pISSN 2798-2106 eISSN 2808-4470

Studi Ilmu Sosial Indonesia
Vol. 2, No. 2, 73-96

The Economics of Prediction and Instrumental Power: A Critical Analysis of Surveillance Capitalism and Its Impacts on Autonomy and Democracy

[1]Jeje Abdul Rojak, [2]Bayar Gardi

[1]Universitas Islam Negeri Sunan Ampel Surabaya, Indonesia

[2]Knowledge University, Erbil, Iraq,

correspondence: jejeabdulrojak@yahoo.com

Abstract

This literature study critically analyzes surveillance capitalism, an economic system driven by the monetization of personal data and behavioral prediction. It explores how extracting "behavioral surplus" reconfigures individual autonomy and democratic foundations. The research reveals that pervasive data extraction creates structural misalignments that erode privacy and freedom. By leveraging predictive capabilities, this model exerts instrumental power, facilitating behavioral modification and undermining deliberative democracy through algorithmic fragmentation and micro-targeting. Furthermore, the attention economy fosters a "datafied self," where individuals internalize machine-generated categories, fundamentally altering human subjectivity. The study concludes that these challenges are systemic and cannot be resolved through individual consent or minor regulatory tweaks. Instead, it advocates for a fundamental political-economic reconfiguration of the digital ecosystem. The goal is to prioritize human autonomy, democratic integrity, and collective self-determination over predatory extraction and the commodification of human behavior.

Keywords: surveillance capitalism, personal data, behavioral extraction, autonomy, democracy, instrumental power, digital subjectivity.

Rojak, J. A. & Gardi, B. 2022. The Economics of Prediction and Instrumental Power: A Critical Analysis of Surveillance Capitalism and Its Impacts on Autonomy and Democracy, Studi Ilmu Sosial Indonesia, 2(2), 73-96.

Introduction

The background of the emergence of what is called surveillance capitalism can be traced to the convergence between massive computing capacity, widespread internet infrastructure, and innovative business models seeking new sources of value in the digital age. The beginning of this millennium witnessed an explosion of digital platform companies offering services at no direct cost to users, from search engines and social networks to cloud storage and mapping applications (Acs et al., 2021). This cannot be separated from how individuals today form their self-identity and how society views one another through interactions on social media in an increasingly digital world (Darmawan & de Jesus Isaac, 2022). This business model, which appeared like a gift to consumers, soon revealed its true economic logic. As venture capital and stock markets demanded exponential growth and profitability, these companies discovered that the user behavioral data they collected was not merely an operational byproduct, but a highly valuable raw asset. Data on clicks, watch time, geographic location, social relationships, and even emotions expressed in text became raw materials for a new manufacturing process (Chatterjee et al., 2019). This process no longer aims just to improve user services, but to transform human experience into data that can be analyzed, predicted, and most importantly, traded. This shift marks a turning point from a digital economy focused on products and services toward an economy focused on the extraction and modification of human behavior as the primary source of economic surplus.

This extraction logic is driven by advances in machine learning and predictive analytics. These technologies allow companies to process vast and diverse datasets to uncover patterns, correlations, and tendencies invisible to the users themselves (Gandomi & Haider, 2015). The sophistication of this technology has even begun to touch the personal side of humans, including how cultural and organizational norms build our understanding of the balance between work and personal life (Eddine & Darmawan, 2022). From this raw data, companies can construct what is known as behavioral surplus: insights into what someone might do in the future, when they are vulnerable to certain influences, and how they can be directed toward desired outcomes, such

as purchases, ad clicks, or changes in opinion. This behavioral surplus is then fed into a new market called behavioral futures markets, where the forecasting of human behavior is traded among business actors who want to reduce risk in their efforts to influence that behavior, especially in advertising. This ecosystem creates a feedback loop where surveillance generates data, data generates predictions, predictions generate revenue, and revenue funds more surveillance. Thus, everyday human experience in the digital space is systematically diverted into commodities, creating a form of capitalism that is qualitatively different from previous forms because its primary object is not nature or labor, but subjective reality and the human future.

The implications of this economic model extend beyond the realm of business into the most fundamental social and political spheres. When behavioral prediction becomes the primary goal, corporate incentives shift from serving users to modifying users. On the other hand, we also need to see the real challenges related to spatial patterns of poverty and social segregation occurring in large urban areas today (Fauzi, 2021). Platforms are designed to attract attention, entice engagement, and learn preferences in ways that encourage users to reveal more data. Interfaces, notifications, and recommendation algorithms are optimized for capture not for the user's benefit, but for the benefit of data extraction. This dynamic changes the nature of freedom and autonomy within the digital environment. This condition is exacerbated by social stereotypes that often limit opportunities and create inequality, whether in the world of education, work, or interaction between groups (Sajjapong et al., 2022). User choice no longer originates entirely from free internal preferences, but is increasingly shaped by choice architectures designed to steer them toward the most predictable and profitable paths. The digital space paradoxically turns into a vast surveillance laboratory where every interaction becomes a behavioral experiment and every user becomes a subject without their knowledge. This shift blurs the line between the service provided and covert exploitation. Digital platforms function as 'choice architectures' that nudge users toward specific behaviors, effectively compromising individual agency through sophisticated algorithmic manipulation (Yeung, 2018).

The impact on democracy becomes a critical concern when the logic of surveillance capitalism is applied to the public sphere. The ability to influence behavior on a massive scale and with unprecedented precision poses risks of electoral manipulation, the shaping of public opinion, and the erosion of a deliberative public space. This situation is closely related to how citizens' political participation in electoral democracy and the dynamics of civil society movements continue to evolve in the face of changing times (Rojak et al., 2021). Algorithms that govern the flow of information on social media are designed to maximize engagement, which is often achieved by promoting content that triggers high emotions, is sensational, or aligns with existing biases. This can amplify polarization, facilitate the spread of misinformation, and undermine the foundation of shared facts necessary for a functioning democracy. Furthermore, when political actors and interest groups can purchase access to sophisticated behavioral targeting tools, equality in political competition becomes threatened. Citizens are no longer regarded as rational participants in the public square, but as a collection of tendencies and impulses that can be mapped and directed. The reduction of citizenship to a manipulable dataset represents a direct threat to collective autonomy and the possibility of self-governance.

At the individual level, surveillance capitalism is actively involved in the shaping of subjectivity. By constantly monitoring, measuring, and providing feedback on behavior, this system provides individuals with a distorting mirror of themselves. This significantly influences intergroup relations in society, particularly how social stereotypes begin to affect our broader social equality (Zahid & Darmawan, 2022). Data profiles created by corporations often determine the opportunities available to a person, from the job advertisements they see to the loan interest rates they are offered. This can shape one's identity and aspirations, as individuals begin to internalize the categories and predictions made by machines. This process is referred to as rendition, where human life experience is reduced to a series of data points to be aggregated and analyzed. The consequence is the emergence of pressure toward conformity and the loss of the possibility to grow in unexpected or non-monetized ways. Datafication processes transform lived experience into quantifiable metrics, leading to a 'quantified self' that is constantly evaluated against

normative algorithmic benchmarks (Couldry & Mejias, 2019). As personal decisions and preferences are increasingly shaped by predictive environments designed for value extraction, the space for authentic human freedom narrows.

The primary issue posed by surveillance capitalism is the disintegration between the economic interests of data-collecting corporations and the fundamental rights and well-being of individuals and society (Aho & Duffield, 2020). Amidst these conditions, we are often caught in a dilemma between the desire for personal freedom and our responsibilities as part of society, which actually requires strong social solidarity (Saputra & Darmawan, 2021). Incentives for unlimited extraction and behavioral prediction create a structural misalignment where companies are encouraged to invade privacy, manipulate choices, and concentrate knowledge about society in private hands. Privacy, as the foundation of individual autonomy, is eroded not by a single violation, but by the systematic accumulation of seemingly trivial daily observations. To face these challenges, a strong moral compass is needed, such as the principles of ethics and professional integrity typically upheld in the legal world for the sake of justice (Saktiawan et al., 2021). Every search, every journey, every social interaction is recorded and analyzed, creating a complete digital twin that is vulnerable to errors, bias, and abuse. The problem is exacerbated by the inherent lack of transparency in this process, where individuals rarely fully understand how their data is used or sold.

The second problem relates to the distortion caused by the logic of behavioral extraction toward social institutions and democratic processes (Facchini & Melki, 2019). As the behavioral prediction market grows, commercial pressure to increase predictive accuracy can drive unethical social experimentation and hidden interventions in private and collective lives. This issue also impacts life in the suburbs, where daily mobility and the closeness of citizen relationships are often disrupted by uneven regional development (Wisnujati & Mardikaningsih, 2021). The public arena, which should be a space for the exchange of rational arguments, is at risk of turning into a battlefield for attention manipulated by algorithms. Furthermore, the concentration of knowledge regarding human behavior within private companies creates a new form of power

that is not democratically accountable. Therefore, the active involvement of citizens in protecting the environment and providing community-based social support becomes crucial in facing emerging ecological and social issues (Zulkarnain et al., 2021). This power operates by shaping and directing behavior from within, making it more difficult to identify and resist compared to external coercion.

The importance of examining this topic today is marked by the widespread penetration of surveillance platforms into every aspect of social life, from work and education to health and recreation (Trottier, 2016). We must also ensure that low-income groups maintain fair access to education and health through well-targeted policies (Suwito et al., 2021). What began as a practice in the technology sector has spread to other industries through the adoption of similar analytical and monitoring tools. The normalization of this surveillance obscures its invasive nature, causing individuals to become accustomed to constant observation and begin viewing it as inevitable. A critical study is required to freeze this historical moment, to map the logic of the system before said system becomes entirely invisible and perceived as natural. By documenting the mechanisms of surveillance capitalism, this study seeks to provide the language and conceptual framework necessary to challenge narratives that present these developments as a necessity.

Furthermore, we are on the brink of deeper integration of surveillance technology through Internet of Things devices, smart cities, and brain-computer interfaces (Lesaja & Palmer, 2020). This future promises efficiency, but also carries the risk of more comprehensive behavioral extraction. One way we can build a better future is through non-formal education that invites everyone to participate in more inclusive social change (Warin, 2022). Urgent study is needed to inform public debate regarding the ethical and social boundaries that must be applied to these technologies before they are embedded in our social infrastructure. Without a clear critical understanding, society risks making thoughtless concessions regarding freedom and democracy in exchange for promises of security or convenience. Therefore, this academic examination is not merely a theoretical exercise, but an effort to defend the conditions that allow for human freedom and self-governance in the digital age.

The objective of this research is to conduct a critical and systematic analysis of the concept of surveillance capitalism through a literature study, focusing on the mechanisms of personal data monetization and its socio-political implications. Theoretically, this study aims to clarify and develop a conceptual framework for understanding surveillance capitalism as a distinct socio-political economic system by examining its logic of extraction, circulation, and accumulation. Practically, this research seeks to identify and articulate the specific risks posed by this business model to democratic rights, individual freedom, and the integrity of social processes. Its primary contribution lies in synthesizing critical discourse from the fields of digital political economy, privacy studies, and democratic theory to provide a coherent picture of the challenges posed by surveillance capitalism, thereby serving as a basis for policy evaluation, digital rights advocacy, and more precise public education.

Method

This research is conducted as a qualitative literature study that is exploratory and critical in nature, with the aim of building a comprehensive understanding of surveillance capitalism as a socio-technical and socio-political construction. The qualitative approach was chosen because it is capable of capturing the nuances, complexity, and underlying meanings of the phenomena under study, which cannot be reduced to quantitative metrics (Strauss & Corbin, 2008). This study focuses on an in-depth analysis of academic texts that have become the canon in the critical discourse on the digital economy, including theoretical works, empirical research, and philosophical and political critiques. The research process involves the identification, evaluation, and synthesis of arguments from various authors to construct a coherent analytical narrative regarding the origins, operating mechanisms, and implications of surveillance capitalism. Thus, this method allows the researcher not only to summarize existing literature but also to engage critically, identify contradictions, and propose substantive interpretations.

The implementation of the literature study follows a structured protocol to ensure completeness and rigor. The initial stage involves

careful planning, including the formulation of guiding questions and the determination of criteria for material selection. The literature search was conducted systematically across multidisciplinary academic databases such as Scopus, Web of Science, and Google Scholar, using a combination of keywords such as "surveillance capitalism", "behavioral surplus", "data monetization", "digital democracy", and "algorithmic governance". The collected sources then underwent a multi-level selection process based on relevance and quality. The analysis phase applies thematic analysis techniques as outlined by Braun and Clarke (2006), where text data is coded to identify core themes that emerge repeatedly in the literature, such as extraction logic, the attention economy, the erosion of privacy, and instrumental power. The synthesis phase involves integrating these thematic findings into a unified analytical framework, considering different perspectives and noting the evolution of discourse over time. Process transparency is maintained through clear documentation of inclusion and exclusion decisions as well as the interpretive paths take.

Result and Discussion

Behavioral Extraction and the Reconfiguration of Autonomy in the Logic of Surveillance Capitalism

The core of surveillance capitalism lies in a distinct economic process: the transformation of human life experience into raw behavioral surplus, which is then refined into predictive products (Yeung, 2018). This process begins with extensive surveillance embedded in everyday digital interactions. Every search query, every pause in watching a video, every mouse movement, and every social connection is recorded and stored. This is actually closely related to the principles of organizational behavior that underlie how every human action can be understood within a system (Darmawan, 2013). This data, which appears meaningless in isolation, acquires value when analyzed in large quantities and correlated with other data streams. Its value lies not in understanding the past, but in its ability to model future possibilities. Companies no longer merely sell user attention to advertisers in the old model; they now sell calculated certainty about what a user will do next. This shift from attention-based advertising to prediction-based advertising marks a radical evolution in

the information economy. The source of economic value shifts from static ad spaces toward a dynamic flow of behavioral forecasts, creating a new market for human behavioral derivatives.

This extraction mechanism depends on profound asymmetries of information and power. Platforms are designed with a dual intent: providing useful services while covertly maximizing data flow (Lianos, 2022). Long and complex terms of service, which are rarely read, function as legal tools to obtain consent that is actually uninformed. In situations of such economic uncertainty, organizations indeed need to take an adaptive approach in crisis management to survive (Arifin & Darmawan, 2022). User interface design, through techniques such as dark patterns, guides user choices toward directions that generate more data or engagement, often contrary to the users' own best interests. This feedback loop creates a dynamic where users unconsciously refine the prediction engines that will be used to influence them in the future. Moreover, a psychological perspective in society becomes very important to see how technology affects the human soul (Darmawan et al., 2021). The relationship between the user and the platform becomes an exploitative one where one party systematically extracts resources from the other without equivalent compensation or a balanced understanding of the actual transaction taking place.

The concept of individual autonomy undergoes fundamental pressure in this environment. Traditional autonomy presupposes an agent capable of making choices based on internal preferences and rational judgment, with access to adequate information and free from undue manipulation. We must also not forget the importance of maintaining sustainability in public policy so that there is a balance between the economy, society, and the environment (Mardikaningsih & Hariani, 2021). Surveillance capitalism erodes each of these conditions. The information presented to individuals is already filtered and personalized by algorithms optimized for extraction purposes, rather than for conveying truth or expanding insight. Additionally, law enforcement and good environmental management remain key factors in ensuring that community rights are protected (Nuraini et al., 2021). Manipulation occurs not through coercion, but through subtle choice architecture design, which steers behavior without the subject's full

awareness. Autonomy changes from an inherent capacity into something that must be constantly fought for against an architecture designed to diminish it (Hartoonian, 2014). Individuals find themselves operating in an ecosystem that is structurally hostile to their independence, where economic incentives directly contradict the conditions of freedom.

The logic of predictive markets also reconfigures the relationship between individuals and traditional market institutions (Baker et al., 2019). Insurance companies, lenders, and employers increasingly rely on scores and profiles generated from behavioral data to make decisions about individuals. This phenomenon can even impact indigenous groups trying to maintain their traditions amidst modern city life (Amri & Khayru, 2022). Access to essential goods and services begins to depend on a person's data profile, which is often created without their knowledge or consent. This creates a new form of social stratification based on data visibility and predictability. This is certainly concerning because racial discrimination and social stigma often have a detrimental impact on the psychological well-being and social engagement of individuals in a multicultural society (Pakpahan et al., 2022). Individuals may begin to regulate their actions not based on personal values, but based on how those actions will be interpreted by algorithms. Thus, the market no longer just responds to existing preferences; it actively shapes preferences and drives a homogenization of behavior that serves the predictive needs of capital.

The public sphere, traditionally imagined as a space separate from the market for the exchange of rational discourse, is also reconfigured by this extraction logic (Chatterton & Pusey, 2020). Social media platforms, which have become the primary public infrastructure for political and social communication, operate according to the economic imperatives of surveillance capitalism. Their algorithms select and promote content based on its ability to generate engagement and data, rather than on democratic values or truth. This distorts the flow of information, prioritizes emotional and polarizing content, and erodes the possibility for calm and rational discussion. The digital public space becomes exploited, treated as another source of behavioral surplus. Public discourse is reduced to a set of behavioral signals that can be analyzed and manipulated for commercial gain. In this process, society's capacity

to engage in collective self-governance is weakened, as the conditions necessary for the formation of rational public opinion such as access to diverse and undistorted information and space for reflection free from manipulation are systematically undermined by platform architecture.

The predictive capacity of this system brings us into territory that some philosophers call a new form of determinism (Smith & Marx, 1994). If every aspect of behavior and preference can be predicted and directed, then the space for free will and genuine human surprise narrows. This system seeks to eliminate uncertainty from human behavior, making it a manageable and manipulable variable in an economic equation. This project is ultimately reductionist, as it ignores the complexity, contingency, and capacity for self-change that characterize the human experience. However, in its attempt to achieve this goal, surveillance capitalism creates an environment that limits the precise expression of these human qualities. The pressure for conformity, the fear of surveillance, and the internalization of predictive logic can gradually reduce the diversity and spontaneity of human behavior. Society risks becoming less resilient, less innovative, and more controllable, as the capacity to act outside of expected patterns is suppressed.

Responses to this situation cannot be found within a traditional individualistic framework. Because the challenges are structural and systemic, efforts to "take back control" over personal data through privacy settings or the use of encryption tools, while important, are insufficient. The problem is not only that personal data is collected, but that the economic logic governing the digital ecosystem as a whole is hostile to autonomy. Therefore, what is required is a political-economic reconfiguration of the digital space itself. This could include the recognition of personal data as a form of unpaid labor that generates value for companies, thereby demanding compensation and collective control. It could involve the establishment of public digital infrastructures that operate based on a logic of public service rather than extraction. Alternatively, it may require strict regulation prohibiting certain practices such as micro-targeted advertising or the use of predictive profiles for sensitive decision-making. The intersection of these proposals is the recognition that autonomy in the twenty-first

century is a social and technical condition that must be created collectively through political choice, rather than a personal attribute that can be protected solely through individual action (Gilbert, 2013).

The question of distributive justice also arises sharply. Immense economic value is created from the extraction of behavioral surplus, yet this wealth is highly concentrated in the hands of a few technology companies and their shareholders (Pearlstein, 2018). The extracted resources namely human experience and attention are the collective property of humanity, yet the benefits are distributed privately. This injustice is exacerbated by the fact that the burdens of surveillance and manipulation are not borne equally. Marginalized groups, already vulnerable, are often targets of more intensive surveillance and algorithmic discrimination. Thus, surveillance capitalism not only threatens abstract autonomy but also deepens existing social inequalities. The struggle against it must be connected to broader struggles for economic and social justice, as the same logic of extraction drives inequality in both the digital and material domains.

The future of these dynamics remains uncertain and will be shaped by conflict and political choices. It is possible that pressure from regulators, activists, and growing public awareness could force companies to adopt more responsible models or lead to the emergence of technical alternatives that prioritize user autonomy (Taylor, 2021). However, there is also the possibility that surveillance capitalism will become further consolidated and expand into even more domains of life, driven by alliances between big tech companies and states interested in surveillance and control capabilities. The outcome will depend on society's ability to recognize the nature of the threat, to articulate an alternative vision of the digital future, and to organize effectively to realize it. At its core, the battle against surveillance capitalism is a battle to determine whether digital technology will become a tool to empower humans and enrich democracy, or become an infrastructure for unprecedented subordination and control.

The economic logic of surveillance capitalism fundamentally reconfigures the conditions of freedom and autonomy within digital society (Zuboff, 2022). Through the mechanisms of behavioral surplus extraction and the creation of behavioral prediction markets, this system

transforms human experience into a commodity and creates a structural misalignment between economic incentives and individual rights. Autonomy is eroded through manipulative choice architectures, information asymmetries, and pressure toward behavioral conformity. Relationships with the market and the public sphere are distorted, with platforms exploiting social discourse for profit and creating new stratifications based on data profiles. The threat of behavioral determinism emerges as the system seeks to eliminate human uncertainty. An effective response must be structural and collective, challenging the underlying economic logic and fighting for the redistribution of power and value within the digital ecosystem. Ultimately, this analysis shows that surveillance capitalism is not an inevitable technical development, but rather a specific socio-political economic project that demands firm political challenges and alternatives.

Threats to Democracy and the Shaping of Subjectivity in a Monitored Society

The operations of surveillance capitalism pose profound challenges to the foundations of deliberative democracy, which depends on an informed, autonomous citizenry and the capacity for collective will-formation free from domination (Schneider, 2018). In this regard, it is essential for us to see how good governance should truly be oriented toward effective public service (Rojak, 2021). Democracy presupposes a public sphere where citizens can exchange arguments, consider various perspectives, and reach collective decisions through rational discussion. Digital infrastructure controlled by the logic of data extraction transforms this space into an arena engineered for behavioral capture. Content curation algorithms, optimized for maximum engagement, systematically prioritize information that triggers strong emotional responses, such as anger or fear, over information that encourages reflection or understanding. This selection creates a fragmented information ecosystem where individuals are increasingly confined within filter bubbles or echo chambers that reinforce existing views and cut off exposure to challenging viewpoints. This fragmentation undermines the foundation of shared facts and experiences necessary for productive public debate, replacing a shared reality with a series of

personalized and often conflicting realities, thereby damaging the possibility of democratic consensus or compromise.

Even more concerningly, the behavioral prediction tools developed within surveillance capitalism provide the means for electoral manipulation and opinion formation on an unprecedented scale and precision. Political campaigns can utilize micro-data profiles to deliver different, even contradictory, messages to different groups of voters, tailoring their appeal to mapped psychological vulnerabilities and biases (Potts, 2020). This condition is further complicated by the inequality of access to education in developing countries, which often acts as a barrier to societal progress (Rojak & Khayru, 2022). This practice, known as micro-targeting, undermines the transparency and accountability essential in democratic contestation. Voters are no longer exposed to the same set of public arguments that can be collectively debated and questioned; instead, they receive personalized psychographic interventions designed to manipulate their emotional responses and voting behavior. This process reduces citizenship to a matter of behavioral engineering, where the right to vote is transformed into a manageable variable in a predictive equation. The capacity of citizens to make truly autonomous and informed choices is severely weakened, as the information and persuasion environment they face is deliberately shaped to exploit their cognitive weaknesses without their knowledge.

The instrumental power generated by surveillance capitalism represents a distinctive form of power for the twenty-first century (Gill, 2008). Unlike disciplinary power that acts upon the individual body or sovereign power that threatens with punishment, instrumental power operates through the regulation and modification of behavior from within. This power does not prohibit; it nudges. It does not limit choice; it shapes the choice architecture itself. By predicting and influencing behavior at a subconscious or pre-reflective level, this power achieves compliance without the need for explicit commands or physical coercion. Another challenge is the problem of urbanization and social inequality, which makes efforts to build harmony in urban environments increasingly difficult (Mardikaningsih, 2021). Both states and corporations are interested in this form of power due to its efficiency and scalability. However, it poses an existential threat to democracy, which

depends on the possibility to resist, to disobey, and to imagine and fight for alternatives to the existing order. As the social environment is increasingly engineered to minimize unpredictable behavior and to steer individuals toward paths consistent with extractive or political goals, the space for political dissent and social innovation narrows. Democratic societies become less capable of adapting and responding to crises, as the mechanisms for generating criticism and alternatives are systematically suppressed. Sustainable public policy must remain grounded in social welfare theory and a strong legal foundation (Rizky & Udjari, 2021).

At the individual level, surveillance capitalism is actively involved in the shaping of subjectivity, the process by which individuals develop a sense of self, desires, and an understanding of the world (Ball, 2009). The constant surveillance and feedback provided by digital platforms act as a distorting mirror, informing individuals about who they are based on what can be measured and analyzed. We can see this phenomenon in the formation of social networks through communities with shared interests in urban areas (Rejeki, 2021). Data profiles created by algorithms that categorize individuals based on likes, shopping habits, social networks, and mobility patterns become increasingly important sources of identity. Individuals begin to recognize themselves within the categories provided by machines, internalizing narratives about themselves generated for commercial purposes. For example, someone who constantly receives certain content recommendations or advertisements for specific products may begin to view those preferences as an integral part of their identity, even if those preferences were initially shaped by an algorithm. This process, which can be referred to as the datafication of the self, leads to the commodification of subjective experience, where every aspect of inner life becomes potential raw material for analysis and monetization.

The shaping of this subjectivity is also driven by the attention economy inherent in these platforms (Liberman, 2021). To address this, policies supporting sustainability must be able to accommodate social changes to remain relevant and fair for society (Halizah & Mardikaningsih, 2022). In an effort to maintain user engagement, platform designs exploit human psychological vulnerabilities, such as the need for social validation (through likes and shares) or the fear of missing out on information. This can encourage the development of a

fragmented and performative self, where individuals present versions of themselves optimized to gain algorithmic and social validation. The authentic self, with its complexities and contradictions, can be suppressed in favor of a predictable and marketable self. Furthermore, the knowledge that one is constantly being observed can induce what is known as the chilling effect, where individuals self-censor and avoid exploring ideas or identities that might be considered unusual or problematic by the surveillance system. Thus, the space for personal development, identity experimentation, and creative dissent all of which are essential for a dynamic and free society shrinks. Human subjectivity risks becoming shallower, more conformist, and more bound to the market logic that governs the digital ecosystem.

The epistemological implications of this condition are profound. Surveillance capitalism does not just collect data about the world, but actively constructs reality through its classification, correlation, and prediction algorithms (Yeung, 2018). The categories used to understand users such as "interest groups," "behavioral segmentation," or "propensity scores" are not natural reflections of social reality, but technical constructions that serve the goals of prediction and modification. These categories then give shape to the social world, as they are used to allocate opportunities, filter information, and target interventions. This process creates a reinforcement loop where the machine's construction of reality increasingly shapes human behavior, which in turn confirms and strengthens that construction. The danger here is that the diversity and richness of human experience are reduced to a narrow set of categories and correlations, erasing the nuances, ambiguities, and meanings that cannot be measured. Social reality becomes flatter and more deterministic, as computational logic replaces more qualitative and interpretative human understanding. This undermines the collective capacity to comprehend the complexity of our world and to imagine a future that is truly different from current trends.

The challenge to collective agency is equally serious. Democratic collective action depends on the ability of groups to form shared identities, articulate common interests, and coordinate actions (Knoke, 2019). Surveillance capitalism can hinder each of these steps. By personalizing information experiences, it complicates the formation of a

shared consciousness regarding social problems. By fragmenting audiences into targetable micro-segments, it inhibits cross-group solidarity. And by enabling surveillance of organizing activities, it increases risks for activists and can have a chilling effect on political mobilization. Furthermore, when platform companies hold unilateral control over the spaces where digital activism occurs, they can intentionally or otherwise limit reach, demonetize, or delete content they deem controversial or detrimental to their business interests. This concentration of power in the hands of private actors who are not democratically accountable creates new vulnerabilities for social movements and restricts the scope of possible politics.

The prospects for opposition and change within this system emerge from its own internal contradictions and from the resilience of human capacity (Merkel & Lührmann, 2021). Pressures toward conformity and prediction can generate a backlash in the form of a desire for authenticity, privacy, and unstructured freedom. This is actually similar to how urban renewal or gentrification processes sometimes marginalize the low-income communities they are supposedly meant to protect (Fauzi, 2022). Scandals related to data misuse, such as Cambridge Analytica, have increased public awareness and created a demand for greater accountability. From within the fields of engineering and design, movements for ethical design, data minimization, and privacy by design are gaining traction. Legally, regulatory frameworks such as the GDPR in Europe represent attempts to limit the worst excesses of surveillance capitalism and to reassert individual control over personal data. However, the effectiveness of these efforts remains to be seen, as they often operate within a reformist logic that accepts the basic premise of data monetization while attempting to mitigate it. The more radical question is whether the economic system itself can be transformed, or whether alternatives such as cooperatively owned platforms, public digital infrastructures, and non-extractive business models are necessary to truly transcend surveillance capitalism.

The role of the state in this dynamic is ambivalent. On the one hand, the state can act as a regulator protecting the rights of citizens against corporate excesses, enforcing privacy laws, and limiting manipulative practices (Parker, 2002). On the other hand, the state

itself is a major player in the surveillance economy, using the same technologies and data for the purposes of national security surveillance, law enforcement, and social administration. We also need to recognize the existence of structural inequalities rooted in a long history, which make certain groups more vulnerable to major changes such as climate change and technology (Gani, 2022). The alliance between surveillance capital and the surveillance state can produce forms of social control that are extremely powerful and difficult to penetrate. Therefore, the struggle against surveillance capitalism cannot be separated from the struggle for state transparency and accountability, and for constitutional limits on state surveillance. Democracy in the twenty-first century must find ways to regulate both forms of instrumental power whether originating from corporations or the state to protect the space of freedom and collective autonomy.

The question posed by surveillance capitalism is a question about what kind of society and human beings we want to realize through our technology. Do we want to live in a society where every action is monitored, every inclination is mapped, and every choice is directed for the profit of a few companies? In public organizations, we know that employee well-being greatly influences organizational performance in serving the community (Gautama et al., 2021). Or can we build a digital ecosystem that enhances human autonomy, fosters democratic discourse, and respects the integrity of inner life? The answer will not be provided by technical progress itself, but by our political choices, social struggles, and ethical commitments. Surveillance capitalism shows that information technology does not automatically bring freedom or democracy; technology can easily be deployed to support new forms of power and control that are subtler and more invasive than any that have existed before (Foster & McChesney, 2014). Recognizing this is a crucial first step toward demanding a different digital future.

The operations of surveillance capitalism profoundly affect the foundations of deliberative democracy and are involved in the reshaping of individual subjectivity (Sangiovanni, 2019). The capacity for democracy is undermined by the fragmentation of the algorithmic public sphere, electoral manipulation through micro-targeting, and the emergence of instrumental power that achieves compliance through

behavioral modification. At the level of the subject, constant surveillance and the attention economy drive the datafication of the self, where individuals internalize machine-generated categories and develop performative and conformist selves. The epistemological implications involve the reduction of rich social reality into narrow computational constructions, while collective agency is hindered by personalization and the concentration of platform power. Although there are points of resistance and reform efforts within regulatory frameworks, design ethics, and public awareness, the fundamental challenge remains within the extractive economic logic itself. The future will be determined by whether society can build the political power to demand alternatives and to reshape digital infrastructure in accordance with the values of freedom, equality, and collective autonomy, thereby limiting the power of surveillance capitalism and the instrumental power it produces.

Conclusion

This literature study has confirmed that surveillance capitalism is a distinct and coherent socio-political economic system, characterized by the logic of extraction, commodification, and prediction of human behavior as a primary source of value. This study shows that business models monetizing personal data are not merely technological developments, but rather a paradigmatic shift in the operations of capitalism that transforms subjective experience and the human future into tradable assets. The analysis reveals how the mechanisms of behavioral surplus extraction create structural misalignments that erode individual autonomy, reconfigure the public sphere into a field of data exploitation, and give rise to a form of instrumental power aimed at behavioral modification. Furthermore, this study asserts that the operations of this system pose a substantive threat to deliberative democracy by facilitating electoral manipulation, fragmenting the information space, and weakening the conditions for autonomous collective will-formation. Simultaneously, surveillance capitalism is actively involved in the shaping of subjectivity, encouraging the development of a datafied, conformist self that aligns with the logic of predictive markets. The core findings state that the challenges presented are fundamental, necessitating responses that go beyond technical

adjustments or patchwork regulations and demanding a political-economic reconfiguration of the digital ecosystem itself.

The implications of these study findings are broad in both theoretical and practical terms. Theoretically, this study supports the need for an interdisciplinary approach that integrates political economy, critical media studies, democratic theory, and the philosophy of technology to fully understand the dynamics of surveillance capitalism. It asserts that classical concepts such as autonomy, freedom, and the public sphere must be revisited and re-operationalized under the conditions of a monitored digital society. Practically, for policymakers and regulators, the primary implication is the necessity to move beyond consent-based privacy frameworks that have proven inadequate. Effective regulation must directly challenge the extractive logic by prohibiting certain practices such as behavior-based micro-targeted advertising, limiting cross-context data merging, and demanding auditable algorithmic transparency. For designers, engineers, and entrepreneurs, the implication of this study is a call to adopt design ethics that explicitly prioritize user autonomy, data minimization, and non-extractive business models. For civil society and educators, there is an urgent need to increase critical digital literacy that goes beyond technical skills, fostering an understanding of the political economy of data and arming citizens with the ability to demand their digital rights. The greatest implication is the recognition that defending democracy and freedom in the twenty-first century will require a collective political struggle to reshape the governance and ownership of our digital infrastructure.

Based on the analysis presented, several suggestions are proposed for further research and action. First, more in-depth empirical research is needed on the specific impact of predictive logic on decision-making in sensitive areas such as the judiciary, recruitment, and credit scoring, to precisely measure the extent of discrimination and harm caused. Second, the exploration and comparative evaluation of alternative models for the digital economy, such as platform cooperatives, data trusts, or public digital infrastructures, are essential to articulate practical pathways beyond surveillance capitalism. Third, research on the effectiveness of existing regulatory frameworks (such as the GDPR or CCPA) in truly limiting the power of surveillance corporations and

empowering individuals will provide vital evidence for future policy reform. Fourth, it is important to develop pedagogy and public education materials that can communicate the complexity of these issues to a broader audience, building the support base necessary for meaningful political change. Finally, building and strengthening transnational alliances between academics, activists, legal practitioners, and policymakers focusing on the challenges posed by surveillance capitalism is crucial for coordinating a global response to an economic system that is inherently global in nature.

References

Acs, Z. J., A.K. Song., L. Szerb., D. B. Audretsch., & É. Komlósi. 2021. The Evolution of the Global Digital Platform Economy: 1971–2021. *Small Business Economics*, 57(4), 1629-1659.

Aho, B., & Duffield, R. 2020. Beyond surveillance capitalism: Privacy, regulation and big data in Europe and China. *Economy and Society*, *49*(2), 187-212.

Amri, M. W., & Khayru, R. K. 2022. Keeping Tradition in the Midst of Modernity: The Social Life of Indigenous Communities in Urban Areas. *Journal of Social Science Studies*, *2*(1), 135-138.

Arifin, S., & Darmawan, D. 2022. Adaptive Approach in Crisis Management for Economic Uncertainty in Organization. *Journal of Social Science Studies*, *2*(1), 271-276.

Baker, J. J., Storbacka, K., & Brodie, R. J. 2019. Markets changing, changing markets: Institutional work as market shaping. *Marketing Theory*, *19*(3), 301-328.

Ball, K. 2009. Exposure: Exploring the subject of surveillance. *Information, Communication & Society*, *12*(5), 639-657.

Braun, V., & V. Clarke. 2006. Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3(2), 77-101.

Chatterjee, A., U. Gupta., M. K. Chinnakotla., R. Srikanth., M. Galley., & P. Agrawal. 2019. Understanding Emotions in Text Using Deep Learning and Big Data. *Computers in Human Behavior*, 93, 309-317.

Chatterton, P., & Pusey, A. 2020. Beyond capitalist enclosure, commodification and alienation: Postcapitalist praxis as commons, social production and useful doing. *Progress in Human Geography*, *44*(1), 27-48.

Couldry, N., & Mejias, U. A. 2019. Data Colonialism: Rethinking Big Data's Relation to the Contemporary User. *Television & New Media*, 20(4), 336–349.

Darmawan, D. 2013. *Prinsip Prinsip Perilaku Organisasi*. Pena Semesta - PT. JePe Press Media Utama, Surabaya.

Darmawan, D. Et al. 2021. *Psychological Perspective in Society 5.0*. Zahir Publishing.

Darmawan, D., & de Jesus Isaac, A. 2022. Self-identity formation and social perception of individuals through interaction on social media in a digital world. *Journal of Social Science Studies*, 2(2), 273-278.

Eddine, B. A. S. & D. Darmawan. 2022. Social Construction of Work Life Balance in Cultural and Organizational Norms, *Studi Ilmu Sosial Indonesia*, 2(1), 213-234.

Facchini, F., & Melki, M. 2019. The democratic crisis and the knowledge problem. *Politics & Policy*, 47(6), 1022-1038.

Fauzi, A. 2021. Spatial Patterns of Poverty and Social Segregation in Metropolitan Areas, *Studi Ilmu Sosial Indonesia*, 1(1), 147-160.

Fauzi, A. 2022. Gentrification in Urban Renewal and the Marginalization of Low Income Communities, *Studi Ilmu Sosial Indonesia*, 2(1), 235-260.

Foster, J. B., & McChesney, R. 2014. Surveillance capitalism. *Monthly review*, 66(3), 1-31.

Gandomi, A., & M. Haider. 2015. Beyond the Hype: Big Data Concepts, Methods, and Analytics. *International Journal of Information Management*, 35(2), 137-144.

Gani, A. 2022. The Colonialism-Vulnerability Nexus: A Political Ecology Study of Structural Inequality in Climate Change. *Studi Ilmu Sosial Indonesia*, 2(1), 85-108.

Gautama, E. C., Mardikaningsih, R., Wisnujati, N. S., & Cruz, C. da. 2021. The Relationship between Employee Welfare and Public Organization Performance in Community Services. *Journal of Social Science Studies*, 1(2), 197-202.

Gilbert, J. 2013. *Common ground: Democracy and collectivity in an age of individualism*. Pluto Books.

Gill, S. 2008. Surveillance Power in Global Capitalism. In *Power and Resistance in the New World Order: 2nd Edition, Fully Revised and Updated* (pp. 206-236). London: Palgrave Macmillan UK.

Halizah, S. N., & Mardikaningsih, R. 2022. Accommodating Social Change in Sustainability Policy: Solutions for a Just and Relevant Society. *Journal of Social Science Studies*, 2(2), 299-304.

Hartoonian, G. 2014. Capitalism and the Politics of Autonomy. In *Architecture against the post-political* (pp. 69-83). Routledge.

Knoke, D. 2019. *Organizing for collective action: The political economies of associations*. Routledge.

Kurniawan, Y., Rojak, J. A., Darmawan, D., & Fajar, A. S. M. 2021. Exploration of Literary Works as Media to Form and Maintain National Identity through Narratives and Cultural Symbols. *Journal of Social Science Studies*, 1(2), 187-192.

Lesaja, S., & Palmer, X. L. 2020. Brain-computer interfaces and the dangers of neurocapitalism. *arXiv preprint arXiv:2009.07951*.

Lianos, I. 2022. Value extraction and institutions in digital capitalism: Towards a law and political economy synthesis for competition law. *European Law Open*, 1(4), 852-890.

Liberman, S. 2021. Attention Deficit: Alienation in Platform Capitalism. *Symposion*, *8*(1), 79-88.

Mardikaningsih, R. 2021. Urbanization and Social Inequality: Challenges in Building Social Cohesion in a City-Based Environment. *Journal of Social Science Studies*, *1*(1), 135-140.

Mardikaningsih, R., & Hariani, M. 2021. Realizing Sustainability in Public Policy: Building a Balance between Economy, Social, and Environment. *Journal of Social Science Studies*, 1(1), 191-196.

Merkel, W., & Lührmann, A. 2021. Resilience of democracies: responses to illiberal and authoritarian challenges. *Democratization*, *28*(5), 869-884.

Nuraini, R., Handayani, S., Wisnujati, N. S., Darmawan, D., & Kurniawan, Y. 2021. Environmental Management and Law Enforcement. *Studi Ilmu Sosial Indonesia*, 1(1), 65-76.

Pakpahan, N. H., Darmawan, D., & Rojak, J. A. 2022. Racial Discrimination and How Psychological Wellbeing and Social Engagement Impacts: A Review of the Literature on Identity, Stigma, and Coping Strategies in Multicultural Societies. *Journal of Social Science Studies*, *2*(1), 87-94.

Parker, C. 2002. *The open corporation: Effective self-regulation and democracy*. Cambridge University Press.

Pearlstein, S. 2018. *Moral Capitalism: Why Fairness Won't Make Us Poor*. Macmillan+ ORM, New York.

Potts, S. 2020. The Voter File: How Voter Profiling And Micro-Targeting Influence Political Campaign Strategy.

Rejeki, S. 2021. Social Network Formation Through Shared Interest Communities in Urban Areas, *Studi Ilmu Sosial Indonesia*, 1(1), 227-250.

Rizky, M. C., & Udjari, H. 2021. Reflections on Social Welfare Theory in the Juridical Foundation of Sustainable Public Policy. *Journal of Social Science Studies*, 1(1), 185-190.

Rojak, J. A. 2021. The Effectively Leading Manifestation of Public Service-Oriented Governance. *Journal of Social Science Studies*, 1(2), 89-96.

Rojak, J. A., R. K. Khayru, & D. Darmawan. 2021. Citizens' Political Participation in Electoral Democracy and the Dynamics of Civil Society Movements, *Studi Ilmu Sosial Indonesia*, 1(1), 161-176.

Rojak, J. A., & Khayru, R. K. 2022. Disparities in access to education in developing countries: Determinants, impacts, and solution strategies. *Journal of Social Science Studies*, *2*(1), 31-38.

Sajjapong, T., Darmawan, D., & Marsal, A. P. 2022. The Role of Social Stereotypes in Shaping Opportunities and Inequalities in Society: Their Impact on Education, Employment, and Intergroup Interactions. *Bulletin of Science, Technology and Society*, *1*(1), 44-49.

Saktiawan, P., Hardyansah, R., Darmawan, D., & Putra, A. R. 2021. Ethical Principles in Indonesian Legal Advocacy: Sustaining Justice in Adversarial

Systems Through Professional Integrity. *Journal of Social Science Studies*, *1*(2), 239-244.

Sangiovanni, A. 2019. Democratic control of information in the age of surveillance capitalism. *Journal of Applied Philosophy*, *36*(2), 212-216.

Saputra, R. & D. Darmawan. 2021. Between Individual Freedom and Collective Responsibility: Dynamics of Social Solidarity in the Age of Individualism, *Studi Ilmu Sosial Indonesia*, 1(1), 251-274.

Schneider, I. 2018. Bringing the state back in: Big Data-based capitalism, disruption, and novel regulatory approaches in Europe. In *The Politics and Policies of Big Data* (pp. 129-175). Routledge.

Smith, M. R., & Marx, L. (Eds.). 1994. *Does technology drive history?: The dilemma of technological determinism*. Mit Press.

Strauss, A., & J. Corbin. 2008. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory (3rd ed.)*. SAGE Publications, Thousand Oaks.

Suwito, Yulianis, M. S. F., Evendi, W., Zakki, M., & Mujito. 2021. Regulatory Effectiveness in Ensuring Access to Education and Child Health in Low Income Communities through Scholarship Equity. *Journal of Social Science Studies,* 1(2), 181-186.

Taylor, L. 2021. Public actors without public values: Legitimacy, domination and the regulation of the technology sector. *Philosophy & technology*, *34*(4), 897.

Trottier, D. 2016. *Social media as surveillance: Rethinking visibility in a converging world*. Routledge.

Warin, A. K. 2022. Reconstructing Community Futures Through Non-Formal Education for Participatory and Inclusive Social Advancement. *Journal of Social Science Studies,* 2(1), 183-188.

Wisnujati, N. S. & R. Mardikaningsih. 2021. Urban Sprawl, Daily Mobility, and Community Cohesion in Suburban Fringe Areas, *Studi Ilmu Sosial Indonesia*, 1(2), 275-300.

Yeung, K. 2018. Five Fears about Mass Predictive Personalization in an Age of Surveillance Capitalism. *International Data Privacy Law*, 8(3), 258-269.

Yeung, K. 2018. Five fears about mass predictive personalization in an age of surveillance capitalism. *International Data Privacy Law*, *8*(3), 258-269.

Zahid, R. A., & Darmawan, D. 2022. Analyze the Effect of Social Stereotypes on Intergroup Relations in Society and Social Equality. *Journal of Social Science Studies*, 2(2), 195-200.

Zuboff, S. 2022. Surveillance capitalism or democracy? The death match of institutional orders and the politics of knowledge in our information civilization. *Organization Theory*, *3*(3), 26317877221129290.

Zulkarnain, M. A. B., Khayru, R. K., Issalillah, F., & da Cruz, C. 2021. Citizen Engagement in Ecological Issue Management through Participatory Practices and Community-Based Social Supports. *Journal of Social Science Studies*, *1*(1), 227-232.