

This is a section of [doi:10.7551/mitpress/13835.001.0001](https://doi.org/10.7551/mitpress/13835.001.0001)

Digital Work in the Planetary Market

Edited by: Mark Graham, Fabian Ferrari

Citation:

Digital Work in the Planetary Market

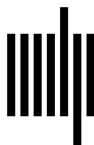
Edited by: Mark Graham, Fabian Ferrari

DOI: 10.7551/mitpress/13835.001.0001

ISBN (electronic): 9780262369824

Publisher: The MIT Press

Published: 2022



The MIT Press

12 Organizing in (and against) a New Cold War: The Case of 996.ICU

JS Tan and Moira Weigel

At least since John Perry Barlow (1996) published his famous “Declaration of the Independence of Cyberspace” from the meeting of the World Economic Forum at Davos in 1996, cyberutopians have celebrated the power of digital technologies to transcend national borders. From the PayPal founders, who claimed that fintech would free individuals from state currency controls (Jackson 2004), to Facebook and Twitter executives who touted the role of social media in precipitating the Arab Spring (see Reuters 2012; Roberts 2017), prominent figures within the US tech industry have for a long time articulated a vision in which globalization and digitization dovetail, freeing individuals anywhere and everywhere to create, communicate, and compete on their own terms. Now, many signs point away from such universalism—or imperialism—and toward a more bordered Internet. These include the theater of the escalating US-China trade war and new regulations and demands for data sovereignty in the EU, South Asia, and Latin America. Yet even amid pushes for “cybersovereignty” (*wangluo zhuquan*) and attendant calls for “decoupling” of national tech industries, both the labor and capital that drive those industries remain global. Western politicians pushing for sanctions against China have tended to focus on the globalization of manufacturing and physical supply chains. But software engineering and other forms of knowledge work that drive planetary-scale technology industries remain highly dispersed, and entangled, as well.

In recent years, a growing body of research has examined the globalization of such labor and the formation of entrepreneurial subjects outside the US (Pham 2015; Amrute 2016; Chumley 2016; Irani 2019; Lindtner 2020; Wang 2020), as well as the far-flung geographies of content moderation (Tufekci 2017; Roberts 2019) and of the “ghost work” that powers much of what is sold as artificial intelligence (Ekbia and Nardi 2017; Taylor 2018; Gray and Suri 2019). Much of this work either implicitly or explicitly critiques the concepts of “cognitive” or “immaterial labor” developed by Maurizio Lazzarato (1996, 2004), Bifo Berardi (2009), Michael Hardt and Antonio Negri (2001, 2005), Tiziana Terranova (2004), and others in the Italian autonomist tradition, as well as Gilles Deleuze (1992).

While these studies accept the premise that post-Fordist capitalism commodified communicative and symbolic activities in novel ways, they reject the idea that such activities are essentially different or indeed separable from manual labor. Furthermore, several of these authors directly contest the suggestion that knowledge work can be detached from the bodies of the people who perform it or the geographies where it takes place.¹

In this chapter, we will take up a series of distinct but related questions.² If research has revealed that contemporary labor is structured in ways that belie imaginaries of post-racial and post-national equality, history also demonstrates that imaginaries of equality play an important role in bringing workers together around common causes. Can workers in global technology industries organize across racial differences and national boundaries? Can they do so in the absence of shared imaginaries? If so, how?

In order to explore these questions, we will focus on an unprecedented labor action initiated by programmers in China in 2019: the anti-996, or 996.ICU movement. While it was focused primarily on changing work culture at Chinese tech firms, as we shall discuss, the 996.ICU movement expanded to include communication and coordination with tech workers in the US as well. Readers of this volume may have encountered the activities of the Tech Workers Coalition (TWC), a group founded in the Bay Area in 2014 that now comprises a network of thousands of participants both in the US and in international chapters in India, the UK, the Netherlands, Ireland, Italy, Canada, and Germany. Volunteers with TWC came to support the 996.ICU movement, and we will return to the TWC origin story in what follows as a point of comparison. However, in addition to connections between the US-based tech worker movement and the 996.ICU movement, our analysis highlights significant *differences* in how participants in these two movements have described and organized themselves.

While both TWC and 996.ICU organizers make strong appeals to notions of worker identity, we find that they conceptualize that identity differently. TWC has elaborated an expansive, or universalizing, notion of the tech worker that includes anyone who works for a technology company. By contrast, the 996.ICU organizers address a specific, bounded class of professional programmers. This case study thus brings into focus how cooperation might take place even among movements that develop different understandings of, and approaches to organizing, tech sector work. Cooperation around 996.ICU was especially striking because it took place across the “Great Firewall,”³ in the context of an increasingly belligerent “New Cold War” between China and the US in which politicians and business leaders alike often describe data-driven technologies as the single most important front. In this context, organizers were able to collaborate not because they shared a precise sense of their own identities but because they worked with a common set of tools. Specifically, they took advantage of a platform that remains essential to software development in both countries: GitHub.

996.ICU

In November 2018, in response to revelations of sexual harassment in the company, over 20,000 employees walked out of Google offices worldwide. Five months later, the largest-ever tech worker mobilization in terms of online engagement swept the Internet. Unlike the Google walkout, this viral mobilization, known as the 996.ICU campaign, took place in China. While these two events were apparently unconnected, both highlighted and protested more or less open secrets about the conditions of white-collar tech work. Named after the brutal system of working 9:00 a.m. to 9:00 p.m., six days a week (the 996 *gong-zuo-zhi*), the 996.ICU campaign opposed the 72-hour workweeks that many Chinese tech companies require and sparked a nationwide conversation about white-collar working conditions. The campaign's website explains the origin of the name: working 996 hours is a health risk and will put employees in the intensive care unit (ICU). Despite taking place among Chinese tech workers, the 996.ICU campaign was organized, built, and published entirely on popular US-based web services, most notably the Microsoft-owned code hosting and sharing platform GitHub (figure 12.1) and the team messaging service Slack.

The 996.ICU campaign was run by anonymous employees in the tech sector who hid their identities in fear of retaliation from their employers and the Chinese government. (In the past, Chinese labor organizers and civic activists have dealt with

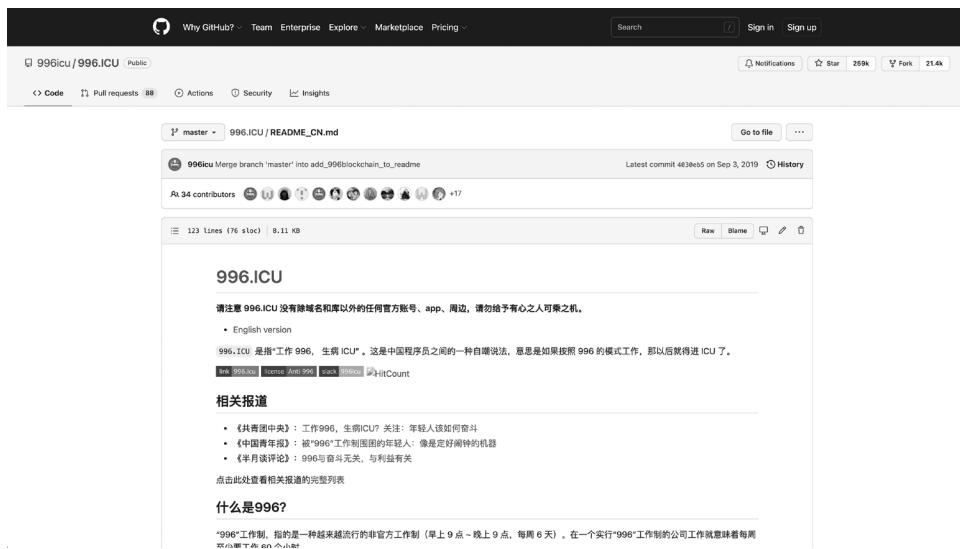


Figure 12.1
Screenshot of 996.ICU channel on GitHub.
Source: 996icu 2019a.

retaliation at all scales—from having their social media accounts shut down to getting “disappeared” by Chinese authorities.) The campaign started when these employees created the 996.ICU project on GitHub, the largest and most popular code-sharing and collaboration platform in the world. GitHub gives coders a way to save their codebases, share them with collaborators, and provide feedback to each other. The platform also includes a social component, allowing its users to view which projects are currently trending. Today, most major tech companies use GitHub to share new open-source projects and to foster community engagement. In the spirit of open-source code, many projects on GitHub are hosted publicly, meaning that anyone (even those without GitHub accounts) can view the contents of a project.

The 996.ICU campaign used GitHub to showcase a few of its key parts (996icu 2019a). First was the crowdsourced creation of a blacklist of tech companies who forced their employees to work overtime and a whitelist of those who did not. The idea was to shame blacklisted companies into dropping their culture of overwork. Second was the promotion of a newly created “anti-996 software” license, which would bind companies who use anti-996 software to “laws, regulations, rules and standards of the jurisdiction relating to labor and employment” of the country where the company is located (996icu 2019b). In China, this would subject companies to adhere to Article 36 of China’s labor law, which states: “Laborers shall work for no more than eight hours a day and no more than 44 hours a week on average” (NPC 1994). Third was a forum-like section (on the campaign’s GitHub “Issues” page) where tech workers who supported the campaign discussed their work hours and shared workplace frustrations with each other.

This forum soon became an important space for Chinese tech workers to openly discuss their working conditions and collectively express frustration about the 996 schedule, which for a long time had been an accepted facet of working in the tech sector. A widely read post garnering over a thousand comments had previously appeared on Zhihu (a question-and-answer website similar to the US-based Quora) about Alibaba’s DingTalk (*Dingding*), a tool employers could use to more closely monitor employee attendance in the office. One comment criticized DingTalk for allowing bosses to feel like “company emperors” (*gongsi huangdi*) (Yang 2018). Another comment ridiculed employers using DingTalk as “rubbish companies” (*laji gongsi*) for allowing bosses to surveil workers, the poster sarcastically adding that the only thing the software was missing was a direct way for bosses to eavesdrop on employees (Dugu 2017). However, the 996.ICU campaign’s use of GitHub represents the first time that a tech worker campaign reached this scale and the first time that it did so on a global platform.

In addition to their work on GitHub, the 996.ICU campaign organizers also ran a Slack workspace for dedicated supporters to convene privately and, for the most part,

anonymously. During the campaign, the workspace quickly grew to over 2,000 members, who created different channels to discuss various aspects of the public campaign, share legal resources, and plan other related actions. In contrast to the public GitHub project, which served primarily as the public location of the 996.ICU campaign to post resources and updates, the Slack workspace gave Chinese programmers a private space to congregate and strategize about how to push the campaign forward. In the span of a few weeks after it was created on March 26, 2019, the 996.ICU project on GitHub was bookmarked over 200,000 times, making it the second most bookmarked project ever to exist on the code-sharing platform (GitHub n.d.).

The campaign also saturated the Chinese microblogging site Weibo and was widely reported on by major media outlets in China, forcing a nationwide conversation about work-life balance (Anonymous 2020). The *People's Daily*, an official paper of the Chinese Communist Party, published several articles commenting on the campaign. One was titled “We Shouldn’t Label Employees Who Are Anti-996 ‘Lazy.’” (Anonymous 2019). A post criticizing 996 working hours, made from the paper’s official account on Weibo, attached another story that called for the Ministry of Labor Supervision to intervene (*People's Daily* 2019). Chinese tech executives were cornered into making a public response. Alibaba founder Jack Ma criticized the 996.ICU protesters, saying that working a 996 schedule was in fact a “huge blessing” (Gilchrist 2019). The CEO of Chinese e-commerce giant JD.com, Richard Liu, also denounced the campaign, declaring “slackers are not my brothers” (Horwitz and Goh 2019). According to the GitHub blacklist, Tencent, ByteDance, and Huawei are also among the tech companies in China that mandated a 996 schedule.

The use of GitHub to conduct this campaign was both strategically and symbolically important. One week after the 996.ICU campaign launched, Tencent, Xiaomi, and Alibaba blocked the 996.ICU GitHub project on the browsers they control, describing its contents as “containing illegal information” or “malicious” (Shen 2019). But despite these attempts, these Chinese companies did not have much success in blocking the GitHub-hosted project. To access the project, people could simply use other browsers, such as the Google-built Chrome browser, which has by far the largest market share in China. It turned out that nothing short of blocking GitHub entirely, in the same way that Twitter, Facebook, and Google services have been blocked, would have prevented tech workers from accessing the campaign. However, because GitHub is widely used as critical engineering infrastructure by Chinese tech companies, banning the website in China would have caused a major disruption in the productivity of the Chinese tech sector.

Since the early years of the twenty-first century, tech firms—both inside and outside of China—have reaped the benefits of a culture of open-source software, most of

which lives on GitHub. The transfer of AI research in particular has relied on GitHub, with key libraries for developing AI models, such as Google’s TensorFlow and Facebook’s PyTorch, being open-sourced there. This in turn has created a culture where AI researchers will share their latest implementations of new models on GitHub as well. In other words, banning GitHub would have significantly hurt the Chinese tech industry, striking at an area that the government has identified as particularly important to the advancement of Chinese cybersovereignty, for instance in their “New Generation Artificial Intelligence Development Plan” (China State Council 2017).

Without compromising GitHub’s value in China’s tech industry, the only way to censor the campaign would have been to force Microsoft to remove the project from GitHub. As news of possible attempts to censor the anti-996 campaign spread internationally, Microsoft employees in the US grew concerned that their company, which has a history of succumbing to Chinese demands in order to access China’s massive market,⁴ was already being pressured to remove the campaign from GitHub. Preempting any attempt from Microsoft to pull the campaign, these employees created a “support.996.ICU” GitHub project (figure 12.2), demanding that the code-sharing platform remain “uncensored and available to everyone,” and invited tech workers around the world to join them in a show of solidarity with the anti-996 struggle. In a matter of

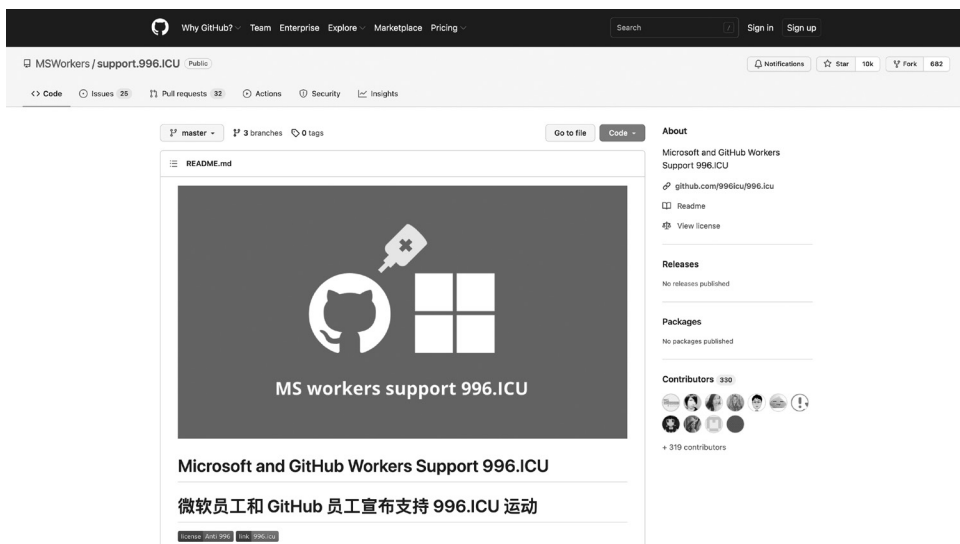


Figure 12.2

Screenshot of support. 996.ICU channel on GitHub.

Source: MSWorkers 2019a.

days, the solidarity project was signed by hundreds of tech workers around the world, including in Spain, Turkey, Singapore, the UK, France, and the US (MSWorkers 2019a).

Seeing global support for their movement, anti-996 tech workers from China started to leave comments in the new support.996.ICU GitHub project, expressing gratitude to the Microsoft employees who created it. One of the original contributors to the anti-996 project collaborated with the Microsoft employees to translate the solidarity statement into Mandarin, which was posted alongside the English statement on the public page. A forum on the solidarity project was also used to discuss differences in tech work between the US and China. Recognizing the rare moment of cross-border solidarity in the tech industry, one Chinese contributor even posted lyrics to “The Internationale,” the left-wing anthem first translated from French by the early Chinese Communist Party leader Qu Qiubai in 1923. This act of tech worker solidarity was covered in several English-language online media outlets, including Business Insider, BuzzFeed, and Vice, and the project remains available on GitHub to this day.

“Tech Workers” and “Code Farmers”

While the 996.ICU campaign built connections between Chinese tech workers and their counterparts in the US, a comparison of this movement and its US counterpart, the Tech Workers Coalition (TWC), reveals striking differences. In particular, participants in the 996.ICU movement placed far less emphasis than their TWC counterparts on the concept of the tech worker. Since the mid-2010s, the US tech worker movement has centered on an expansive concept of the tech worker identity. Indeed, the term has always been a provocation. Founded in 2014 by Rachel Melendes, a cafeteria worker who became an organizer of the North American labor union UNITE HERE, and engineer Matt Schaefer, the TWC formulated an argument: that whether they were high-salaried full-time employees (FTEs) or contractors, white collar or blue collar, all the people working at tech firms in the Bay Area had interests in common (Weigel 2017). This novel identity—that all workers at tech firms are by definition tech workers—and the form of solidarity that it attempted to realize, emerged from the exigencies of a particular moment and movement. Melendes cofounded TWC together with software engineer Matt Schaefer in San Francisco in 2014, partly in order to involve Bay Area engineers in a campaign that Melendes was helping to lead, the FairHotel Program. Through Melendes, that campaign enlisted engineers at several large tech firms to pressure their employers not to use hotels that mistreated their staff for industry conferences. The campaign coincided with a wider wave of unionization of blue-collar contract workers at tech campuses in the Bay Area, including at Intel, Cisco, NVIDIA, Agilent, and Yahoo (Weigel 2017).

The identity of the tech worker, as Melendes and TWC formulated it, was self-consciously aspirational. Grounded in a claim about the universality of labor, it attempted strategically to occlude or overcome the significant class differences among the actors involved. The gambit was premised on a fundamental irony: that by recognizing that they were workers like anybody else, the most privileged tech workers would become able to exercise their special power within their firms for common good. For a time, these contradictions remained manageable and generative. In order to manage the tensions within the identity of the tech worker, Melendes and other members of TWC originally appealed not only to the Marxist distinction between labor and capital but also to shared experiences of common locations. Conceptually, this meant stating that everyone working on a tech campus was a tech worker; practically, it involved encouraging in-person interactions between FTEs and contract workers in campus cafeterias or other social spaces nearby. In the wake of Trump's election in 2016, dozens of new members rapidly joined TWC in the Bay Area, and the group engaged in a series of new actions (Weigel 2017). Some of these were aimed at improving conditions of blue-collar labor at tech firms; for instance, volunteers with TWC cooperated with UNITE HERE in their successful effort to unionize Facebook's cafeteria workers. However, other initiatives, such as internal campaigns to pressure tech companies like Google and Microsoft to stop competing for Department of Defense contracts, focused on giving software engineers more say over the content and conditions of their own work (Tarnoff 2020).

This expansive concept of the tech worker did not come up in the 996.ICU movement. The 996.ICU campaign took place amid a longer tradition of worker struggle in China. Since the 2008 global financial crisis, the Chinese workers, primarily in factories in the Pearl River Delta, have protested for more pay, the payment of wage arrears, and better working conditions. Protests are often spontaneous; dozens of wildcat strikes happen each year. After President Xi came to power in 2013, organized labor and labor advocacy became the object of government crackdown. This culminated with the Jasic incident, a labor rights conflict that took place in Shenzhen over the summer of 2018, commencing with a series of public demonstrations and strikes by workers at Jasic, a factory that produces industrial equipment. It culminated with the arrest of the organizers, other workers, and student supporters. Researchers have debated the political significance of these actions—whether second generation migrant workers have more rights and class-consciousness or whether they represent, in Ching Kwan Lee's words, a form of “militancy without radicalization” (2017, 100). In any case, the 996.ICU campaign claims on its GitHub page that it is not a political movement. Even though the 996.ICU campaign sometimes identified employees as “laborers” (*laodongzhe*, which could also be translated as “workers”), participants more commonly referred to

themselves as “programmers” or “developers” (*chengxuyuan*), a term that emphasizes technical proficiency and professionalism.

While TWC used the term tech worker malleably to unite employees across class and even professions, the 996.ICU movement remained focused on white-collar workers in the tech sector, even though employers in many other sectors in China force their employees to work overtime. There were good reasons for this narrower focus: both the dominant ideologies of tech work and the class structure of the tech industry in China differ significantly from their counterparts in the US. For decades, scholars have described and theorized a prevalent ideology within Silicon Valley that aligns tech company employees with their bosses and presents their work as essentially different from other forms of waged labor, if it can be seen as work at all (Hayes 1989; Saxenian 1994; Barbrook and Cameron 1996). Indeed, these attitudes have often been characterized as a feature of neoliberalism, broadly speaking (Tokumitsu 2015). This ideology is reflected in specific management practices within the tech industry. Even at big companies, smaller teams tend to conceptualize themselves as start-ups. Entry-level employees are encouraged to think of themselves as CEOs or CTOs of the project they are working on. The suggestion is that after a few years of work experience, employees will be equipped to start their own companies. The tech worker identity functioned as a provocation in the US context precisely because it helped redefine programmers, engineers, and other white-collar employees in the tech sector *as* workers, contesting the idea that they were simply entrepreneurs in waiting. This redefinition in turn made possible new forms of solidarity.

There are many reasons why this ideology has not manifested in the Chinese tech sector in the same form it has in the US. Broadly speaking, the idea that engineers are unlike “ordinary” workers and that their relations to their bosses should be friendly or familial has not exercised the same hold in China as it has in the US. Some engineers within the industry do espouse a strong belief in meritocracy. In a 2019 post titled “996 Should Be an Attitude, Not a Regime,” the author—a young software engineer—defended the 996 schedule, saying that “the essence of 996 is about relentlessly improving one’s own value and attitude towards learning” (Z. Li 2019). However, the ideology of “loving your work” is not nearly as prevalent in China as it is in Silicon Valley and throughout many sectors in the West. Even though the Chinese tech sector had a lot of entrepreneurial optimism in the early years of the new millennium, with many tech workers believing they had a shot at founding their own companies, this optimism was short-lived. By the mid-2010s, big Chinese tech companies had grown into monopolies, leaving no space for smaller ventures to flourish. As a result, Chinese tech workers were forced to put their entrepreneurial ambitions aside, opting instead to find steady work among the largest players (X. Li 2019).

Since then, Chinese software engineers have increasingly seen themselves as distinct from management and the tech entrepreneurial class. In a conversation about working a 996 schedule, a low-level manager at a Chinese gaming company told one of us: “Not everyone is a genius and can live off their innovation. Most people depend on technology and on working long hours.” Some Chinese tech workers also jokingly refer to themselves as “code farmers” (*manong*), “code monkeys” (*chengxuyuan* [using a pun, 程序员, which sounds identical to the standard term for programmer, 程序员]), or “physical laborers” (*banmagong*) in online forums like Zhihu. Although used jokingly, these self-deprecating labels are clear indicators that unlike their US counterparts, many software engineers in China feel like they have no agency in their workplace and exist in a distinctly lower tier than management.

We can also look at tech workers’ relationship with their managers to get a sense of how workers conceptualize their own identities. In the US, managers at large tech companies are sometimes thought of as protecting the software engineers who report to them from unnecessary bureaucracy. They are also meant to manage the nontechnical aspects of a project, often considered less worthy of an engineer’s time. In contrast, Chinese managers have a much more hierarchical relationship with their employees. Unlike US-based tech workers, who usually work on a project basis and have more control over their working hours, Chinese tech workers often have more rigid work schedules and are typically expected to stay at work for as long as their manager. This expectation to work rigid work hours and stay in the office for as long as their managers, even when there is nothing to do, has led to the popularization of the term “touching fish” (*moyu*), which means to slack off and kill time until permitted to go home.

These differences in ideology arise not only from broad cultural differences or differences in the trajectories of US versus Chinese neoliberalism but also from the way tech workers are compensated. In the US, software engineers at companies like Google and Microsoft have high entry salaries but on average can expect an annual raise of only 1.5–3 percent, unless they are promoted. In China, entry-level engineers have much lower salaries, even taking into account a lower cost of living, but can expect much higher raises depending on their performance. According to one report on Echowall, a collaborative platform for research on China, entry-level salaries for programmers can be as low as RMB 7,000, or around \$1080, a month and can vary dramatically depending on the employee’s level of education. As employees accumulate experience with a company, salaries can then increase sharply—sometimes by a factor of 25 over a decade (Wu 2020). However, because raises are not ubiquitous and are dependent on employee performance, many workers are left with limited prospects for career advancement. According to a 2017 blog post by a Huawei employee, low-performing employees who

have been at the company for four or five years are not able to make a monthly salary of more than RMB 8,000/9,000, compared with a starting salary of RMB 10,000 for 2015 college hires (Anonymous 2017).

The large spread of incomes among Chinese software engineers has produced a class of high-end programmers and an underclass of low-paid ones, with many levels in between—an “IT pyramid,” as the Echowall report calls it (Wu 2020). In contrast, US white-collar tech workers at large tech companies are split into two groups: FTEs and contract workers. Unlike the Chinese IT pyramid, this bifurcation of white-collar tech work in the US makes it extremely difficult for contract workers to be hired as FTEs; at most firms, no formal process for this exists. While many FTEs in the US tech sector start their careers earning six-figure salaries, Chinese tech workers—who begin their careers on meager wages but on average receive more significant salary raises than their US counterparts—are driven more directly by competition with their coworkers. This large spread in salaries has produced class stratification in the Chinese tech industry that is largely unfelt among US-based FTEs, showing that the ideological difference regarding tech work in China versus in the US also has a material basis. When it comes to employee resistance, these different circumstances also play an important role: participants of the 996.ICU campaign conceptualize their identities in a vastly different way from tech workers in the US—not only because of cultural differences but because of the more extreme incentive structure in the Chinese tech sector. Indeed, the competitive, raise-based system used by Chinese tech companies threatens to atomize workers and eliminate the chance for solidarity among Chinese tech workers, let alone solidarity with their US counterparts.

Solidarity beyond Identity

While the scholars of globalized, digitally mediated labor cited above have highlighted the ways that racialized, gendered, and national differences shape cognitive work, our case study foregrounds international variations in the self-understandings of workers or worker identity. Nonetheless, it also demonstrates how networks of solidarity can be built across such differences. Despite differences in their working conditions and conceptualization of tech worker identity, participants in the 996.ICU movement were able to establish ties with and build support among their counterparts in the US. They were able to build these transnational connections both because they belonged to overlapping networks of academics and organizers and because they used a common set of tools. The 996.ICU solidarity actions at Microsoft emerged from preexisting relationships between Chinese labor organizers, US-based Chinese academics, and Chinese

immigrants working in the US tech sector. The 996.ICU movement first came to the attention of engineers at Microsoft in the US because a Microsoft engineer who volunteered with TWC attended a conference on the Jasic incident organized by academics at Cornell in the spring of 2019. The communications and translation work that followed was facilitated primarily by individuals who were either Chinese nationals working in the US or US-educated engineers who had returned to China. It was within this network that members of the Chinese diaspora practically and conceptually linked the 996.ICU movement to the US-based tech worker struggle.

However, alongside these relationships, GitHub also played a crucial role in making the transnational dimensions of anti-996 organizing possible. Not only did the platform make the 996.ICU campaign incredibly difficult to censor in China, but its global footprint—as a platform used by both Chinese and American workers—allowed the campaign to spread to Silicon Valley and other international tech hubs. Unlike many other Chinese social media services that require users to sign up with their official government-issued identification, GitHub—like most other Western online services—requires nothing more than an email address. This guarantees GitHub users a degree of anonymity and therefore safety. Other workplace tools have played a role in other tech worker movements. TWC has used Slack to facilitate conversation among members of far-flung chapters. Even though the TWC remains a leaderless and decentralized organization, the TWC Slack—with nearly 3,000 participants—acts as a centralized space for its members to collaborate on projects, share knowledge, and host events. Tech worker organizers have also cited the utility in their organizing of internal workplace tools like Google’s Memegen (Tarnoff 2018). However, the role of GitHub in global software industries—its status as a site of important interdependencies and knowledge transfer—allowed it to play a unique role in connecting engineers and workers across national borders. In contrast to Slack or Memegen, GitHub was designed with the ethos of open source. While the platform is fundamentally collaborative and open to anyone with an Internet connection, interacting with GitHub projects is not intuitive and requires a skill set that is unique to software engineering. Most users use the platform by issuing commands in the terminal—an interface that would be incomprehensible to nonprogrammers and, crucially, to higher-up or nontechnical managers.

The choice of GitHub was strategic both because the state could not easily block it and because it spoke to a specific professional identity. Since higher-up managers and executives seldom work directly on GitHub, the platform facilitated communications among members of a specific class layer. The organizing approach that Chinese tech workers developed using this tool was vastly different from the kind of cross-class solidarity that TWC mobilized in its early days, when, for instance, the organization

encouraged white-collar engineers to support cafeteria workers. In a sense, its close association with a particular professional layer narrowed the scope for solidarity with other classes of workers in the tech industry; however, it also opened up the possibility of new kinds of communication across space. During the 996.ICU movement, GitHub gave Chinese and US tech workers a transnational space to talk about their struggles for the first time. Since then, GitHub has played a role in several unrelated actions. Microsoft organizers have continued to use the platform for other campaigns (MSWorkers 2019b). Tech workers in New York flooded one of Palantir's GitHub projects with posts about Palantir's complicity in the US government's draconian immigration practices (Paul 2019). Iranian developers, whose GitHub project was taken down due to US sanctions, also took to GitHub to protest the removal of their work (1995parham 2019).

Even in the absence of a universalizing concept like the "tech worker," then, familiarity with GitHub has allowed workers in the tech sector to coordinate transnational action. In other words, this key tool facilitating the globalization of technologically mediated cognitive labor has also served as a site for organizing workers over the conditions of such labor. Of course, it is always challenging to measure the impact of worker actions on a firm, and the 996.ICU project is no exception. No proof ultimately emerged that Microsoft was under pressure from China to pull the 996.ICU project from GitHub. However, it is possible that pressure from US-based employees played a role in preventing censorship. Similarly, while GitHub allowed the 996.ICU movement to build international connections, it is unclear whether the solidarity it fostered can last. After a few weeks of exchange, discussions on the support.996.ICU GitHub project tapered off, and conversations between Chinese and American tech workers ceased. The domestic successes of 996.ICU remain modest. While the Slack channel that was created with the launch of the campaign remains somewhat active, organizing efforts around working conditions haven't progressed. Despite the virality of 996.ICU, most large tech companies in China continued to practice 996 working hours in the ensuing years.

Conclusion

We began this chapter by asking how the kinds of embodied and geographic differences that scholars of globalized labor have explored shape the self-understandings of cognitive workers and the possibilities for worker organizing in a planetary context. The case of China's 996.ICU movement and its connections with the US-based tech worker movement is illuminating in several respects. As we have described, 996.ICU provided an alternative to the dominant philosophy embraced by TWC in the US. The 996.ICU movement was not based on broad appeals to worker identity but rather

focused on a particular subset of the professional class and spoke to them about their specific conditions. Our analysis reveals that this tactical difference corresponds to differences in the work culture between US and Chinese tech firms, and suggests that those differences themselves emerge from differences in the material organization of the industry in the two countries, including pay structures and management practices. However, our case study also shows that despite these differences in self-conception and strategy, workers in the 996.ICU movement were able to build ties with counterparts in the US by building on existing relationships in the academic and diasporic community and, crucially, activating the shared tools of their trade. By using GitHub, a platform that is crucial to software development in both countries, widely dispersed organizers drawn into tech worker movements by different interests found themselves able to communicate and coordinate. They did so despite ostensibly being on opposite sides of a “New Cold War.”

There are many reasons to believe that political conflict between the US and China will continue to shape the conditions of activism and organizing in the tech industries of both countries in the years to come. In the US, tech firms have repeatedly raised fears of China in order to parry threats of government regulation—ironically deploying “tech nationalism” (Weigel 2020) to disarm the nation-state itself. In a speech that he made at Georgetown in 2019, Mark Zuckerberg discussed the rise of China as instigating a global battle of values. “If another nation’s platform sets the rules, our nation’s discourse could be defined by a completely different set of values,” he said (Feuer 2019). In response to the prospect of government regulation of Facebook’s new digital currency, Libra, Zuckerberg further argued that such regulation would endanger the spread of America’s “democratic values and oversight around the world.” Executives have used a similar language of nationalism and American exceptionalism to justify military contracts in the face of employee protests. In the Big Tech antitrust congressional hearing that took place on July 29, 2020, for example, Republican politicians pilloried Google CEO Sundar Pichai for letting employee activism force their company into dropping a contract with the US Department of Defense. Pichai responded by pronouncing renewed loyalty: “We’re proud to support the US government. We recently signed a big project with the DoD where we are bringing our world class zero-trust based cybersecurity approach to help protect the Pentagon’s network from cybersecurity attacks” (US Congress 2020).

At the same time, Chinese tech leaders have weaponized US aggression toward the Chinese tech sector, justifying the exploitation of their employees, and particularly required working hours, as a matter of national pride. In an interview by Christine Tan on CNBC, Huawei founder and CEO Ren Zhengfei discussed his company’s response after being put on the US Entity List, which prohibits Huawei from using American

technology. “We are not in peace time anymore,” he remarked. “We must take this opportunity to prevent our employees from slacking off” (Zhengfei 2019). As the Chinese tech sector continues to challenge the global hegemony of the US tech industry in the coming years, it is likely that executives and politicians on both sides of the Pacific will continue to invoke their enmity in order to justify disciplining their workers.

While the New Cold War has been rhetorically useful to both politicians and executives, it is not only a matter of rhetoric. Any future transnational organizing efforts along the lines of 996.ICU will have to contend with the threat of a “splinternet”—a fracturing of the Internet along geopolitical lines. Adding to division based on cultural and language barriers, Internet platforms are increasingly localized and, in some cases, banned outright. In China, Gitee, a GitHub competitor backed by the Chinese government, is increasing its market share and making Chinese software engineers less reliant on Western-built services like GitHub. In the US, in 2020, the Trump administration issued an executive ban on the Chinese multipurpose app WeChat, used in the US chiefly by members of the Chinese diaspora, and the Chinese video-sharing app TikTok. As of late 2020, there are some signs that President-elect Joe Biden will attempt to reverse or reduce the aggressive measures that the Trump administration took against China. However, campaign videos that denounced Trump as “rolling over for China” and pictured Trump with Xi suggest the opposite (Biden 2020).

Decoupling does not mean that the US and Chinese tech industries are fully separated, however, or that their workers have nothing to gain from transnational organizing. The capital that finances tech firms in both the US and China is highly global; in this respect, the two systems remain closely entangled. While Chinese tech investment in US firms has plummeted dramatically since 2018 as a result of the escalating trade war between the two countries, Chinese investors had already pumped tens of billions of dollars into the US tech sector in the early-to-mid 2010s. In the ride-hailing sector, for example, US-based Uber is the second largest investor in its Chinese counterpart DiDi Chuxing, and DiDi Chuxing invested US\$100 million in Uber’s competitor, US-based Lyft (Buhr 2015; Levy 2021). Alibaba, which owns China’s second largest food-delivery service, Ele.me, teamed up with US-based venture capital firm Andreessen Horowitz to invest \$250 million in Lyft (Mishkin and Waters 2014). This status quo means that Uber or DiDi Chuxing drivers might benefit from coordinating globally in order to exact concessions from their respective companies. One could make similar points about the gaming industry, which saw organizing efforts by white-collar workers, led by the labor rights organization Game Workers Unite, in 2018 and 2019. The Chinese tech conglomerate Tencent (which was guilty of practicing 996) is one of the biggest investors in the US gaming industry. Tencent’s portfolio includes Riot

Games (which they outright own), Epic Games, Ubisoft, and Activision Blizzard, all of which have seen employee activism in recent years. If game workers in the US and Europe were to unite with agitated Chinese tech workers to demand changes to their working conditions, the combined pressure they could put on Tencent might exceed anything that they could accomplish separately.

In the future, participants in 996.ICU hope that transnational solidarity between Chinese and American tech workers could be the basis for fighting against both exploitation and militaristic government contracts. The question of transnational organizing in a New Cold War is not an easy one. As we noted above, while the movement gained widespread attention around the world, its momentum subsided without changing the behavior of any of China's tech giants, and the connection made between tech workers in China and the US did not persist. This outcome highlights what Zeynep Tufekci has called the "power and fragility" of networked movements. First, movements restricted to online spaces can grow and garner public attention rapidly, but the connections they establish among workers remain relatively weak if little or no organizational capacity backs the movement (Tufekci 2017). Moreover, given the political pressures that favor the continued fragmentation of the Internet, and the decoupling of Chinese and US systems in particular, tech workers may not be able to count on global infrastructures like GitHub in the future. Yet the 996.ICU movement points toward pathways that will remain urgent to pursue—namely, identifying crucial, shared points in the global supply chains producing data-driven technologies and using them to coordinate mutually beneficial actions; and building affinities across difference rather than seeking universal identities that would suppress difference. Such opportunities for solidarity can vary and may involve other members of other class layers, such as logistic or gig workers. Indeed, the limitations of solidarity with the 996.ICU movement point to the need for future organizers to engage in a wide range of strategies. Conceptual and tactical innovations will only become more necessary as the COVID-19 pandemic and its fallout continue to push more and more cognitive workers toward working remotely, and firms toward developing new tools to manage them ever more closely, at a distance.

Notes

1. For instance, based on her ethnography of Indian IT workers on temporary work visas in Berlin, Amrute writes that "race and class are integral to producing differently valued bodies at work and to producing the communicative content of so-called immaterial goods"; these identity categories cannot be added as afterthoughts to analyses of contemporary capitalism "from the outside" (2016, 18). In her study of Asian fashion bloggers, Minh-ha T. Pham similarly "pushes against the assumptions of upward post-racial mobility that structure popular understandings

of the new Asian digital creative class” in order to “demonstrate that the roles race, gender, and class play in structuring work opportunities and constraints under informational capitalism are evolving, not diminishing” (Pham 2015, 9).

2. JS Tan is a former tech worker and organizer. Some of the details provided in this piece are drawn from his first-person experiences and participatory research.

3. The term “Great Firewall” (*fanghuo changcheng*) has its origins in a series of state initiatives that began in the late 1990s with the goal of giving the Communist Party control over the spread of information among Chinese citizens online and, some have alleged, protecting domestic technology companies. The Great Firewall Project encompassed both legislative actions and technical measures, for instance, blocking particular IP ranges or keywords. The term is now widely used to refer to the division that separates Internet users located in the People’s Republic of China from those in the rest of the world.

4. In China, Microsoft’s search engine Bing filters out results relating to controversial subjects, such as political dissidents or Taiwan. Similarly, LinkedIn continues to operate in China by complying with the censorship rules through a local joint venture.

References

1995parham. 2019. “Github Do Not Ban Us.” [GitHub repository]. <https://github.com/1995parham/github-do-not-ban-us>.

996icu. 2019a. “996.ICU.” [GitHub repository]. <https://github.com/996icu/996.ICU>.

996icu. 2019b. “996.ICU LICENSE.” <https://github.com/996icu/996.ICU/blob/master/LICENSE>.

Amrute, Sareeta. 2016. *Encoding Race, Encoding Class: Indian IT Workers in Berlin*. Durham, NC: Duke University Press.

Anonymous. 2017. “一位在华为工作2年员工的心路历程” [My first two years working at Huawei]. Blog post on *Techug*, February 8. <https://www.techug.com/post/first-two-years-i-work-in-huawei.html>.

Anonymous. 2019. “不能给反对996的员工贴“混日子”标签” [We shouldn’t label employees who are anti-1996 ‘lazy’]. *People’s Daily* (人民日报), April 14. <https://finance.sina.com.cn/roll/2019-04-14/doc-ihvhiewr5682764.shtml>.

Anonymous. 2020. “[青年就业]社畜们的故事：逃离、互助、反抗与救赎” [(Youth employment) The story of society’s livestock: escape, mutual aid, resistance and redemption]. 多数派 [Masses], August 14. <http://www.masseshere.com/> 【青年就业】社畜们的故事：逃离、互助、反抗与救赎.

Barbrook, Richard, and Andy Cameron. 1996. “The Californian Ideology.” *Science as Culture* 6 (1): 44–72. <http://www.imaginaryfutures.net/2007/04/17/the-californian-ideology-2/>.

Barlow, John Perry. 1996. “Declaration of the Independence of Cyberspace.” *Electronic Frontier Foundation*, February 8. <https://www.eff.org/cyberspace-independence>.

Berardi, Franco “Bifo.” 2009. *The Soul at Work: From Alienation to Autonomy*. Los Angeles: Semiotext(e).

- Biden, Joe. 2020. "Joe Biden for President: 'Unprepared.' | Campaign 2020." Campaign video, 1:50. April 18. https://www.washingtonpost.com/video/politics/joe-biden-for-president-unprepared--campaign-2020/2020/05/14/ec602523-306c-4fe6-8340-311ea381d7f7_video.html.
- Buhr, Sarah. 2015. "China's Didi Kuaidi Put \$100M into Lyft, Inks Ridesharing Alliance to Rival Uber." *TechCrunch*, September 16. <https://techcrunch.com/2015/09/16/ubers-rivals-didi-kuaidi-and-lyft-form-international-ridesharing-partnership/>.
- China State Council (国务院). 2017. "新一代人工智能发展规划的通知" [New generation AI development plan]. July 8. http://www.gov.cn/zhengce/content/2017-07/20/content_5211996.htm.
- Chumley, Lily. 2016. *Creativity Class: Art School and Culture Work in Postsocialist China*. Princeton, NJ: Princeton University Press.
- Deleuze, Gilles. 1992. "Postscript on Societies of Control." *October* 59: 3–7.
- Dugu, Yi (独孤义). 2017. "在公司被迫使用 钉钉 是怎样的一种体验?" [An Answer To: What Is It Like Being Forced to Use DingDing at Work?]. Zhihu, December 24. <https://www.zhihu.com/question/38377585/answer/282273375>.
- Ekbia, Hamid R., and Bonnie A. Nardi. 2017. *Heteromation, and Other Stories of Computing and Capitalism*. Cambridge, MA: MIT Press.
- Feuer, Will. 2019. "Watch Mark Zuckerberg Deliver a Speech on Free Expression at Georgetown University." CNBC, October 17. <https://www.cnbc.com/2019/10/17/facebook-ceo-mark-zuckerberg-georgetown-speech-on-free-expression.html>.
- Gilchrist, Karen. 2019. "Alibaba Founder Jack Ma Says Working Overtime Is a 'Huge Blessing.'" CNBC, April 15. <https://www.cnbc.com/2019/04/15/alibabas-jack-ma-working-overtime-is-a-huge-blessing.html>.
- GitHub. n.d. 996icu/996.ICU. Accessed September 10, 2021. <https://github.com/search?q=stars:%3E1&s=stars&type=Repositories>.
- Gray, Mary L., and Siddharth Suri. 2019. *Ghost Work: How to Stop Silicon Valley from Building a New Global Underclass*. Boston: Houghton Mifflin Harcourt.
- Hardt, Michael, and Antonio Negri. 2001. *Empire*. Cambridge, MA: Harvard University Press.
- Hardt, Michael, and Antonio Negri. 2005. *Multitude: War and Democracy in the Age of Empire*. New York: Penguin Press.
- Hayes, Dennis. 1989. *Behind the Silicon Curtain: The Seductions of Work in a Lonely Era*. Boston: South End Press.
- Horwitz, Josh, and Brenda Goh. 2019. "RPT-China's JD.com Boss Criticizes 'Slackers' as the Company Makes Cuts." Reuters, April 13. <https://www.reuters.com/article/jdcom-labour/rpt-chinas-jd-com-boss-criticises-slackers-as-company-makes-cuts-idUSL3N21W00U>.
- Irani, Lilly. 2019. *Chasing Innovation: Making Entrepreneurial Citizens in Modern India*. Princeton, NJ: Princeton University Press.

Jackson, Eric M. 2004. *The PayPal Wars: Battles with eBay, the Media, the Mafia, and the Rest of Planet Earth*. Chicago: WND Books.

Lazzarato, Maurizio. 1996. "Immaterial Labor." In *Radical Thought in Italy: A Potential Politics*, edited by Paolo Virno and Michael Hardt, 133–148. Minneapolis: University of Minnesota Press.

Lazzarato, Maurizio. 2004. "From Capital-Labour to Capital-Life." *Ephemera* 4 (3): 187–208.

Lee, Ching Kwan. 2017. "After the Miracle: Labor Politics under China's New Normal." *Catalyst* 1 (3): 93–115.

Levy, Ari. 2021. "Uber's Stake in Didi Shrank by \$2 Billion This Week amid China Crackdown on U.S. Listings." CNBC, July 23. <https://www.cnbc.com/2021/07/23/uber-lost-2-billion-in-didi-stake-this-week-on-china-crackdown-threat.html>.

Li, Xiaotian. 2019. "The 996.ICU Movement in China." *Made in China Journal*, June 18. <https://madeinchinajournal.com/2019/06/18/the-996-icu-movement-in-china-changing-employment-relations-and-labour-agency-in-the-tech-industry/>.

Li, Zonghang. 2019. "996 该是态度，而非制度" [996 should be an attitude, not a system]. GitHub post, April 22. <https://lizonghang.github.io/2019/04/22/996-An-Attitude-For-Work-And-Life>.

Lindtner, Silvia M. 2020. *Prototype Nation: China and the Contested Promise of Innovation*. Princeton, NJ: Princeton University Press.

Mishkin, Sarah, and Richard Waters. 2014. "Alibaba Invests in Ride-Sharing App Lyft." *Financial Times*, April 2. <https://www.ft.com/content/85597f12-ba81-11e3-8b15-00144feabdc0>.

MSWorkers. 2019a. "Support 996.ICU." [GitHub repository] <https://github.com/MSWorkers/support.996.ICU>.

MSWorkers. 2019b. "Microsoft Workers for Climate Justice." GitHub README, September 18. <https://github.com/MSworkers/for.ClimateAction>.

NPC. 1994. "Labour Law of the People's Republic of China." National People's Congress of the People's Republic of China. http://www.npc.gov.cn/zgrdw/englishnpc/Law/2007-12/12/content_1383754.htm.

Paul, Kari. 2019. "Tech Workers Protest Data Mining Firm Palantir for Role in Immigrant Arrests." *Guardian*, May 14. <https://www.theguardian.com/us-news/2019/may/13/tech-workers-palantir-immigration-protest-github>.

People's Daily (人民日报) Official Account. 2019. "工作996生病ICU，劳动监察部门应积极介入" [996 working hours will send you to the ICU, the Labor Inspection Department should intervene]. Weibo post, April 5. <https://m.weibo.cn/status/4357697258275940>.

Pham, Minh-ha T. 2015. *Asians Wear Clothes on the Internet: Race, Gender, and the Work of Personal Style Blogging*. Durham, NC: Duke University Press.

Reuters. 2012. "Zuckerberg's Letter to Investors." Reuters, February 1. <https://www.reuters.com/article/us-facebook-letter/zuckerbergs-letter-to-investors-idUSTRE8102MT20120201>.

- Roberts, John Jeff. 2017. "Twitter's CEO Says It's Having an 'Arab Spring' Moment in the US." *Fortune*, February 5. <https://fortune.com/2017/02/15/twitter-jack-dorsey-arab-spring/>.
- Roberts, Sarah T. 2019. *Behind the Screen: Content Moderation in the Shadows of Social Media*. New Haven, CT: Yale University Press.
- Saxenian, AnnaLee. 1994. *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*. Cambridge, MA: Harvard University Press.
- Shen, Xinmei. 2019. "Chinese Browsers Block Protest against China's 996 Overtime Work Culture." *South China Morning Post*, April 3. <https://www.scmp.com/abacus/culture/article/3029260/chinese-browsers-block-protest-against-chinas-996-overtime-work>.
- Tarnoff, Ben. 2018. "Tech Workers versus the Pentagon: An Interview with Kim." *Jacobin*, June 6. <https://jacobinmag.com/2018/06/google-project-maven-military-tech-workers>.
- Tarnoff, Ben. 2020. "The Making of the Tech Worker Movement." *Logic*, May 4. <https://logicmag.io/the-making-of-the-tech-worker-movement/full-text/>.
- Taylor, Astra. 2018. "The Automation Charade." *Logic* 5: 149–163. <https://logicmag.io/failure/the-automation-charade/>.
- Terranova, Tiziana. 2004. *Network Culture: Politics for the Information Age*. London: Pluto Press. <https://compthink.files.wordpress.com/2011/04/terranova-network-culture.pdf>.
- Tokumitsu, Miya. 2015. *Do What You Love, and Other Lies about Success and Happiness*. New York: Regan Arts.
- Tufekci, Zeynep. 2017. *Twitter and Teargas: The Power and Fragility of Networked Protest*. New Haven, CT: Yale University Press.
- U.S. Congress. House Subcommittee on Antitrust, Commercial, and Administrative Law. 2020. *Hearing on Online Platforms and Market Power, Part 6: Examining the Dominance of Amazon, Apple, Facebook, and Google*. 116th Congress, 1st session, July 29. <https://judiciary.house.gov/calendar/eventsingle.aspx?EventID=3113>.
- Wang, Xiaowei. 2020. *Blockchain Chicken Farm, and Other Stories of Tech in China's Countryside*. New York: FSG Originals×Logic.
- Weigel, Moira. 2017. "Coders of the World Unite." *Guardian Long Read*, October 31, 25–27.
- Weigel, Moira. 2020. "Palantir Goes to the Frankfurt School." *b2o*, July 10. <https://www.boundary2.org/2020/07/moira-weigel-palantir-goes-to-the-frankfurt-school/>.
- Wu, Jing. 2020. "Working 996." *Echowall*, February 18. <https://www.echo-wall.eu/chinese-whispers/working-996>.
- Yang, Su (杨苏). 2018. "在公司被迫使用钉钉是怎样的一种体验?" [An answer to: What is it like being forced to use DingTalk at work?]. *Zhihu*, May 4. <https://www.zhihu.com/question/38377585/answer/359758889>.
- Zhengfei, Ren. 2019. CNBC Transcript: Ren Zhengfei, Founder & CEO, Huawei. CNBC, October 4. <https://www.cnbc.com/2019/10/04/cnbc-transcript-ren-zhengfei-founder-ceo-huawei.html>.

© 2022 Contributors

This work is subject to a Creative Commons Attribution 4.0 (CC-BY 4.0) International License. Subject to such license, all rights are reserved.



Published by the MIT Press.

A copublication with
International Development Research Centre
PO Box 8500
Ottawa, ON K1G 3H9
Canada
www.idrc.ca/info@idrc.ca

The research presented in this publication was carried out with the financial assistance of Canada's International Development Research Centre. The views expressed herein do not necessarily represent those of IDRC or its Board of Governors.

The MIT Press would like to thank the anonymous peer reviewers who provided comments on drafts of this book. The generous work of academic experts is essential for establishing the authority and quality of our publications. We acknowledge with gratitude the contributions of these otherwise uncredited readers.

This book was set in Stone Serif and Stone Sans by Westchester Publishing Services.

Library of Congress Cataloging-in-Publication Data

Names: Graham, Mark, 1980– editor. | Ferrari, Fabian, editor.

Title: Digital work in the planetary market / edited by Mark Graham and Fabian Ferrari.

Description: Cambridge, Massachusetts : The MIT Press, 2022. | Series: The MIT Press-International Development Research Centre series | Includes bibliographical references and index.

Identifiers: LCCN 2021037262 | ISBN 9780262543767 (paperback)

Subjects: LCSH: Employees—Effect of technological innovations on—Case studies. |

Industrial productivity—Effect of technological innovations on—Case studies. |

Electronic commerce—Case studies.

Classification: LCC HD6331 .D527 2022 | DDC 331.25—dc23/eng/20211208

LC record available at <https://lcn.loc.gov/2021037262>