Ethical Disputes of AI Surveillance: Case Study of Amazon

Yuanyu Bao[1, a,, †], Wenlin Li[2, b, †], Yuxin Ye[3, c, †], Quanwei Zhang[4, d, †]

[1]*Surrey International Institution, Dongbei University of Finance and Economics, Dalian, 116025, China,*
[2]*Dongguan Hanlin Experimental School, Dongguan, 523000, China,*
[3]*The International Department of The High School Affiliated to Shaanxi Normal University, Xi'an, 71000, China,*
[4]*Affiliated Experimental School of Zhuhai No.1 High School, Zhuhai, 519000, China,*
**Corresponding author email: [a]yb00265@surrey.ac.uk, [b]2272740664@qq.com, [c]3537833682@qq.com, [d]3434722431@qq.com*
[†]*These authors contributed equally.*

ABSTRACT
Contemporarily, artificial intelligence (AI) has been widely adopted in business practices. Amazon, as one of the leaders in this field, has applied such technology into the camera surveillance to monitor its delivery drivers. Although it brings about numerous benefits including but not limited to transportation safety guarantee and delivery effectiveness, it also initiates huge controversies with respect to the privacy issues and ethical concerns. In this case, this study analyses the pros and cons of AI application in the workplace. Based on the analysis, we put forward several recommendations to help the organization to reach a win-win situation for both employers and employees. This study would contribute to the theoretical domain of business ethics pertaining AI and practically shed light on enhancing employee satisfaction while ensuring the benefits of emergent technologies.

Keywords: *Artificial intelligence, Camera Surveillance, Business ethics, Employee satisfaction, Amazon*

1. INTRODUCTION

In the era of rapid development of science and technology, the application of artificial intelligence (AI) technology in different industries is accelerating. However, while vigorously promoting the economic and social development, it also causes a series of ethical issues related to security and invasion of privacy. Therefore, it is necessary to analyze the results and causes of this ethical problem from the real practices in the industry, thus systematically evaluate its risk impact subsequently on this basis. Finally, it is imperative to propose solutions to combat the limitations of the technology, so as to better reduce the negative effects of the application of artificial intelligence technology [1].

There is a general increase in the use of artificial intelligence in business. For example, in 2020 Amazon launched an AI-based tracking system that uses digital sensors to monitor the movements of delivery workers in the name of efficiency [2]. The data that drivers must agree to collect includes photos to verify their identity, the location and movement of the vehicle to find out if the driver is engaged in dangerous driving behavior, e.g., speeding and not wearing a seat belt. Amazon's AI overseer system allows for deeply automated tracking. If an employee is working slowly or has not touched a package for a long period of time, the system will treat that as laziness. If productivity targets are missed several times, the AI system automatically generates a warning or even an online order to fire the employee, a process that requires no input from a supervisor.

Whilst this practice by Amazon has lots of benefits in terms of safety guarantee for workers and productivity enhancement for the company, it simultaneously creates heated discussion with regard to ethical issues. Thereby, this study would especially dig into this case to discuss pertinent viewpoints, the reflections of which would contribute to the ethical adoption of the utilization of AI in the corporation management field. In the following section, the Amazon case has been firstly delineated in detail.

2. CASES INTRODUCTION

According to ProPublica report in 2019, it is found that Amazon's contracted drivers have been involved in

more than 60 serious car accidents and crashes since 2015, at least 10 of which were fatal [3]. Hence, in an effort to improve safety, Amazon tries to use AI to surveillance their driver in order to reduce the risk of transpiration accidents and enhance the drivers' safety level.

In this case, Amazon installed AI-enabled cameras in some vans in March 2019, with four lenses to watch the road, both sides of the vehicle, and the driver. Nevertheless, after installing machine learning-powered surveillance cameras in its delivery vans earlier this year, Amazon stated to its employees whether they agree to be surveilled by AI or lose their job [4]. An Amazon instructional video says the cameras would record "100% of the time" during the drivers' working time. However, this creates certain concerns among the drivers.

To articulate this practice, Amazon spokesperson Deborah Bass, stated to The Verge, that the cameras were only there "to help drivers and the communities where we deliver safely". Bass stated that in pilots of the technology from April to October 2020, over more than two million miles of driving, "accidents decreased 48 percent, stop sign violations decreased 20 percent, driving without a seat belt decreased 60 percent, and distracted driving decreased 45 percent [4]. The number partly indicates that the risk of crashes has been reduced by AI camera used as well.

Nevertheless, the AI camera has raised drivers' concerns about the potential for heightened employee surveillance and a lack of privacy. Some drivers also argued that they're concerned the AI-equipped cameras will add further pressure to a job that already involves an intense workload of delivering hundreds of packages a day. According to a privacy policy issued by Amazon in accordance with the cameras, footage collected by the cameras can be used for employment decisions. Therefore, it is very likely that the adoption of the camera will increase the work stress for their employees indirectly.

All in all, as believed by Amazon, there are more benefits for Amazon and its business stakeholders than problems. For instance, even though there are some costs of system installation, such costs of surveillance will be offset by the decreased costs resulted from the damage of crashes and transportation accidents. Additionally, both Amazon and DSP claimed that the cameras are used for keeping the safety of both drivers and the general communities [5]. For public, this practice will also show the duty of Amazon for their employees and would greatly enhance the delivery speed and service quality, which can improve the brand reputation. Apart from that, it will cause debate about human right and privacy, which will result in bad influences on sales and benefits [6].

In brief, Amazon adopts the mindset of consequentialism for acting it, as the AI surveillance can keep the safety of the drivers, enhance the productivity and service quality, and finally optimize its operational effectiveness and efficiency. Sufficient reasons can be used to justify it, though in the view of deontology, multiple disputes would also exist. Thus, in the next section, the pros and cons of such practices are further elaborated.

3. CASES ANALYSIS

In this section, the advantages and disadvantages of AI will be discussed, especially in line with the camera surveillance conducted by Amazon.

3.1. Pros of AI surveillance

Firstly, AI would bring some benefits. Nowadays, AI makes people's life easier, safer, and more convenient [7]. For instance, when AI is integrated into surveillance and security system, it can provide an all-day and multi-direction monitoring system. In the case of Amazon, taking advantage of such AI integration, those driving staff working in Amazon can be monitored by AI in a comprehensive way. Instead of using human beings to supervise them, the AI supervisor is less costly and more accurate. Moreover, in both Amazon warehouse and for those delivery staff, powerful AI systems can not only track each person's working progress but can also accurately calculate the amount of time workers have been inactive. In this way, AI can help companies maximize the efficiency.

Another positive aspect is that the data obtained from AI supervisors can be used to inform the decision-making of employee promotion and dismission [8]. In Amazon, If the employee does not meet the "production base target" or if the "TOT" (time of task) takes too long or too many times to meet the target, the AI supervisor will automatically generate a warning and may give such signals to the HR department for further investigation. After several warnings, such evidence can be referred to for employee performance management. This practice cannot only reduce labor costs, but also make human resource management more convenient and efficacious with respect to staff productivity management.

3.2. Cons of AI surveillance

On the other hand, the negative sides of AI are also evident. AI is just an executive system without any emotion. Many pitfalls of AI comprise data leakage, privacy, and security issue [9]. Although integrating AI in the management process is quite an effective way to monitor employees' work conditions, plenty of Amazon employees suffer a lot from it and intensively criticize its practices of integrating AI-based cameras in the workplace.

For example, in the process of firing employees, an AI system makes a judgment on the daily work

performance of the incoming employees according to the criterion of workload and work efficiency set in the system. It is considered inhumane to use such data to determine whether to fire the employees without human intervention. In fact, an Amazon spokesman admitted that about 300 employees at its Baltimore distribution center had been laid off because of inefficiency, which was more than 10% of amazon's current workforce of about 2,500. Amazon has more than 75 logistics centers in North America with more than 125,000 staff, as well as thousands of layoffs every year [3]. In those extreme cases, some Amazon employees are even afraid to go to the bathroom during work hours in order to meet AI requirements.

As a conclusion of the side-effects of AI intelligent supervision, it not only exposes employees' personal privacy to the monitoring [10], but also puts employees' physical and mental health in a long-term state of depression due to the harsh intelligent supervision system [11]. The rising demand for goals has also taken a toll on employees' mental health, with 55 percent reporting depression while working at Amazon. More than 80 percent of employees said they would not apply for a job at Amazon in the future. Since then, AI in Amazon has become a kind of AI supervisor who increase the work pressure and burden of workers.

Table 1 summarizes the major benefits and challenges of adopting AI-based tools in monitoring staff performance. Based on the summary, the next section attempts to pose some recommendations to mitigate those challenges while maintaining the positive aspects of AI. The objective of the following discussion is to maximize the benefits while avoiding the drawbacks.

Table 1. Pros and cons of AI surveillance in the workplace

Aspects	Details
Pros	Enhanced driver safety level
	Higher productivity and effectiveness
	Reduced labor costs
	Optimized HR management procedure
	Reduction in human error
	Faster decision and ongoing availability
Cons	Risks of turnover decision
	High integration costs
	Possibility of privacy leakage
	Intensified work pressure
	Decreased job satisfaction

4. RECOMMENDATIONS

As discussed above, Amazon's use of AI to monitor its employees is problematic. To overcome the aforementioned challenges, an array of solutions is proposed in the following.

The first recommendation is about the issue of the inability of employees to freely conduct some necessary non-work-related activities on the job, e.g., going to the toilet when it is necessary. Although AI supervision provides convenience for HR managers and supervisors as they could perform the monitoring automatically, they sometimes cannot make correct judgments when facing some unpredictable things. Just as the "going to the toilet" example mentioned above, it would be totally unfair to lay off staff just because of that.

Therefore, the first recommendation would be to involve human beings to finally double check all the detected rule-violating behaviors. For instance, a group of HR associates can participate in judging whether an employee's behavior breaches the work requirements or workplace rules. Such meetings can be held monthly together also with the representatives of employees to ultimately make the decision.

Aside from the practices from the company, the second recommendation is on the governmental legislation level. It is deemed that the labor law making departments in every country should also formalize the regulations that employers cannot dismiss or punish staff merely based on the evidence provided by AI. Only in this way, the bottom line of labor rights can be guaranteed with a solid legal foundation.

The third recommendation is a more specific one that specially focuses on the internal communication of HR rules of technological application and data handling. As many staff working in Amazon worry about the leakage of their personal data, Amazon should state formally and brief clearly to their staff with respect to how the company would treat their data and how their privacy can be protected under the procedure of the company. Thus, all the staff can better understand the intention of the company. According to previous studies, mutual communication expects to increase the technological acceptance level.

The fourth recommendation would be to modify the usage of AI in the workplace. In other word, the AI should not be applied to monitor the performance of workers; instead, it should merely concentrate on how to enhance the safety level of driving and the driver's working condition. To achieve that, the AI should solely monitor the driving patterns of drivers to ensure the safety of the driver. For Amazon, to increase the safety level and employee satisfaction, it can set aside some time for the drivers to take a break. The core of this strategy is to find alternatives to AI if it is not fully necessary.

Finally, although AI is convenient for human life, it will also cause some bad effects if improperly operated. therefore, so as to reduce risk, enterprises and governments should strengthen the artificial intelligence application process management, especially for e-commerce retailers like Amazon, who need to do a good job in internal personnel education to let every staff set up correct safety management ideas. In the supervision and management process, risks may occur at any time during the development and application of artificial intelligence technology. Thus, pertinent issues should always be clarified, and prevention and control measures should be carried out from the aspects of law, policy, technology, and supervision.

In sum, Table 2 demonstrates some practices that can be adopted by companies and governance departments to mitigate the negatives consequences of AI in the workplace.

Table 2. Proposed measures

Dimension	Specific practices
Company	Involve human beings in the detection process
	Clearer internal communication to the employees regarding data usage and protection
	Seek alternatives of AI for those unnecessary practices
	Collaboration with AI stakeholders to optimize the experience and safety level
Legislation	Revise labor law to regulate the adoption of AI surveillance
Sectors	
	Collaboration with private sectors

5. CONCLUSION

In conclusion, as can be seen in this case study analysis, it is evident that the AI will cause massive changes in social relations and structures in the workplace and corporate management. Therefore, it generates lots of benefits regarding productivity enhancement and human error eradication. Nevertheless, it may also produce some unpredictable risks, e.g., the worries about personal information leakage, ethics, and errors of the machine.

To reach a win-win result for both the companies and employees. The endeavors from the private and public sectors are strongly needed. Prospective exploration should then focus on the legislation constructions regarding the application of AI technology in distinct application segments. In consequence of this study, it can be found that there is no one-size-fits-all solution to the challenges of AI for all types of scenarios.

After all, the objective of AI is to guarantee the benefits of all the business stakeholders rather than only one of them. Only through collaborations between employers, employees, technological designers, and regulation makers, the competitive advantages of AI can serve to human beings' happiness and sustainable development. Overall, these results offer a guideline for corporations about theoretical domain of business ethics pertaining AI and improving the satisfaction of empolyeement practically shed light on enhancing employee satisfaction while ensuring the benefits of emergent technologies.

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