Surveillance and Social Control: Analyzing the Effectiveness of CCTV Control Systems in Makassar City Implementing Foucault's Panopticism Theory

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Abstract

This study examines the use of CCTV control systems in public spaces in Makassar City implementing Michel Foucault's Panopticism theory as an analytical framework. Panopticism rooted in Jeremy Bentham's Panopticon prison concept, describes a surveillance model where individuals feel constantly watched, even if they are unsure when or if they are actually being observed. This study finds that although CCTV was introduced as a crime management tool, its also serves to increase social control over citizens nowdays. The research method used is qualitative approach, with a case study approach involving observation, in-depth interviews, and document collection. Data analysis was carried out through data reduction, data presentation, and conclusion drawing stages. The results show that the effectiveness of CCTV control in correcting individual behavior is often limited by technical and operational factors such as lack of supporting equipment and limited operator capabilities. However, the presence of cameras still significantly enhances social behaviour in society.

Keywords: Panopticon; modern surveillance; CCTV

Introduction

First introduced in "Discipline and Punish", Panopticism is a social theory initially developed by French philosopher Michel Foucault (Faucault, 1995). This theory established Foucault authority on surveillance issues and placed him at the center of the emerging field of surveillance studies. Foucault unmatched expertise in questioning and investigating politics as an integral part of the "art of living" (*techne tou biou*) led to new perspectives on understanding the instruments of social domination. His research inspired by Jeremy Bentham's Panopticon prison model revealed the disciplinary mechanisms behind democratic practices and institutions with universal functions, exploring various modalities of discipline as apparatuses of power. In the context of recent socio-political events and developments, the importance of Foucault's work becomes increasingly apparent. By continually highlighting the need to uncover numerous political and institutional practices disguised as lawful (Bentham, 1791a), Foucault successfully understood the panoptic nature of modern democratic societies and institutions.

This ultimately transform our understanding of power, knowledge, and politics by dissecting their complex and intimate relationships. Foucault inquiry moved towards an ethico-political critique that eventually consolidated into an aesthetic critique or what is known as the hermeneutics of "technologies of the self." Foucault's project aimed an "aesthetics of existence" as an art of living (*techne tou biou*), in broad sense talking about a comprehensive individual ethic that rejects attempts to assimilate the private domain (areas of self-improvement, self-empowerment, and individual autonomy) by the public domain (areas of politics, law, justice, morality, etc.) (Mascaretti, 2023). Therefore, it can be said that in a certain sense, he moved towards the aestheticization of politics, but not in the way many writers (such as Benjamin) generally argue the opposite of this opinion. In Foucault point of view, it is not about "aestheticizing politics" like in fascism or communism - common examples given - or any other political project (Lindroos, 1998). The aesthetic dimension is not art itself but *a techne* that Foucault used as part of a larger corpus of technologies of the *"self"*. Thus, Foucault aesthetics of existence is *techne* as art or skill that considers the individual's social and political prowess to fulfill their duties as part of citizenship (Iftode, 2015). Foucault never halted to emphasize the importance of being a citizen as an essential and central role for every individual. Another crucial tool promoted by Foucault through the technologies of the *"self"* is the *corpus parrhesia* techniques aimed at fostering freedom of speech and individual autonomy, which helps increase the political prowess of citizens (Gili & Maddalena, 2022).

Recently, the multiplication of disciplinary techniques predicted by Foucault reached its peak supremacy by leveraging technological advancements and developments while gradually unfolding through various revelations documented in recent times (Jordanco, 2016; Suresh Javvaji, 2023). Efforts arising from these questionable and ambiguous political ideals aim to establish a long-term evolutionary platform for surveillance systems in the form of an all-seeing, all-knowing panoptic police state (Jackson et al., 2004). The panoptic nature of governance modes and socio-political systems, in general, is revealed through the way power structures use disciplinary techniques via political and institutional organization and mobilization to maintain social cohesion and compliance. There is a fundamental tendency to view this issue reductively, sparking debates that focus solely on the problem of state surveillance over individuals and neglecting the broader issue of panoptic power in current socio-political settings and institutions (Sámelová, 2014). It should be noted, this approach does not provide the solution of these problems, especially pertaining to modern panopticism. Therefore, it is necessary to uncover various power mechanisms that condition systems of thought and belief, transcending the boundaries of academic and political debates as part of a broader issue concerning all of us as citizens and the future evolution of open democratic societies and good governance (Srivasta, 2009).

The use of Closed Circuit Television (CCTV) control systems has become widespread in public spaces since the 1990s, increasing in the 2000s and now becoming a standard public administration response in law enforcement. This is more of a political response than a solution or even an alternative in the field of public

safety. In the absence of social and welfare issues dominating law enforcement until the 1970s, the use of cameras in public spaces is part of a neoliberal crime management strategy (Hannah-Moffat & Garland, 2002). In this context, the government needs to show that something is being done in the name of security. Moreover, the use of CCTV systems has become very appealing due to the technological and modernity aspects they represent (Coleman & Sim, 2000). In addition to approaching the CCTV control system as a security tool, this writing is based on the premise that using cameras in public spaces increases control over citizens and their spaces. Specifically, this article aims to reaffirm the importance of the theoretical reference of Jeremy Bentham's panopticon and especially its reinterpretation by Michel Foucault for studying the exercise of power in relation to the operation of CCTV control systems in public spaces (Bentham, 1791b; Foucault, 1987).

In urban surveillance studies on the use of CCTV control systems in public spaces, certain critiques can be perceived regarding the use of the panopticon as a theoretical reference which, for two main reasons: first, from a literal interpretation, it is believed that the panopticon is merely an instrument for individual correction in enclosed spaces (Lustgarten, 2002). However, a literal understanding of the panopticon can lead to inadequate conclusions, more important than the panopticon, is Michel Foucault's interpretation, namely panopticism. Here, the panopticon is understood as a metaphor for modern surveillance operating through a network originating from the multiplication of views (Foucault, 1987).

Secondly, the previous research confirms the results obtained from micro-sociological studies in control rooms where cameras are operated (Smith, 2004). These studies aim to critique technological determinism by emphasizing the importance of human labor "behind" the cameras to uncover the use of CCTV control systems by the government as a tool to combat crime and its interpretation as a control tool. The interpretation is something that Laurent Mucchielli calls the golden legend and black legend of video surveillance, namely technological determinism dominating both supporters and opponents of CCTV control systems (Vétois, 2018). However, the critique of technological determinism and hence the demonstration of the limitations of CCTV control systems for surveillance, although fundamental, can lead to an over-relativization of this system approach from the perspective of social control because the societal effects of the state on monitored sites and passersby are almost nonexistent. Research "in front of cameras" conducted in public spaces monitored by cameras and to verify how people deal with cameras might indicate a different path.

To reaffirm the importance of social control by CCTV studies based on panopticism, this study will present empirical results from a study on the surveillance effects of CCTV in public spaces in Makassar City. Complementing micro-sociological studies "behind" the cameras (in control rooms where cameras are operated), this study conducted a social research by involving "in front of the cameras" activities (in several public spaces monitored by cameras).

The research findings offer significant theoretical innovations in the context of social surveillance and modern surveillance technologies. This study introduces a reinterpretation of Michel Foucault's Panopticism theory, particularly in its application to CCTV control systems in public spaces in Makassar city. Foucault originally described Panopticism as a form of power relying on automatic and continuous surveillance, where individuals feel observed even if there is no physical observer present. This research extends the concept by demonstrating that in modern urban environments, CCTV control systems not only has a function as tools to control criminal behavior but also as instruments that reinforce broader social control. Additionally, the study challenges the technological determinism often associated with CCTV control systems. While much of the previous literature emphasizes that surveillance technology can effectively control public behavior, this research shows that the effectiveness of such systems is often limited by technical and operational factors, such as the lack of supporting equipment and the limited capabilities of operators. These findings make a critical contribution to theoretical discussions about the limitations of surveillance technology and the necessity to consider human factors in evaluating control systems. From the perspective of social control theory, this research provides new insights into how surveillance technologies like CCTV can serve as subtler forms of social control, often unnoticed by the public. Overall, this study deepens the understanding of Panopticism and social control theories, offering a new foundation for further research in the field of surveillance technology and its social impacts.

Methodology

This research employs qualitative approach with a case study method to analyze the effectiveness of the CCTV control system in public spaces in Makassar City. The research was conducted over three months, from May to July 2024. The data sources for this study consist of primary and secondary data. Primary data are obtained through semi-structured interviews with two CCTV operators from the Makassar City Communications and Information Office (Diskominfo) and five Makassar City residents involved in managing the CCTV control system. Additionally, observations were done at several locations monitored by CCTV to capture social dynamics and public reactions to the presence of surveillance cameras.

Secondary data were gathered from documentation, including operational reports, archives, literature, and technical notes related to the CCTV control system in Makassar City. The research instruments included an interview guide designed to explore information about perceptions, experiences, and the effectiveness of CCTV. Data collection techniques included semi-structured interviews, participatory observation, and document analysis. Semi-structured interviews allowed the researcher to obtain in-depth data while maintaining flexibility in exploring topics that emerged during the interviews. Participatory observation was conducted to record important details and social interactions occurring under CCTV control system.

The data analysis use a method triangulation technique to enhance the validity and reliability of the findings by comparing data from various sources and methods. The data were analyzed thematically to identify patterns and key themes that describe the effectiveness and social impact of the CCTV control system in public spaces in Makassar City.

Results and Discussion

The Panopticon Model

Before proceeding to examine the CCTV control systems, it is important to understand the origin of Panopticon model. The Panopticon model initially describes the interior design and concept of the original building conceived by Bentham. This model describes a cylindrical building with multiple floors and a lantern-shaped roof has a circular shape filled with individual cells with two openings: one facing inward through a glass door and another facing outward through a small window in the wall. Each cell accommodates only one individual. The circular space inside the building serves as a gallery allowing movement from one cell to another, and a hollow where the central tower is located. From the central tower, a supervisor can easily see everything happening in each cell by utilizing the tower's circular shape. Thus, the central tower functions as an all-seeing eye watching the people in the cells, anonymously since no one knows who is inside the tower or even if anyone is there at a given moment. This demonstrates the power of surveillance that is completely anonymous, depersonalized, and immaterial, a kind of bodiless power (Bentham, 1791c).

One special feature of the Panopticon is that anyone can enter the central tower at any time, allowing for democratization in the exercise of power, as it also allows for monitoring the supervisors. Therefore, we have a centralized model with a visible center where movements inside remain unseen by the observed, enabling the dissemination of anonymous, imperceptible, and unstoppable power. The impression of being under constant surveillance is enough to operate this type of detention system. This framework for continuous monitoring enables the creation of effective economies of time and space. The ability to remain silent, uninterrupted surveillance means that "all power exercised is just an optical effect." The capability to observe everything at all times while the effects of power remain unreal, imperceptible, and evenly distributed. Foucault notes that the surveillance process is accompanied by simultaneous sampling and transfer of information, allowing for the transcription of individual behavior and the production of specific knowledge. Effectively, this accumulation of knowledge allows for the classification and categorization of confined individuals, functioning as a meeting point, where knowledge meets power within the Panopticon's walls. Foucault highlights two important characteristics of Bentham's Panopticon: first, the Panopticon scheme has the ability to empower with "Herculean Power" of any institution that might operate based on its model, and second, it represents a new way to exercise "mind over mind" power. This Herculean power is exerted on each individual indirectly, so it is never really applied to the body itself. In a sense, it consists of a sort of unreality, thereby making this process migrate from mind to mind. According to Foucault, the interplay between Herculean power and the mind or soul is what Bentham sought in the Panopticon. Mind over mind power is where we find the general disciplinary form of the Panopticon.

This means that the power is exerted on the body but actually never directly applied to the body itself since it is unseen, this changes the individual mind or soul by primarily controlling the body. The body or mind or body or soul relations takes on another dimension since the body itself bears the effects of direct domination due to confinement, but the mind or soul bears the effects of individualization. Therefore, it is important to carefully examine the effects of "technologies of power" exerted through various "techniques of domination". Foucault draws attention to a specific subset of these technologies used to administer populations, which called

"techniques of governance" - a set of organized practices through which subjects are carefully produced to fit certain modes of governance (Foucault et al., 2003). These techniques enable the emergence of specific discourses that support particular centers of power and make possible certain modes of social management of individuals. Foucault effort to uncover the internal mechanisms of power exerted on individuals through various techniques and practices of domination concludes that the generalized framework of panopticism - where disciplinary power operates - and its capacity to implement a wide network of continuous surveillance accompanied by immediate punitive power are largely overlooked. What really made Foucault look more closely at Bentham's Panopticon scheme was the simple realization that this specific model exceeded its creator's original idea. As Foucault stated, Bentham's Panopticon was not just a model for prisons or all kinds of institutions where people of various descriptions must remain under surveillance, but it was a model or form for any type of institution. Foucault saw Bentham's model, originally designed as a blueprint for various institutions like inspection houses, as applicable to any type or form of institution. From here, we can fully understand Foucault interest in the panoptic nature of modern institutions today that operates within systems collecting information as an extension of centralized power schemes, an integral part of unprecedented power exercises. From this historical point of view, we able to trace the birth of modern democratic institutions (Foucault et al., 2003).

Interpretation of Panopticon in CCTV Control Systems

Gilles Deleuze has realized that disciplinary society is left behind (Deleuze, 1992). After World War II and the development of electronic surveillance mechanisms, we move towards a controlled society represented by the management of people in open spaces without the need for confinement that marked disciplinary disciplines (Foucault, 2013). In his work, Deleuze criticizes disciplinary society but not the Panopticon as he considers it still relevant even in what he calls a control society. Moving on now to consider about CCTV studies and the association of the Panopticon with the use of cameras has largely been adopted, at least in terms of how surveillance takes place which, in fact, is almost identical. We can draw an analogy where the central watchtower is replaced by control rooms and cameras. In turn, prisoners are replaced by citizens. In fact, like the central tower itself, cameras are symbols of power and there is no way to know what is happening in the central tower or, in other words, in the control rooms where cameras are operated. Two hundred years after its invention by Jeremy Bentham, the Panopticon is the latest in urban public spaces.

The main problem with directly associating the Panopticon with the CCTV system is when one considers their roles. For Foucault, the most important effect of the Panopticon is "...to induce the prisoner to a state of conscious and permanent visibility that ensures the automatic functioning of power." (Faucault, 1995). The Panopticon has one purpose: to correct individuals. When feeling the burden of the gaze, individuals tend to follow certain behaviors while avoiding others. Thus, it is difficult to understand the "automatic functioning of power" when empirical research shows that most people are unaware they are being watched or when people indifferently face surveillance (Bricalli & Zanotelli, 2016; Norris & Armstrong, 2020).

A literal interpretation of the Panopticon and thus little attention given to what Foucault also called the Panopticon does not contribute to its use as a theoretical reference in CCTV research. In closed social institutions such as prisons and mental health institutions, knowledge of individuals and corresponding classifications is facilitated for control purposes. In these cases, people must be formally labeled as deviant or insane to enter, and then through surveillance and monitoring, they can be subjected to further classifications requiring treatment or training to encourage compliance (Norris & Armstrong, 2020).

The use of cameras in public spaces reveals a very different situation because, first, the population is not defined as deviant and second, the identities of those being watched are unknown. In this case, recording results of unknown individuals cannot be compared with pre-established files, and socialization effects are almost nonexistent. Finally, ethnographic research in control rooms where cameras are operated tends to minimize the surveillance effects conducted through CCTV systems. Research in various contexts highlights a range of limitations associated with video surveillance, which can be categorized into two primary areas: limitations of the CCTV control system and issues related to professional incompetence. Within the CCTV control system, several challenges are evident. First, inadequate maintenance often hampers the effectiveness of these systems, with many cameras and devices not being properly set up or operational, including essential components like monitors and Wi-Fi connections. Second, the projection of images from specific locations is inherently partial, as the cameras lack a 360° rotation feature. This limitation means that the cameras can only capture images from a fixed point at any given time, resulting in incomplete surveillance coverage of the monitored areas. These systemic issues compromise the overall efficiency and reliability of video surveillance systems in ensuring comprehensive monitoring. A detailed explanation in an interview with RT Lorong Padaidi is as follows:

> "*In terms of the surveillance system, there are still some obstacles because it is not fully supported, such as the lack of Wi-Fi monitors to monitor. This means there are areas that are not well monitored and pose security risks.*" (Syamsir, 2024)

Professional incompetence also contributes significantly to the limitations of video surveillance systems. Operators responsible for managing the camera array often face challenges beyond human capability, restricting the effectiveness of surveillance. Additionally, there are specific times during the day, such as lunch breaks, coffee breaks, or dinner, when cameras are left unmonitored. The insufficient number of operators further exacerbates this issue, making it difficult to provide 24-hour surveillance coverage for Makassar City. Moreover, many areas still lack adequate internet network support, hindering the seamless operation and monitoring of surveillance systems. These factors collectively reduce the reliability and efficiency of the surveillance infrastructure. This was directly conveyed by the CCTV Operator Supervisor of Makassar City:

> "*In terms of the surveillance system, there are still some obstacles because system operators are responsible for controlling the camera array beyond human capability, limiting surveillance capacity. At certain times of the day, such as lunch breaks, coffee breaks, or dinner, cameras are not monitored. The number of operators is insufficient to monitor Makassar City 24 hours a day because it is still very few. Besides, many areas have not yet received internet network support as well.*" (Andi Qadri, 2024)

These are some cases illustrating the limitations of the CCTV control system. Studies showing these limitations are crucial to questioning the technological determinism associated with the system, dismantling public security discourses while questioning total control in "Big Brother" style. However, these limitations can lead to partial interpretations of the CCTV control system, making us believe that the control effects on the monitored space are nonexistent or insignificant.

Below, the author presents the empirical research results on the CCTV control system conducted in Makassar City. As a complement to the documentation conducted, the author monitors the cameras to analyze the relationship between camera presence and the monitored spaces. The author's documentation is as follows:

Figure 1 Position of CCTV Cameiras in Lorong Padaidi

Figure 2 CCTV Control Room in Makassar City

Source: Researcher's Documentation, 2024

Conclusion

The Panopticon, originally conceptualized as a prison design where a central tower allows a supervisor to observe all prisoners without their knowledge of being watched, serves as a powerful metaphor for modern surveillance. Foucault extended this concept to illustrate how surveillance disperses through an extensive and often anonymous network, influencing behavior by instilling a sense of constant observation. In the context of public CCTV systems, this modern Panopticon is reflected in control rooms and surveillance cameras replacing the central tower, while the general population substitutes for prisoners. Unlike the original Panopticon, however, the observed population in public spaces is not defined as deviant, and their identities often remain unknown, making the dynamics of control and power more diffuse and less overt.

Despite the theoretical alignment with the Panopticon, significant differences highlight the limitations of modern CCTV systems. Technical and operational constraints, such as inadequate maintenance, incomplete camera coverage, and insufficient operator capabilities, hinder the effectiveness of surveillance. These limitations disrupt the all-encompassing observation central to the Panopticon concept, reducing its ability to function as a tool of pervasive control. Moreover, the anonymity of those being monitored and the fragmented nature of the surveillance network diminish the psychological impact of being watched, a critical element of Foucault's Panopticon. Thus, while CCTV systems echo the Panopticon metaphor, their practical application reveals gaps in achieving its theoretical ideal.

References

Bentham, J. (1791a). Panopticon or the inspection house. *Postscript*, *June*.

Bentham, J. (1791b). Panopticon or the inspection house. *Postscript*, *June*.

Bentham, J. (1791c). Panopticon or the inspection house. *Postscript*, *June*.

Bricalli, I. L., & Zanotelli, C. L. (2016). A FRAGILIZAÇÃO DOS ESPAÇOS PÚBLICOS A PARTIR DA UTILIZAÇÃO DE CÂMERAS DE VIGILÂNCIA NA CIDADE DE VILA VELHA (ES). *Geo UERJ*, *0*(29). https://doi.org/10.12957/geouerj.2016.16928

Coleman, R., & Sim, J. (2000). 'You'll never walk alone': CCTV surveillance, order and neo-liberal rule in Liverpool city centre1. *The British Journal of Sociology*, *51*(4), 623–639. https://doi.org/10.1080/00071310020015299

Deleuze, G. (1992). *Postscript on the Societies of Control*. *59*, 3–7.

Faucault, M. (1995). *Discipline and Punish Birth of the Prison*. New York: Vintage Books.

Foucault, M. (1987). Discipline and Punish (The Birth of the Prison). In *Pengawasan dan Hukuman: Kelahiran Penjara (Discipline and Punish: The Birth of the Prison). Terjemahan oleh Zaimul A. Muttaqin*.

Foucault, M. (2013). Society must be defended. In *Journal of Chemical Information and Modeling* (Vol. 53, Issue 9).

Foucault, M., Ewald, F., & Fontana, A. (2003). Le pouvoir psychiatrique : cours au Collège de France, 1973-1974. In *Hautes études*.

Gili, G., & Maddalena, G. (2022). After Post-Truth Communication A Problematic Return to Reality. *European Journal of Pragmatism and American Philosophy*, *14*(1). https://doi.org/10.4000/ejpap.2795

Hannah-Moffat, K., & Garland, D. (2002). The Culture of Control: Crime and Social Order in Contemporary Society. *Contemporary Sociology*, *31*(5). https://doi.org/10.2307/3090074

Iftode, C. (2015). The ethical meaning of Foucault's aesthetics of existence. *Cultura. International Journal of Philosophy of Culture and Axiology*, *12*(2). https://doi.org/10.5840/cultura201512227

Jackson, S., Lyon, D., Torpey, J., & Caplan, J. (2004). Surveying surveillance studies [Surveillance as social sorting: privacy, risk and digital discrimination] [Documenting individual identity: the development of state practices in the modern world]. *Canadian Journal of Communication*, *29*(2).

Jordanco, S. (2016). The Panopticon factor: privacy and surveillance in the digital age. *Departmental Bulletin Paper*, *21*(9).

Lindroos, K. (1998). Now-time image-space : temporalization of politics in Walter Benjamin's philosophy of history and art. In *University of Jyvaskyla*.

Lustgarten, L. (2002). Book Review: The Maximum Surveillance Society: The Rise of CCTV. *Criminal Justice Review*, *27*(1). https://doi.org/10.1177/073401680202700127

Mascaretti, G. M. (2023). Brothers in arms: Adorno and Foucault on resistance. *Philosophy and Social Criticism*. https://doi.org/10.1177/01914537221150497

Moleong, J. L. (2020). metodologi penelitian kualitatif J lexy Moleong. *Jurnal Ilmiah*.

Norris, C., & Armstrong, G. (2020). Towards the Maximum Surveillance Society. In *The Maximum Surveillance Society*. https://doi.org/10.4324/9781003136439-13

Saleh, Z. (2021). 1Lexy J. Meleong, Metodologi Penelitian Kualitatif (Bandung: PT. Remaja Rosdakarya, 2007),. *1Lexy J. Meleong, Metodologi Penelitian Kualitatif (Bandung: PT. Remaja Rosdakarya, 2007), 1*.

Sámelová, A. (2014). Post-panoptic panopticism in docile mass media. *Human Affairs*, *24*(4). https://doi.org/10.2478/s13374-014-0242-9

Smith, G. J. D. (2004). Behind the screens: Examining constructions of deviance and informal practices among CCTV control room operators in the UK. *Surveillance and Society*, *2*(2–3). https://doi.org/10.24908/ss.v2i2/3.3384

Srivasta, M. (2009). Title Good Governance- Concept, Meaning and Features: A detailed study. *Ssrn*.

Suresh Javvaji. (2023). SURVEILLANCE TECHNOLOGY: BALANCING SECURITY AND PRIVACY IN THE DIGITAL AGE. *EPRA International Journal of Multidisciplinary Research (IJMR)*. https://doi.org/10.36713/epra13852

Vétois, J. (2018). Vous êtes filmés ! *Terminal*, *123*. https://doi.org/10.4000/terminal.3423