Effect and Significance of Surveillance Cameras for Individuals and Society

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Abstract: With the advancement of the times, surveillance cameras have been detached from their inherent functions, which currently bring society different kinds of impacts. The Panopticon theory raised by Jeremy Bentham and Michel Foucault is the main one that describes the role of surveillance. This paper aims to provide an in-depth and comprehensive analysis of the impact and significance of surveillance devices. First, individuals' behaviors are corrected under surveillance, thus enhancing individual behavior norms and productivity while preventing the pursuit of one's true self. Besides, mass surveillance brings discrimination and marginalization to society, leads to conflict between social classes, and only increasing the number of surveillance does not fundamentally improve social security. Moreover, the article describes the impact of surveillance as a symbol of power in society. The powers that use surveillance cameras to enhance their control over society invariably create oppression for people. Various theories from different sociologists are interspersed throughout the paper to explain such social phenomena, which has shown it impossible to make society more "surveilled" to improve the community as a whole.

Keywords: Surveillance, Panopticon, self-regulation, social tension

1. Introduction

As one of the most vital infrastructures of urban security, we can hardly find a place with no covering surveillance cameras. Year by year, the number of CCTV cameras worldwide is on the rise. By the end of 2022, over a billion cameras will be installed worldwide, located in areas people can see and cannot see, affecting society in various ways and alerting people's behaviors. Currently, security cameras do not have the same duties they were given when they were invented. The existence of surveillance cameras is not limited to collecting facts about what is truly happening in society and monitoring certain groups of people for evidence of crimes. More importantly, their presence can provide a deterrent effect that can alter and change people's actions in society. As people are aware that cameras are monitoring them, they would change their inner thoughts, resulting in changes in their decisions and behaviors.

Seven decades after the publication of George Orwell's "1984," "Big Brother" remains the go-to metaphor for surveillance, big and small [1]. In the book, Orwell depicts a society in which people are under the ever-present surveillance of a totalitarian electric curtain. The phrase "Big Brother is watching you" can be found everywhere. "Big Brother" symbolizes totalitarian rule and its omnipresent surveillance of citizens. Orwell predicted that surveillance instruments would monitor

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more of society's middle and upper classes; conversely, people at the bottom are exempt from too much surveillance and regulation. As time passes and the economy grows, surveillance systems are becoming more complex, covering a broader and more aggressive spectrum than the "Big Brother" metaphor. Orville's prophecy deviated, the whole society was monitored from top to bottom, and the lower and middle classes were no exception.

Foucault's Panopticon has become the leading scholarly model or metaphor for analyzing surveillance [2]. According to Foucault's theory, in the Panopticon as a form of prison, the prisoners know that the provosts can always see them. For this reason, if they violate the rules, they would be found by the provosts and blamed or punished. Because of the fear of the corresponding results, the prisoners would self-correct their actions. People control themselves when they believe that they are under constant surveillance. Even though the provosts may not look at them, the prisoners are still convinced that their inappropriate behavior or words would be detected. Guarders manage people from an omniscient perspective. In this case, unilateral surveillance no longer targeted the human body but the soul of individuals, which would reform the individuals and achieve the realization of "self-imprisonment", thus ending up self-correcting. This disciplinary aspect of Panopticon observation involves productive soul training, which encourages inmates to reflect upon the minutia of their behavior in subtle and ongoing efforts to transform themselves [3].

Surveillance has impacts on not only individuals but also society as a whole. Besides, it can be barely ignored that people with rights often install monitoring devices, so these are the embodiment of power and are a means of social control by those in power.

2. Effects on the Individuals

Surveillance cameras were initially invented to monitor the behavior of individuals, so the impact of cameras on individuals cannot be understated. Surveillance will make people more aware and self-regulated in their words and actions, making people more productive and efficient. At the same time, people lose their fundamental right to be themselves under surveillance, which is the most critical effect of cameras on individuals.

Firstly, people are more concerned and mindful of their behavior under surveillance. The cameras can record what is happening, so everything done by people can be recorded as firm evidence. For this reason, the costs of action for humans are higher than before. Specifically, when someone violates morality or the law, these recordings can direct reasons to punish or blame one person; attributed to the recordings are facts being kept for accusation; under this situation, those who did something wrong will find it challenging to escape responsibility and punishment. Compare this to the world with no monitors, where some unnoticed negative behaviors or ones lacking evidence are easily evaded for barely any corresponding evidence to enforce and prove the guilty behaviors. Thus, when the monitors are absent, the costs of immoral or law-breaking actions and words are low, that further makes social security worse; on the contrary, under the augmentation of monitoring equipment, the overall level of social security and the overall quality of citizens will be improved. When realizing the existence of such cameras, those who are planning to do something terrible would self-correct themselves, resulting in repressing their actions; the pressure from surveillance alters people to be concerned more about their behaviors and end up behaving more positively.

According to Foucault's theory, people under surveillance would be afraid to act rashly due to the punishments. They can hardly avoid that as they are constantly being watched, forcing themselves to conform to the rules. Bentham's original concept of the Panopticon was not intended to control society by spying on people all the time. On the contrary, he hoped the discipline in prison could be internalized so that the original surveillance could cease to exist and the original effect could be achieved by those who had been watched. Bentham's prison Panopticon was not all-seeing, and the purpose of such central inspection was to obviate the need for watching, punishment, and the

Panopticon itself [4]. Bentham expects that a period of surveillance will radically improve people's otherwise lousy behavior, which this point would be discussed in the later paragraphs.

Besides, the efficiency and productivity of individuals will be promoted under the condition of surveillance. Aware that every action and word would be seen or even recorded, they worry that their lazy behavior, lapse, and mistakes would be seen or recorded to punish or blame them. Therefore, people are afraid of making mistakes because their faults are hard not to notice. In such cases, even though the mistakes people make do not corrupt morality or break the law, they are still fearful of the mistakes they might make, such as wandering off at work or studying. These mistakes are minor and routine for human beings, but in the case of the work or study environment, such behavior can have negative consequences.

For this reason, people are in the same mental state as in the Panopticon. To avoid reprimands and penalties, the only thing people can do is prevent themselves from making mistakes and errors. People are more focused and diligent at work because they are worried about making mistakes, so they are more efficient and productive. Based on a Massachusetts Institute of Technology study, when employees knew they were being monitored, profits increased by 7% [5], demonstrating that individual performance can be improved under monitoring. Similar to the Panopticon, in a company, the employers can always observe the employees; the employer's office is always on the upper floor, either with one-way glass or with direct surveillance cameras to keep an eye on the employees. The manager is always able to monitor the employees all the time, sometimes even in the form of video recordings. Conversely, the employees cannot see what the boss is doing. Meanwhile, the employees know that they cannot escape from surveillance, so the only thing they can do is to improve their productivity.

In the previous case, perhaps Bentham's version of hope is possible because criminal or immoral behavior is inherently wrong and should be repressed. As Bentham says, such repression can be internalized and thus become a better individual. However, in the workplace, such changes cannot be internalized because human self-control and concentration are limited, so people are just suppressing their laziness. According to the Control Theories stated by Travis Hirschi, people are naturally selfish; people would make the decision and behave in one that offers the most significant benefit. Applying this to this case, people increase productivity under the watchful eye of their bosses because it is in their best interest to do so. When they are convinced they are no longer being surveilled, they return to their initial productivity, and their inner is not reformed by monitoring.

Thirdly, surveillance cameras serve as barriers for people to be true to themselves. Under surveillance, people cannot do whatever they want because they need to consider the consequences of their actions, which forces them to suppress their behaviors and thoughts. In a society with no monitor, no one is omniscient. Thus a proportion of human actions will be ignored, which makes it hard to take what people do seriously. Additionally, loads of information are asymmetrical; only persons who witnessed the event with their own eyes can know everything about the event, and that kind of information can hardly be passed by due to the limited memory and limited ability of people. Things are utterly different when surveillance devices are installed; video recording makes it possible to view repeatedly and is available for spreading and checking when needed. Under such a situation, the opinions and comments from others would emerge quickly and dramatically. As social animals, human beings care about the opinions and comments of others, so they would always like to show themselves on a better side under the cameras, to be rewarded, praised, or avoid punishments accordingly, or they would repress themselves by not behaving negatively to avoid worse results.

The actions and impressions left under the monitors became more essential. That is why people are simply performing as they are expected to do for a better result, which can also be traced to the theory proposed by Travis Hirschi before, in which he stated that people are selfish. The argument that surveillance cameras prevent people from being true to themselves can be referred to as Erving

Goffman's theory. He stated that people would perform to seek desired impressions in the minds of others. He defined the front stage as "Front, then, the expressive equipment of a standard kind intentionally or unwittingly employed by the individual during his performance", while the backstage is defined as "the performer can relax; he can drop his front, forgo speaking in his lines, and step out of character" [6]. Under surveillance, people are always on the front stage because an audience is always watching. Furthermore, the repeatability of recordings makes people perform more dramatically as they are faced with greater chances to be commented on. All forms of long-term performance make people gradually forget their initial intentions but aim at achieving specific utilitarian purposes rather than becoming who they are and want to be.

3. Negative Effects on the Society

As the number of surveillance cameras in society reaches a certain level, their existence is divorced from their original purpose. Large-scale surveillance can affect countless individuals. Hence surveillance in such a scenario is affecting and controls the whole society. The presence of surveillance makes people discriminated against and marginalized, leads to conflicts between social classes, and the surveillance devices do not make society better at the root.

People under surveillance would feel discriminated against or marginalized because of the distribution of surveillance devices and the connotations of surveillance itself. The nature of monitors is to surveil people, the reason for surveilling is distrust. Specifically, the person who install the cameras distrusted that people without being surveilled would obey the rule or always behave positively. People may also have installed surveillance equipment out of a need to protect certain people or things, but this is also essentially out of a distrust of the surrounding factors as believing that others will cause harm or damage to them. The presence of surveillance is a manifestation of the social structure, and the distribution of surveillance devices indicates the social discrimination and social trust issues that exist locally.

The distribution of cameras is different within the same region corresponds to the distribution of social classes. The factors that determine the distribution of social surface surveillance cameras vary from country to country or region to region, resulting in an allocation that is not entirely consistent but is installed out of the thoughts and considerations of the rulers. Some regions will install more surveillance in "Ghettos", where people have lower average incomes and education levels, etc. People from lower social classes are not being trusted in this case. By contrast, some regions install more surveillance in the "Affluent Area", to prevent the property and rights of wealthy groups not be harmed.

In some areas, residents of "wealthy" areas are concerned about privacy. Furthermore, they have more power to influence the installation of surveillance cameras, while ordinary people have little ability to influence the distribution of them. This phenomenon can lead to a "hatred of the rich", making the social class relationship tense. For another reason, the people in power may be worried that the rich will be corrupt or collude with each other to do something illegal. People from higher social classes are not being also trusted. Besides, workplaces are also likely to be distributed with a proportion of surveillance cameras due to distrust. Employers do not trust their employees to work without lapse. This is discriminatory and marginalizing for people being surveilled, which strains the relationship between the hired and the employed in society.

With such a surveillance distribution, people living in areas with higher surveillance coverage are vulnerable to invisible discrimination. As mentioned earlier, the conflict between social classes brought about by surveillance can somewhat lead to social alienation. As explained in the previous paragraph, higher surveillance corresponds to more mistrust. For this reason, residents living in areas with high surveillance can be perceived as people who are more likely to cause problems or even commit crimes. In some regions, the areas with the highest surveillance coverage are often crime

zones or prisons because the government or community designers fear that these people will start new crimes. So, using prisons as a microcosm, it is possible to map the hearts and minds of residents in areas with high surveillance coverage.

The deterrent effect of surveillance cameras can be overwhelming, making people's hearts depressed and constantly exposed to surveillance, causing them to correct and check their behavior, similar to the psychology of people in a Panopticon as suggested by Michel Foucault. In such a situation, excessive self-doubt can cause people to lose their self-confidence and to consider too many factors before doing anything, such as whether others will ridicule them, whether they will cause misunderstanding, whether they will do something that will hurt the interests of others, and so on. At the same time, this kind of consideration will gradually make people not have the self-confidence to be firm in their ideas, and then become hesitant to put their ideas into practice, resulting in the marginalization of the whole society, which exacerbates the class problem in society, specifically, the gap between those who are monitored and those who are not is widening, leading to increasing differences in expectations, thoughts, and behaviors. The problem of social alienation arises from this.

Aware of the negative social impact of cameras, there will be corresponding revolts in society. For instance, various protests and marches against installing surveillance cameras in the workplace. Some areas have also adopted legislative means to counteract the distrust and marginalization that surveillance cameras can bring to residents. In 2019, San Francisco passed a landmark ordinance that bans the SFPD and other city agencies from using facial recognition and requires them to get approval from the Board of Supervisors for other surveillance technologies.

Although in the paragraph above, the disadvantages of surveillance cameras have been mentioned more for society and individuals, the benefits of surveillance cameras have to be noticed, which can indeed make the security and quality of society better to a certain extent.

However, increasing the number of surveillance cameras is not enough as surveillance does not fundamentally make it a better society. For one reason, referring to the Anomie theory raised by Émile Durkheim, "when a society undergoes rapid social change, people become unsure of what society's norms and values are" [7]. The intention of those in power to install cameras directly in society is well-intentioned and wishes to maintain the society. Nevertheless, the notion is not converted to all the residents, which makes them not understand the social surveillance theme and situation. This would make the social problem even more pronounced.

Another reason for the inefficiency of increasing the number of surveillance cameras is the strain theory raised by Robert K Merton. "Society pressures individuals to achieve socially accepted goals, though they lack the means. This leads to strain which may lead individuals to commit crimes" [8]. Because it is a means of coercion under power, whereby those in power make people compelled to behave in ways they expected, instead of making them change from inner, and then make the society better. As mentioned above because of this oppression and long-time pressure, people may resist fiercely, to break the bondage and suppression, resulting in the final effect of counterproductive, such as protests, strikes, marches, etc. Crime events would even rise in the process, leading to social productivity and social stability even worse, demonstrating the inability of surveillance cameras. Therefore, simply increasing the number of surveillance cameras can hardly help improve society.

As indicated by studies and research conducted by scholars, most surveilled cities do not correspond to the safest cities. According to the US.News: Taiyuan, Wuxi, London, Changsha, Beijing, and Hangzhou are the top 5 most surveilled cities in the world [9]. However, according to World Population Review, the top 5 safest cities are Tokyo, Singapore, Osaka, Amsterdam, and Sydney [10]. Although the data come from different agencies, the substantial mismatch in this also proves that merely upgrading the number of surveillance devices is insufficient to improve social security. However, it must be admitted that those cities that have installed many security cameras also maintain a low level of crime; those cities are relatively safe in comparison, which partly illustrates

that the surveillance camera coverage rate can be a crucial factor affecting social stability, but it should be mindful that the excessive coverage can even reduce social security. The installation of cameras is neither the only nor the most effective way to improve social security. Other ways, such as improving the social welfare of the people and upgrading primary education, might be a better approach to enhance society's overall quality.

4. Surveillance as a Presentation of Power

Power is a word mentioned several times in the above article, which will be discussed in this paragraph. Surveillance equipment is installed by the powers that be, and they can decide where to install it and how much to install; furthermore, they can always check the recordings for specific purposes. On the contrary, people without power have no right to interfere with monitoring devices, are forced to accept the arrangements of others, and have no right to check the monitored recordings.

For different purposes, people use cameras for surveillance. Undeniably, the main reason for the installment is to control communities of people or some events. Unlike the disciplinary societies raised by Foucault, Deleuze focused on controlling society as he thought human beings had already left the disciplinary society stage. "Dividual" is a term coined by Deleuze to explain a "control society", he meant that powerful people can control people's actions but make them feel that they are acting freely. The term "dividual" is what he called each people in society, is one who believes he/she is making the decision and behaving of his own volition. This perverse gap between perceived freedom and actual autonomy is even more insidious than in previous institutions of power, as we cannot even recognize that our actions are not our own. This is even worse and more insidious than in a disciplinary society where people know that they are being controlled; in a controlled society, people are even cannot aware that their thoughts and actions are not their own. Along with the Passport Checkpoint, Deleuze mentions the highway as a metaphor for controlling society. The highway in popular culture is a metaphor given by Deleuze to explain this, in that the highway presents the impression of moving freely and anonymously.

Nevertheless, there are always road checkpoints to surveil people's movements. Surveillance cameras in society today play such a role, and the scenes described by Deleuze are also authentic in our real life, where many surveillance exist that we do not detect and therefore are not aware of their existence. In such a situation, people, like cars weaving on the highway, think they are doing things uninhibitedly and are not supervised by others. Instead, we are all being watched by something we cannot see. Just as checkpoints on the highway record the direction of traffic, people are being caught by monitors of their every movement.

5. Conclusion

In the modern world, it is difficult to escape the presence of cameras in people's lives, affecting the lives of individuals and groups in various ways. In this paper, different sociological theories and perspectives are used to discuss the impact and significance of surveillance cameras on individuals and society and to explore the camera as an embodiment of power to have a more transparent and comprehensive understanding of the social phenomenon caused by surveillance. The embodiment of power is underlaid in the surveillance camera through the self-disciplining of people being watched. Such discipline seems contributory to society as it helps to correct individuals' behaviors, improve their productivity, and maintain the social order to a certain extent. Meanwhile, the existence of surveillance cameras nowadays does not make the advantages mentioned above pronounced at the roots due to the reason that people under surveillance are not their true selves, and their normative behavior under surveillance, more productive, is more related to what Goffman calls "performance" than the "internalized behavior" Bentham expects. Furthermore, the presence of surveillance devices,

as the embodiment of power in society, imposes psychological pressure on people, can result in communities being discriminated against or marginalized, and can lead to conflicts and tensions between social classes. The camera is are symptoms, and what they reflect are deeper social problems. This essay takes a more critical approach to the implications of surveillance.

Society needs to consider reducing the presence of surveillance and managing and enhancing it more humanely; behaviors should be more "internalized" than imposed. Surveillance cameras are only a fragment aspect of society, it is the social order arrangements, education system, social welfare system, etc. that really has an impact on improving society as a whole.

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