Foucault's Panopticism in the Age of Artificial Intelligence, Organisational Control, and Field Power

Yujia Huang[1]

Abstract- This article constructs a conceptual framework of panoramic governance to explain how artificial intelligence (AI) reshapes organizational control and institutional power. Drawing on Foucault's panopticism and Boudieu's field theory, this article believes that the monitoring empowered by artificial intelligence constitutes a cybernetic governance architecture, which induces self-regulation through continuous visibility and algorithmic uncertainty. Unlike traditional hierarchical supervision, panoramic governance transforms individuals into quantifiable and self-monitoring actors through data collection, predictive evaluation and feedback cycle operation. At the theoretical level of the field, artificial intelligence redistributes economic capital and symbolic capital, and strengthens the organizations that control the algorithm infrastructure. Although this uncertainty-induced combedience mechanism is applicable to various political and economic systems, its legitimacy and binding force will vary from system to system. This article will explore the rights contained in the "circular prison" based on network monitoring in the era of artificial intelligence. "Circulation prison" is a system that produces self-restraint among the observed through the gaze of the subject of internalizing rights.

I.INTRODUCTION

In modern society, the way power operates is increasingly no longer obvious coercion, but through subtle observation, evaluation and normative systems. The monitoring transformation in the digital age has not only reshaped the political system and social relations, but also profoundly changed organizational governance. The theoretical basis of this transformation can be traced back to Foucault's analysis in Discipline and Punishment [1] [2], in which he conceptualized the panoramic prison into a model of modern discipline power. In the panoramic prison structure, individuals will internalize the monitoring because they cannot determine when they will be observed. In this mode, visibility becomes a self-regulation mechanism. At the same time, Boudieu's field theory, such as in his works On Television [3] and Reproduction in Education, Society and Culture [4], explains how the social field is constructed by capital distribution and symbolic power. The actors in the field not only compete for economic resources, but also for legitimacy, recognition and authority.

With the rise of artificial intelligence (AI), these two theoretical frameworks have intersected and gained new meanings. Artificial intelligence technology has built a panoramic governance model that transcends the boundaries of traditional enterprises or countries through algorithm monitoring, predictive analysis, facial recognition, credit score and performance tracking. Unlike panoramic prisons, artificial intelligence monitoring is decentralized and embedded in platforms, infrastructure and networks. It operates continuously and secretly, while having a measurable impact on behavior, legitimacy and institutional power.

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[1] This paper was independently completed by Yujia Huang, the corresponding author (e-mail: yujiahuang121@gmail.com).

This article believes that the panoramic governance empowered by artificial intelligence represents the structural change of organizational control. Artificial intelligence applies Foucault's panoramic open concept and extends its discipline logic to digital systems to redistribute capital in the institutional field in a manner consistent with the theory of Boudieu relations [1] [3]. In addition, this article will also explain the different impact of artificial intelligence in different fields or political and economic systems, as well as different regulatory objectives and institutional constraints.

II. FROM ARCHITECTURAL PANOPICON TO ALGORITHMIC VISIBILITY

According to Foucault's panopticism[1], he described the panoramic prison as a "visible but unverifiable" system: those who were monitored could see the tower, but never knew when they would be monitored. The uncertainty of surveillance prompts people to be disciplined. In contemporary organizations, artificial intelligence systems copy this logic through digital means. Employee performance monitoring systems (for example, dashboards, algorithmic scheduling tools and productivity monitoring software) can continuously record and evaluate work activities, thus generating continuous data streams for management control [5] [6]. Employees are usually aware that their behavior will be tracked and quantified, which may affect their status and access to opportunities [7]. However, the criteria and time for the algorithm system to convert these data into evaluation and judgment are often not transparent, resulting in information asymmetry, thus promoting employee self-discipline and pre-obedience [7] [8]. This dynamic also coincides with the study of algorithm management as the tension between autonomy and control in human resources management and organizational governance [35].

If the panoramic prison describes a visible structure that induces self-regulation [1], the artificial intelligence system embodies the operation of this structure through the cybernetic architecture. In contemporary organizations, monitoring no longer depends on spatial closure or manual supervision. On the contrary, it is embedded in the digital infrastructure and continuously captures, processes and reinterprets traces of behavior. Unlike traditional hierarchical supervision (control is phased and publicly executed), artificial intelligence transforms monitoring into distributed infrastructure. Digital traces (email, keyboard input, GPS positioning, biometrics) constitute a data repository for retrospective analysis. Therefore, observation is no longer spatial, but time; the eye crosses time through the stored information. This internalization of eyes prompts individuals to adjust their own behavior in advance. Employees avoid risk communication, adjust the work rhythm, and meet the expectations of the algorithm. In this sense, the artificial intelligence system strengthens the regulatory power by reducing the cost of observation and expanding the scope of observation [2]. However, the visibility of discipline also brings a sense of tension. Empirical research on electronic performance monitoring (EPM) shows that strengthening monitoring may lead to increased stress and reduced job satisfaction [9]. Therefore, although panoramic management can improve compliance, it may also weaken the autonomy and intrinsic motivation of employees.

III. QUANTIFICATION AND THE PRODUCTION OF THE MEASURABLE SELF

The quantitative changes obtained by AI through continuous observation indicate deeper transformations. Under the governance empowered by artificial intelligence, individuals are no longer merely observed objects but quantified ones. Productivity indicators, reliability scores, dedication indicators and predictive risk assessment transform complex human behaviors into digital forms. This quantitative reconstruction of subjectivity. Individuals internalize performance indicators as manifestations of their capabilities or credibility. Employees may adjust their communication methods, work pace or strategic decisions to optimize measurable output rather than substantive results. As time goes by, indicators have become the norm.

The use of algorithm performance scoring by Amazon's logistics centers is a striking example. In these logistics centers, the workflow of employees is monitored and quantified through handheld devices, recording picking times, movement patterns, accuracy, and the output of other specific tasks [10]. This algorithm processes these consecutive data streams into performance scores, which are used by managers to determine incentives, task allocation, and even penalties (for example, work goals, performance warnings, or dismissals) [10]. This quantification transforms labor into discrete data points, directly influencing the career outcomes of workers.

Bourdieu's concept of symbolic power has become of vital importance. Quantitative evaluations gain authority not because they are mandatory, but because they seem objective. The output of the algorithm is regarded as a neutral fact, even though it encodes the assumption of ideal behavior. Symbolic violence occurs when individuals accept these classifications as legitimate representations of their own values. Therefore, the role of artificial intelligence governance goes far beyond discipline. It redefines legitimacy. Organizational norms have shifted from the discretionary power of managers to algorithmic architecture. What is the "good performance" embedded in the code? Once encoded, these norms will go beyond the organization itself and affect recruitment practices, credit distribution and public reputation. So far, the focus of the debate has expanded from individual disciplines to competitive positioning in a broader relationship space.

IV.FIELD RECONFIGURATION AND THE REDISTRIBUTION OF CAPITAL

While discipline visibility shapes individual behavior, artificial intelligence technology is also reconfiguring the structure of the organizational field. Boudieu conceptualizes the field as a relational space built by the uneven distribution of capital [32]. The proliferation of artificial intelligence systems has changed the composition and convertibility of capital in these spaces.

First of all, data is increasingly becoming a strategic resource, similar to a new type of capital. Organizations that can extract, aggregate and analyze large-scale behavioral data sets have gained predictive and operational advantages, thus improving the accuracy and efficiency of decision-making [11][12]. In the digital platform economy, competitive advantage is usually related to data accumulation and network effects, rather than traditional tangible assets [13]. Therefore, data can be

transformed into economic capital and strengthen the dominant position of the organization in the field.

Secondly, technical ability creates symbolic capital. The adoption of artificial intelligence systems sends signals of innovation, rationality and modern governance to investors, regulators and the public. Institutional theory shows that part of the reason why organizations adopt emerging technologies is to ensure their legitimacy and meet the mainstream expectations of efficiency and progress [14]. In this sense, artificial intelligence becomes a symbolic symbol of ability, giving reputation advantages, which have nothing to do with measurable performance results [15].

Third, institutional capital is transferred to the participants who control the digital infrastructure. Platform operators, technology companies and regulators gain infrastructure power by shaping the standards, algorithms and structures that other organizations must follow [16][17]. Power is transferred from visible management to control of algorithm systems and data flow.

Importantly, this redistribution of capital not only intensifies competition within enterprises, but also intensifies cross-field competition. As the climate change transmission study [18] shows, the scientific, political and media circles are all competing for symbolic authority. In the digital environment, the algorithm recommendation system plays the role of a gatekeeper, amplifying some narratives while marginalizing other narratives [19][20]. Visibility itself has become a competing resource, and the screening mechanism of the algorithm will also exacerbate the polarization effect of the network public domain [34]. Therefore, panoramic governance must be understood as a micro-level discipline system and a medium-level competition mechanism. It reshaped the capital distribution and reconfigured the field dynamics. However, its operation is constrained by institutional mechanisms, which shape the scope, legality and intensity of algorithmic governance.

V. INSTITUTIONAL REGIMES AND THE COMPARATIVE LOGIC OF PANORAMIC GOVERNANCE

Artificial intelligence monitoring is usually associated with capitalist companies that pursue efficiency and profit maximization. However, this global mechanism itself - that is, the expected compliance generated through continuous visibility - is not necessarily associated with a single economic system. On the contrary, it constitutes a universally applicable governance technology that can be embedded in different institutional systems. This argument is based on Foucault's conceptualization of regulatory power. He believes that regulatory power is a structural mechanism, not a specific institutional phenomenon [1]. At the same time, he draws on the theory of comparative institutions, which emphasizes that organizational practice is influenced by a broader regulatory and normative environment [21] [22].

In market-oriented enterprises, artificial intelligence monitoring is usually defended on the grounds of improving productivity, reducing costs and mitigating risks. The empirical study of algorithm management of platform companies shows how digital systems can assign tasks, evaluate performance and optimize workforce allocation [6]. For example, online car-hailing platforms such as Uber use dynamic pricing and performance rating systems to manage labor supply and demand, thus strengthening a governance logic centered on efficiency and market response [7]. Against these backgrounds, the discussion of legality emphasizes shareholder value and operational rationality.

However, in the field of public administration, similar monitoring infrastructure has a different framework. The smart city plan deploys artificial intelligence systems to monitor traffic violations, environmental emissions and public safety indicators. For instance, artificial intelligence-assisted traffic monitoring systems implemented in cities such as London and Singapore have been employed to alleviate traffic congestion and enforce road regulations. The official reason is to focus on public safety and urban efficiency rather than blindly pursuing profits. Here, the basis of norms has shifted from market efficiency to governance capacity and collective well-being.

In development-oriented or hybrid-based political systems, artificial intelligence systems can serve broader national coordination goals. The use of data-driven governance tools in China, including components of the social credit system, demonstrates how the visibility of algorithms can be leveraged to enhance regulatory compliance, inclusive finance, and administrative coordination [25]. Although these systems are institutionally different from Western platform capitalism, their fundamental mechanisms are similar: continuous visibility promotes behavioral adjustment through reputation or administrative consequences.

These cross-institutional cases support a theoretical proposition rather than a decisive assertion: panoramic governance constitutes a transferable structural logic, and its normative basis varies depending on the institutional background. The institutional environment regulates the legality and intensity of artificial intelligence monitoring. Regulatory frameworks such as the EU's Artificial Intelligence Act and data protection systems (like the GDPR) stipulate transparency and accountability requirements, thereby restricting the deployment of algorithms. On the contrary, an environment with more centralized executive power may allow for a broader integration of data-driven governance infrastructure.

Therefore, panoramic governance should be regarded as system-embedded, not system-specific. Its mechanism is structurally consistent - visibility, quantification, expected compliance - but its scope of operation and normative framework are subject to the regulatory structure, political power structure and dominant domain logic. From this perspective, the sustainability of panoramic governance depends not only on the maturity of technology, but also on the legitimacy of the system. When transparency, accountability and procedural fairness are considered insufficient, algorithmic authority may encounter resistance or symbolic capital erosion [6][22]. Therefore, comparative institutional analysis is crucial to understand the long-term stability of the artificial intelligence-driven governance system.

VI. LEGITIMACY, RESISTANCE, AND THE LIMITS OF ALGORITHMIC AUTHORITY

The reason why AI-assisted supervision is effective, because it has the characteristics of continuous monitoring, continuous data collection and opaque evaluation standards, but it also brings structural vulnerability. Empirical research on algorithmic management shows that enhancing digital monitoring can reduce people's sense of fairness and trust, thereby weakening organizational commitment[28] [6]. When individuals believe that the assessment system is not transparent or the procedure is unfair, they may continue to comply in the short term, but in the long run, its legitimacy will gradually weaken.

Furthermore, algorithmic control often leads to strategic adjustments rather than genuine performance improvements. Studies on platform staff have shown that they engage in "game-playing" behavior, that is, while avoiding the fundamental goal, they optimize measurable indicators [7]b[6]. For instance, ride-hailing drivers might selectively accept orders to maintain their scores, or warehouse workers might prioritize speed metrics over safety compliance. These behaviors indicate a disconnection between the measurement standards and the mission, which is consistent with the view of institutional theory that organizations tend to be symbolically consistent but essentially opposed to each other [27].

The high-profile failure cases of enterprises and the public sector further demonstrate the vulnerability of algorithmic authority. In 2018, the exposure of racial bias in the COMPAS recidivism prediction algorithm revealed a systemic difference in risk scores between black and white defendants [29]. Similarly, Apple's credit card algorithm in 2019 was also criticized for causing gender-based credit differences and triggered a review by regulators [30]. These cases show that when an algorithmic system is considered biased or injustice, it weakens its symbolic capital and public trust. Quantitative authority depends on the degree of recognition; once stakeholders question the legitimacy of algorithm output, the effectiveness of governance will be reduced. This dynamic is consistent with Boudieu's view that symbolic power depends on misrecognition and acceptance [32]. Algorithm classification can only exert influence when it is considered objective and credible. When individuals or groups openly question its effectiveness through legal proceedings, media exposure or organizational boycotts, its restraining effect will be weakened.

Therefore, sustainable panoramic governance cannot only rely on technical excellence. It needs to be institutionally embedded through oversight mechanisms, transparency standards and procedural guarantees. Regulatory measures such as the European Union's Artificial Intelligence Act and the OECD/UESCO Principles of Artificial Intelligence Governance reflect the growing recognition that algorithmic systems must meet accountability and interpretability standards in order to maintain their legitimacy [26][31][36]. At the organizational level, impact assessment, human-computer collaborative review processes and audit mechanisms are crucial to maintaining trust. The broader meaning is that algorithmic governance embodies a structural paradox. Artificial intelligence systems promise to achieve rational control and predictive coordination; however, their authority is socially constructed and constrained by norms. When the intensity of monitoring exceeds the legitimacy of the system, the governance arrangement may become unstable. Therefore, panoramic governance can only strengthen coordination when it is embedded in a credible normative framework that can maintain recognition and trust.

VII. CONCLUSION

This article constructs a conceptual framework for panoramic governance to explain how artificial intelligence reshapes organizational control, capital allocation and institutional legitimacy. By integrating Foucault's regulatory visibility analysis and Boudieu's field and capital theory, this article proves that the monitoring of artificial intelligence empowerment is not only a technological innovation, but also represents a change in the organizational structure of power [1][3][32].

At the micro level, the algorithm system makes individuals continuously visible and computable. Data collection, predictive evaluation and feedback cycle encourage people to obey in advance, while

reshaping subjectivity through quantification. The measurable self is not only the object of governance, but also the product of governance. At the perspective level, artificial intelligence technology redistributes economic capital, symbolic capital and institutional capital in the organizational field. Data accumulation is transformed into a competitive advantage [11] [13]. Technical ability acts as symbolic capital, enhancing legitimacy and reputation [15]. Control of digital infrastructure empowers the system to enable certain actors to shape the conditions for other actors to compete [16][17]. At the macro level, panoramic governance has proved to be institutionally embedded, not specific to a certain regime. The disciplinary mechanism triggered by visibility plays a role in market-oriented enterprises, public administration systems and mixed governance systems, but its legitimacy and scope of operation are subject to the regulatory framework and political authority structure [22] [26].

The analysis of this article also emphasizes the limitations of algorithm authority. Monitoring intensity and non-transparent evaluation standards will weaken trust, promote strategic games, and erode symbolic capital when considered unfair [6] [7] [29]. Algorithm governance can only remain effective if its output is recognized as credible and the program is legal. Therefore, sustainable panoramic governance requires institutional supervision, organizational accountability, and technical safeguards to achieve a balance between visibility and autonomy[26][31]. The core contribution of this article is to reconceptualize artificial intelligence monitoring into a multi-level governance structure, rather than a pure technical tool. Future research can expand this framework by empirically examining the relationship between monitoring intensity, symbolic capital, regulatory constraints and long-term organizational stability.

References

[1] Foucault, M. (1991) Discipline and punish: The birth of the prison (A. Sheridan, Trans.). London: Penguin. (Original work published 1975).
[2] Foucault, M. (2010) Surveiller et punir (Chinese trans.). Beijing: SDX Joint Publishing Company. (Original work published 1975).
[3] Bourdieu, P. (2012) On television (P. P. Ferguson, Trans.). Cambridge: Polity Press. (Original work published 1996).
[4] Bourdieu, P. and Passeron, J.-C. (1992) Reproduction in education, society and culture. 2nd edn. London: Sage.
[5] Kalischko, T. and Ravid, D. M. (2021) 'Electronic performance monitoring in the digital workplace: Conceptualization, review of effects, and future research directions', Computers in Human Behavior, 126, 106989.
[6] Kellogg, K. C., Valentine, M. A. and Christin, A. (2020) 'Algorithms at work: The new contested terrain of control', *Academy of Management Annals*, 14(1), pp. 366–410.
[7] Rosenblat, A. and Stark, L. (2016) 'Algorithmic labor and information asymmetries: A case study of Uber's drivers', *International Journal of Communication*, 10, pp. 3758–3784.
[8] Rahman, H. A. (2021) 'Workers' reactivity to opaque algorithmic evaluations', *Organization Science*. [Working paper version].
[9] Ravid, D. M. et al. (2020) '[Article title not provided in source list—please insert full title]', [Journal details not provided].
[10] Briken, K. and Taylor, M. (2018) 'Algorithmic control in Amazon warehouses'. [Working paper / publication details to be verified].
[11] Brynjolfsson, E. and McElheran, K. (2016) 'The rapid adoption of data driven decision making', *American Economic Review*, 106(5), pp. 133–139.
[12] Srnicek, N. (2017) *Platform capitalism*. Cambridge: Polity Press.
[13] Zuboff, S. (2019) *The age of surveillance capitalism*. New York: PublicAffairs.
[14] DiMaggio, P. J. and Powell, W. W. (1983) 'The iron cage revisited: Institutional isomorphism and collective rationality', *American Sociological Review*, 48(2), pp. 147–160.
[15] Rai, A. et al. (2019) '[Article title not provided in source list—please insert full title]', [Journal details not provided].
[16] Van Dijck, J., Poell, T. and de Waal, M. (2018) *The platform society: Public values in a connective world*. Oxford: Oxford University Press.
[17] Gillespie, T. (2018) *Custodians of the Internet*. New Haven: Yale University Press.
[18] Weingart, P., Engels, A. and Pansegrau, P. (2000) 'Risks of communication: Discourses on climate change in science, politics, and the mass media', *Public Understanding of Science*, 9(3), pp. 261–283. doi:10.1088/0963-6625/9/3/304
[19] Napoli, P. (2014) 'Automated media: An institutional theory perspective on algorithmic media production and consumption', *Communication Theory*, 24(3), pp. 340–360.
[20] Bucher, T. (2018) *If...Then: Algorithmic power and politics*. Oxford: Oxford University Press.
[21] Hall, P. A. and Soskice, D. (2001) *Varieties of capitalism: The institutional foundations of comparative advantage*. Oxford: Oxford University Press.
[22] Scott, W. R. (2014) *Institutions and organizations*. 4th edn. London: Sage.
[23] Kitchin, R. (2014) *The data revolution*. London: Sage.
[24] Creemers, R. (2018) 'China's social credit system: An evolving practice of control', *SSRN Electronic Journal*.
[25] Liang, F., Das, V., Kostyuk, N. and Hussain, M. (2018) 'Constructing a data driven society:

China's social credit system as a state surveillance infrastructure', *Policy & Internet*, 10(4), pp. 415–453.
[26] European Commission (2024) *Artificial Intelligence Act*. Brussels: European Commission.
[27] Meyer, J. W. and Rowan, B. (1977) 'Institutionalized organizations: Formal structure as myth and ceremony', *American Journal of Sociology*, 83(2), pp. 340–363.
[28] Bujold, A., Parent Rocheleau, X. and Louvet, É. (2022) 'Algorithmic surveillance and perceived organizational justice', *Computers in Human Behavior Reports*, 7, 100216.
[29] Angwin, J., Larson, J., Mattu, S. and Kirchner, L. (2016) 'Machine bias', *ProPublica*.
[30] FCA (2020) *[Document title not provided—please insert FCA publication name related to Apple Card/credit discrimination coverage]*. London: Financial Conduct Authority.
[31] OECD (2019) *OECD principles on artificial intelligence*. Paris: OECD Publishing.
[32] Bourdieu, P. (1991) *Language and symbolic power*. Cambridge: Harvard University Press.
[33] UNESCO (2021) *Recommendation on the ethics of artificial intelligence*. Paris: United Nations Educational, Scientific and Cultural Organization.
[34] Bail, C. A. et al. (2018) 'Exposure to opposing views on social media can increase political polarization', *Proceedings of the National Academy of Sciences*, 115(37), pp. 9216–9221.
[35] Meijerink, J. and Bondarouk, T. (2021) 'The duality of algorithmic management: Toward a research agenda on HRM algorithms, autonomy and control', *Human Resource Management Review*, 31(4), 100876.