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Temporary Movement, Temporary Jobs: "Flexibility" of Food Delivery Workers in China's Platform Economy

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Abstract

"Working for a platform" has become an alternative way for making a living in urban China. Millions of rural migrant workers in China joined the emerging food-order and food-delivery platforms in the past decade, working as "riders" (qishou, aka food delivery workers). Despite the rise of the platform economy and the massive volume of working opportunities it brings to migrant workers, it has not alleviated the socio-economic inequality of this already-marginalized group. This article examines the notion of "flexibility" of gig work in contemporary China, specifically through studying the riders working for food delivery platforms. By investigating the details of working conditions, the recruiting and hiring system, as well as the notion "flexibility" largely used by migrant workers to justify for their motivations in becoming riders, I argue that the platform economy, such as the food delivery industry in China, governs migrant workers with its algorithm design and subcontracting system. Facing the limited options of a sustaining livelihood, rural migrant workers enter the platform economy with "flexibility" as their rationale to make ends meet. However, when examined within the broader socioeconomic context, this notion of "flexibility" obscures the fact that platform capitalism further marginalizes rural migrant workers.

This article investigates how platform capitalism unfolds in China through three aspects of the specific work arrangement in the food delivery industry. Firstly, the socio-technical aspect demonstrates the tensions between algorithm design in on-demand service platforms and the corporeal human labour that makes up for the failure in algorithm calculations. Secondly, the labour relations aspect entails the legal framework and reveals the recruiting loopholes in platform capitalism. And lastly, the broader socio-economic positions of millions of gig workers navigating "flexibility" in the post-socialist Chinese market economy. I argue that these three aspects are constitutive for understanding the

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migrant workers'² socio-economic position which has not been improved with the rise of the platform economy in China, but is as precarious as exploitative manufacturing jobs, if not more so. The distinctive characteristic of digital gig work, such as the food delivery in China introduced in this article, creates an illusion of new labour relationship in which the workers work for themselves, and they own total "freedom" in choosing when and where to work. The discourse not only displaces the under-examined labour relations in the platform economy, but also redirects the discussion from the socio-economic conditions migrant workers live in, to a techno-utopian vision of society that creates more job opportunities. This article challenges the notion of "freedom" or "flexibility" in the platform economy through discussions around the exploitative labour conditions of migrant workers enacted by the platform economy system.

Much research on migration in China has dealt with rural to urban migration, the rural migrants in urban spaces searching for a better livelihood (Loyalka 2012; Liu 2015; Sun 2019; Shen 2019). Migrant workers constitute one-third of the urban workforce and many of them have been the primary workers of factory jobs, food services and retailing services, and other blue-collar jobs or self-employed small vendors (Che et al. 2020). Rural migrants make up not only a significant part of the cities in terms of maintaining the cities' functioning, but also as the fundamental force of China's economic growth in manufacturing since the 1980s after the Reform and Open policy was implemented. In the most recent decade, factory jobs have been declining as the global economy shifts to conditions in which China no longer has an expanding and prosperous manufacturing industry (Zhuo and Huang 2019).

Meanwhile, the digital economy, especially the platform economy, has arisen. The rapid growth and expansion of smartphones made digital platforms and online ordering a hot spot for market competition today. This trend leads to the continued economic growth for relevant techno-centric industries in China. The platform-economy becomes "a distinct mode of socio-technical intermediary and business arrangement that is incorporated into wider processes of capitalization" (Langley and Leyshon 2017: 11). When looking at a typical Chinese white-collar's day, mobile apps that support one's lifestyle include: Bike-share app, ride-hailing app, food-ordering and delivery app, online shopping app, and digital payment platforms... Many of these new platform economy businesses rely on the technological advancement in algorithms, including machine learning, and the optimization and platform of processing real-time big data. By training more and more data that was generated in the using of these app services, the algorithm modifies itself and offers more and more "accurate" estimation of service performance. Often in the advertising narratives of the platform economies, the emphasis lands on "quickness", "accuracy" and "intelligent technology". Benefited from the large scale of user amount in contemporary China, businesses that rise from the platform economy gained rapid expansion and success in the market. However, the celebrated outlook on these businesses and its technological advances are not only a story of how

² The population being studied here, food delivery riders, are mainly constituted by rural migrant workers (more than 70%). See: https://www.sixthtone.com/news/1864/migrant-food-delivery-workers-struggle-to-belong-in-beijing

technology makes successful business, but it is also a story of how human labour has become the corporeal cost to allow the "progress" in technology. This research builds on such tensions in technology and labour relations in China, specifically through the examination of "flexibility" gig workers such as riders use as a narrative for entering the gig economy. The technical mechanism in the food delivery app(s) demonstrates the brutal reality of how human labour, while constantly getting disciplined by the service demands, adapts and compromises to technology.

Specifically, I will first look into the relationship of algorithms with workers by looking closer at the design and specifics of the delivery app's algorithm and the impact of this technology on shaping a new form of subjectivity of workers. Second, I will discuss the recruiting system in the food delivery industry and point out the layers of exploitation in its subcontracting system. Lastly, I will focus on the "flexibility" discourses among workers, which hide the underlying inequality of production relations in a platform economy. Drawing from governmentality studies, this research unravels the socio-technical relationship between the platform and human labour, as well as offering a critical look at the concept of "flexibility" in the labour relationship between technology companies and millions of migrant workers working in its system.

Governing through Algorithm

There are about 469 million users of food-delivery platforms in China (as of June 2021, China News). This new urban lifestyle not only illustrates how technology drives everyday lifestyle changes of the urban population, but is also an example of the fast-paced, time-accurate demand of a modern capitalistic society. The process of food ordering and delivery unfolds as follows. A customer places an order for food delivery on the platform, while being notified of the estimated delivery time. A rider gets an order notification after the system processes the placement of the order from the customer and dispatches it to the riders nearby. The rider then clicks "accept the order" and moves to the restaurant to pick up the food. After arriving at the restaurant, the rider will report to the system by clicking "arrived". A worker at the restaurant informs the rider that the food is ready to be picked up, the rider picks up the food while clicking "picked up" and then moves to the customer's location. The algorithm-backed dispatching system behind the platform displays the best route and estimated delivery time to the rider. Once the food is given to the customer, the rider clicks "delivered" as the mark of completion for this order in the system. The entire process has time stamps at each step, and customers will be able to see where the delivery worker's location is once the order is placed.

At first examination, this simplified process seems straightforward with a clear flow of different tasks. When everything goes as the delivery system assumes and predicts, it is a smooth and successful order completion. Yet, in the actual process of doing food delivery work, many unpredictable and unresolvable barriers hinder the delivery performance. As a research report surveying riders shows, the top listed reasons for riders failing to deliver on time are: the time for restaurants to make food ready is longer

than the system assumed; traffic conditions; and weather conditions (The Beijing News 2020). The mismatch of system estimation and worker's actual delivery time shows a lack of concrete consideration about realistic situations. What this mismatching shows is an unequal human-technology relationship, in which the human body has to compromise and work harder to enable the smooth performance of technology. As scholars studying the impact of technology on the labour process indicate, algorithms need to be examined on dissolving its authority to the medium of software platforms (Wells et al. 2020). The basic (simplified) logic behind the algorithm in these on-demand platforms is tied to data, mainly through a positive data feedback loop. To make the algorithm more accurate and "smart", the feedback loop requires more and more training data to be fed back into the algorithm (Van Doorn and Badger 2020: 1483). The core component for the algorithm to function and perform better is to have the data, which come from every single delivery order the riders have completed with their bodies.

Food delivery applications achieve the fast speed and accuracy to provide better services for customers. This is not a simple result of technological advancement, but a gain of corporate profit and reputation at the brutal expense of human labour's sacrifices and compromises. The rise of the platform economy should not be viewed simply as a progress made by technology. A critical stance would view it as a continuation of the hypothetical economic vision about the human world, which assumes every individual as self-interested and maximizing personal utility. This vision is demonstrated through the very design of the dispatching algorithms of the on-demand platforms, which maximizes corporate gain through an individualistic, competitive labour system. Migrant workers have long been taken for granted as cheap labour in this utilitarian calculation of economic gain for corporations.

When riders accept orders and hit the road to deliver food orders, numerous barriers hinder their performance. Traffic hours and road conditions are obvious factors, yet not entirely considered by the algorithm design. Even if a "simple problem" such as traffic control can be taken into account for the estimation of delivery time, the actual road and traffic conditions in the delivery process is always reduced to simpler scenarios in the route design, which is the nature of the computer-based algorithm. Experienced riders often share the tip that a new rider should try to accept orders within the small geographical area the rider is familiar with, to avoid time delays in unfamiliar routes.

This tip is also implied in the design of the algorithm, seen from a report by a leader of the dispatching algorithm team in one of the platform companies (He 2018). The report points out that "the delivery scenarios are very complex, in which weather, road conditions, the riders' skills, and restaurant efficiency in making food etc. are all at play in the delivery efficiency. These significantly increase the randomness and complexity, posing critical challenges to the stability and adaptability of the dispatching algorithms." (He 2018) However, the emphasis on increasing the delivery efficiency is not only about increasing the algorithm design, but also about the riders:

"To get a substantial increase of delivery efficiency, (we) need not only to work hard on the AI dispatching system (order dispatching, route planning,

ETA), but also to increase the 'added' competencies of riders constantly, to make them accomplish [the following]: the more they deliver, the more familiar' they are (to the route), the more 'smooth' (their delivery process is), and the 'faster' (they deliver)."

Riders have to be very familiar with the area or region where they work, to become more and more proximate to the estimated time of delivery. The road does not only refer to the public road on the busy streets, but also the roads near the destination which are often inside apartment complexes. Inside these apartment complexes, usually riders are not allowed to ride their scooters. They switch to walking, actually running because oftentimes, the estimated time of delivery is already approaching soon. The GPS direction from the platform doesn't always know the exact way to go to the correct apartment building when it's inside the apartment complex, leaving the workers who have never been there confused and lost, delaying the time of delivery further. This delivery trip could also go into further details, such as waiting for the elevator (delayed during rush hours), or even climbing the stairs if the elevator doesn't work. With the analysis of the infrastructure, it is clear to see that logistics in the entire delivery trip involve more than the obvious necessities. Under the algorithm's "accurate" estimation, delivery workers make sure most of the necessities are available and functional, in case any single factor fails them to deliver the food on time.

In contrast to the carefully designed rigorous algorithm which is claimed to be very accurate and 'smart', the practices of food delivery are filled with unexpected challenges and barriers. As a result, riders have to speed up, go against the traffic flow, break some traffic codes in order to arrive on time. These practices mostly result in an increase in the speed to deliver the food, but it also results in higher risks that sometimes bring severe accidents for riders on the road (Lai 2020). Therefore, riders are constantly catching up with the algorithm's estimates. The human efforts, carried out by the riders here, are the very medium between the digital platform's algorithm and the unpredictable reality, to cover up the failure of the algorithm. Human labour's body makes it possible for an algorithm to generate data about the distance, time and speed which the algorithm has no other way to produce if not relying on each rider's labour. In the perspective of the relationship between labour and the algorithm, an algorithm has the agency to control and discipline labour through its mechanism, to realize the extraction of labour value. The maximization of extracting labour value is part of profit maximization for the platform economy, which views the riders as cheap labour only. The logic of algorithm and technocratic design is magnifying the existing unequal power dynamics between labour and employers, human and algorithm. Riders' or workers' experiences,

rights and benefits are neglected and minimized under this power asymmetry between gig workers and the giant platform companies³.

For the algorithm design, the more riders work, the more data they generate for the system, which could be used to increase the accuracy of user location, delivery time estimation (He 2018), and order processing. In this sense, riders are simultaneously working as data producers, for data is the new vital asset for algorithm-based platforms. This work of producing data for the company without being compensated is similar to the critiques made in critical data studies: "These people who 'work but need not be paid' generate 'value' through 'their production of information' that is extracted and 'treated as a resource that can be monetized" (Wark 2019: 54 cited in Park 2020:916).

Obscured by technology's objectiveness and neutrality, the calculation process of the algorithm is a Blackbox in which outsiders can only see the performance of delivery speed. Especially given the advancement this platform has been achieving in accurately calculating the delivery time, the algorithms in food delivery dispatching produce an objective fact of its fastness and accuracy. Not mentioned or considered in this neutral framework of the algorithm, is the social and political dynamics enacted by the design of the algorithm. To solve the problems in food delivery dispatch algorithms create a calculative mechanism that measures and quantifies the performance, and then connects the performance to incentivize delivery workers to work more. Several scholars have studied this gamified system of algorithms in convincing riders to log in and keep working (van Doorn and Chen 2021). "Once a particular set of calculative practices are established as legitimate (or true), they tend to become internalized by the subjects they are supposed to govern, thus producing the self-governing subject." (Introna 2015: 39) With the internalized logic of delivering food orders faster, completing more orders, these riders easily burn out and work towards the limit of one's limited availability in a day. Governmentality is a particularly useful approach in understanding the algorithmic governance because it "allow(s) us to show how practice becomes problematized, how calculative practices are enacted as technologies of governance...finally, how such domains of knowledge become internalized in order to enact self-governing subjects" (Introna 2015: 17)

Governing through "flexibility"

The flexible arrangement in labour relations seen in platform capitalism is not a new phenomenon, especially in the post-socialist market-oriented employment system in China. "Flexible employment (*linghuo jiuye*)" is an official term used in China's legal

Note: A recent update from one of the major food delivery platforms in China states that the platform company unveils its algorithms on estimated time of delivery (September 12, 2021. http://china.cnr.cn/yaowen/20210912/t20210912_525598982.shtml) and order dispatching (November 6, 2021. https://www.sohu.com/a/499460350_115565). In describing the rationales behind modified algorithm design, the platform claims that they are taking the riders into consideration. For example, changes in the delivery time would be modified in the newly added functions in the system. The new features give more time to riders for delivery by changing the delivery time from a fixed time to a range of time. It also allows riders to make changes to orders as opposed to being panelized for uncompleted or delayed orders (in previous versions of the system).

system of labour relations (Chen 2021: 82). As discussed in the study of temporal work and precarity in China's post-socialist labour market, staffing agencies have operated since the market reforms of the 1980s and the consequential large-scale layoffs in state-owned enterprises (SOEs) (Xu 2013: 145). The flexible employment arrangement deployed by temporary staffing agencies solve the issue of high unemployment for both government and workers, but with different implications: workers laid off from SOEs no longer enjoy the "iron rice bowl" and associated job benefits and social welfare, while the state has accumulated surplus of labour for the market to employ (Xu 2013: 147). Flexibility is both the strategy and consequence of this recruiting arrangement mediated by staffing agencies. Companies benefit from this arrangement by much lower labour costs and minimal job security or benefits, while workers are left by themselves in seeking ways to make a living.

The job market for rural migrant workers is not promising, being unpredictable and having scattered working opportunities and practices (Sun 2019: 53). With platformization, delivery labour work becomes detached from formal employment relationships with the platform company. A few of the most concerned consequences of platform capitalism regarding workers' rights are summarized as follow: "Workers are no longer hired into jobs but merely hired to perform one-off tasks...[In the platform work], gone are sick days, worker compensation, minimum wage coverage, eligibility for Social Security or unemployment insurance, or coverage under the National Labour Relations Act (NLRA) that governs standard employment" (Vallas 2019: 49) This section starts with the exploration on how specifically do platform companies escape its employment obligations with the gig workers, such as riders. The findings show that the primary ways to bypass employment relations are: 1) The on-demand function of the platform; 2) The subcontracting and outsourcing systems. These two channels for platform companies to escape formal employment relations are reflected in the two main types of workers in food delivery industry: the part-time worker (crowdsourcing: zhong bao) who can choose their own work time, and full-time worker (designated delivery: zhuan song) who is under a subcontracting dispatching company. However, neither of these two types of delivery workers are tied to the company as employees, therefore the corresponding insurance and security are offered at a minimum (such as a simple daily insurance as the only protection).

As a part-time rider, one could choose to work at any time based on personal choice. According to the platform system, the part-time worker sometimes has to compete with other riders to get a delivery order. This competition is mainly a competition based on the internet connection quality and the phone's processing speed itself. A full-time worker will never need to compete with others to get an order and the platform's system will distribute nearby orders to the worker automatically. The full-time workers have to start work at a fixed time, under the supervision of a subcontracting company. The part-time work represents the gig economy's characteristics more because it is based on an individual's own schedule and it fits the on-demand function at the platform.

In the rhetoric of the platform companies, they do not view their relationship to workers as a formal employment relationship. The platform companies, usually tech giants themselves, regard workers as "partners" and independent contractors with self-employed status (Webster 2020: 514). Whether workers are regarded as employees or as independent contractors is the focal point in the debates about labour relations in platform economies. The legal debates make a big difference on how workers should be treated. Take Uber as an example here, researchers Rosenblat and Stark examined a class action lawsuit in California regarding Uber's relationship to its drivers. In Uber's legal brief submitted to the lawsuit, Uber asserts that "We make our money from licensing software.... And we happen to have a compensation model that, when they [drivers] use it successfully, we get compensated" (O'Connor et al., 2015:16 as cited in Rosenblat and Stark 2016: 3761). Scholars who studied Uber argue that although Uber self-proclaimed their role as a connective intermediary between drivers and customers, the software mechanism and interface design actually reflect employment structure and hierarchies (between Uber and its drivers) (Rosenblat and Stark 2016: 3761).

As shown above, the part-time riders exemplify the on-demand function of the gig economy, and the impact to employment relationships. Full-time riders working under the subcontracting system is a supplementary aspect for comprehending the platform capitalist nature and impacts on the workers. The main difference between part-time and full-time food delivery work is the level of stress and the corresponding level of income: one could get a higher income doing full-time work but the pressure from the platform and subcontracting company is also much higher. The "full-time" here doesn't equate to most full-time worker's labour rights and protection, but just a requirement of the worker's time fully dedicated to the on-demand platform. Full-time workers apply for the delivery jobs through the official platform but the application eventually gets handled manually through subcontracting companies. The subcontracting companies also actively recruit, train and manage the riders on their own, since this human capital management essentially is their business of making money. The subcontracting or outsourcing companies here become part of the value chain under platform capitalism, further demonstrating the layers of exploitation in the chain of the platform economy.

In the subcontracting system, workers get pre-work training and rigid disciplining on their work performance. Getting one bad review on the platform from a customer would result in a fine of a high amount, which could put the worker's entire day's earned income into vain. Many people change from the full-time worker position under the subcontracting company to become part-time workers on their own, simply because they feel the pressure was too high in the former environment. The high cost related to bad reviews for workers not only presents financial costs such as fines, but also the emotional stress under the strict disciplining atmosphere in subcontracting companies.

The subcontracting company usually sets up a delivery station for the area where they maintain business. The manager at the station has a performance matrix to evaluate the rider's performance in all kinds of dimensions everyday: the frequency of getting orders, the frequency of delivering on-time, and the frequency of getting good or bad reviews

from customers etc. The matrix is connected with the platform so the worker's wage is directly influenced by the performance evaluation. What's more, some stations are strict about delivery workers being polite to customers. Riders have to greet and apologize to customers in the exact way as required: "This is your delivery, sorry for making you wait for so long", "Enjoy your meal!" etc. The requirement of politeness is a result of a "customer-oriented" business strategy, in which the buyers (aka customers) are given the priority and power to comment on services, cancel orders, and negotiate for customer rights (Sun 2019: 54). Through these mechanisms of training and performance evaluation, riders are constantly corrected, punished, and incentivized to perform the work in a certain way so it is not only a service, but also a standardized professional service. Under the monitoring from both the platform and manager of the station, workers strive to gain good performance evaluation in order to avoid the risk of wage deduction. They also try to avoid dealing with the emotional stress which resulted from disputing the bad reviews they found unreasonable. Both the platform design and the performance matrix monitored by the manager of the station end up disciplining the workers' body to act faster, act more "politely", and act towards the priority of business profit.

Subcontracting is an often-used business strategy for companies to escape their employment responsibility. Through outsourcing, the platform company transfers its original task of recruiting, training and being responsible for the workers to a specialized subcontracting company. Ironically, workers wear the uniform from the platform company and yet, are not granted any acknowledged legal tie to the platform company. The subcontracting companies play the role of mediating the frictions between workers and platform companies but at a very limited capacity due to its own scale and business interests.

What matters here in this subcontracting system is the layers of exploitation imposed on migrant workers. The exploitation comes in different forms such as disciplining workers' bodies, scamming migrant workers, and most importantly transferring labour responsibilities through outsourcing. The subcontracting and outsourcing system in a platform economy is also a reflection of the neoliberal order in this economic arrangement. The subcontracting system allows the platform company to escape its employment responsibility towards workers. Workers' rights and protection are minimized to the least possible amount under this arrangement. In addition, the power to negotiate is also minimized for workers while the workers have to rely on the on-demand platform to find gig work and get daily income⁴.

Precarity behind "Flexibility"

Food delivery is becoming one of the most popular jobs for rural migrant workers in urban spaces today. Many workers choose this job because it is more "free" and "flexible". How did this happen for millions of rural migrants in China to take on food

⁴ There have been several small-scale protests organized by grassroot alliances of food delivery riders since 2020. See: https://www.sixthtone.com/news/1006914/can-delivery-drivers-break-their-silence

delivery work? What is the relationship between platform capitalism and the notion of "flexibility"? What is the reality of survival for migrant workers today? This section aims to understand the various dimensions of the impacts of platform capitalism for migrant worker's livelihood strategies.

Considering the decrease of factory jobs in China and the ever-expansion of urbanization, what occurred to China's economic development is a rapid shift to the platform economy (or "Internet Economy" as it is often referred to in China's economic policy). As China moves up in the GDP-indexed rank of economic impact, the economic structures also shift from one to another (export-oriented to domestic-demand). What remains untold in these economic miracle stories is the precarious reality of rural migrant workers. During the years of economic development, China claimed it achieved poverty alleviation nationally (Zhang 2020), yet the everyday life of rural migrant workers still remains unstable. They are limited in a luminal space when they are away from their rural roots, living in urban space physically, but not belonging, and not benefiting from the urban resources accordingly. Migrant workers were the biggest victims during the financial crisis around 2008, in which 23 million migrant workers suffered from unemployment due to the low need for exporting goods (Cai and Chan 2009 as cited in Che et al. 2020: 2). In 2020, the year when the COVID-19 pandemic hit China first and then globally, rural migrant workers also suffered greatly from unemployment due to the lockdown and economic downturn, much worse than the urban residents (Che et al. 2020). Therefore, job choices for rural migrant workers are very limited today, even in the metropolitan cities.

This is the context in which to understand why migrant workers take on flexible jobs as riders. Despite the unstable and unprotected labour rights in gig work, food delivery work probably is an attractive job for many marginalized rural migrant workers who simply need to make a living. The attractive features of this job are the characteristics of easy-entrance and accessibility, freedom and flexibility, compared to the repetitive fixed-schedule of factory jobs, and the quickness of getting wages to satisfy the rising financial cost of living in a city.

Most riders use the two words "flexible" and "free" to talk about their reasons for choosing this job. Many workers give the narrative that they prefer to work as a rider compared to a factory worker because it offers more freedom, and there is no hierarchical management. In academic discussions, "flexibility" is a description of the cornerstone of the neoliberal agenda "—embodied in mandates for the fluid movements and restructuring of labour, capital, and information" (Freeman 2007). In mobility studies, "flexibility" has been argued as an active strategy utilized by migrants to achieve new citizenship, as both a goal and method for upward social mobility (Liu 1996; Ong 1996). In the narrative of flexibility and freedom, these "neoliberal rationalities of self-enterprise and privatized practice of self-actualization" (Hoffman 2008: 181) is elicited. The kind of neoliberal self, animated in platform capitalism, is a particular conundrum for many rural migrant workers. On the one hand, to work more and according to one's own flexible schedule is liberating for making the most

earnings out of the available time and resources. On the other hand, the choice rural migrant workers face in a post-manufacturing, internet-business oriented environment is actually very limited, making gig jobs, such as food delivery, the easiest choice for many rural migrants.

In these daily narratives and academic discourses around "flexibility", a central question to ask is: what does "flexibility" mean and who is it for? Behind the narratives of "flexibility" and "freedom", a harsh environment of survival is in front of these marginalized migrant workers. Some riders are taking this job as a part-time job only, while having another or multiple temporary jobs in order to make ends meet. Some female riders are doing this job in the gap time when children go to school. And many riders take on this job on friends' recommendation as a job that is "better" than factory jobs. These examples offer some context behind flexibility in this gig work. What remains to be answered is: is flexibility really a choice? Two researchers, Van Doorn and Badger, went to experience various gig work including the food delivery work across different countries and summarized the limited choices these workers have, "you satisfy the platform's algorithms and improve your metrics only for as long as this satisfies your needs" (2020: 1484). Therefore, most rural migrant workers do not actually have many available options to choose, but merely choose one that comes the easiest and satisfies the current (financial) need.

"Flexibility" also brings a cost of suffering intense pressure during flexible work. The intense pressures can be physical because of an exhausted body, can also be mental because of the rigid performance evaluation. As a matter of fact, the motivation to change one's job from food delivery to other jobs is high among riders. Many of them do not view food delivery work as a sustainable one. The pressures from multiple sources in this job make some riders quit the job as a way out, even though they may not have a placement for the next job upon leaving the food delivery work. This is not unique to the food delivery job, but it's magnified in this industry given the direct competition of speed, efficiency which are all in turn a burden on the riders. In China, migrant workers are constantly switching among temporary jobs in the cities, while the social mobility is harder and harder given the increasing living expenses in urban spaces (Loyalka 2012).

Meanwhile, this flexibility of food delivery labour also means no legal employment contract, no social welfare, and no legal attachment to the corporation the worker works "for". As Freeman states: "From one vantage point, "flexibility" connotes instability, changes in temporal and spatial frameworks, and an erosion of both economic and social commitments" (2007: 253) In this logic, "flexibility" is not for the workers, but for the platform companies because they are completely free of the employment responsibilities towards riders.

Notably, even though "flexibility" is the major narrative in selecting gig work, such as food delivery, a more fundamental rationale behind this trend is the higher income food delivery work promises. The average monthly income for a full-time rider is more than

the average income for many manufacturing jobs (CCTV News 2021). To understand the rise of gig work and growth of the platform economy, this comparison is important. In searching for ways of making a living, food delivery jobs are widely viewed as a type of promising work that rewards the ones who work more hours. Under this "work more, get paid more" incentive, riders make an average monthly income higher than other blue-collar jobs by working long hours and sacrificing holidays. Therefore, "flexibility" needs to be understood together with the financial incentive in understanding the riders' rationale in working for the platform as gig workers. In this sense, flexibility as a rationale is moving the attention away from the brutal socio-economic reality migrant workers face in finding a reasonably-paid job. It creates an illusion of ascribing to the decline in manufacturing jobs and the rise in platform jobs as an explanation for why migrant workers today, especially the young ones, prefer and are used to an urban lifestyle. The narrative of flexibility is true in riders' description for working as a gig worker, but it should not be understood as active choice-making. What lies beyond this narrative is the marginalized position migrant worker occupy in the ever-increasing socio-economic inequality in China today.

Conclusion:

The platform economy has been expanding globally in the rise of information and communications technology. This particular form of business has been growing exponentially in China during the past decade due to population scale, smartphone accessibility and low cost of rider labour. Faster than technological growth is the increased competition among food delivery platform companies, especially the few monopoly companies. In order to gain the dominating position in market share, companies constantly optimize the technology of algorithms, but hidden in the technological growth is the squeezed time, increased risk for riders in every single order they deliver. What I argue in this research is a critical view of the technological growth that favours convenience and efficiency for customers, but less attends to welfare and rights of labour. Behind the narrative of efficiency and convenience is the striving and survival of migrant workers who are marginalized in the story of economic prosperity in China.

Over the years of economic development in China since the 1980s, rural migrant workers from different generations have experienced the ups and downs in the economic circle. However, the repetitive cycle of poverty for migrant workers remains a problem despite the overall economic growth and government's poverty alleviation measures. The migrant workers' fate is closely related to their job precarity and meager social safety protections (Che et al. 2020: 2). Platform economy doesn't alleviate migrant workers' precarious situation, but further extracts their labour value to gain the maximum profit for corporations. This article has demonstrated this through three aspects:

First, the technology design of algorithms in the platform company of food delivery takes far little consideration of the worker experiences and infrastructure's condition in food delivery work, which is a significant factor for increased risks involved in this job.

In this unequal relationship between technology and human labour, migrant workers' labour is not only controlled and disciplined by the algorithm, but also acts as a data point fixing the technology errors from the algorithm and improving the algorithm by providing massive amounts of real-time data.

Second, through the subcontracting system in its recruiting structure, the platform economy puts layers of exploitation upon the workers: disciplining the worker's body to perform the job in a machine-like standard, extracting the worker's value by the multiple actors in the recruiting process. The subcontracting system also denotes the removal of responsibility from corporations in the platform economy, while minimizing the wage guarantee, social welfare protection, and eventually job security for the riders.

Lastly, the "flexibility" as a motivation for workers to join this food delivery work reflects the limited options for migrant workers who have been marginalized until today. It was exactly the "freedom" and "flexibility" discourses in the platform economy that obscure the socio-economic reality rural migrant workers live in. From secure job assignment to autonomous decision making that allows one to elicit the entrepreneurial self, a significant shift in post-socialist China occurs through the narrative of "freedom", especially freedom from state intervention.



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