Foxconn's Rise and Labor's Fall in Global China

by Jenny Chan

A mid the coronavirus pandemic and the ongoing U.S.-China "trade war," many multinational corporations are reconsidering the opportunities and risks of global supply chains, particularly those based in China. Within China, another long-festering question is growing more acute on the ground, even though it has faded from international view. Hundreds of millions of Chinese workers, toiling away at the production of Western consumer electronics, continue to face threats to their health and livelihoods—from the informalization of labor relations to the loss of income from factory closures—that are only growing worse.

Back in 2009, when *Time* magazine named Chinese workers the runners-up for "Person of the Year," the editor commented that Chinese workers have brightened the future of humanity by leading the world to economic recovery. The reality is much different, however. A closer look at the world's largest electronics manufacturer, Foxconn, gives us a window into the lives of Chinese workers over the past few years, and what it shows is that the new generation has experienced the shattering of the "Chinese dream."

At Foxconn, most young migrant workers (born primarily in the 1980s and 1990s, but increasingly also in the 2000s) aspire to earn a living wage, develop technical skills, start a family, and secure welfare benefits and the full range of citizenship rights in the cities they

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inhabit. With China's deepening social and class inequality, however, many have quickly learned that formidable obstacles stand between them and success. In 2018, for example, although the total number of Foxconn employees who quit was not publicly reported, 73 percent were below thirty years old, and most of them (68 percent) were male. These numbers reflect both the mobility of labor and the despair of working youth.

Between the rash of employee suicides in 2010 and the outbreak of coronavirus at the end of 2019, Foxconn sought to protect its image and hide the role played (or abandoned) by global tech corporations and the Chinese state in the lives of its workers. My colleagues and I engaged with Foxconn workers through interviews as well as their shared poems, songs, open letters, photos, and videos, supplemented with meetings with managers and government officials. The workers who produce the iPhones, Kindles, Xboxes, and other gadgets for an international clientele deserve to have their story told. In what follows, I describe our findings.

TERRY GOU'S FOXCONN

Since 1974, Terry Gou has built Foxconn into the "electronics workshop of the world." From a geopolitical perspective, Foxconn's rise coincided with the global industrial transformation that occurred as corporate giants in the West and East Asia shifted major production sites abroad. Following the U.S.-China rapprochement of the early 1970s and the China-Taiwan opening of the 1980s, Gou was quick to seize the new opportunities created by Taiwan's industrial policy while also leveraging China's reintegration into the world economy. Taiwanese and Hong Kong-based entrepreneurs invested \$107 billion in China between 1982 and 1994 (more than 70 percent of the foreign direct investment inflow to mainland China), and the result was the creation of a Greater China industrial export powerhouse.

In 1991, three years after Foxconn's first investment in China, Gou listed shares on the Taiwan Stock Exchange. With new capital and incoming orders, the company continued to gain wider access to international markets, particularly after China's accession to the World Trade Organization in 2001. In 2003 and 2004, Foxconn acquired handset assembly plants owned by Motorola in Mexico and by Eimo Oyj in Finland. The company also merged with Ambit Microsystems Corporation in Taiwan, enabling it to branch out from

computer production to mobile communications equipment manufacturing. As CommonWealth magazine reported, "Gou presided over successive lightning quick acquisitions across Scandinavia, South America, and Asia, becoming Taiwan's first business chief to complete mergers on three different continents within a single year."

By 2005, it was estimated that "90 percent of Hon Hai's net profit" was generated from "its business in China" (Hon Hai Precision Industry Co., Ltd. is the legal name of Foxconn's Taipei-based holding company entity). For eight consecutive years between 2001 and 2009, Foxconn ranked number one as China's largest exporter.

In addition, Foxconn has steadily climbed the value chain through research, patent acquisition, automation, and digitization. By 2010, Foxconn had acquired 39,870 patents worldwide in nanotechnology, heat transfer, optical coating, electrical machinery, semiconductor equipment, and wireless networking. The number doubled to 79,600 patents in 2016¹⁰ and rose to 89,300 in 2019, demonstrating Foxconn's industrial innovation and technological entrepreneurship. Indeed, Foxconn has a major presence at one of China's leading universities. The Tsinghua-Foxconn Nanotechnology Research Center is located at Tsinghua University in Beijing, where scientists study nanoscale materials to take advantage of such properties as greater strength and lighter weight.

Foxconn's vision is in sync with China's larger policy aim of continual technological advancement. The ten-year national program "Made in China 2025," which was launched in 2015, plans to transform China into an intelligent manufacturing base. As early as July 2016, Chia-Peng Day, general manager of Foxconn's Automation Technology Department Committee, reported that Foxconn had installed "about 40,000 fully operational industrial robots," in addition to "hundreds of thousands of other pieces of automated equipment." Two years later, in June 2018, Foxconn Industrial Internet Company, a subsidiary that makes industrial robots and cloud services equipment, was listed on Shanghai's stock exchange. By 2018, Foxconn had deployed more than eighty thousand industrial robot units in its factories. These robots—"Foxbots"—are automatons capable of spraying, welding, pressing, polishing, quality testing, and assembling printed circuit boards.

Across all levels of government, China has provided incentives to enterprises to accelerate growth.¹⁴ At the provincial level, regional

competition to secure foreign investment is intense, and this competition has further aided Foxconn's rise. In South China, for example, Foxconn has enjoyed government subsidies and privileges to move ahead with big projects in the Guangdong–Hong Kong–Macao Greater Bay Area (comprising nine fast-developing cities in Guangdong province and China's special administrative regions of Hong Kong and Macao). In 2016, Foxconn set up an ultra-high-definition panel facility by transferring the technical know-how of the newly acquired Japanese electronics company Sharp to Guangzhou, provincial capital of Guangdong. Critical to this move was the Guangzhou municipal government's agreement to sell "a plot of land covering 1.26 million square meters" to Foxconn "for 989 million yuan—a price that was only a fraction, or about 5 percent, of the price charged to other developers." 15

In Zhuhai in 2018, on the border of Macao, Foxconn began construction of a semiconductor plant. Foxconn Zhuhai focuses on integrated circuitry and high-performance chips for artificial intelligence and 5G high-speed telecom networks. The municipal government announced that it will "spare no effort to optimize the business environment and provide quality and efficient services for Foxconn development in Zhuhai." This development of the Greater Bay Area and clustering of scientists and technology experts will only strengthen the regional importance of Foxconn.

"In twenty years," suggested one business executive in 2010, "there will be only two companies—everything will be made by Foxconn and sold by Wal-Mart." An exaggeration, to be sure (and perhaps Amazon, which contracts with Foxconn to build Kindles and Echo devices, would be more au courant in 2020), but it does underlie the impressive growth of Foxconn. By revenue, Hon Hai is the biggest company in Taiwan (topping over \$172 billion in sales in 2019, equal to about 28 percent of the national GDP) and ranks twenty-sixth on the *Fortune* Global 500 list. Today it operates more than thirty industrial parks across coastal and interior China, creating a twenty-four-hour, high-speed production network predicated on vertical integration and flexible coordination.

Outside China, thanks in part to President Xi's call for massive investment via the Belt and Road Initiative (connecting China to Eurasia and Latin America through building roads, rails, and ports internationally), Foxconn runs science and technology hubs in strate-

gic bases such as the Czech Republic, Slovakia, Hungary, Japan, Vietnam, India, Mexico, Brazil, and the United States. All told, Foxconn has more than two hundred subsidiaries and branch offices in Asia, the Americas, and Europe, representing nearly 40 percent of the global market in electronics manufacturing. What remains understudied, however, is Foxconn's utilization and control of labor in China, as well as the importance of this strict labor management to the company's profitability.

FOXCONN WORKERS IN CHINA

Foxconn is China's biggest private sector employer. Since 1988, when centered in Shenzhen close to Hong Kong, the Taiwanese company has moved to geographic clusters of the Pearl River Delta in South China, the Yangzi River Delta (concentrated around Shanghai and extending across the eastern provinces of Jiangsu and Zhejiang), and the Bohai Rim (including Beijing, Tianjin, and surrounding provinces of Hebei, Shandong, and Liaoning). In each of these locations, preferential policies, previously limited to southern coastal areas, have vastly expanded to encourage new investment. Tapping state funding for more geographically balanced growth, Foxconn has also constructed new facilities in the central and western regions, constituting a nationwide industrial supply base.

A colorful company job ad reads, "Pool the whole country's talent, paint splendid prospects." And a recruitment officer proclaims, "Your potential is only limited by your aspirations! There's no choosing your birth, but here you will reach your destiny. Here you need only dream, and you will soar!" Stories of successful entrepreneurs like Apple cofounder Steve Jobs, Intel chairman Andrew Grove, and Microsoft founder Bill Gates are told again and again to inspire youthful workers.

At the gigantic Shenzhen Longhua "campus," as the Foxconn managers like to call it, there are multistory factories, high-rise dormitories, warehouses, two hospitals, two libraries, a bookstore, a kindergarten, an educational institute (with the grandiose name "Foxconn University"), a post office, a fire department with two fire engines, an exclusive television network, banks, soccer fields, basketball courts, tennis courts, track and field, swimming pools, cyber theaters, shops, supermarkets, cafeterias, restaurants, guest houses, and even a wedding dress shop. Foxconn's campus is the very image

of a modern company town. The assembly lines run on a twenty-four-hour basis, particularly when the production schedule is tight. When we visited, the well-lit factory floor was visible from afar throughout the night.

Inside "Foxconn city," unresolved tensions have arisen, however. From the moment they enter the factory gate, workers are monitored by a security system more intrusive than any that we have seen in the neighboring, smaller electronics processing factories. "Foxconn has its own security force, just as a country has an army," a stern-faced, broad-shouldered security officer stated as a matter of fact. Workers pass through successive electronic gates and "special security zones" before arriving at their workshops to start work. Foxconn's preoccupation with tight security reflects its clients' concern with secrecy to protect their intellectual property, prevent loss of their products, and assure that their high-volume goals are met. In keeping with its missions of data protection and technological advancement, Foxconn has installed a facial recognition system at the main entrances to its Longhua complex to improve identity checks.

The workplace and living spaces are compressed to facilitate high-speed, round-the-clock production. The dormitory warehouses a massive rural migrant labor force isolated from family relations. Whether single or married, each worker is assigned a bunk space for one person. In contrast to the corporate image of "a warm family with a loving heart," Foxconn workers frequently experience isolation and loneliness—some of it seemingly deliberately created by managerial staff to prevent the formation of strong social bonds among workers.

Managers, foremen, and line leaders prohibit conversation during work hours in the workshop. New workers are often reprimanded for working "too slowly" on the line, regardless of their efforts to keep up with the "standard work pace." "Outside the lab," according to an ominous saying of CEO Terry Gou, "there is no high tech, only implementation of discipline."

In the aftermath of the wave of suicides in 2010, industry leaders and corporate ethicists speculated that Foxconn would soften its stance toward workers and employees, and that suppliers in the buyer-dominated global production chain might have more room to maneuver. Considering the central importance of China's production and consumption markets, it was also thought that public relations

incentives (notably Apple's commission of the Fair Labor Association to assist Foxconn in drawing up a remedial action plan from 2012 to 2016) might also make management more humane. But the facts do not paint an encouraging picture.

SUICIDE AT FOXCONN

During the first five months of 2010, problems with the workforce at Foxconn spilled into the international news. A dozen workers were known to have attempted suicide at company facilities in China. Following the twelve "jumpers," Taiwanese unions and labor activists unfurled white banners to mourn the workers in a protest against Foxconn in Taipei. One banner read, "For wealth and power: physical and mental health spent, hopes lost." Another proclaimed, "For profit of the brand: youthful days devoted, dreams shattered." Shortly after, nongovernmental organizations demonstrated at Foxconn's annual general meeting in Hong Kong to extend condolences to the victims' families and demand reforms in the interest of workers.

By the end of June, a team of suicide prevention experts assembled by Apple—Foxconn's largest customer—recommended a series of quick Foxconn actions, including hiring psychological counselors, establishing a twenty-four-hour employee care center, and, grimly, attaching large nets to the factory buildings to prevent death from jumping. Apple's then chief operating officer Tim Cook also met with Gou and members of his senior staff to better understand the conditions at Foxconn's mega production sites in Shenzhen, where more than five hundred thousand employees were ramping up production of the iPhone 4, the first-generation iPad, and numerous other branded consumer electronics products. On the products of the product of t

Like Foxconn, Apple confined discussion of the issues to the realm of psychology and mental health, ignoring company policies on contentious labor issues, including wages and excessive compulsory overtime. In driving its contractors to produce on a gargantuan scale, and setting precise standards in the most cost-effective way, Apple has remained in the driver's seat in the context of transnational production. It is important to highlight that, as of 2010, Foxconn was the exclusive final manufacturer not only of iPhones and iPads for Apple, but also a major contractor on a wide array of electronics products for many tech giants, including Amazon, Microsoft, Intel, Dell, HP, Samsung, Sony, and Huawei.

By December 2010, eighteen Foxconn workers had tried to take their lives. Fourteen were dead. Four survived with crippling injuries. Tragically, ranging in age from seventeen to twenty-five, they were in the prime of youth.²¹ Liu Kun, the Foxconn public communications director, pointed out that the company had nearly one million employees in China alone, and that the reasons for the suicides could not simply be reduced to Foxconn policies. "Given its size, the rate of self-killing at Foxconn is not necessarily far from China's relatively high average," reported the *Guardian* newspaper, quoting the cavalier comment of company officials.²²

But suicide is *not* evenly distributed in any population. Studies suggest elderly suicides represent over 40 percent of Chinese suicides.²³ The suicide cluster at Foxconn, in contrast, was carried out by young employees. Why would suicides by these young people working and living in the cities spike when medical professionals found that 88 percent of suicides by Chinese youth occurred in the country-side?²⁴ The concentration of the suicide cases at Foxconn points to something new and important in the context of the company's integration into a high-pressure global supply chain.

DESIGNED BY APPLE, ASSEMBLED BY FOXCONN

Apple and Foxconn are independent companies, but they are inextricably linked in product development, engineering research, manufacturing processes, logistics, sales, and after-sales services. By the end of the 1990s, Apple had shifted all of its U.S.-based manufacturing jobs and some of its research facilities overseas,²⁵ while retaining only a small number of workers and staff at its Macintosh computer factory in Ireland. This outsourcing meant that Apple's success became inseparable from the contributions of its international suppliers and their workers—above all Foxconn and its Chinese employees.

Foxconn's iPhone plant in Zhengzhou (Henan Province) and its iPad plant in Chengdu (Sichuan) both began operations in the latter half of 2010 amid the suicide tragedy. Apple has exclusive access to the Foxconn production facilities in both areas. Jeff Williams, Apple's senior vice president of operations, acknowledged in 2014 that "more than 1,400 talented engineers and managers were stationed in China" to manage engineering and manufacturing operations at large production sites, and that they worked and lived "in the factories constantly." Two major Apple business groups, namely, iDPBG (integrated

Digital Product Business Group) and iDSBG (innovation Digital System Business Group), have become "the superstars at Foxconn," a production manager said in his recounting of the corporate history.

The presence of Apple staff has not prevented the occurrence of labor problems at its huge China supply base, however. Indeed, it may exacerbate them. More than a dozen "business groups" compete within Foxconn on speed, quality, efficiency, engineering services, and added value to maximize profits. Foxconn executives understand that any failure to meet Apple production targets and quality standards could mean the loss of contracts. As a result, Foxconn's management has repeatedly forced overtime. With only a single day off every second week, or two rest days during the whole month in the lead-up to the release of a new Apple product, there is no spare time for workers to use the Olympic-sized swimming pool or other recreational or educational facilities.

China's national labor law stipulates a forty-hour regular work-week, which can be extended by a maximum of three hours a day or thirty-six hours a month, but only when workers consent. Yet although Apple requires its suppliers to meet the working-hour standards stipulated by applicable laws, it routinely fails to monitor working conditions. In reality, Foxconn employees race against time at Apple's command to get the work done regardless of the toll that compulsory overtime and speedups take on workers.

The new ultrathin iPhones, for instance, scratch so easily that they must be held in protective cases during assembly. The cases make workers' delicate operations even more difficult, but no extra time is given to complete each task. Every second counts toward profit. "We are working even faster than the machines. Now we must use both hands at work to increase efficiency and productivity. Not a hand is left idle for a moment. For example, I hold an electric screwdriver with my right hand, and fix the screws with my left hand. Then, I pick up another printed circuit board. I screw the screws without a break," a worker commented.

"Each screw turns diligently, but they can't turn around our future," a worker's verse read. Over the years, Foxconn, not unlike its competitors, did raise its base wage to recruit and retain workers. But it was not until March 2015 that the Shenzhen municipal government raised the minimum wage to 2,030 yuan a month, surpassing the 2,000 yuan (\$300) threshold for the very first time.

From a broader perspective, Foxconn's management regime, including its policies on wages and hours, is a response to the high-pressure purchasing practices of global corporations. It is not only conditioned by the competitiveness of the local labor market. The fluctuation of orders, coupled with tight delivery requirements, shifts production pressure from global buyers to Foxconn and smaller suppliers in transnational manufacturing.

In fiscal year 2019, the iPhone alone generated more than half of Apple's revenues (54.7 percent)—over \$142 billion.²⁷ Of greatest concern, iPhone shipments experience extreme spikes during the holiday seasons and close to the new year.²⁸ Foxconn, the largest Apple supplier, needs to periodically extend working hours and adapt its workforces to the boom-and-bust trends of Apple products. Consequently, the company is incentivized to shun longer-term commitments to employees and to expand informal employment. During the period of rapid business growth since 2010, Foxconn workers and managers were "flexibly" transferred between factories and jobs to reach ever-higher productivity and profit goals. This reflects an emergent pattern of massive, corporate-led migration and labor flexibility—what amounts to treating workers as pure commodity parts. For workers, contrary to corporate propaganda, the moves are not always voluntary or harmonious.

STUDENT INTERNS AS CHEAP LABOR

With continuing demand for the iPhone and iPad, among other best-selling products, Foxconn's labor needs have remained strong, leading to aggressive practices to bolster its workforce at the lowest possible cost. One such tactic has been the large-scale use of "student interns." During the summer of 2010 alone, Foxconn employed 150,000 student interns in China—15 percent of its entire million-strong Chinese workforce²⁹—dwarfing Disney's College Program, often cited as being among the world's largest internship programs with more than 50,000 cumulative interns over thirty years. ³⁰ Moreover, Foxconn's so-called internship programs have often been extended to meet factory production plans, ranging from three months to a full year, in complete disregard of student educational needs. ³¹ Working on the line and living in the factory dormitory, students must comply with the Foxconn "internship program" on pain of not graduating.

Good internship programs are practice-oriented and participatory, contribute to students' development, and are related to their field of study. Foxconn has remained silent about its workplace training content and skill evaluation methods, but interviews with student interns make clear that the company's internship concept is a complete sham. Students in a range of fields from healthcare to auto repair are simply placed on the assembly line with no skill training, working overtime and night shifts, ten- to twelve-hour workdays, six to seven days a week during peak seasons. This is despite the fact that China's official 2007 Administrative Measures for Internships at Secondary Vocational Schools clearly states that "interns shall not work more than eight hours a day,"32 and the 2010 Education Circular likewise specifies that "interns shall not work overtime beyond the eight-hour workday."33

Student interns from vocational schools are Foxconn's new blood. Analysts have long pointed out that "the main cost-saving feature of informality is less the absolute level of wages than the avoidance of the 'indirect wage' formed by social benefits."34 In China, the government-administered insurance program consists of five parts: work-related injury benefits, medical benefits, old age pensions, unemployment benefits, and maternity benefits. Maintaining that student interns are *not* employees—even when they perform work identical to that of production workers-Foxconn does not enroll interns in local social security. During 2015, in first-tier cities in Guangdong province, employers were to contribute 29.2 percent and employees 11 percent of the employee's wages to social insurance on a monthly basis. That is, Foxconn's insurance payment should have been 876 yuan if the monthly income of a worker fell under 3,000 yuan in total, including base pay, overtime premiums, and/or subsidies. By dispensing with all of these benefits for interning students, the company avoided considerable employment expenses.

Foxconn, with government collusion, systematically violated the letter and the spirit of the law governing interns. Local education bureaus pitched in by identifying vocational schools suitable for Foxconn internship program recruiting. To assure their cooperation, governments disbursed funds to schools that fulfilled company targets for enrolling student interns. Schools that failed to meet human resources requirements lost funds.

"Every day is just a repetition of one or two simple motions, like a robot," a sixteen-year-old student complains. If the Foxconn internship program is any indication, internships are not performed for the benefit of the intern. It is a cruel irony that vocational schools who market themselves as preparing the next Leonardo da Vincis and Thomas Edisons instead send interns to work day and night to make iPhones during peak periods of demand, leaving them with no time to study. Teachers have become labor contractors who receive two paychecks—one from their school and the other from Foxconn—to supervise their interning students at the factories. This trade in "forced student labor" is effectively a joint undertaking between Foxconn, local states, and global buyers like Apple.

LABOR STRIKES AND PROTESTS

The buyer-driven business model assures the primacy of profitability for companies that operate at the top of industries—and precarious working conditions for workers on the front lines of production. Corporate demand for intense speed has contributed to antagonism and conflict between workers and management, generating grievances on the shop floor. Labor actions, not surprisingly, have been frequent.³⁵

In key nodes of globalized electronics production, particularly in periods in which sales leaps are expected, large-scale labor actions can send important messages to the state, to Foxconn, and to global brands. Sometimes these contribute to worker gains. In early October 2012, for example, three thousand workers protested against management abuse at one Foxconn facility. Although acts of resistance are usually short-lived, these organizing experiences can still be valuable as workers learn to articulate their demands through collective bargaining. Workers have sought to expose their inhumane treatment using both offline and online methods to mobilize the media and the wider public for support. In addition to organizing protests and strikes at the factory, workers also amplified their voices through blog posts, poems, and open letters documenting the various abuses, even when the government had stepped up censorship and surveillance to ensure a media blackout.

In the interest of maintaining social and political stability, government officials serve as brokers to pressure companies into compromising with workers.³⁶ In massive strikes, either government media-

tors or the employer require workers to elect representatives (generally limited to five) to engage in talks. This intervention typically marks the beginning of the fragmentation, co-optation, and crushing of worker power.³⁷ The leading workers who confront management and, on occasion, the government and police, risk being charged with disrupting the social order and being fired and/or imprisoned.

In contrast to the decline of union representation in the United States and other Western countries, Foxconn and many other large-scale Chinese enterprises are fully "unionized" through the All-China Federation of Trade Unions.³⁸ Formalities aside, however, workers lack voices and democratic participation in the unions, which are subordinate to the Chinese Communist Party. Both management and the government vigilantly seek to prevent the emergence of autonomous unions that might empower workers.³⁹

But in the face of numerous labor protests, the Foxconn Trade Union felt the need to address the gaps in union-worker communications to preempt unrest. The company placed feedback boxes inside the main production complexes and dormitories. "Satisfaction surveys" about canteen food quality, dormitory services, and employee assistance programs, among others, were regularly conducted, and the results were published in the *Foxconn Weekly* (the freely distributed company newspaper that sought to strengthen communication with employees). "When there's trouble, look to the union," was reiterated by the company union hotline. Foxconn also offered face-to-face consultation to workers facing family distress, financial difficulties, and other personal problems. But in the absence of effective grievance resolution procedures at the workplace, many problems festered.

FOXCONN'S FUTURE

Throughout modern Chinese history, workers' demands have resulted in expanded employment and renewed calls for greater workplace rights. But many of those rights remain aspirational. Legal rights have frequently been treated like commodities, with workers, employers, and government officials bargaining among themselves rather than through organized arbitration and litigation.⁴⁰ The anti-suicide nets and barred windows installed at Foxconn buildings in 2010 (and remaining today!) are a reminder of worker hardship and the shared corporate failure of Foxconn, Apple, and other tech companies—as well as the failure of the Chinese state to guarantee worker rights.

New issues have recently emerged with the Covid-19 pandemic. As of March 2020, Foxconn reported that its major factories in China had returned to normal production after the coronavirus outbreak forced it to cease operations in late January. With governmental coordination, hundreds of thousands of rural migrant workers from all over the country eventually reported for duty. The company union reminds workers to wear masks at work and in the dormitories, while lecturing workers that a healthy workforce functioning at full speed must make up for lost time.

Many questions remain, however. How long will Foxconn and the Chinese state be able to quell discontent and block the emergence of effective workers' representation and the securing of fundamental worker rights? Should workers at Foxconn and elsewhere succeed in organizing and mobilizing effectively, they would inspire many more to strive to make a better future together. Given the economic importance of Foxconn and its durable relationship with major clients, engagement with its workers is strategically important for achieving significant long-term changes in global supply chains. ^A

Notes

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