

Research on the Protection of Labor Rights and Interests of Delivery Riders in the Era of Algorithms

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Abstract: Food delivery based on the internet has become a highly potential outcome after the flourishing of platform economy, and it does attract a lot of people to get involved in this career. The food delivery service has connected the customer, the company, and the workers together, providing the customers with convenient and comfortable methods to make an order and enjoy the foods from different restaurants without going out, thanks to the development of algorithms. However, as a new sort of technique that lack supervisory, algorithms are keep exploiting the delivery workers, on the other hand, and since the legal awareness of the workers are not strong enough together with their unfamiliarity with the new technology, they don't have effective ways to protect their basic rights when their legal rights are violated by the entrepreneurs. This article mainly shows the reason behind this phenomenon and the current solutions together with the writer's suggestions towards this issue.

Keywords: algorithms era, platform economy, labor rights

1. Introduction

With the rapid development of the Internet age, coupled with people's huge demand generated by the fast-paced urban population and the pursuit of quality life, food delivery through Internet platforms is becoming more and more common, and many professionals choose to participate in food express services. In this new employment format, algorithms play an important role. Through algorithms, companies can assign the most efficient tasks, plan the shortest distance, and arrange daily schedules for their employees with delivery tasks based on the Internet platform, making delivery services more convenient, saving time in the entire city, and reducing the cost of commute.

However, this does not mean that the intervention of Internet platforms and algorithms has completely constituted a win-win situation between companies, employees and users. In more cases, the algorithm has become a tool for businesses and consumers to exploit the delivery workers. This stems from the algorithm's lack of publicity, the algorithm's complexity, and the vulnerable state of corporate employees.

The hiding of the algorithm makes it difficult for current regulatory measures to play a substantive role [1], and it is easier for companies to establish regulations regardless of sufficient supervision and control of the market. Algorithms, such as the enterprise-to-employee task assignment method and link, are very complex in themselves, and are basically formulated by the enterprise with full authority, while the delivery staff can only unilaterally obey, which will inevitably lead to the use of the

designer's willingness on the part of the company to increase subjective discrimination, which further make employees be restricted by algorithms and placed in a disadvantageous position. And most of the delivery workers are migrant workers who have entered big cities and belong to the new generation of migrant workers. Statistics show that only 24.7% of this particular group have a college degree or higher [2]. These people generally have little legal awareness and are more likely to fall into algorithmic traps set up by companies. How to resolve the protection of the labor rights and interests of food delivery workers in the age of algorithms has become a topic worthy of discussion in today's society.

2. The Algorithmic Logic of Food Delivery Platforms and Its Exploitation to Riders

2.1. Platform Economy and Algorithmic Logic

The so-called platform economy refers to a new economic way based on Internet technology in the new era. In this economic model, consumers, merchants, and platform participants each get what they need, achieving a mutual check-and-balance relationship. The platform itself does not create value, but instead builds a trading venue, each performing their own functions and ultimately allowing these three parties to earn part of their own profits on the platform. Algorithms are meant to be a series of program instructions to solve specific problems in arithmetic and logic. Algorithms are logical and inferential, like a recipe, telling people how to act step by step according to the requirements, and the operation of the algorithm must be supported by data [3].

In the food delivery industry, the platform uses a set of self-designed algorithms to simulate orders from food delivery personnel and design optimal decision making for delivery personnel to execute orders continuously, in order to provide customers with the estimated time of arrival of food delivery. At the same time, the algorithm also implements the hierarchical management of delivery personnel: the platform establishes a new incentive mechanism based on the characteristics of the food delivery industry with the help of algorithm technology application [1]. Takeout users with better data can get higher order shipping priority and more generous subsidies for each order, so industry users continue to compete for a better deal. Major food delivery platforms generally use a point accumulation system to motivate passengers and it basically works as the following table "Rating system of a platform for delivery workers" (Table 1) shows:

Table1: Rating system of a platform for delivery workers [3].

The level of riders	Per order susidy(RMB)	Required points
Divine rider	1.5	6000
Saint rider	1.2	4100
Diamond rider	1	2800
Black-gold rider	0.8	1800
Gold rider	0.5	900
Silver rider	0.3	400
Normal rider	0.1	0

For the acquisition of points, the platform provides a strict system. "The evaluation rules for each knight level are very complicated, mainly based on the number of orders completed by the food delivery staff in the month, the total mileage, working hours, favorable rate, punctuality rate, late rate, etc [3]."

2.2. The Exploitation of Labor by Algorithms

It can be seen that the Internet imposes a rating distribution system on riders based on the reward mechanism, so riders need to work hard every day to earn considerable income. Simply put, if a delivery person wants to continue to improve to get higher subsidies, he must execute at least 50-200 orders every month, and there must be no errors along the way, which highly demands quality and quantity—a delay of delivery of more than ten minutes will deduct 80% of the broker's delivery fee and 20 growth points. Upadhya and Vasavi believe that an important manifestation of the post modernization of technological capital is the pervasiveness of entrepreneurship and the dominance of individualism [4]. The algorithm model that is purely oriented by the quantity of the customer's order and ignores the basic rest time of the cyclist fulfills the machine's goal of "order completion", but is contrary to basic moral standards. However, the company's complete concealment of its own algorithm mode leaves the public with no evidence for its prosecution, so it can only accept the algorithm fix in a humiliating way.

What's more, algorithms sometimes make mistakes. Deliveryman Li once said: "The time the platform arranges for each order is almost only calculated by the time required for the delivery workers to pass the point-to-point straight-line distance, and the estimated time obtained by this estimation method is far less than the actual time for the delivery. In order not to be reminded by customers, the delivery staff can only tirelessly race against time every day, and they are very tired [3]." However, the platform has never taken the initiative to fix the problem after discovering the problem. And due to the lack of supervision, the company will only consider the huge cost brought by the maintenance algorithm and will not take care of the delivery staff's working conditions, so they will not adjust the calculation of the estimated time, which makes the delivery staff complain endlessly.

3. Difficulties and Progress in the Protection of Labor Rights and Interests of Food Delivery Riders in the Era of Algorithms

3.1. Difficulties in Protecting Labor Rights and Interests of Food Delivery Riders

The changes of the times are often reflected in the law with delay. Algorithms have changed the rigid labor system in the past, and through the intervention of the "middleman" of the platform, the affiliation between enterprises and employees has been weakened. Since delivery workers have the right to refuse orders and freely choose working hours, they are not legally considered employees of the employer in the strict sense. (But in reality, the delivery staff do not have a particularly large job autonomy. When working, the courier must be pushed through the platform's algorithm over time, and there may be a risk of order reminders on the user's side. And if the courier chooses to rest when the passenger flow is heavy, not only can the wages be reduced, but the platform will also change the rank of the courier, so that when the courier starts the delivery again next time, the delivery priority will be given level will be far behind. Therefore, for the greater benefit, the delivery staff will generally not actively refuse the order from the platform.) "The intervention of the algorithm has weakened the subordination of the delivery riders to the platform. The ambiguous affiliation has brought huge challenges to the determination of the legal relationship between the two [1]."

Due to the intervention of the platform, it is difficult to identify the employment relationship. Together with the fact that the legal awareness of delivery workers is weak, and that they are less able to sign employment contracts directly with the company, the company will switch to different human resources companies. After employees have signed cooperation agreements, contractual agreements or other agreements to the affiliation of the company, the company then uses the algorithm's incomplete coverage to dilute the fact that there is an employment relationship between the company

and employees (additional clauses takeaway), in order to clarify liability for back wages, work-related injuries, and social security payments.

In the case of legal aid provided by the Legal Aid Office of Bao'an District, Shenzhen, Guangdong Province to Huang, a delivery worker, the court held that in order to avoid risks, agents often use their own advantages to adopt various methods to avoid labor costs and risks, while riders generally have a culture of the low literate level and lack awareness of law makes it difficult for riders to defend their rights when they encounter disputes. How to maximize the protection of the legitimate rights and interests of laborers under the new employment model will bring new challenges to legal aid lawyers in handling related labor dispute cases [5].

Obviously, when the platform economy is booming like mushrooms after rain, our laws have not fully prepared for a series of related problems arising from this new economic format. The exploitation of the algorithm is not only reflected in the order delivery requirements for food delivery riders, but also blurs the labor relationship between employees and employers, which has led to a further increase in the difficulty of rights protection—the rider's labor rights and interests are not guaranteed; the protection of labor rights and interests of riders has not formed a system with the maturity of the platform economy.

3.2. The Current Thinking on Solving the Protection of Riders' Labor Rights and Interests

The government has promulgated a series of legal provisions (although incomplete) to limit the “dehumanization” of algorithms to protect the basic rights and interests of workers. In 2021, the State Administration for Market Regulation promulgated the “Guiding Opinions on Implementing the Responsibilities of Online Catering Platforms and Effectively Safeguarding the Rights and Interests of Takeaway Delivery Personnel”, which pointed out: “The ‘strictest algorithm’ must not be used as an assessment requirement, and the ‘algorithm selection’ must be adopted.” Reasonably determine the assessment elements such as the number of orders and online rate [6]. This opinion restrains enterprises from excessively exploiting the value of workers through algorithms. Regarding the new type of employment norms and the labor relations of those employed under the new model, the “Guiding Opinions on Safeguarding Labor Security Rights and Interests of Laborers in New Employment Forms” issued by the Ministry of Human Resources and Social Security (hereinafter referred to as “Opinions”) divides laborers into There are three categories, one is protected by the labor law, the other is protected by the civil law, and a new category of workers is added, that is, workers who do not fully meet the conditions for establishing labor relations — “The third form of labor” [7]. The “Opinions” drafted a new form of employment such as takeaway riders. When labor relations are disputed, workers can still claim their own legitimate rights and interests in accordance with the law. In terms of deciding whether to accept the case through the Labor Law, the new thinking given in the “Opinions” is more humane, and it also provides more convenient and direct channels for those people with weak legal awareness to defend their rights.

In addition to the government, many contemporary researchers who have explored this topic are also actively giving their views on how to change the status quo of algorithms. Some academics believe that my country should urge companies to formulate the openness and transparency of algorithms, and platforms are obliged to explain the content of algorithm regulations clearly and popularly, so as to facilitate the understanding of those delivery workers or the protection of rights protection later. Not only that, the platform also needs to negotiate with the union to finalize a reasonable algorithm-based dispatch frequency and route planning mechanism. There are also some academics who claim that people who do not have the ability and resources to collect evidence themselves to show that their personal rights have been violated (including wage arrears, non-payment of social security provident funds, forced resignation, etc.) in civil litigation, judges should adopt the rule of reversal of the burden of proof to better protect professionals in the new era.

4. Suggestions on the Protection of the Labor Rights and Interests of Delivery Riders in the Era of Algorithms

As the conflict between the food delivery staff and the algorithm is pushed to the forefront step by step, the voice of this issue in the society is getting louder and louder. The author believes that the attitude towards this issue is that the society should actively improve and introduce new laws and regulations to adapt to the platform economy, and at the same time do a good job in the early stage to prevent problems before they happen.

First of all, it is very necessary to require companies to make their own algorithm rules open and transparent. This is not only a generation for society, but also the best way to protect workers. However, since the algorithm is a trade secret of the company and an important channel for profit, full disclosure can cause great losses for the company. The State Administration for Market Regulation should monitor several large delivery companies and modify the algorithm actively instead. In addition, while companies do not need to disclose all the details of the algorithm, they have a responsibility to explain the details of the algorithm to society and practitioners of the platform economy in the new era in easy-to-understand language, and to key points, such as “scheduled delivery time”, “calculation”, “break time between orders”, “extreme weather allowances” and other details to ensure that the algorithm does not violate the basic interests of workers.

Second, the government must step in and monitor the algorithmic restrictions imposed by various companies on their practitioners and whether there are ambiguities in the contract or from a legal point of view in matters involving personal rights, such as algorithmic discrimination to calculate part of the individual wages and the proof that there is a clear employment relationship with the worker. “Platform companies have management obligations for the design and operation of algorithms, and should take the initiative to assume corresponding responsibilities to prevent incidents that harm the legitimate rights and interests of platform professionals [1].”

In addition, companies must also achieve algorithm design compatibility, which must take many objective factors into account. For example, there must be detailed classifications for the delivery of overtime by runners, and the corresponding punishment measures for each case are different. For example, if the cyclist is forced to delay the delivery of the order for personal physical reasons or unexpected circumstances (such as family reasons, road conditions, etc.), the company must forgive this and reflect it in the algorithm. For those who deliver orders late for personal driving reasons, it should not be generalized, and different determinations can be made based on the rate of late delivery of orders. Algorithms should be more comprehensive in accepting and processing customer feedback – sometimes the customer report can just be a moment of anger or even simply aggressive. At this time, it is very unreasonable to impose a uniform punishment based on the faults of ordinary delivery workers. Therefore, companies should have a more comprehensive passenger and customer supervision system and try to take into account the reasonable rights and interests of both parties.

Finally, it is necessary to improve the legal awareness of citizens, who must have the courage to file a lawsuit when their personal interests are seriously violated and fight for their legitimate rights and interests with reason and evidence. “It is undeniable that the delivery workers can choose to leave the ranks of the food delivery drivers, but it is more common that even if the workers complain, they endure it in silence. Under the limitation of social adaptability and group characteristics, the working class consciousness of the delivery men has not yet awakened, it is difficult to form a concentrated collective power [8].” This phenomenon is undoubtedly sad, and it is a kind of untold pain for vulnerable groups that are violated, and legal awareness is necessary in these cases.

5. Conclusions

Compared with the traditional economic system, the platform economy in the new era is more efficient and attractive than before, but this product of adapting to the new era has risks and opportunities. If the problems it reveals are ignored, it will lead to more serious exploitation of practitioners of the new platform economy from the platform and consumer side. In this way, the number of people who may be willing to participate in the Internet platform economy will decrease, which is not conducive to the computerization and modernization of our country. Under the supervision of the state, companies must formulate an algorithm system that conforms to national conditions and the basic desires of workers, and people must also become aware of the law and use legal means to seek justice for themselves when their personal rights are violated.

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