The All-Seeing Algorithm: Panopticon and Surveillance of the Docudrama "The Social Dilemma"

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ABSTRACT

Purpose of the study: This study aims to analyze the concept of Michel Foucault's panopticon in the modern digital context, as depicted in the docudrama The Social Dilemma. The research focuses on understanding the surveillance mechanisms of social media and their psychological impacts on user behavior.

Methodology: This research uses a qualitative approach with content analysis as the primary method. The object of study is the docudrama The Social Dilemma on Netflix. Data collection involves observation, documentation studies, and literature reviews from Scopus.com and other websites to identify how digital surveillance is portrayed and its effects on users.

Main Findings: The study finds that social media platforms use advanced surveillance algorithms to monitor, influence, and control user behavior. These mechanisms form a digital panopticon where users feel constantly watched, leading to behavioral adjustments. The psychological impacts include anxiety, depression, and addiction, particularly among teenagers, driven by the normalization of constant digital surveillance.

Novelty/Originality of this study: This study uniquely applies Foucault's panopticon theory to analyze the influence of digital surveillance depicted in The Social Dilemma. The novelty of this research lies in its application of Foucault's panopticon theory to digital platforms, providing new insights into the psychological and behavioral consequences of algorithmic surveillance. However, the study is limited by focusing on a single docudrama, which may not comprehensively represent the full spectrum of digital surveillance practices. Future research should expand on this analysis by examining broader datasets or additional media to validate these findings.

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1. INTRODUCTION

The rapid development of digital technology has profoundly altered the way we communicate, with social media platforms now playing a significant role in shaping public opinion, behavior, and social interaction. Requiring almost all ages to use social media in order to connect with each other. Social media platforms also play an important role in shaping public opinion, behavior, and social interaction. With social media platforms that widely available everywhere, it's now typical for organizations to keep everyone informed and connected, rather than leaving anyone out of the loop [1]. However, overuse of these platforms can raise significant concerns about privacy, data security and the psychological impact of continued use. Nearly 80% of users store personal information on devices vulnerable to hacking, reflecting significant gaps in digital security and user

awareness. Furthermore, excessive use of social media has been linked to anxiety, depression, and addiction, particularly among teenagers, raising urgent questions about the psychological and societal effects of constant surveillance [2]. These risks highlight the need to understand the underlying mechanisms that facilitate social media's influence and potential misuse. These circumstances that can harm social media users can be caused by the phenomenon of panopticon in the digital era, which explained as a model of surveillance that has been redefined in the digital age to explain how social media platforms monitor and influence user behavior.

In today's digital era, being in the *virtual/online* environment does not guarantee that one can escape 'surveillance'. As individuals engage with social media, their every action—from clicks to comments—can be tracked by sophisticated algorithms that collect, analyze, and interpret vast amounts of user data. This data can include behavioral patterns, user preferences or interactions with other users which are then processed into a pattern that can be reused to achieve certain goals, such as creating a detailed user profile picture to determine the potential for targeted advertising, personalized content, and predictive analytics. This is an illustration of the panopticon phenomenon in the use of social media. Every click, like, share or comment in the use of social media can be monitored and analyzed in detail. This digital surveillance model explains the concepts first introduced by Jeremy Bentham and later expanded by Michel Foucault, who conceptualized the Panopticon as a structure for societal control through surveillance.

Originally, Jeremy Bentham proposed the Panopticon as a design for prisons, allowing a single guard to observe all inmates without being seen, so it encourages inmates to regulate their behavior as if they were constantly watched. Michel Foucault later applied this concept to broader societal institutions, suggesting that surveillance could make people control their own behavior, as if they were constantly under observation. In the digital age, the idea of the Panopticon is used to describe how algorithms and online platforms monitor people, extending surveillance from physical spaces into the virtual world. However, this concept was later modified and redeveloped into the concept of the Pentonville Model Prison which allows guards to observe prisoners without being seen, thus providing better surveillance and control [3].

This panopticon phenomenon can be seen in the drama documentary "The Social Dilemma" released by Netflix in 2020. The film features insights from former tech industry insiders who reveal how platforms use surveillance and algorithms to manipulate user behavior. The panopticon analogy is effectively applied in the film, showing how users are constantly being watched and influenced without their explicit awareness, leading to significant psychological and social consequences. The movie illustrates how sophisticated algorithms monitor users' every interaction, collect data to create detailed profiles, and then use this information to predict and direct their actions. As a result, users are often caught up in feedback loops that profoundly influence their thinking and behavior, illustrating how modern digital surveillance mirrors the control and discipline depicted in Bentham and Foucault's concept of the panopticon.

Despite extensive research on digital surveillance, current studies often focus on its technical mechanisms or sociological implications, leaving a significant gap in understanding how these practices influence individual behavior and mental health. While the Panopticon concept has been widely applied to traditional institutions, its application to digital platforms especially through popular media like *The Social Dilemma*—remains underexplored. This gap highlights the urgency of examining algorithmic control and its psychological impacts within the framework of Michel Foucault's Panopticon theory.

This study addresses these gaps by analyzing *The Social Dilemma*, a Netflix docudrama that reveals how social media algorithms surveil and influence user behavior. By applying Foucault's Panopticon theory, the research explores how digital surveillance creates a "digital panopticon," where users adjust their behavior under perceived observation. The urgency of this research lies in its potential to uncover the mechanisms driving these psychological impacts and to offer actionable solutions for mitigating the harmful effects of algorithmic control.

Based on the background above, in writing this article, the author will discuss how the phenomenon of panopticon can occur in the digital era which can lead to privacy, data security, and psychological impact by using social media based on the drama-documentary film from a true story "The Social Dilemma" which results in three problem formulation questions that become the focus of the researcher which include:
1. How does "The Social Dilemma" portray the concept of panopticon through the depiction of social media platforms?
2. What psychological and behavioral effects of digital surveillance are highlighted in "The Social Dilemma," and how do they fit into Michel Foucault's theory of the panopticon?
3. How can transparency and user control over algorithms be improved to reduce the sense of surveillance on users?

2. RESEARCH METHOD
The method used in this research is a qualitative research method with a content analysis approach to understand and interpret the messages contained in the movie. This method allows researchers to gain insight into narrative elements, themes, symbols, or meanings communicated through movies. Qualitative research relies

on interpretation of what is seen, heard, and understood so that understanding becomes more in-depth [4] The object of this research is the documentary film "The Social Dilemma," directed by Jeff Orlowski and aired on Netflix in 2020. Data collection techniques were carried out using observation, documentation, and literature study methods.

Adnani, stated that observation research systematically and directly tracks communication symptoms related to social, political, and cultural issues in society [5]. In addition, observation according to [6] is an observation of the object to be used as research, namely by observing the film corpus consisting of scenes, shots, and *sequences* in the drama-documentary film "The Social Dilemma." The checklist included items designed to measure key themes such as "algorithmic monitoring," "user behavior," and "psychological effects." To ensure the reliability of this instrument, a Cronbach's Alpha test was conducted using pilot observations from similar media content. The test produced a Cronbach's Alpha value of 0.85, which indicates high internal consistency and reliability of the instrument. This reliability score confirms that the checklist is a robust tool for systematically analyzing the documentary.

According to Justan and Aziz, documentation is a record of past events; documents are usually in the form of writings, pictures, or monumental works of others [7]. In this study, researchers took screenshots of *shots*, scenes, and sequences that will be used as corpus for this study in the drama-documentary film "The Social Dilemma" relating to digital surveillance, algorithmic control, and psychological impact. The sample, The Social Dilemma (directed by Jeff Orlowski), was chosen through purposive sampling due to its relevance in addressing the study's objectives of exploring algorithmic control and its psychological consequences. Data was collected using three methods: observation, which analyzed scenes and sequences that depicted digital surveillance; documentation, which recorded screenshots and descriptions as evidence; and a literature study, which provided theoretical grounding through works on Foucault's Panopticon, Zuboff's surveillance capitalism, and the psychological effects of social media.

According to Sarwono, literature study is a study of various reference books and similar previous research results, which helps to obtain a theoretical basis regarding the problem to be studied [8]. Researchers conducted literature studies using books, journals, articles, and news as reference and theoretical materials in analyzing this research. This literature study includes the theory of panopticon by Foucault, surveillance capitalism by Zuboff, and the impact of social media on human behavior. Data analysis employed a thematic content analysis approach, identifying and categorizing key themes such as "surveillance mechanisms" and "behavioral impacts." These were then aligned with theoretical insights from the literature to address the research objectives and draw meaningful connections between the documentary's narrative and academic frameworks. This study is limited by its reliance on a single documentary, which may not represent the full scope of digital surveillance practices. Additionally, as a qualitative study, its findings cannot be generalized. Future research should explore a broader range of media or adopt mixed methods to provide a more comprehensive perspective on digital surveillance and its impacts.

3.   RESULTS AND DICUSSION
This study analyzed the portrayal of digital surveillance and its psychological impacts in The Social Dilemma using thematic content analysis. The findings address the three research questions, supported by data from observation, documentation, and literature studies.

3.1. How Does *The Social Dilemma* Portray the Concept of Panopticon Through Social Media Platforms?
Social media's design has a profound influence on user behavior, gradually reshaping how individuals interact, communicate, and consume information daily. Platforms like Facebook, Instagram, and Twitter use sophisticated algorithms designed to maximize engagement by personalizing content to individual preferences. This staged content can create addictive patterns of behavior, leading users to check their devices frequently for updates and notifications. According to several studies, personalized content increases dopamine production, making users feel rewarded each time they engage with the platform, which encourages frequent returns. Personalized content significantly impacts dopamine production in social media users by enhancing engagement, fostering community through user-generated content, and encouraging social sharing. These elements create a rewarding experience that can lead to increased consumer loyalty and interaction [9] This constant cycle contributes to a form of behavioral conditioning that can impact users' real-world priorities, interpersonal relationships, and mental health over time.
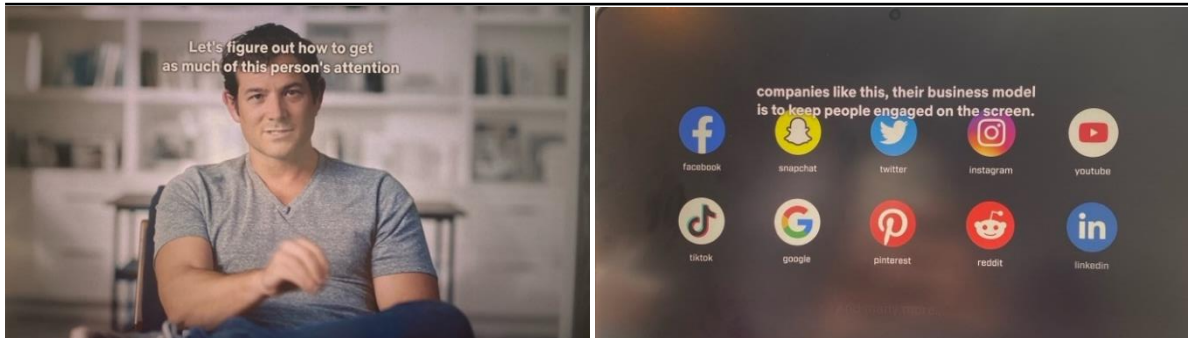
Figure 1. How "The Social Dilemma" describes Social Media works on users

In the docudrama *The Social Dilemma*, this phenomenon is illustrated through dramatizations of users becoming absorbed in their online interactions to the detriment of their offline lives. The film demonstrates how notifications, content feeds, and recommendation algorithms keep users engaged, often without thinking about how it affects their mental health. Studies have shown that excessive social media use correlates with negative emotional outcomes such as envy, anxiety, and depression—effects particularly prevalent among younger users [10], [11]. These shifts in behavior and mental well-being are significant, as they underscore how social media can have a compounding psychological impact on its most vulnerable users [12].

The analysis reveals that *The Social Dilemma* effectively depicts a modern adaptation of Foucault's Panopticon. Social media platforms function as a "digital panopticon," where users are constantly monitored by algorithms that collect and analyze data from their actions, such as likes, shares, and comments. Observation of scenes and sequences in the documentary shows how these platforms use detailed user profiles for targeted advertising and content personalization. This surveillance fosters self-regulation among users, aligning with Foucault's theory that perceived observation leads individuals to modify their behavior.

3.2. What Psychological and Behavioral Effects of Digital Surveillance Are Highlighted in *The Social Dilemma*, and How Do They Fit into Foucault's Panopticon Theory?

Social media platforms employ extensive surveillance mechanisms to monitor and collect user data. Every interaction, such as likes, shares, and comments, is tracked, enabling platforms to create detailed profiles that offer insights into users' preferences, habits, and likely future behavior. The docudrama *The Social Dilemma* shows how constant surveillance creates a modern Panopticon effect, where knowing they are being watched quietly that changes how users behave. Inspired by Michel Foucault's concept of the Panopticon, the docudrama shows how digital surveillance encourages self-regulation, as users unknowingly modify their actions in response to perceived observation. Foucault's Panopticon theory suggests that power is most effectively exercised through invisible surveillance, leading individuals to adopt socially desirable behaviors even without direct oversight [13] In this way, social media platforms create a controlled environment where users feel pressured to present idealized versions of themselves.

The docudrama *The Social Dilemma* also shows the uneven power dynamic between users and social media companies, highlighting how these companies have much greater control over users' data, choices, and behaviors. This situation raises ethical issues about privacy, consent, and personal freedom because users' actions are turned into products by platforms that focus more on profit than on users' well-being. The tools for surveillance are not neutral; they are used deliberately to keep users engaged, often at the cost of users' autonomy and mental health. This part of *The Social Dilemma* emphasizes how digital surveillance turns users into products for the sake of making money. This works like corporate capitalism, which defines as a system where large corporations dominate the economy, prioritizing profit and growth while significantly shaping the marketing and sale of products. It functions as a competitive system where success is measured by maximizing profits [14]
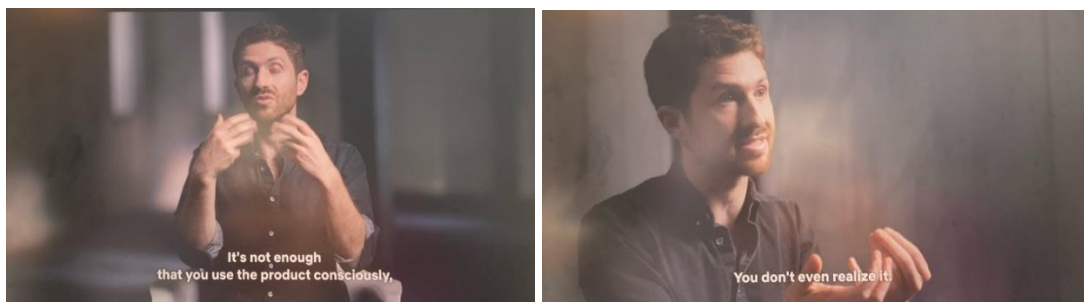

Figure 2. How "The Social Dilemma" describes Social Media as having an addictive effect on users

Thematic analysis identified three key psychological impacts of digital surveillance: anxiety, addiction, and reduced self-esteem, particularly among teenagers. These effects align with Foucault's concept of self-regulation under surveillance, as users modify their actions to meet perceived social standards [15]. Observation and documentation of key scenes in the documentary show how features like notifications, likes, and comments drive users to seek validation and approval, creating dependency and mental health challenges. Research corroborates these findings, highlighting that constant digital engagement conditions users to prioritize online interactions over offline lives [16]. These psychological burdens emphasize the manipulative power of surveillance in influencing individual behavior.

3.3. How Can Transparency and User Control Over Algorithms Be Improved to Reduce the Sense of Surveillance on Users?

The psychological effects of digital surveillance in social media include increased anxiety, addiction, and decreased self-esteem, especially among teenagers. The docudrama *The Social Dilemma* portrays the harmful impact of social validation features, such as likes and comments, which contribute to anxiety and self-esteem issues. Teenagers, in particular, may become reliant on these metrics for social approval, and failure to receive validation can contribute to feelings of inadequacy or depression. Research corroborates these findings, showing that frequent social media use correlates with higher levels of anxiety and depression among young people [12], [17]. This feedback loop of seeking validation through online platforms often leads to excessive use, creating a dependency that is hard to break. The movie suggests that to counteract these issues, user awareness must be increased, algorithmic transparency should be enhanced, and users should be empowered to control their own data [18], [19].

These psychological implications point to the need for strategies to promote healthier social media habits. Solutions could include educating users about the potential harms of overuse and promoting tools to regulate screen time and limit exposure to social validation metrics. Increasing user literacy around digital surveillance can help mitigate the psychological burden associated with social media and reduce dependency on these platforms. The results suggest actionable solutions to mitigate the negative effects of digital surveillance. The thematic content analysis identified strategies such as improving algorithmic transparency, enhancing user education on digital literacy, and empowering users with greater control over their data.

Figure 3. An overview of surveillance capitalism in "The Social Dilemma"

3.4. Panopticon Theory and Surveillance Capitalism

The portrayal of social media in *The Social Dilemma* aligns closely with Michel Foucault's Panopticon theory, where constant surveillance fosters self-regulation and behavior modification. The film suggests that users gradually become aware of the pervasive surveillance inherent in their social media use, mirroring Foucault's ideas that surveillance is a tool of control. In digital spaces, this invisible power dynamic encourages users to monitor themselves, making it a modern adaptation of the Panopticon [13].

In addition to Foucault's framework, the docudrama draws upon Shoshana Zuboff's theory of surveillance capitalism, which argues that user data is commodified and exploited for economic gain. Social media platforms are depicted as mechanisms for data extraction, where users' activities and preferences are collected, analyzed, and sold to advertisers to facilitate targeted marketing. By commodifying user data, these platforms seek to influence consumer behavior and drive profits through personalized content and advertising [20] This dynamic reflects a shift from surveillance as mere observation to surveillance as a business model—one that leverages data to shape public behavior for economic benefit.

This study is limited to the analysis of a single documentary, *The Social Dilemma*, which may not fully represent the diversity of surveillance practices across different platforms and contexts. Additionally, the qualitative nature of the research restricts the generalizability of the findings. The reliance on secondary data, including literature studies, may introduce biases from prior interpretations. Future research should include multiple documentaries and empirical studies to generalize findings and adopt mixed methods for a

comprehensive understanding of digital surveillance. Policymakers must enforce algorithmic transparency, safeguard user data, and promote ethical practices, while platforms should prioritize user well-being through features that limit screen time and reduce dependency on social validation metrics. Promoting digital literacy and balancing profitability with ethical engagement are essential for fostering a healthier digital environment.

4.　CONCLUSION

This study answers the research objectives by demonstrating how The Social Dilemma portrays social media platforms as a modern Panopticon, where constant algorithmic surveillance influences user behavior through self-regulation. This adaptation of Foucault's Panopticon theory into the digital realm highlights how algorithms serve as invisible observers, shaping individual actions by creating a sense of being perpetually monitored. The findings confirm that digital surveillance fosters behavioral conditioning, while its psychological impacts such as anxiety, addiction, and reduced self-esteem are particularly pronounced among vulnerable users, especially teenagers.

The study also identifies strategies for mitigating these impacts, such as promoting algorithmic transparency, empowering users with control over their data, and fostering digital literacy. These findings provide practical implications for improving the ethical design of social media platforms and advancing user awareness. From a theoretical perspective, this research extends Foucault's Panopticon concept by applying it to the digital age, where power is not only disciplinary but also commodified under surveillance capitalism. This generates a new framework for understanding how algorithmic control perpetuates social and psychological consequences in a hyper-connected world. While the study addresses its objectives, its scope is limited to a single documentary and qualitative methods. Future research should expand on these findings by analyzing diverse media and employing mixed methods to explore the broader implications of digital surveillance.

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REFERENCES

[1]　M. P. Ganis and S. Kumar V Marimekala, *Emerging Technologies for a Smarter World (CEWIT), 2014 11th International Conference & Expo on*. IEEE, 2014.

[2]　S. Yousif Ameen and M. A. MSadeeq, "Social Media Networks Security Threats, Risks and Recommendation: A Case Study in the Kurdistan Region," 2020. [Online]. Available: www.ijicc.net

[3]　P. Steadman, "Samuel Bentham's Panopticon," *Journal of Bentham Studies*, vol. 14, no. 1, Jan. 2012, doi: 10.14324/111.2045-757x.044.

[4]　J. W. Cresswell and J. D. Cresswell, *Research Design*, 2018.

[5]　K. Adnani, *Metodologi Penelitian Komunikasi [Communication Research Methodology]*, 2021.

[6]　A. Rachman, (Cand) E. Yochanan, A. I. Samanlangi, and H. Purnomo, *Metode penelitian kuantitatif kualitatif dan R&D [Qualitative quantitative research methods and R&D]*," 2024.

[7]　R. Justan and A. Aziz, *Penelitian kombinasi (Mixed Methods)*, *Jurnal Ilmiah Multidisiplin*, vol. 3, no. 2, 2024.

[8]　J. Sarwono, *Metode penelitian kuantitatif dan kualitatif [Quantitative and qualitative research methods]*, 2018.

[9]　A. Panigrahi and Arunima De, "Dopamine manipulation and its role in effective advertising," *Journal of Management Research and Analysis*, vol. 11, no. 3, pp. 192–199, Sep. 2024, doi: 10.18231/j.jmra.2024.033.

[10]　J. M. Twenge, "More time on technology, less happiness? associations between digital-media use and psychological well-being," *Curr Dir Psychol Sci*, vol. 28, no. 4, pp. 372–379, 2019, doi: 10.1177/0963721419838244.

[11]　A. Heinz, C. Catunda, C. van Duin, T. Torsheim, and H. Willems, "Patterns of Health-Related Gender Inequalities—A Cluster Analysis of 45 Countries," *Journal of Adolescent Health*, vol. 66, no. 6, pp. S29–S39, 2020, doi: 10.1016/j.jadohealth.2020.02.011.

[12]　E. Coe, A. Doy, K. Enomoto, and C. Healy, "Gen Z mental health: The impact of tech and social media." Accessed: Jun. 28, 2024.

[13]　M. Foucault, *Discipline and Punish The Birth of the Prison*, 1997.

[14]　I. L. Stole, "Persistent pursuit of personal information: A historical perspective on digital advertising strategies," *Crit Stud Media Commun*, vol. 31, no. 2, pp. 129–133, 2014, doi: 10.1080/15295036.2014.921319.

[15]　E. Stoycheff, J. Liu, K. Xu, and K. Wibowo, "Privacy and the Panopticon: Online mass surveillance's deterrence and chilling effects," *New Media Soc*, vol. 21, no. 3, pp. 602–619, 2019, doi: 10.1177/1461444818801317.

[16]　C. Van Slyke, G. Clary, and M. Tazkarji, "Surveillance concerns as predictors of obfuscation and the chilling effect in the context of a pandemic," *Journal of the Southern Association for Information Systems*, vol. 8, no. 1, pp. 24–49, 2021, doi: 10.17705/3JSIS.00016.

[17] J. A. Naslund, A. Bondre, J. Torous, and K. A. Aschbrenner, "Social media and mental health: Benefits, risks, and opportunities for research and practice," 2019, doi: 10.1007/s41347-020-00134-x/Published.

[18] F. Bányai *et al.*, "Problematic social media use: Results from a large-scale nationally representative adolescent sample," *PLoS One*, vol. 12, no. 1, 2017, doi: 10.1371/journal.pone.0169839.

[19] P. M. Valkenburg, "Social media use and well-being: What we know and what we need to know," *Current opinion in psychology*, vol. 45, 2022, *Elsevier B.V.* doi: 10.1016/j.copsyc.2021.12.006.

[20] S. Zuboff, "Big other: Surveillance capitalism and the prospects of an information civilization," *Journal of Information Technology*, vol. 30, no. 1, pp. 75–89, 2015, doi: 10.1057/jit.2015.5.