48]. Subsequently, this literature has examined how tech workers negotiate, incorporate, or consider ethics and values in technology production [91, 93, 112, 124, 138, 140, 141]. A strand of this literature has acknowledged how workers' positioning within organizational hierarchies impact one's ability to address ethical issues [138, 140]. In absence of individual or organizational power, some tech workers have alternatively sought collective power as shown through growing unionization efforts to worker-led media campaigns. This has been taken up by HCI and CSCW scholarship, with Kapoor et al. [68] showing the individual and collective privacy risks in tech labor organizing, and Boag et al. [24] surveying how tech worker collective actions leverage different modes of power including public pressure, legal power, shareholder power, and labor power. Prior work [24, 121, 138] has identified company recruiting and "feet voting" (i.e., refusing offers of unemployment with unethical companies) as a potential source of leverage for workers, as tech companies were thought of as relying on a steady flow of top talent. Mass layoffs, which arguably limit the mobility and bargaining power of tech workers in the job market [67], thus pose significant obstacles to one of the main sources of leverage for tech workers [53, 75].

2.3 Theoretical Context: Tech Work and Affect

The tech industry has long been characterized by—and understood through—the proliferation of its sociotechnical imaginaries. An integral lens to understand how these imaginaries are taken up and reshaped by subjects is through affect. CSCW and STS scholars have researched tech working cultures through the lens of affect, focusing on tech workers' emotions and their significance in the political economy of tech work [10, 11, 115, 128]. For example, anthropologist Sareeta Amrute [11] examined how programming jobs signify freedom for Indian middle-class women, revealing the affective stakes of global coding economies and their dependence on immigrant laborers [16]. In contrast to the seamless imaginaries

of work fulfillment and creative expression, affective examinations into tech work have also investigated how subjects confront these top-down narratives. Su et al. [128] found that in response to widespread critiques of the tech industry, tech workers take up an "emotional habitus"—or an emotional disposition shaped by cultures of rationality and optimism-that in turn shapes their political and personal commitments. Sociologist Karina Rider [115] theorized how disillusioned and unfulfilled tech workers engage in "repair work" through participation in civic technology projects, creating idealized versions of their workplaces. Whereas Rider focused on how affective attachments are characterized through efforts to maintain and repair them—framing tech workers' participation in civic tech as a means of repairing their feelings of unfulfillment [115]—our research focuses on what happens when one's proximity to these affective attachments is directly challenged through mass layoffs.

2.3.1 Cruel Optimism and the Tech Industry. Toward an understanding of tech workers' affective attachments in the aftermath of mass layoffs, we draw on cultural theorist Lauren Berlant's formulation of **cruel optimism** [19]. Berlant describes cruel optimism as a relation in which the object of desire is actually an obstacle to one's flourishing [19]. Positing that all attachments are optimistic, Berlant clarifies that relations become cruel "only when the object that draws your attention actively impedes the aim that brought you to it initially" [19].

Berlant's examination of attachments to and desires of what is considered the "good life" has been used to analyze labor relations in neoliberal, globalized, and increasingly precarious contexts. Amrute [10]'s ethnography of Indian IT workers in Germany analyzes workers' attachments to promises of "self-fulfilling work and personal expression even when faced with evidence of the impossibility of this vision of the good life" [10]. Media studies scholars Cote and Harris [41] deconstruct how discourses in the video game industry of the "good" crunch versus the "bad" crunch legitimize practices of working overtime, marking a cruelly optimistic relation. At its core, cruel optimism captures how workers are embroiled in affect-laden power relations, and draws attention to why individuals might remain in and even idealize harmful working configurations, whose existence rests on the continued attrition and exploitation of its subjects [19].

One of the ways in which cruel optimism helps deconstruct the historical present is through the concept of crisis ordinariness. In the aftermath of crisis events, which may present themselves as events spanning personal to global scales, Berlant discusses optimism as "a scene of negotiated sustenance that makes life bearable as it presents itself ambivalently, unevenly, incoherently" [19, p. 14]. Berlant examines how crisis-shaped subjectivities are marked by subjects' improvisational efforts to make life possible. Rather than trauma theory's emphasis on shattering ordinary ways of living through the exceptional event, cruel optimism focuses on the subtle affective adjustments and adaptations that subjects make to survive crisis. This focus on ordinary adaptations is what defines "crisis ordinariness", a historically driven perspective to understanding present-day power dynamics through a focus on subjects "feeling through a long, unraveling present" [28]. One prominent manifestation of crisis ordinariness is reflected through efforts to maintain

proximity to good life fantasies in moments of crisis. Berlant situates the "moral-intimate-economic thing" [19] called the good life fantasy in the social democratic promises of post-World War II, which began to fray in the 1970s in light of neoliberal restructuring [19]. The pursuit of the "good life" echoes the broader cultural history of the "American Dream". Prior to the recent layoffs, the tech industry had experienced steady growth, making it an attractive or safe option for many workers especially in the aftermath of the global 2007-2008 financial crisis. Journalist Rani Molla illustrates this cultural sentiment in their reporting of the 2023 layoffs:

If you were unlucky enough to have lost your job in the last 15 years, someone might have suggested — often unhelpfully — that you "learn to code." It was shorthand for "do something actually useful that would have kept you from being laid off in the first place." That advice is starting to feel even less welcome. [100]

While the notion of the tech industry as a meritocracy has been long contested [106, 135], the tech industry was widely considered a site of abounding opportunities. Compared to professionalized industries with higher barriers to entry tied to factors such as class status or established connections, cultural discourses around the tech industry echo long-standing narratives propelling the American Dream, such as the entrepreneurial "self-made man" or the "rags-to-riches" trope [94]. In the backdrop of increasing precarious, unsecure, and unequal work [47, 66], the tech industry was considered by many to be one of the last bastions of the American Dream for workers seeking to fulfill their good life fantasies of upward mobility, job security, and work-life balance [115]. This is evident through the tech industry's steady demand for skilled, immigrant labor, a legal regime that anthropologists Banerjee and Rincón [16] argue binds tech workers in a cycle of legal violence.

Through the lens of affective attachments and cruel optimism, we question how the tech layoffs may have challenged tech workers' attachments and notions of the 'good life' when their attachments to the tech industry are severed. Berlant notes, however, that *cruel optimism* is not to be seen as a pathology of the neoliberal subject, but should instead be understood as a "social relation involving attachments that organize the present" [19]. By viewing attachment as a structure of relationality, cruel optimism enables us to understand the labor relations underlying the tech industry through the lens of tech workers' affective responses to the layoffs. This understanding addresses calls in HCI and CSCW scholarship to attend to the political economies and labor conditions in which technology products are developed [83, 85, 130], as well as worker-centered perspectives [35, 53, 78].

3 Methods

To understand laid off tech workers' shifting affective attachments after the layoffs as they contemplated next steps in their careers, we conducted a 5-week Asynchronous Remote Community (ARC) [92] study with 29 laid off tech workers. The ARC method—a long-term, online research method that uses a technology platform to facilitate online discussion and peer support [21, 99, 129]—allowed us to connect tech workers with different demographic backgrounds and locations. We used the ARC method to have participants compare

their experiences in the tech industry and to collectively speculate on worker-centered responses to the layoffs.

We invited recently laid off tech workers to participate in weekly reflection activities addressing a range of topics, including: (a) job search processes and career trajectories in the aftermath of the layoffs; (b) critical perspectives on the tech industry; and (c) potential for collective action and workplace organizing. Participants were enrolled in a private, online group on Slack to share their weekly reflection activities and engage with each other's responses. The reflexive and dialogical nature of weekly activities facilitated open discussions between participants on layoff experiences and job search processes. Several participants noted how the group nature of Slack fostered feelings of camaraderie and support, especially in the aftermath of being laid off. Participants completed a total of five weekly reflection activities, the details of which are shown in Table 1.

Drawing from discursive and speculative traditions in HCI, we designed weekly activities to prompt modes of reflection outside of conventional question-and-answer formats of surveys and interviews. We drew inspiration from prior ARC studies whose prompts centered around creative approaches to reflection [92, 99, 129]. Weekly activities ranged from creative writing exercises (e.g., writing a letter to your future self) to mapping activities (e.g., drawing one's post-layoff journey). After each activity, participants responded to a series of reflection questions on the activity. Reflection activities included personal components only available to the research team and share-out components that were shared in the Slack channel. For example, some activities provided participants the option to share their activities with the Slack group, or to prepare a revised, anonymized version of their activity by removing any identifiable information. Participants then responded to 2-3 other participants' activities in the Slack channel. Participants were compensated \$30 for each week they completed the activity and responses.

Study activities concluded with 75-minute exit focus groups (median interview time 75 minutes) with up to 3 participants per focus group. We conducted a total of 10 focus groups, as well as 1 interview for a participant who was unable to attend their original focus group session. Due to participants' limited availabilities for synchronous communication, the researchers primarily relied on overlapping availabilities to guide focus group formation. When possible, we took into consideration participants' requests for other participants based on prior interactions in the ARC, as well as cross-cutting themes in weekly activities and Slack discussions. For instance, one of our focus groups was formed based on a shared interest in working outside of the United States.

The focus groups were open-ended and semi-structured, and the research team prepared tailored questions according to participants' previous reflection activity submissions. All focus groups broadly covered three themes: (a) shifting perspectives on the tech industry after the layoffs; (b) visions of worker-centered tech futures; and (c) accountability structures within- and in response to- the tech industry. Participants were compensated \$40 for the focus group.

Our study activities were determined to be exempt from human subjects oversight by our institutional review board. We followed an informed consent process and walked through study information during onboarding interviews with each participant, discussing study activities as well as risks and benefits to participation. This included privacy and confidentiality expectations regarding content shared in the Slack group, risks and implications of being identified in a shared group setting (e.g., potentially participating with former co-workers), and community guidelines for respectful discourse. Participants were all enrolled on Slack through chosen pseudonyms.

3.1 Participants

We recruited current or former tech workers who were laid off from a tech company between November 2022 and November 2023 (when we began recruiting). We invited participants to complete our screener survey through social media platforms such as LinkedIn and X (formerly known as Twitter), newsletter and mailing lists that reached the alumni of technology design programs, as well as the research team's personal networks through our positions in the tech community. This study is the second phase of a two-phase research project on the U.S. tech layoffs, and we invited all eligible participants from the previous phase of this study to participate. 12 of the 29 participants in this study had participated in the previous phase of this study.

To determine eligibility and to select a diverse set of participants, our screener survey included questions about previous employers, educational status, length of tenure in tech, employment status, and other demographic information. We decided not to collect racial or ethnic data of participants to avoid collecting more personal information than necessary for our research questions [33]. This was informed by our first phase of our study, which found that most participants did not attribute their racial or ethnic background as related to their layoff experiences. Rather than collect such data, our focus groups and weekly activities relied primarily on participants' voluntary disclosures on topics such as racism, ageism, and sexism in the tech industry. Participants disclosed their gender identity through an open-ended text response in our screener survey [127]. 2 participants declined to share their gender identity. Participant information is included in Table 2. With increasing reports of inauthentic participants in HCI (c.f., [110]), we provided the option for participants to authenticate their backgrounds as tech workers by sharing links to their professional websites, Github repositories, or LinkedIn profiles. The screener survey also included short, open response questions asking if their perspectives on the tech industry had shifted after the layoffs, and if there were any topics they were hoping to address through study activities. We screened out any responses that appeared inappropriate, incoherent, or suspicious in terms of the respondent's authenticity as a laid off tech worker. We also scheduled 15-minute onboarding interviews over Zoom with each participant to explain weekly activities and to confirm enrollment in the study, as well as to confirm participant identities.

We recruited and onboarded 29 participants from 20 tech companies. Participants' backgrounds varied in their time spent in tech, their position/role at their former company, and their current employment status (e.g., whether or not they were employed at the time of the study). Due to our positioning in a technology design department, our recruitment networks skewed toward user-centered design roles such as UX researchers and product designers. At the conclusion of study activities, 11 identified as unemployed, 14 reported having full-time positions, and 4 participants reported other

Table 1: Summary of Weekly Reflection Activities

Activity Title	Activity Prompt				
Week 1: Emotional Jour-	For this activity you will be asked to create an "emotional journey map" of your post-				
ney Map	layoff experiences. This draws inspiration from customer journey maps, a UX tool t				
	visualizes a user's thoughts and emotions as it pertains to their experiences with a				
	product.				
Week 2: Collaging Exter-	For this activity, you will create a collage comparing external, outsider perceptions				
nal vs. Internal Perspec-	of the tech industry with your lived experience as a tech worker. You may think of				
tives on Tech	perspectives across different topics of: the work, the people, the lifestyle, the values, the				
	compensation or incentive structures, the company types (e.g., startups vs. FAANG),				
	your specific company's culture, the management styles, etc.				
Week 3: Engaging in Di-	This activity asks you to engage "in dialogue" with a selection of job postings. In this				
alogue with Job Descrip-	folder, we have compiled screenshots of job descriptions and company recruitment				
tions	pages. Treating the job descriptions as a speaker in a two-sided dialogue, you will				
	provide "responses" to two job descriptions. You will be asked to annotate or write				
	directly on top of the job postings, as if you are in conversation with them. You are				
	encouraged to question, challenge, or unpack as a response to any of the statements in				
	the job description.				
Week 4: Envisioning Pre-	In this activity, you will be asked to complete an imaginative free-writing activity, and				
ferred Futures of Tech,	then complete reflection questions on the activity. Then, you will answer a series of				
Part I	questions on what you'd like to see change about the tech industry, and prepare for				
	your focus group discussions.				
Week 5: Envisioning Pre-	Based on your responses for last week's activities, we synthesized the following key				
ferred Futures of Tech,	areas of change for the tech industry. For each area, we provide a few examples from				
Part II	last week's discussion. Please rank the "key areas of change" in order of importance to				
	you, with 1= most important and 8 = least important.				

circumstances (e.g., pursuing grad school, working part-time or contract positions, self-employed). Following prior tech worker scholarship [68] as well as the organizing strategies of tech labor organizers [44], our investigation did not enforce a strict definition of "tech worker" in terms of position, role, or department, and we included anyone who identified as working for a tech or techadjacent company. 2 participants reported requiring sponsorship to be eligible to work in the U.S. 26 participants completed all weekly activities, while 2 participants completed all but the final weekly activity and 1 participant completed three weekly activities. All participants completed the exit focus group/interview.

3.2 Analysis

We used reflexive thematic analysis [26] to iteratively analyze participants' activities and reflections, discussions between participants on Slack, focus group transcripts, as well as the research teams' memos and field notes. The student research team met on a weekly basis to discuss and cross-reference themes we were constructing. For each week of the ARC, we open coded participants' activities, responses to reflection questions, and discussions in the Slack group. Then, we wrote memos for a subsection of these codes, which were then used to construct broader conceptual themes. We also collated initial codes to develop themes and sub-themes, which informed subsequent weekly activities.

This study was the second phase of a year-long project on the tech layoffs, and our analysis was influenced by the findings of our first study which investigated tech workers' layoff experiences and sensemaking around layoff decisions. In our first study, we

found that tech workers comprised an increasingly disillusioned workforce, which was reflected through their criticisms of upper-level executives and how they communicated layoffs to workers in abrupt and sudden fashion. These findings inspired the current study, which shifts focus from the mass layoffs as an event to tech workers' post-layoff experiences and perceptions of the tech industry.

Toward practicing reflexivity to articulate assumptions that informed our approach [26], we reflect on how our positioning within a technology design department in a public university setting influenced our recruitment and analysis. Our university is located in a "tech hub", and our department has affiliations with tech companies in the greater metropolitan area, with many student interns and alumni going on to work for these companies. Our proximity to the tech industry influenced both our recruitment networks as well as our latent assumptions of tech work and the tech industry. The first author has not worked in the tech industry before, but he graduated with a degree in computer science and is familiar with career trajectories in the tech industry.

4 Findings

Our investigation of tech workers' post-layoff experiences demonstrates the fallout of tech workers' affective attachments to tech work. Once drawn to promises of innovation, fulfillment, and solutionism, laid off tech workers displayed increasing disillusionment and alienation. §4.1 and §4.2 illustrate these affective scenarios,

Participant	Age	Gender	Time	Current or most recent posi-	Employment	Approx.
Pseudo-	(yrs)		spent in	tion	Status (at end of	time of
nym			tech		study)	layoffs
MagicMaker	23-30	Female	3-5 years	UX Researcher	Employed full time	Apr 2023
Luis	31-45	Male	>10 years	Senior Program Manager	Employed full time	Jan 2023
Kai	23-30	Male	1-2 years	Product Designer	Employed full time	Jan 2023
Cameron	31-45	Genderqueer	6-10 years	Data Scientist	Unemployed	Jan 2023
Leva	31-45	Female	6-10 years	Software Engineer	Unemployed	Oct 2023
Victoria	31-45	Female	3-5 years	Content Marketing Lead	Employed full time	Oct 2023
Hank	23-30	Male	6-10 years	Software Engineer	Unemployed	Aug 2023
Maria	31-45	Female	3-5 years	User Researcher	Employed full time	Apr 2023
Lisa S.	23-30	Female	3-5 years	UX Researcher	Employed full time	Mar 2023
Matcha	23-30	_	6-10 years	Senior UX Researcher	Employed full time	Apr 2023
Jacob	31-45	Male	<1 year	Senior UX Researcher	Employed part time	Apr 2023
Daria	23-30	Female	3-5 years	Product Designer	Employed full time	May 2023
loremipsum	23-30	Female	3-5 years	Senior Product Designer	Unemployed	Feb 2023
Pono	23-30	Non-binary	3-5 years	Senior Product Designer	Unemployed	Apr 2023
Angel	23-30	Female	3-5 years	UX Researcher	Unemployed	May 2023
Capy	23-30	Male	3-5 years	Senior Product Designer	Student	Jun 2023
David	23-30	_	3-5 years	UX Researcher, Mid-level	Student	Mar 2023
Finn	31-45	Male	6-10 years	Lead Product Researcher	Employed full time	May 2023
Sylvia	23-30	Female	3-5 years	UX Researcher	Employed full time	Apr 2023
CJ	31-45	Female	1-2 years	UX Researcher	Employed full time	Apr 2023
Murat	46-64	Male	>10 years	Director of Design and Strategy	Employed full time	Oct 2022
Jernau	46-64	Male	>10 years	Distinguished Engineer	Self-employed	Oct 2022
Paige	46-64	Female	>10 years	VP of Product and Engineering	Unemployed	Jan 2023
Margaret	46-64	Female	>10 years	Principal UX Researcher	Unemployed	Nov 2022
Baby Groot	46-64	Male	>10 years	Senior Director of IT Operations	Employed full time	Jun 2023
Violet Tea	46-64	Female	>10 years	Lead UX Researcher	Unemployed	Apr 2023
Bob	23-30	Male	1-2 years	Frontend Developer	Unemployed	May 2023
Dean	23-30	Male	3-5 years	Software Engineer	Employed full time	Jan 2023
Vyk	31-45	Male	6-10 years	Quality Assurance Engineer	Unemployed	Jan 2023

Table 2: Participant Information (n=29)

showing how the mass layoffs prompted and accelerated tech workers' discontent. These shifting affective attachments were also reflected through tech workers' critiques of the tech industry, and §4.3 outlines two prominent themes underlying their critiques: the "cult of technology" (§4.3.1) and tech as big business (§4.3.2).

Our reflection activities also invited tech workers to consider what alternative, preferable futures of the tech industry might look like. §4.4 summarizes how tech workers envisioned human-centered futures and considered the potential of tech worker unions. These envisioned futures, in tandem with the affective adjustments in the aftermath of layoffs, have implications for accountability mechanisms in the tech workplace, and point to the importance of attending to the affective dimensions of work and labor in HCI scholarship.

4.1 Overview of Post-layoff Experiences

To provide context on tech workers' post-layoff experiences, we present an overview of tech workers' emotions in the job search process. Then, we discuss how the layoffs prompted critical reevaluation of tech workers' values regarding work-life balance, fulfillment, and purpose. This informs the subsequent findings on

post-layoff affective attachments, perceptions of the tech industry, and envisioned futures for the tech industry.

4.1.1 Tech Workers' Emotions in Job Search Process. Tech workers described their post-layoff experiences as a whirlwind of emotions, with multiple participants summarizing their time after being laid off as an "emotional rollercoaster." Tech workers invoked a spectrum of feelings to describe these experiences, including hope, anxiety, despair, confusion, stress, and enjoyment. The announcement of layoffs came as an initial shock to most workers, although some workers who had been impacted in their company's latter rounds of layoffs had anticipated them, such as Violet Tea who recalled "the lead up to the layoffs was horrible, the expectation and dismay, disgust with inexperienced leadership making regrettable mistakes." The layoffs even came as relief for some workers, such as Margaret who shared "I felt a certain level of relief, and also fear [at the time of being laid off]. The environment was already so toxic that it felt like being laid off would end that misery."

After the initial shock of layoffs, tech workers' emotions were tied to the whims of the job search process. Workers felt intense pressure to secure a new role in the immediate aftermath of being laid off. Angel faced additional pressures as someone on an employer-sponsored visa, sharing that "when the layoffs happened, I faced a time crunch to secure a new job before my visa expired. So I had to lie to myself, pretending everything's fine to keep myself moving forward."

Several workers felt initial bursts of optimism and motivation to seek a new job, such as David who explained "for a moment, I felt really inspired that this was a stimulus for a new opportunity and motivated [me] to start looking for jobs. This time I had this work experience under my belt so it had to be easier... right?" With industry-wide layoffs and an oversaturated job market, however, job seekers encountered challenges in landing interviews, let alone full-time positions. Cameron summarized their job search process as "disappointing, because I keep trying and not succeeding – I've been networking and applying for things for months, and companies have taken days of my time to determine that they don't want to hire me. It's a little disheartening. But I'm trying to persevere."

Subsequently, several tech workers began to make compromises on their job search requirements, such as taking pay-cuts, regressing in career trajectories, and working in undesirable industries. Eight months after being laid off, Dean described how he became "willing to take jobs that are below my title, don't meet my work preferences, in unethical industries, for way less. Savings running out and a mortgage to pay. Very grim."

Laid off tech workers' emotions oscillated between hope, uncertainty, and doubt as they engaged in the job search process. Hank reflected on "how so often good emotions come with bad emotions. I find myself feeling so many, often conflicting, things at the same time through this process." Amidst oscillating and contradictory emotions, tech workers engaged in critical reflection and identity work as the following section outlines.

4.1.2 Unemployment as a Period of Critical Reflection and Identity Work. While losing employment led workers to experience fear and uncertainty, some tech workers saw silver linings in being laid off. Outside of job hunting, tech workers had newfound time to pick up hobbies, spend time with family, and travel if they had the financial means to do so. For some, this period away from work prompted re-evaluation of work fulfillment. For instance, Sylvia shared:

I always believed that I needed something to keep myself occupied, that if I was independently wealthy I wouldn't feel fulfilled without something - a job or philanthropic pursuit of some sort. Based on 100 something days of PTO, I now feel that is inaccurate. I was never once bored and had so much less stress (outside of worrying about finding a new role).

Unemployment prompted reconsideration of values around work-life balance, fulfillment, and purpose. Victoria felt that being laid off was a blessing in disguise, explaining "when I am working, I am so busy, I work really hard [...] And so being without work for an extended period of time has allowed me for the first time in probably decades to honestly ask myself what it is that I want. [...] And to feel more myself than I have in many years has been such a gift." Both Victoria and Sylvia's critical re-examinations of their values and purpose demonstrates the identity work that layoffs prompted.

While the aforementioned examples discuss the positive outcomes of this, being laid off also prompted interrogation of one's purpose. Matcha demonstrates the depth of rumination that this entailed, questioning:

Why was I laid off? Why me? Could I have avoided the fate by doing something else pre-layoff? Am I enjoying this time too much and not putting enough effort? Am I spending too much time on job applications? Should I have taken more time off to reset? Did I take too much time off? Did I deserve any of the nice things in life? What's gonna happen to my career? Where's the light? Do I actually want to stay at the company if I weren't laid off? Is this a blessing in disguise?

The sudden disruption of work routines provided workers time for reflection on their values. The following sections elaborate on how tech workers, through the process of critical reflection, articulated their shifting affective attachments to tech work (§4.2), leveraged criticisms of the tech industry (§4.3), and envisioned alternatives to the current state of the tech industry (§4.4).

4.2 Post-layoff Affective Attachments

In this section, we outline tech workers' shifting affective attachments to tech work and its attendant promises of innovation, work-life balance, and work fulfillment.

4.2.1 Alienation. While being laid off unceremoniously contributed to tech workers' feelings of disillusionment, several tech workers described how the layoffs were a culmination of, rather than an exception to, their experiences in the tech industry. For instance, tech workers discussed becoming increasingly disillusioned with innovation discourses in the tech industry prior to the layoffs. The following exchange between Jacob and Luis, both of whom worked for Big Tech companies, shows the breakdown of these sentiments:

Jacob: I think the biggest change in my thinking is around innovation. I used to think of tech companies as true innovators that could anticipate peoples' wants and needs and create things people didn't even know they wanted yet. And I think that happened in FAANG a couple decades ago, but not so much anymore. When I went to work at [company name], I was excited about the potential for being really creative and innovative. But the reality was very different – it was more about copying and keeping up with competitors than it was about truly inventing new things. Luis: @Jacob It always seems like innovation was happening somewhere else. Even when internal teams focused on "innovation" their goals were more focused on visibility to get renown and promotions.

In line with Rider [115]'s findings on tech for social good movements, the participants in our study expressed previous alignment with the "passion principle", which sociologist Cech [31] describes as "a morally laden cultural schema that elevates self-expression and fulfillment—in the forms of intellectual, emotional, and personal connections to an occupational field— as the central guiding principle for career decisions." Compared to rhetoric around tech jobs

as hotbeds of innovation, opportunity, and fulfillment, almost all tech workers expressed some disappointment in what their jobs ended up being. For Luis, this disappointment stemmed from the politics surrounding promotional structures, which challenged his prior sense of intrinsic desire for technological innovation. Further, Luis's comment that "it always seems like innovation was happening somewhere else" illustrates what Shantz et al. [125] identify as precursors to work alienation: (a) disconnection of oneself from work; (b) whether an individual perceives their work to be used in the course of work; and (c) a lack of perceived meaningfulness of work. Tech workers' disappointment with their work—compared to the promises of innovation, fulfillment, and purpose—demonstrates work alienation.

Workers contrasted their prior expectations of the tech industry to their day-to-day routines, such as product designer Daria who expressed "the perception of 'I'm gonna be working on important projects that are going to change humanity' [is] like very wishful thinking. And then coming in and being like, I have to change this from one pixel to two pixels. Like, oh great." Daria's framing of "pixel-pushing" compared to the industry-wide innovation narratives of "changing humanity" shows how tech workers come to feel alienated from their work, no longer finding purpose or fulfillment in what increasingly feels like mundane, rote work. Maria drew similar conclusions in her reflection: "it's kind of a shame and a waste that so many talented people are focused on those relatively silly issues... should we move this button here or there... where do people click more... [...] technology at the service of profit is really not the best way to achieve the potential that tech could have for humanity."

In response to their alienation, workers re-considered how to seek fulfillment in other avenues both within- and outside the workplace. The following section outlines how workers negotiated their feelings of alienation by re-evaluating the importance of work fulfillment.

4.2.2 Re-evaluating Fulfillment. While tech companies have historically marketed themselves as meaningful and fulfilling workplaces [115], laid off tech workers reconsidered the importance of work fulfillment in their next roles. Tech workers described how they once were attracted to the promises of the tech industry, such as the potential to affect social change and contribute to innovation, or the benefits and privileges being a tech worker afforded. However, the glossy narratives of the tech industry slowly wore off, leading tech workers such as Maria to declare her lack of allegiances to the tech industry: "I feel more detached now. I care a little bit less. I used to think we were working on this great thing... but now it just feel like a means to an end. I feel less enamored by it."

One recurrent mantra reverberated throughout the study was "work is just work." Tech workers recognized that their work should not dictate their everyday lives, as product designer loremipsum summarized "work to live and not the other way around." Several tech workers arrived at this conclusion after previously leaning further into the work side of work-life balance, such as UX Researcher Matcha who expressed "I am someone like, who really needs to identify with my work, to be able to give it my best. And I was at my company for quite a while, and I overidentified myself. And so I'm trying to not focus so much on work and use it as a way to define [or] validate myself [...] So, you know, work is just work." Participants

shared stories about the stressful demands of their workplaces, such as Margaret who recalled "I've been in situations where I feel I have to 'prove myself' and end up working crazy hours in stressful environments, getting stressed with my family competing for my attention." The pressures of proving oneself and sacrificing personal relationships resonated across participants, such as Lisa who shared "before I got laid off I was working 60 hours a week and figuratively praying that I wouldn't get a 'does not meet expectations' review. My partner was very over it, but wanted to support me in my career. It did not feel sustainable - and in some ways that let my layoff feel like a relief." To workers with stressful and demanding work experiences, the layoffs confirmed that work wouldn't "love them back", as Jacob explained "for me this was a lesson [that] you can care about your job all you want, but your job doesn't care about you back."

The unceremonious nature of the layoff communications also contributed to these sentiments. Jernau, who had worked at his company for over 20 years, felt that "the unwritten rule was 'I commit to my employer, and my employer commits to me.' [...] None of us thought the relationship was so bleak and transactional that we'd be unceremoniously cut like we were." This broader realization that companies were willing to dispose of workers led some tech workers to reconsider their prior efforts in their companies, such as Jacob who reflected "I think layoffs made me realize that in tech (especially in big tech/FAANG), we're all replaceable. In hindsight, it's easy to see that there were so many people spending years of their career trying to be successful and make a name for themselves inside a company that doesn't give a shit about them."

Overall, tech workers expressed becoming less enamored by the allure and promises of the tech industry, with workers beginning to treat their work lives as transactional such as Daria who articulated: "you have to use your employers for your own benefit as much as they use you for your labor." Workers became apathetic and indifferent to the prospects of tech work, such as product designer Kai who reflected: "I just exist - I'm indifferent or apathetic I suppose because I try not to attach myself too deeply. Obviously I'll get passionate about work or deadlines at times but for the most part I like to be like meh." Some workers became skeptical of the idea of work fulfillment, seeking fulfillment outside of the workplace or through the promises of job stability and benefits: "I would like to be fulfilled via my work but as I've gotten older, that feels less and less relevant compared to the quality of life I can get from good pay and company benefits" (Pono). However, some workers still sought partial fulfillment in future jobs, such as software engineer Hank who expressed "my work needs to give me meaning. I need to be doing something I consider meaningful to the world. Something that improves the world or improves someone's day, something like that. I want to work on something I can actually care about; I have never had that before."

While varying on the degree of fulfillment that they pursued, tech workers unequivocally reconsidered the role that fulfillment would play in their future jobs. The following section elaborates on how workers negotiated their feelings of unfulfillment and alienation.

4.2.3 Affective Adjustments to Unfulfillment and Alienation. Despite the state of the labor market and reported dips in salaries compared to pre-layoff salaries, most workers envisioned staying in the tech industry for the foreseeable future due to the industry's advantages relative to other professional industries. At the same

time, workers expressed tenuous and antagonistic relationships with the tech industry that put their long-term futures into question, such as product researcher Finn who expressed "I find myself somewhat bound up with tech, begrudgingly benefiting from its omnipresence. The career that I've built in UX doesn't really exist outside of tech, at least in the same way." Finn's begrudging relationship with the tech industry exemplifies the broader reluctance that participants held in their relationships to the tech industry. Margaret, who had worked in the tech industry for over ten years, similarly felt "somewhat disillusioned but trapped in [the tech industry]. Given all the decades I spent in the industry, it became nearly impossible for me to change paths and move into another area."

Tech workers experienced dissonance between their decision to stay in the tech industry and their increasing alienation, unfulfillment, and overall disillusionment with the tech industry. Product designer loremipsum explains this push-and-pull in the following quote:

I feel like there is so much good that comes from tech, like innovation and new tools to improve people's lives. And on a personal level, there's a lot of benefits and higher salaries involved. But I also struggle to feel morally good about tech companies sometimes. There's this dissonance of wanting to be a part of tech, but also feeling like I shouldn't.

In response, workers attempted to resolve this dissonance by making affective adjustments. Workers described these attempts in three ways: seeking fulfillment outside of work, focusing on interpersonal relationships in the workplace, and turning to individualism.

Workers sought fulfillment outside of the workplaces, often in response to their declaration that "work is just work" covered in the previous section. Picturing what they would be doing if they did not have to work, tech workers envisioned having newfound time to engage in leisurely activities and to pursue creative hobbies. In fact, the unemployment period offered a window of what life "without" work would entail. Participants thus viewed work as a functional means of pursuing these activities, such as Luis who shared "[work] is a way to fund hobbies, travels, etc. I know that there are people (and some friends) who love to work, but this experience has strengthened my resolve that this is just a part of the day that needs to be done." In this way, workers echoed the sentiment of "not dreaming of labor," as Violet Tea illustrates: "my dream is more to do art and have passive income earning investments, travel the world. I do not dream of work!" At the same time, some of these seeming "non-work" pursuits resembled facets of fulfillment in tech work. This was shown through workers' aspirations of "creating something" and "helping others," as well as designers and engineers who envisioned continuing to program or tinker with technology in their free time.

Some tech workers discussed **focusing on everyday, interpersonal relationships in the workplace** to resolve their dissonance. For instance, in response to their overall disillusionment with the tech industry, tech workers put more stock in team relationships to guide their job search. Victoria explained "while [the labor market] is more difficult and competitive than ever, as a candidate, I'm also more skeptical and mistrusting than ever. It feels difficult or even

impossible to bridge this gap, but I need a job, and at some point I will have to take a leap. That's maybe why I'm putting even more stock than usual on my rapport/potential personality fit with a hiring manager. I won't be able to trust a company, but maybe I could trust a person." Here, Victoria navigates feelings of distrust with the tech industry at large by shifting attention to interpersonal connections. On one hand, this comes as a practical adjustment from workers' prior, grand visions of attempting to change company cultures and the tech industry at large. Finn unpacks this decision, explaining "I used to be really involved in DEI [committees], and I gave up in a big way just because I saw the same things happening over and over again. And the thing that I really took away from that is 'how can I make the very local context that I'm in better?' [...] My goal shifted from 'how can we fix this company?' to 'how can I make this environment as best as possible?" Some workers might consider this re-orientation as a strategic move, resembling bottom-up change through interpersonal and localized contexts.

At the same time, being laid off abruptly led workers to reflect on the role of their affective ties in the workplace. While workers largely expressed criticism of company rhetoric around workplace relationships—such as Margaret who observed "everything that is sold to us as a 'family' and 'community' very quickly turns around and becomes 'nothing personal, this is just a business decision."—some workers still acknowledged the camaraderie they felt with their co-workers. Engineer Vyk shared:

One of my managers [...] absolutely cared about me, cared about my personal career growth, my personal career goals, [...] and he kind of kept me fed there. And those people that you interact with on a daily basis probably do care about you personally. And those are the connections you have to focus on, you know. You can't expect Elon Musk or Jeff Bezos to send you a Christmas card and ask you how you are. But the people that you work with, they're always gonna be there. [...] And so that's really the human face of the company, the people you actually interact with.

Finally, participants described **taking up attitudes of self-sufficiency and self-reliance**, in contrast to serving the interests of an employer or company. CJ captures this sentiment by summarizing "I think that's the main thing I've learned - I'm the only person who is responsible for my career and I have to do what is best for me." This was further reverberated through tech workers' broader realization that companies were willing and able to lay them off again in the future, treating them as disposable or replaceable. For instance, Daria explained:

It feels like the job market is broken. There were/are so many talented people who were impacted by layoffs. Regardless of whether the companies struggled, or were trying to [...] keep investors happy, it seems like everyone walked away with not trusting the employers anymore and realizing they need to be more self reliant.

Despite disillusionment and alienation with the tech industry, most tech workers made affective adjustments to remain in the tech industry. These adjustments involved idealizing non-work, focusing

on interpersonal relationships, and taking up self-sufficient and self-reliant attitudes.

4.3 Post-layoff Perceptions of Tech Industry

In this section, we report on two themes of how tech workers leveled criticisms against the tech industry at large. First, tech workers discussed increasing discontent with the "cult of technology", which tech workers conceptualized as a system of dogmatic ideology that stems from the Californian Ideology and the financialized logics of the tech industry. Then, we discuss how tech workers viewed the layoffs as the industry maturing into a big business, relinquishing the industry's claims to being an exceptional and unique industry.

4.3.1 The Cult of Technology: Hype Cycles and Worshipping Tech Leaders. Tech workers routinely referenced dogmatic and ideological dimensions of working in the tech industry, as they criticized controversial industry leaders who espoused aspects of the Californian Ideology [17] such as technosolutionism and libertarianism. Cameron and Victoria demonstrate this critique in their focus group dialogue:

Cameron: One of the things that's happened in the last couple of months is Marc Andreessen's like Techno-Optimist manifesto¹, which is like unhinged, very shallowly-like thought out garbage (laughs). I just really wish that people like that did not control all of the purse strings.

Victoria: It's like that typical pseudo intellectualism that dumb people think is smart. [...] And, because there's a lot of sicko fans that are like hype bros, you know. They just get these pedestals that they don't deserve.

Tech workers pointed out the cultures of idolization and pedestalization of tech leadership, which was compared to cult-like indoctrination. For instance, Kai described how "idolization of these leaders or even leadership principles tends to be cult-like. As a cult, everything you do ties back to the org (tech) and it takes up all of your energy and free time." This builds on the aforementioned discussion of worklife balance, with workers such as Kai viewing the encroachment of everyday life by tech companies as a cult-like practice. Workers directed their criticisms at highly visible executive leadership, such as Margaret who said "the number of stories about very successful people, most of them in tech, is actually quite scary. By learning about these stories in more detail, it is clear that we are worshipping the wrong people and the wrong ideas." Leaders were blamed for being incompetent, unrealistic, and fundamentally disconnected from reality. Explaining their skepticism of the tech industry, Violet Tea shared "I roll my eyes more at news stories about tech industry leaders and the narratives they are trying to start or maintain." Tech workers exhibited disillusionment with the industry's cult of personalities, which led some workers such as Jernau to question why the tech industry seemed to be exceptional in this sense: "the comments about tech companies being cults of personality are all true. I don't know why it seems to be mostly tech companies that end up that way, but we don't think about the folks leading other big companies (e.g. big pharma) that way."

This disillusionment is rooted in what tech workers felt was an uncritical adulation of technology products. With discussions of generative AI still fresh in tech workers minds after their layoffs—with some workers associating their layoffs with companies' investments in generative AI endeavors-tech workers discussed how technology "hype-cycles" were touted by industry leadership. For instance, several tech workers discussed how the boom-andbust cycles in the tech industry were characterized by large investments in the latest "shiny new toy": "as a Machine Learning person, a lot of the public excitement in the last year or so about LLMs and (shudder) the pursuit of Artificial General Intelligence seems just as grifty as the block chain craze of the last 5-10 years" (Cameron). Tech workers speculated on how such an arms race would impact tech work, such as Hank who predicted "I think people are madly searching for a way to make [AI] profitable. And that's going to drive short term [profitability], as tech has a really bad focus on short term profits as opposed to long term sustainability. [...] I think that's just going to drive like really shitty uses of AI and less genuinely useful stuff, like using GitHub autopilot to write unit tests." While Hank does not foreclose the possibility of helpful use scenarios with generative AI, he predicted that the "hyped-up" excitement around generative AI would garner short-term profitability. This boom-and-bust cycle characterizes the tech industry, as workers with decades long tenures in the tech industry such as Jernau observed: "we are going through another VC tech boom-and-bust cycle. I am old enough to have worked in tech through the dot-com bubble and we seem to be in one again (only this time generative AI maybe is the primary catalyst, cryptocurrencies having already collapsed)." As of this writing the industry-wide economic implications of generative AI are unfolding, and workers' predictions on generative AI's labor implications are yet to be proven right or wrong. Rather, the significance of tech workers' reflections on generative AI is that they signal broader disillusionment with the "hype cycles" of the tech industry.

4.3.2 Tech Maturing into Big Business. Several tech workers expressed how the tech industry had matured into a "big business" like other legacy industries, as demonstrated through Margaret's metaphor: "tech has 'grown-up" and it is no longer the weird smart kid in the room, it is now the greedy business guy, just like any other industry." The perception of the tech workplace and industry as the "weird smart kid in the room" appears grounded in the tech industry's pre-layoff reputation as an innovative, creative, and unorthodox workplace, conjuring imageries of tech campuses with leisurely on-site benefits and socially awkward yet technically proficient engineers.

While the tech industry has arguably resembled big businesses throughout history—Malcolm Harris describes the "Palo Alto System" of monopolization, wealth accumulation, expropriation, and other structures of racial capitalism as defining Silicon Valley since its inception [61]—tech workers' observations of the tech industry "turning into big business" signifies a shift in their cultural imaginaries of the tech industry. Margaret, who made the metaphor of the tech industry "growing up", shared her pre-conceptions of the tech industry: "I realized how sad it makes me feel to see the tech industry going through these tough changes. Everything that it

¹º Techno-Optimist Manifesto" is a self-published essay written by venture capitalist Marc Andreessen. The essay was widely panned for its beliefs in technological utopianism and technolibertarianism.

used to be associated with (freedom, utopia, democratizing access to information and expression, revolutionary thinking, etc.) is no longer true." To workers such as Margaret, the layoffs disrupted previously held conceptions of the tech industry as an innovative space with democratizing potential. Workers who did not personally espouse these ideals also observed this cultural shift, with David speculating "I think presently [the tech industry has] been glorified as a gold rush and shiny, exciting industry but I think over time it will just be another industry to work in." The diminishing excitement and allure of the tech industry contributes to this characterization of "big business."

Big businesses are defined by their wealth accumulation, monopoly power, and profit-driven business models. Several tech workers narrated how the tech industry has lost an essence of exceptionalism or uniqueness in pursuit of big business status: "tech has become an industry just like any other we have in this capitalist world. It's not special, it's not visionary—there's no qualitative difference between a company like an Apple or Bank of America. They're just big companies making big money" (Victoria). This profit-drivenness has led to disillusionment of tech workers, such as Maria who reflected on where she might be ten years from now:

My future self is not sure I'm using my time in the most meaningful way, especially after seeing how the tech industry evolves and grows, not in a balanced way and more like a tumor that grows where it can find a good environment to thrive. [...] I think most people [in 10 years] will be "a tech worker", since it'll be more mainstream. It won't be as special or unique like it's now or how it was 10-20 years ago. This "cool and fresh corporate culture" will be the new stiff, traditional corporate America in 10 years..."

In summary, tech workers commonly discussed the tech industry's maturation into "big business" as a stark contrast to its perceived origins as an unconventional, innovative, and exploratory workplace.

4.4 Envisioned Futures of Tech Industry

In light of their layoffs, tech workers demonstrated disillusionment, alienation, and shifting affective attachments with the tech industry. Despite these shared perceptions, workers' envisioned futures, alternatives, and suggestions for change to the tech industry were more disparate. In considering a better or preferable tech industry, workers' envisioned futures ranged from broader cultural shifts in Silicon Valley logics (e.g., "celebrate what is unique and human. Imagine a non-profit way to exist. Forgo the instant, take your time." - Murat) to specific action items (e.g., "the total compensation difference between the lowest and the highest paid person should be less than 100x" - Paige). The areas of change that tech workers identified included closing gaps in pay inequalities between executives and workers, holding shareholders accountable for negative social consequences, breaking up tech monopolies, and regulating tech companies and their products.

Workers from underrepresented backgrounds, namely gender and racial minorities, underscored the role of increasing diversity in leadership and working positions. For instance, MagicMaker advocated for an "increase [in] the proportion of women, people of color, and other marginalized groups in leadership positions. Require social justice training for everyone in leadership positions. [...] Only those at the top have any chance of influencing change, so we have to make sure that right people with the right knowledge are at the top." Many tech workers also acknowledged that the changes they desired were not exclusive to the tech industry, such as Cameron who shared "I'm not sure a better tech industry is independent of a better western society. I'd like to see everything be more inclusive, more understanding, less extractive and less conformist." Tech workers' variegated visions of change appeared to touch on different concerns with different means of addressing them. The vision of a "human-centered" future, however, animated several of tech workers' critiques and envisioned responses to the tech industry's harms.

4.4.1 Human-centered Futures. The concept of a "human-centered" tech industry resonated across workers' envisioned futures of the tech industry. The term "human-centered" was largely introduced and discussed among the UX researchers (UXR) in our study, as they depicted their roles as advocating for people: "we weren't necessarily in love with the tech industry, but rather our roles as UXRs, and [we] shared the passion of understanding and advocating for people" (David). While the specific language around "human-centeredness" was introduced by UXRs, the broader sentiment around humanism over profit-drivenness resonated across participants. Workers desired to work in an industry that appealed to "human" sensibilities, often posed in contrast to profit-driven motives of companies and executive-level decision making. UXR Jacob summarized this sentiment: "a better tech industry is a more human tech industry - one that is more focused on improving lives and less on profit hoarding." The human-centeredness expressed by participants encompassed several dimensions. On one hand, human-centeredness involved acknowledging the livelihood of workers, as software engineer Bob explained "having a human-centered tech future would mean that the company comes second and the health and lives of the employees is the first priority." At the same time, human-centeredness was also invoked as a means of re-envisioning company accountability to the social impacts of their products, rather than meeting the bottom line. UXR Angel shared "for me, being 'human-centered' means prioritizing a balance between revenue and considerations such as accessibility, inclusivity, environmental impact, and minimizing negative influences on users." This could also involve a shift in investment priorities, as Jacob notes "instead of VC funding, I'd hope for investments that lead to more intentional, human-centered innovation - but that may be a pipe dream." Several workers expressed frustration with the tech industry not "solving problems", such as UXR Violet Tea who saw a better tech industry as "more human-centered. Stop building tech based on the latest innovations unless it actually solves problems for people." At its core, humancentered tech futures were invoked as supporting people's needs rather than accumulating profit for companies, as former VP of Product and Engineering Paige articulated: "to me, 'better' tech is less focused on growth-at-all-costs and more focused on improving people's day-to-day lives in concrete ways, which I define as better housing, education, food, employment, entertainment, and health here on earth now."

Human-centeredness resembled less of an agenda and more a bundle of desires around technology production and corporate governance. Broadly, these desires centered around the dichotomy between human-centered and profit-driven motives. Towards enacting these human-centered futures, tech workers considered the role of collective organizing through tech worker unions.

4.4.2 Considering Tech Worker Unions towards Enacting Preferable Futures. Tech workers' perceptions on unions varied, although most participants acknowledged some of the benefits that they bring in mediating employee-employer relationships. Vocal advocates of unions in the ARC acknowledged the necessity of unions due to the larger absence of worker-centered considerations in incentive structures. As data scientist Cameron explains, "unions and worker-owned collectives are the only ways for workers to have power under capitalism. Unions bring transparency to workplaces, and protect workers when they are trying to stand up for themselves. They also decidedly work to destroy toxic 'meritocracies', like the kind that exist in tech, by spreading risk and reward around more fairly, without telling people that they are special little boys whose success has been earned because they just work harder than the less fortunate." Here, Cameron discusses the structural advantages of unions as a potential mediator in management-employee relations, but also alludes to potential pushback from those who espouse meritocratic ideals of the tech industry. Additionally, tech workers acknowledged how unions could have prevented, if not provided accountability for, the mass layoffs: "I think a tech worker union could increase disincentives to lay off people." (Jernau).

Some participants distinguished the formalized structures of unions from more cultural aspects of change necessary in the tech industry. Paige noted this difference: "a union can provide support for a group of workers including negotiations around salaries, benefits, and layoffs. Unions have collective bargaining powers that can apply pressure in favor of employees. They can affect all of the above areas, although more in the realm of contracts than in the realm of culture." Some participants expressed skepticism with the bureaucratic aspects of unions. These criticisms surfaced through notions of slow-moving bureaucracies (e.g., "I feel like unions have a lot of power around payment and the kind of consequences the employees can face for bad behavior, but they can be slow-moving." - Lisa S); threats to individual salaries (e.g., "unions take money out of the employment system, but it doesn't all go to the employees. You end up with a smaller version of everything that was already wrong at the business level now repeated at the union level." - Vyk); and internal politics surrounding leadership and power (e.g., "obviously a lot of unions are systematically racist or misogynist. Unionizing workers need to participate actively in things like contract negotiation to make sure their voices are truly represented, and not just defer to the loudest white man in the union." - Victoria).

Despite mixed enthusiasm for unions, workers understood their significance towards workers' rights, especially in terms of compensation and accountability for discriminatory employer practices. This has implications for a mass layoff event, as noted earlier. However, tech workers observed tensions in the collective nature of unions to the individualist, entrepreneurial tendencies of many tech workers. Software engineer Hank discussed "tech companies have encouraged people to be competitive, so they have that mindset. People form unions when they have nothing to lose; right now tech workers feel like they have everything to lose, and all their colleagues

are trying to take that from them." Cameron's earlier allusion to meritocracy and unions is relevant here, as they elaborate: "unions do not make those who feel entitled, because they are high-achievers, happy. But they do recognize that high achievement is not fairly distributed, and not always perfectly correlated with skills or what a worker deserves." The overall ambivalence toward unions appeared to be rooted in an understanding that the tech industry is in the midst of an industry-wide transition of values, with some embracing post-neoliberal values [48] and others affirming values canonically associated with the tech industry such as competition, meritocracy, and entrepreneurship. As Finn explains, "[a] union may be successful in decision-making, but the tech industry feels so deeply stratified that I worry what kinds of common ground we can form." National discourses surrounding the U.S. tech industry may also explain these sentiments, as Paige acknowledged "I have been in social situations where people think unions are anti-American—the brainwashing is so deep that people think that unionization is anti-industry." Despite overall ambivalence with the prospect of tech worker unions, the broader sympathy and interest in tech worker unions signals opportunities for political education and consciousness building around tech worker unions.

5 Discussion

To illustrate the stakes of affective attachments to tech work, we discuss how workers' relationships to the tech industry appear cruelly optimistic. Analyzing our findings through the lens of cruel optimism provides an affective explanation for why—despite disillusionment, alienation, and unfulfillment—tech workers remain in the tech industry, and what a discontent workforce signals for worker-led efforts addressing the tech industry's ethical harms. This section analyzes our findings through core concepts of Berlant's *Cruel Optimism* [19], which will then set up implications for collective worker resistance and HCI researchers in the following sections.

5.1 The Cruel Optimism of Tech Work

In this section, we analyze tech workers' experiences of cruel optimism through their affective adjustments to the layoffs. As we will discuss, tech workers' improvisational efforts to "make life bearable" [19, p. 14] amidst the dismantling of their good life fantasies demonstrates their experiences of **crisis ordinariness**, a historically driven perspective to understanding present-day power dynamics through a focus on subjects "feeling through a long, unraveling present" [28].

Tech workers' **good life fantasies** were directly challenged through the mass layoffs, which signalled a shift in an industry that historically went to great lengths to attract talent through competitive salaries, generous workplaces perks, and florid rhetoric about tech workplaces as sites of innovation and fulfillment [4, 18]. The object of tech workers' affective attachments prior to the layoffs were the cluster of promises [19] associated with working in the tech industry: meritocracy, work-life balance, work fulfillment, technological innovation, and upward mobility. Echoing the meritocratic and individualist imaginaries of the "American Dream" [50, 94], these promises appeared obtainable to many tech workers before the layoffs, as they entered an industry known for competitive benefits and salaries, linear career trajectories, and technological

innovation. The mass layoffs thus signified a collective moment of crisis to tech workers' good life fantasies of working in tech. Tech workers' alienation and rejection of work fulfillment demonstrate the fallout of these good life fantasies, exemplified through the erosion of technology innovation discourses (§4.2.1).

Despite fundamental discontent with the increasingly profitdriven, financialized logics of the tech industry (§4.2, §4.3), tech workers made affective negotiations to justify their staying in the tech industry. To clarify, these negotiations manifested as reactions to being laid off rather than conscious responses to their feelings of dissonance in staying in tech (§4.2.3). Nonetheless, workers' affective adjustments served to maintain proximity to the tech industry, showing how good life fantasies of tech work are reshaped and not dismantled in the aftermath of mass layoffs. These affective adjustments (§4.2.3) resemble the improvised adjustments that subjects make in cruelly optimistic relations as a means of adaptation and surviving crises, as Berlant describes "one makes affective bargains about the costliness of one's attachments, usually unconscious ones, most of which keep one in proximity to the scene of desire/attrition" [19, p. 25]. This was reflected through workers who metaphorized their tenures in tech through a relational lens, such as Maria, who illustrated the cruel optimism of tech work: "I think [of the layoffs] like a bad breakup. But still, the relationship wasn't that bad. So yeah, I would do it again."

Not all optimistic relations are cruel, and Berlant clarifies:

Optimism is cruel when the object/scene that ignites a sense of possibility actually makes it impossible to attain the expansive transformation for which a person or a people risks striving; and, doubly, it is cruel insofar as the very pleasures of being inside a relation have become sustaining regardless of the content of the relation, such that a person or a world finds itself bound to a situation of profound threat that is, at the same time, profoundly confirming. [19, p. 2]

Here, Berlant underscores how the structures of a cruelly optimistic relation provide a sense of being in the world to subjects, while also threatening subjects' wellbeing. We observe similar relations with the tech workers in our study, who expressed not just dissatisfaction but disenchantment with the tech industry's raison d'être. For instance, Dean provided a scathing directed at tech industry leaders, boldly stating "you are a cold-blood psychopathic force which would suffer terribly in the face of true justice, and your victims continue to enable you because you and your monstrous allies leaves them no dignified alternative." Not only does this quote exemplify Dean's antagonism with tech industry leadership, but the perceived lack of "dignified alternatives" also suggests a potential move to hold onto class positioning associated with tech work. The feelings of discontent workers harbored in the aftermath of layoffs resemble fundamental discontent more than mere job dissatisfaction, as reflected through Matcha's rumination in §4.1.2. Tech workers' criticisms of the industry's "cult of technology" in §4.3 further illustrate tensions in workers' sense of belonging in the tech industry.

Claims of tech workers existing in cruelly optimistic relations can appear over-exaggerated, especially compared to conventional tropes of tech workers and their relative wealth privileges. Our purpose of analyzing tech workers' cruelly optimistic relations is not to exceptionalize these circumstances or to equate them to other precarious working arrangements that have been analyzed through cruel optimism [13, 25, 111]. Tech workers have an increasingly heterogenous class composition, with varying levels of precarity depending on their subject positioning [52, 119, 131] (i.e., relative to axes of oppression such as race, gender, class [102]). Berlant does not suggest that affective attachments are experienced similarly across subjects, clarifying that "people born into unwelcoming worlds and unreliable environments have a different response to the new precarities than do people who presumed they would be protected" [19]. For example, some workers faced additional hurdles to retain visa status after being laid off (§4.1.1), showing how workers are differentially vulnerable to regimes of legal violence [16]. We do not propose that tech workers experienced cruelly optimistic relationships to the tech industry equivalently.

Articulating the cruel optimism of tech work instead draws attention to how affective attachments structure the labor relations, conflicts, and conditions of the U.S. tech industry. This is captured through Berlant's claim that "the conditions of ordinary life in the contemporary world even of relative wealth, as in the United States, are conditions of the attrition or the wearing out of the subject, and the irony that the labor of reproducing life in the contemporary world is also the activity of being worn out by it has specific implications" [19, p. 28]. Our analysis of the cruel optimism of tech work shows how sociotechnical imaginaries around good life fantasies and progressive accounts of technologies are being reshaped by workers in the aftermath of layoffs, namely towards a critical perspective of the tech industry. However, tech workers expressed a reluctant commitment to the tech industry, simultaneously worn out by but also affirmed by the structures and affordances of the tech industry.

Towards understanding the implications of cruel optimism, we turn to Berlant's provocation of "what it might mean politically that conflicting dreams of a reciprocal world to belong to remain a powerful binding motive to preserve normative habits of social reproduction" [19, p. 25]. Here, Berlant suggests cruelly optimistic relations can lead to the reproduction of existing, normative social relations. In our case, tech workers' affective attachments to good life fantasies work in service of the tech industry's reproduction, marking a relation where tech workers are attached to systems that have harmful impacts on them. The following section elaborates on the implications that this has on the potential and limitations for worker-led collective responses to the tech industry's harms.

5.2 (Affective) Possibilities and Barriers toward Worker-led Collective Resistance

Although cruel optimism seemingly illustrates an inevitable relation of harm and attrition, Berlant [19, p. 262] signals potential in solidarity and collectivities through "new idioms of the political, and of belonging itself, which requires debating what the baselines of survival should be in the near future, which is, now, the future we are making." Berlant calls for an attunement to how solidarity comes from collective forms of survival amidst the waning of good life fantasies, and in acknowledging the pivotal role that fantasies themselves play in producing alternative presents [19].

In response to this provocation, we consider how tech workers' cruelly optimistic relations, as well as their critiques of the tech industry, can be channeled toward worker solidarity and collective resistance. We argue that tech workers' preferred "human-centered"² futures (§4.4.1) can most effectively be addressed through labor organizing, which can provide social and material protections for workers that are otherwise not guaranteed [47, 78]. Our position is supported by political scientist Sidney A. Rothstein [118]'s case study analysis of mass layoffs in U.S. and Germany-based tech firms in the early 2000s, which demonstrates how workers were able to develop strategic power and economic leverage against the threat of mass layoffs by challenging managerial discourses in their mobilizing strategies. Due to their relative flexibility and mobility in the labor market, tech workers are typically assumed to have less interest in collective resistance [131, 132]. Therefore, Rothstein [118]'s findings of tech workers successfully contesting layoff decisions establishes labor organizing as a potential pathway towards addressing the tech industry's harms. The remainder of this section will discuss how our findings reveal possibilities and limitations for collective resistance, with implications for the recent increase in organizing activity in the U.S. tech industry [3, 37, 52, 131, 145].

5.2.1 Channelling tech criticisms toward counter-imaginaries. Taking up Berlant's provocation of exploring alternative presents, we discuss leveraging counter-imaginaries to dominant tech industry logics toward collective resistance. Our findings underscore the discursive and symbolic dimensions of building counterpower and solidarity, as tech workers criticized dominant discourses that they associated with the tech industry. Tech workers' criticisms of the financialized, market-based logics of the tech industry-shown through what workers described as the "cult of technology" (§4.3.1) runs counter to tech industry logics of meritocracy, market fundamentalism, and financialization [95]. These criticisms are important as Rothstein [118] identifies market fundamentalism as a hegemonic managerial discourse that stands in the way of tech workers' collective resistance by naturalizing market forces [117]. Specifically, Rothstein [117] argues that market-based notions of employment can externalize layoff decisions to market forces, viewing them as out of managers' and workers' control, thus eschewing the need for workers to resist layoff decisions. Echoing Dorschel [48]'s findings of post-neoliberal tech worker subjectivities, the tech workers in our study renounced market-oriented logics and thus exhibited the potential for counter-imaginaries.

Prior work has noted the importance of fostering collective counter-imaginaries in opposition to corporate and state-driven sociotechnical visions of futures and technology development [34, 69, 78, 85, 89]. Lee [78] argues that development of inclusive collective imaginaries, by incorporating diverse workers' perspectives, can cultivate worker solidarities and thus address asymmetric capitalist power dynamics between bosses and workers. Building on Cheon [34]'s call to investigate the sociotechnical imaginaries that tech companies actively engage in, the laid off tech workers in our study demonstrated a potential "human-centered" counterimaginary to the tech industry's financialized and profit-driven

logics. Amidst broader disillusionment with generative AI "hypecycles" (§4.3.1), labor organizers can corral workers' feelings of alienation and unfulfillment toward the development of "humancentered" counter-imaginaries and worker solidarities. For instance, the increasing discontent by tech workers with generative AI can support longstanding criticisms of the tech industry and algorithmic management from platform workers, subcontracted service workers, and contract office workers [29, 120, 131, 146]. Efforts to mobilize collective resistance within companies can continue appealing to a broad range of workers by countering managerial, profit-driven discourses. With labor organizers identifying the capacious and conflicting label of "tech worker" as its main weakness to mobilization [44], bridging shared feelings of discontent and disillusionment can serve as a foundational step towards forging working class solidarities. Potential avenues toward cultivating these collective counter-imaginaries include community meetings and dialogue [38, 128], public awareness campaigns [29, 71], and participatory speculative design engagements [89].

5.2.2 Beyond critique: mobilizing affective attachments. While criticism can serve as foundational blocks for political consciousness—potentially informing counter-imaginaries to managerial or corporate discourses—we acknowledge that criticism alone does not inspire collective resistance. In addition to structural obstacles to collective voice and workplace organizing [78], our analysis points to how tech workers' affective attachments can pose barriers as well. Even with pointed criticisms directed at tech leadership and prevailing industry logics, most workers in our study sought individual adjustments to layoffs and showed mixed reception to the prospects of labor organizing.

In a feature on South Korea's tech industry and its efforts to "catch up" to Western technology modernization, Sun-Ha Hong [63] investigates how Seoul's AI technology sectors reproduce the Californian Ideology through the legacy of mythmaking:

Beyond the closed shop of elite-driven mythmaking, we find innumerable signs that many people around the world have little belief in or respect for Silicon Valley's AI mysticism [...] The problem is that such myths do not always require vast constituencies of "authentic" belief to sustain their dominant position; often, networks of media spectacle and political rhetoric, and the circuits of money and power embedded into them, continue under their own momentum and accompanying sense of familiarity. [63]

In the context of our study, widespread worker criticisms of the industry leadership and tech elites—or what the tech workers in our study expressed as the cult of technology—should not be mistaken as a potential threat to the social reproduction of the tech industry in itself. Some workers' criticisms were directed at the industry's cult of personalities rather than foundational tech ideologies, and these criticisms were partially resolved through workers' affective adjustments. For instance, Vyk's quote in §4.2.3 about his relationship with his former manager exemplifies how some workers distinguished their direct managers from the tech elite's cult of personalities to rationalize their staying in the tech industry (§4.2.3). This is an important limitation to note, as prior examinations into the U.S. tech industry's social reproduction are premised on tech

 $^{^2\}mathrm{At}$ the same time, we acknowledge that "human-centered" as a terminology can be subject to capture [54, 64].

workers' indoctrination into Silicon Valley logics and the Californian Ideology [42]. Tech workers' cruelly optimistic relations to the tech industry showed how dominant imaginaries persist, continue to structure the tech industry, and do not necessarily rely on a mass of enthusiastic or willing accomplices in its workforce.

Nonetheless, we should not discount potential opportunities for critique. Hong observes that critique, resistance, and skepticism can play crucial roles in reintroducing *frictions* to technocultural narratives and myths [63]. In a similar vein, Amrute [11] analyzes memes of technocratic elites as "glitch attunements" that "reveal the cracks in the kinds of masks that those in power don in the name of those they rule." And as one of the tech workers in our study shared, introducing frictions to these narratives can *feel* meaningful: "tearing off the mask or revealing the wizard behind the curtain can feel empowering once you move beyond your anger."

We suggest worker-led collective efforts take into consideration tech workers' affective attachments and attempt to mobilize them. As shown in the participant quote above, reintroducing cracks, frictions, and slippages in sociotechnical imaginaries around the tech industry can feel empowering, especially in a shared social context where workers may feel empowered to collectively respond to the tech industry's harms. In this way, we continue to advocate for the development of shared counter-imaginaries.

However, our analysis of the cruel optimism of tech work shows that these counter-imaginaries must also address the broader national and corporate-driven good life fantasies that structure affective attachments to the tech industry. Workers may feel sympathy and passion for technology-related issues, but their individual attachments to visions of the "good life" may take precedence, as evidenced by the individual, affective adjustments that tech workers made in response to their decisions to stay in the tech industry. This point builds on Sarder and Fiesler [121]'s findings of graduating computing students who feel that personal ethics comes second to the opportunity for a high salary. To address this, we invite opportunities to engage with and potentially reformulate workers' good life fantasies. This returns to Berlant's provocation at the opening of this section of creating new idioms of belonging and collective survival.

Counter-structures [14]—or alternatives to powerful institutions such as worker co-operatives [5, 126] and tech worker unions [52] not only create structural support for workers material needs (as mentioned by participants reflecting on the collective bargaining power of unions §4.4.2), but can also address facets of workers' alienation and disillusionment [73]. For example, Kociatkiewicz et al. [73]'s examination of worked-owned co-operatives shows the potential for "disalienated" work - a relationship to work that involves experiences of control and agency, as well as collective mechanisms for identity construction and building of social relationships. Worker owned co-operatives' practices of non-hierarchical and collective decision-making can facilitate active engagement and collective agency, which Kociatkiewicz et al. [73] argues contribute to a collective sense of belonging and responsibility that is lacking in hierarchical workplaces. Existing worker-owned tech cooperatives show the potential for disalienation, as shown through Ahmed's reflections on how her unionized tech co-op collectively engages in discussions on self-determination of what work and clients their co-op should pursue in alignment with values [5]. As

a feature of worker-owned organizations, disalienation shows potential for tech work to have meaning and fulfillment in ways that are not simply recuperations of tech industry narratives, and aligns with participants' visions of human-centered tech futures (§4.4.1). While they may not resolve cruelly optimistic relations, counterstructures such as employee-owned co-operatives show potential pathways to re-structure workers' affective attachments to the tech industry and work more broadly. Future efforts can investigate how counter-structures such as worker-owned tech co-operatives [5, 40, 76, 126] may foster new collective forms of being towards imagining and enacting a preferable tech industry. At the same time, these investigations might also address how conflicting visions of "good life fantasies" may pose barriers toward involvement in workplace organizing and worker-owned tech cooperatives.

Many workers in our study expressed ambivalence, skepticism, and fatalism toward collective efforts to resist the tech industry's harms (§4.4.2). For instance, some workers' deferred to higher organizational powers such as policymakers and company leadership to meaningfully effect change. MagicMaker's quote in §4.4 demonstrates this, as she suggested only those "at the top" have any chance of influencing change. Workers' affective adjustments of turning to self-sufficiency and self-reliance (§4.2.3) signal a potential turn to individualism, preventing the formation of collective resistance and counter-imaginaries. While on one hand practices such as rejecting work fulfillment (shown through the rhetoric of "work is just work" in §4.2.2) can appear subversive to American working cultures [15], they can ultimately undermine efforts to collectively resist the systems that foster alienating and unfulfilling working cultures in the first place. In response, we recommend mobilizing workers' affective attachments towards recognizing the value of collective power. Political education on collective power should not only emphasize the material and structural benefits of collective organizing, but it should also speak to addressing workers' good life fantasies, underscoring how participation in these collective counter-structures can feel empowering. Such efforts can draw inspiration from anticapitalist and anti-imperial worldmaking projects, which geographer Erin McElroy [96, p. 216] discusses as 'collective alliance-making, organizing, and dreaming of a world in which property no longer functions as a technology of dispossession that the very project of Siliconization begins to unravel."

5.3 Implications for HCI Researchers

This section discusses how cruel optimism presents implications and contributions for HCI scholarship. Our application of cruel optimism to the sociotechnical imaginaries of tech workers builds on HCI research on the affective dimensions of technology production and design. Prior scholarship has examined the varied sociotechnical imaginaries of both the tech industry and the field of HCI, with a focus on the oft solutionist promises and desires associated with design and computing [82, 86, 109]. These works show how well-intentioned desires of social progress through technology design can be co-opted by powerful institutions, toward the reproduction of power asymmetries and social inequalities [82, 88]. For instance, Lin and Lindtner [82] argue that HCI's central value system of usefulness—and its attendant goals of social progress, productivity, and excellence—is upheld by channeling individual hopes and

desires into the cultivation of useful, desirable subjects for states, corporations, and universities. These works examine affective attachments to dominant sociotechnical imaginaries, showing how desires are magnetized through processes of technology innovation and design. The lens of cruel optimism provides additional insight into how such affective attachments can persist despite significant challenges to-, or contradictions within-, sociotechnical imaginaries.

Future HCI research can mobilize cruel optimism to re-examine the allure of utopic, solutionist technology design not as promised "dreamscapes of modernity" [65], but as embroiled in cruelly optimistic relations. Emergent technologies such as generative AI carry charismatic claims of societal progress and transformation, and in turn such technologies receive support from state, corporate, and academic institutions [9, 60, 134]. When these charismatic technologies inevitably fail to deliver on their lofty promises (e.g., one laptop per child policy [9]), cruel optimism offers an explanatory framework for how users, developers, designers, and researchers might confront and negotiate the fallout of dominant sociotechnical imaginaries. As an example, future work might question how HCI's longstanding relationship with "design thinking" [60] acts as a relation of cruel optimism, channeling desires and hopes toward the development of design solutions—which Pal [109] argues services the HCI research community more than its purported beneficiaries. As in our research, such future investigations may find that researchers and practitioners engage in a set of practices that appear as affective adjustments, which ultimately maintain one's proximity to the site of cruelly optimistic desires despite their personal denouncement of prevailing sociotechnical imaginaries. In this sense, cruel optimism provides further insight into processes of contesting and resisting hegemonic sociotechnical imaginaries [89, 90]. Moreover, this points to how affective attachments to enchanting technologies comprise "structures of feeling" [19] not only in the tech industry, but also in computing and design research.

In a sociopolitical climate in which technology elites amass monopolistic power through the utopic promises of technology development [8], applying the lens of cruel optimism can also deconstruct the increasing discontent among tech workers, computing researchers, and other fields with reluctant ties to the U.S. tech industry. In doing so, future HCI researchers can trace both opportunities and barriers for collective resistance to the tech industry's ethical harms [5, 64, 107, 114, 123, 128]. This can spark renewed conversations about tech ethics, with cruel optimism providing an affective, embodied lens into how practitioners, designers, and researchers might encounter and navigate ethical dilemmas [57, 128].

6 Conclusion

Our analysis of tech workers' cruelly optimistic relations provides insight into why-despite disillusionment, alienation, and unfulfillment-tech workers remain in the tech industry, and the adjustments that they make to justify their decisions of staying in the tech industry. Through our five-week ARC study involving creative weekly reflection activities, online discussions, and focus groups, we found tech workers' affective attachments to tech work's promises of innovation, fulfillment, and technological solutionism were dismantled. We see both possibilities and barriers for mobilizing the

discontent laid off tech workforce toward worker-led collective resistance, which we argue would address their discontent in both material and affective registers. Specifically, workers' visions of a "human-centered future" holds potential as a counter-imaginary to the tech industry's dominant logics, but workers' mixed reception to unionization and collective forms of organizing poses a barrier to these counter-imaginaries. Towards collective resistance, we conclude with a call for labor organizers, tech workers, and academic researchers to recognize the affective attachments that structure the tech industry.

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