

Investigating Panopticism in Computational Advertising in Ghana

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Abstract

Computational advertising has led to massive developments in targeted and personalized advertising. However, the growth is causing a high level of surveillance of consumers' choices. Drawing on Foucault's theory of panopticism, this study unearthed panoptic practices employed in computational advertising as experienced by Ghanaian Internet users. Data were gathered among sixteen active social media and digital marketers who were purposively sampled, using semi-structured interviews. Major findings showed that although consumers employed strategies such as flagging unwanted ads or leaving websites that force them to accept cookies, they generally expressed little control over the use of algorithmic artificial intelligence, filters, and normalization panoptic practices in computational advertising in Ghana. The study concludes that these practices mainly reinforce existing power imbalances between advertisers and the targeted audiences.

Keywords: panopticism, computational advertising, audience, digital literacy, filters

Background to the Study

The field of computational advertising is experiencing a swift expansion on a global scale, with an anticipated total expenditure of more than \$645 billion by the year 2024 (Statista, 2021). The proliferation of digital devices and the Internet, coupled with the advent of data-driven advertising techniques, have been key drivers of this expansion. The feasibility of this trend is achieved by employing algorithms that scrutinize user conduct, preferences, and socio-economic characteristics. This enables advertisers to

provide their intended audiences with ads that are relevant and effective (McShane & Galvin, 2018).

The utilisation of advanced technologies in advertising has sparked concerns about power imbalances and agency between advertisers and audiences. The concept of panopticism is highly relevant in this context, as it pertains to a type of social control where individuals are closely monitored and disciplined (Wood, 2007). It is possible to investigate how panopticism has been used or disputed in many situations, ranging from the historical regulation of individuals through institutions such as prisons or asylums to more modern monitoring practices. In recent years, the proliferation of technology and the internet has increased the ability of institutions to monitor and control individuals. As Tufekci (2014) notes, "Our contemporary panopticon is digital, with millions of cameras pointed at us every day, everywhere we go, and with our own personal information streaming out of our phones, computers, and credit cards" (p.7).

In the realm of computational advertising, the term "panopticism" pertains to the methods employed by advertisers to observe and manipulate consumer behaviour through the utilisation of data and algorithms. Notwithstanding its potential benefits, this particular mode of advertising has elicited concerns with regard to issues of privacy, surveillance, and the control of the audience's behavior in the digital world. According to Tene and Polonetsky (2013), many users have the impression that their privacy is being invaded as a result of this practice. Also, the targeted nature of computational advertising received criticism for its capacity to reinforce preexisting biases and stereotypes, in addition to its ability to influence the behavior of its target audience (Kitchin, 2014).

The evolution of advertising in Ghana can be traced to the colonial period, during which European companies established their foothold in the country. The establishment of the first advertising agency in Ghana dates as far back as 1927 when the United African Company (UAC) formed West Africa Publicity Limited as an advertising agency and later transformed into Lintas Advertising (Kpikpi, 2016). Advertising was a new phenomenon in Ghana in the 1920s later contributing to new attitudes and

tastes of a new elite at the time of Independence (Kwami, 2013). Companies predominantly relied on print media as their primary channel for promoting their products and services (Assibey & Prempeh, 2022). Newspapers under British ownership, namely the Gold Coast Leader and the Gold Coast Independent, featured advertisements catering to a diverse range of consumers, including both European and local readers (Kpikpi, 2016). After the attainment of Ghana's independence in the year 1957, the prevailing wave of nationalistic fervour exerted a discernible impact on the advertising sector, as evidenced by the rise of Ghanaian-owned publications within the industry (Kpikpi, 2016). Publications such as the esteemed Ghanaian Times and Daily Graphic have served as invaluable mediums through which local enterprises have been able to effectively showcase their products and services to a wider and more diverse demographic.

However, the introduction of radio and television in Ghana transformed the advertising landscape. The Ghana Broadcasting Corporation (GBC) launched the nation's first television station in 1965, creating new advertising opportunities (Amenyo, 2014). The popularity of television and radio advertisements allowed businesses to reach both urban and rural populations. The 1990s were a pivotal decade for the development of Ghana's media landscape, which saw the liberalization of the airwaves among other changes (Assibey & Prempeh, 2022). Because of this, private radio and TV stations emerged, which expanded the scope of available commercials. Local advertising companies rose to prominence as the number of media outlets increased. The advent of the 21st century ushered in a significant paradigm shift in the advertising landscape of Ghana, characterized by the digital revolution. The proliferation of internet connectivity and the widespread adoption of smartphones have rendered digital advertising an indispensable component of contemporary marketing strategies (Kpikpi, 2016). The use of mobile technology has exerted a substantial influence on the development and transformation of advertising practices in Ghana. It has facilitated a direct avenue for advertisers to engage with consumers through various means such as SMS marketing, mobile applications, and websites optimized for mobile devices.

To promote professionalism and consumer safety, Ghana's advertising industry formed the Advertising Association of Ghana (AAG) in 1992. The AAG has diligently formulated a comprehensive set of codes and guidelines intended to govern the conduct of advertising practitioners (Assibey & Prempeh, 2022). These measures aim to foster a culture of responsible advertising practises while simultaneously establishing benchmarks for the industry as a whole. In recent times, a discernible pattern of social impact advertising has emerged within the Ghanaian context. Corporations and institutions have readily adopted promotional endeavours that tackle pertinent societal concerns, encompassing domains such as public health, education, and the pursuit of gender parity. These campaigns have the noble objective of fostering societal consciousness and instigating constructive transformation within the Ghanaian community.

The advertising industry in Ghana has experienced significant expansion, facilitated by the rise in both local and multinational advertising agencies operating within the country (Boateng et al., 2022). Throughout its history, advertising in Ghana has changed and adapted in response to new technologies, shifts in political landscapes, and economic progress. Advertising has evolved from its early days in print media to the modern digital era to satisfy the changing needs of businesses and consumers. Ghana, like many other developing nations, is experiencing rapid growth in internet and mobile device usage, leading to an increasing presence of computational advertising. However, research in this area is scarce, particularly in terms of examining the power dynamics and privacy concerns associated with panoptic surveillance in the Ghanaian advertising landscape. By investigating panopticism in computational advertising specifically in Ghana, this study aims to provide insights into the experiences, perceptions, and agency of Ghanaian audiences in relation to targeted advertising practices. It is important to understand how panoptic surveillance impacts the power imbalance between advertisers and audiences in Ghana, as well as the implications for consumer privacy, autonomy, and the shaping of consumer behavior.

The motivation for studying panopticism in computational advertising in Ghana stems from the need to understand and address the unique implications of computational advertising practices in a developing country context. Furthermore, studying panopticism in computational advertising in Ghana has practical implications. It can inform the development of local policies, regulations, and industry guidelines that protect consumer rights, promote ethical advertising practices

As more and more areas of our lives are mediated by technology, it is critical that we understand how our data is gathered and utilized, as well as the potential risks and damages that may emerge. Through an examination of panopticism within computational advertising, advertisers can gain a deeper comprehension of the ethical and social consequences of this approach, and devise tactics to alleviate its adverse impact on both individuals and the community at large. This research contributes to the development of policies and regulations that safeguard people's privacy and security in an increasingly digital society. Consumers can benefit from a research that outlines the hazards and benefits of digital advertising as well as tips on how to protect their privacy. Advertisers can use the findings of the study to better target their audiences and create advertising techniques that respect user autonomy.

Unfortunately, while scholarship on data surveillance and consumer rights appears to be burgeoning in developed countries, the discourse has received little attention in developing countries (especially Ghana). This is not only a reflection of Africa's situation in the wake of global technological advancement but also a depiction of the inadequacy of laws and policies regarding data surveillance (Odartey-Wellington, 2014). This shows an increasing concern about protecting consumer privacy as well as negotiating boundaries in cyberspace (Ruckenstein and Granroth, 2019; Eslami et al., 2018), especially within developing countries.

Despite the fact that there is a growing collection of material on panopticism in computational advertising (Darmody & Zwick, 2020; Huh & Malthouse, 2020; Segijn & Strycharz, 2023), much of it is theoretical. The real practices and effects of panopticism in this situation need to be examined through

empirical investigation. More research is needed to examine how people perceive and respond to panopticism in such circumstance. There is also need for study that investigates how panopticism in computational advertising impacts susceptible groups, including children, those with low incomes, and people with little digital literacy.

The primary objective of this research is to fill the existing knowledge gap by specifically analyzing the power dynamics that exist between audiences and advertisers within advertising landscape in Ghana. It is within this context that this paper sets out to contribute to this discussion by focusing on how panopticism operates in computational advertising and how it contributes to the power imbalance between consumers/audience and advertisers. By drawing on Foucault's concepts of power and panopticism, the paper explores how power imbalances between audiences and advertisers are constructed through data surveillance and audience agency. The goal of this paper is to investigate how panopticism operates in computational advertising and its implications for communication theory, advertising practice, and public policy. The paper seeks to address the following: First, how do panoptic practices in computational advertising contribute to power imbalances between advertisers and audiences. Second, how do audiences navigate the panoptic practices exercised by advertisers in computational advertising?

Panopticism and Computational Advertising

First introduced by Michel Foucault in his groundbreaking book, *Discipline and Punish: The Birth of the Prison*, the concept of panopticism, has become a commonly used and controversial theoretical construct in a range of areas (Wood, 2007). The word derives from the Panopticon, a hypothetical jail design devised in the late eighteenth century by the English philosopher and social theorist Jeremy Bentham. According to Massin (2017), the Panopticon was envisioned as a cleverly constructed circular prison where inmates are constantly under the watch of a guard stationed in the center of the prison who is able to see everyone while staying invisible (pp. 200–2002). In order to illustrate how power works in contemporary society, Foucault draws on the

Panopticon as a metaphor for policing through control and surveillance, a disciplinary arena for social control where conformity was secured through the fear of extrajudicial scrutiny (Manokha, 2018). Foucault's panopticism has had a significant impact on disciplines including sociology, political theory, and cultural studies (Haggerty & Ericson, 2000; Lyon & Zureik, 2005; Dandachi & Ghosh, 2018; Ball, 2010; Crampton & Elden, 2007; Foucault, 1995; Deleuze, 1992; Haggerty & Ericson, 2000; Andrejevic, 2004). Within the contemporary digital landscape, computational advertising functions as a manifestation of panopticism, whereby individuals are perpetually subjected to surveillance and scrutiny for the purpose of delivering personalized advertisements. Companies such as Google and Facebook employ cookies and other tracking mechanisms to monitor users' online behavior, which they leverage to provide them with advertisements that are personalized to their individual interests and preferences. This creates a sense of self-imposed regulation, whereby individuals learn the ability to regulate their behavior in light of the possibility of being observed and analyzed.

Power is central to the concept of panopticism. Michel Foucault's groundbreaking theory of power stands apart from all other conceptions of power. He departs from the old view of power as a top-down hierarchical domination and avers that power is not just that of the government dominating its subjects, nor is it the domination of one class over another, as it is in Marxist thinking. Far from class struggle and the dynamics of repression, power, according to Foucault, "is the multiplicity of force relations immanent in the sphere in which they operate" (Kelly, 2013, p. 92). In Foucault's view, power is not just something that is wielded by those in authority, but rather a pervasive force that operates at all levels of society. However, his analysis of the panopticon's functioning emphasized the asymmetrical relations of power between those who observe and those who are observed.

The power dynamics within the panopticon are not limited to the relationship between the observer and the observed. They extend to the relationships between those who

are being observed as well. "He who is subjected to a field of visibility, and who knows it, assumes responsibility for the constraints of power." (p.202). In this way, the panopticon creates a system in which power is distributed not just from above, but also horizontally, as individuals begin to police themselves. Power is exercised in the context of computational advertising through the collection and analysis of users' data. Google and Facebook, for example, have access to a great deal of data on users' online activities, which could be exploited to deliver personalized ads, providing these corporations with enormous power to influence users' digital landscape experiences and impact their behaviour in subtle, often unconscious ways.

Foucault's (1977) concept of panopticism outlines a surveillance society in which individuals are constantly monitored and controlled by an invisible authority. Panopticism has taken on a new form in the digital age, due to computational advertising, in which users are tracked and observed in order to deliver personalized ads. According to Haggerty and Ericson (2000), this panoptic logic operates through a complex assemblage of technologies and activities. Users may feel powerless to reject the algorithms and data-driven systems that define their online experiences as a result of these behaviors. Andrejevic (2013) adds to this idea, arguing that the advent of "infoglut" has resulted in a new type of panopticism in which people are continually bombarded with tailored messages and observed at all times. This infoglut can cause consumers to feel overwhelmed by the vast amount of information and unable to make informed choices. Users may be influenced to make decisions that are not in their best interests as a result of this loss of agency.

A number of scholars have emphasized the potential advantages of targeted advertising, such as greater relevance and engagement (Turow, 2017). Others, however, have expressed concerns about the adverse effects of panoptic surveillance on people's privacy and autonomy (Zuboff, 2019; Couldry & Mejias, 2019). According to Zuboff (2019), these techniques are part of a broader trend of "surveillance capitalism," in which user data is utilized to build new markets and accrue power for a small group

of tech companies. Couldry and Mejias (2019) contend that data-driven systems of computational advertising are a sort of "data colonialism," in which colonial power dynamics are recreated in the digital world.

While the panopticon operates as a powerful mechanism of control and surveillance, it is not all-encompassing, and individuals are still able to exercise agency and resist the forces of power that are being exerted over them. This means that while the panopticon creates constant pressure towards conformity and normalization, there is still the possibility for resistance and subversion. The very act of resistance can serve to expose the workings of power and challenge the dominant norms and values of society. "Where there is power, there is resistance, and yet, or rather consequently, this resistance is never in a position of exteriority in relation to power" (Foucault, 1980, p. 95). In other words, resistance is always embedded within the system of power and operates through a complex set of practices that challenge the existing power relations.

Resistance can be seen as a way to disrupt the power relations inherent within the panoptic system, creating the possibility for change and transformation. In *The Will to Knowledge*, Foucault argues that resistance is a fundamental part of the power dynamic. This suggests, there is no power without resistance, and the reverse is true. The power dynamics within the panopticon are not fixed or static. They are constantly shifting and evolving, as individuals struggle for power and control within the system. As Graham (1998) notes, "Panopticism is a dynamic process, rather than a static structure. Power is never simply imposed from above, but is always contested and negotiated" (p. 23). The panopticon creates a constant struggle for power and control, as individuals seek to resist or subvert the surveillance and monitoring that they are subjected to. At the same time, however, the panopticon creates a system in which resistance and subversion are difficult, if not impossible, to achieve. As Foucault notes, "Visibility is a trap." (p. 200). The panopticon creates a sense of constant surveillance and monitoring that makes it difficult for individuals to escape or evade the gaze of the observer. It serves as a mechanism for producing knowledge

about individuals, while also reinforcing the power of those who control it. Foucault suggests that knowledge is not objective, but is shaped by the interests and values of those who produce it. Meaning, power is not only exercised through physical force or coercion, but also through the production and dissemination of knowledge.

The relationship between power and knowledge in panopticism is complex since knowledge does not only operate at the level of the observer but the observed. "Visibility is a trap" in the panopticon, since "he who is subjected to a field of visibility, and who knows it, assumes responsibility for the constraints of power." (p.201). In other words, he who knows he is being watched has knowledge of the external force present in the room, and that knowledge is power since the observed can and will only conform based on that knowledge. As Haggerty and Ericson (2000) note, the relationship between power and knowledge in panopticism is not one-sided, as the observed can also manipulate their visibility and use it as a form of power. They argue that "visibility can be employed to achieve personal or collective ends" (Haggerty & Ericson, 2000, p. 584), such as when individuals use social media to project a certain image or when protesters use mass gatherings to make their voices heard. In this sense, knowledge is not solely produced by the panopticon but is also actively constructed by the observed. However, the panopticon-like society that Foucault describes does not necessarily lead to true reformation, as individuals may only conform to avoid punishment. As Haggerty and Ericson (2000) argue, "panopticism does not produce docile bodies so much as it produces strategic bodies, bodies that are skillful in the art of managing and manipulating their own visibility" (p. 597). Thus, while the panopticon may enforce certain norms and standards, it also creates opportunities for resistance and subversion.

Despite the extensive literature on power and agency in panoptic computational advertising, there are still gaps that necessitate additional research. One significant gap is the absence of focus on the use of algorithms and artificial intelligence in these processes. While some researchers have explored the possibility of algorithmic bias and discrimination (Benjamin, 2019, p. 9),

much remains unknown about how these technologies influence the power dynamics of panoptic surveillance. Another gap is the lack of research on the political and social implications of these practices, particularly in emerging markets and developing countries. Many studies have concentrated on the experiences of users in the United States and other developed countries, but more research is needed to understand how these behaviors operate in diverse cultural and political situations. This is especially crucial considering the global reach of firms like Google and Facebook, who have recently come under criticism for their data practices (Bernal, 2017, p. 250).

Theoretical framework

Foucauldian theory of power, also known as the "power/knowledge nexus," is one of the most influential theories of power that has gained significant attention in the social sciences. This theory, developed by Michel Foucault in the mid-1970s, challenged traditional conceptions of power as something that is held by individuals or groups and exercised over others.

At the heart of Foucault's theory of power is the idea that power is not just repressive, but also productive. In other words, power does not just constrain individuals' behavior, but also enables and shapes it. As Foucault writes in his essay "The Subject and Power" (1982), "Power is not an institution and not a structure; neither is it a certain strength we are endowed with; it is the name that one attributes to a complex strategic situation in a particular society." This emphasizes the ways in which power is distributed throughout society and embedded in social practices. Foucauldian Theory of power has been used to analyze a wide range of social phenomena, from the regulation of sexuality and gender to the management of urban spaces and the construction of racial identities. One of the key strengths is its ability to highlight the ways in which power operates through everyday practices and discourses, rather than solely through formal political institutions. "Foucault's work...has opened up new avenues for thinking about power and how it works in society" (Hindess, 2002, p. 5).

The application of Foucauldian panoptic power and the concept of surveillance capitalism have been employed as a means of comprehending the power dynamics and agency inherent in computational advertising. Andrejevic (2014) posits that the concept of panopticism can be utilized as a theoretical framework to comprehend the functioning of the digital panopticon, wherein individuals are persistently monitored and subjected to surveillance by corporations in return for the benefits of digital technology. Likewise, Zuboff (2015) posits that the emergence of surveillance capitalism has engendered a new manifestation of power, whereby corporations leverage data surveillance to extract economic value from their users.

Shoshana Zuboff's "The Age of Surveillance Capitalism" introduces the notion of surveillance capitalism, which is a derivative concept that extends Foucauldian panopticism. Zuboff posits that numerous technology companies have embraced commercial strategies that center on acquiring and exploiting user data, resulting in a new type of capitalism that hinges on pervasive surveillance. According to Zuboff (2019), the process of surveillance is frequently hidden from users and functions by gathering and analyzing data on a large scale, which results in the emergence of new forms of power and control over individuals (p. 11). The notion of surveillance capitalism holds significance in the scope of my study as it underscores the financial motivations that drive panopticism in computational advertising, and sheds light on the mechanisms of power at play within the digital marketplace.

Scholars have acknowledged the significance of Foucauldian panopticism and surveillance capitalism in the examination of power and agency in computational advertising, as evidenced by the works of Andrejevic (2014) and Zuboff (2015). These concepts serve to furnish a theoretical structure for comprehending the dynamics of power exertion and opposition in the digital marketplace. Nevertheless, it is essential to recognize the limitations of these concepts, as they have been highlighted by critics. Foucault's theory of panopticism has faced criticism for its perceived determinism and disregard for individual agency, as noted by Gandy (1993, p. 54). Similarly, Zuboff's notion of

surveillance capitalism has been criticized for its broad scope and lack of empirical support, as pointed out by McStay (2018, p. 5). However, notwithstanding these critiques, these notions persist as pertinent and valuable for investigating the power and agency dynamics inherent in computational advertising.

Previous research provides support for the discourse surrounding the applicability of Foucauldian panopticism and surveillance capitalism in understanding power dynamics and agency within the context of computational advertising. According to Andrejevic (2014), the notion of panopticism remains relevant among scholars who seek to comprehend the function of digital technologies in the organization of power in present-day societies (p. 43). Zuboff (2019) posited that surveillance capitalism poses a fundamental threat to human freedom and has noteworthy implications for understanding power in the digital era (p. 7). Previous research has also looked into how users exercise agency through the usage of privacy-enhancing technologies like ad blockers. According to Turow et al. (2015), the utilization of privacy tools presents individuals with an opportunity to proactively manage their digital identities (p. 8). However, as Lyon (2018) argued, "The efficacy of these tools is open to question, given the complexity of digital data flows and the willingness of corporations to subvert user privacy" (p. 16). Similarly, as Turow (2017) noted, "Companies have significant resources at their disposal for shaping user behavior and controlling the flow of information, making it difficult for users to assert their agency in this context" (p. 27). However, Hearn and Schoenhoff (2019) contended that individuals have the ability to oppose targeted advertising by either pursuing alternative information sources or by actively declining the advertisements that are presented to them (p. 311).

Research Method

In order to examine different stakeholders' viewpoints on the issue of power and agency in computational advertising, this study uses a qualitative research design. For Tracy (2010), qualitative research entails a naturalistic and interpretive approach towards the world (p. 27). Qualitative research

methodologies facilitate an in-depth examination of complex phenomena and have the potential to reveal intricate details and subtleties that may not be adequately captured by quantitative methods. For this study, qualitative research is the best approach since it gives the researcher a deeper insight of the participants' experiences, attitudes, and views as well as the social and cultural contexts in which they function.

Two main towns, Cape Coast and Accra, in Ghana were selected as research sites due to the presence of a diverse audience with varying levels of exposure to digital media and advertising, as well as online meetings with advertisers based in Accra, given that the majority of advertising agencies are situated in the country's capital. The interview with advertisers was conducted with the help of a contact who works in the advertising industry and was willing to help with recruitment.

The selection of population, sample size, and sampling procedure is critical in qualitative research since it impacts the validity and reliability of the study (Creswell, 2014). The population in this study comprises of advertisers, social media and digital marketers, and audiences, which include faculty members of the department, graduate and postgraduate students of the University, Cape Coast. The justification for selecting this group of participants is that they are directly involved in or have expertise with computational advertising, making them competent and relevant data sources. A total of 16 participants were interviewed, including five (5) advertisers and digital marketers, eight (8) students, and three (3) faculty members. The sample size in qualitative research is often small, and the sample is chosen purposefully based on the research question and the objective of the study (Creswell, 2014). A purposive sample strategy was utilized in this study to recruit persons with competence in computational advertising or who are active online users. The sample size of the study is decided by data saturation, which is the point at which fresh data no longer adds substantial information to the study (Guest et al., 2006). Tracy (2013) supports the use of purposive sampling, arguing that it is acceptable when the researcher aims to identify a specific

phenomenon or when the population is difficult to describe or locate.

The research utilized a semi-structured interview approach. The methodology employed for data collection entailed the use of interviews, which were recorded in audio format, with the participants' explicit consent. Thematic analysis was employed to analyze the transcribed interview data. The data was subjected to multiple readings to obtain an in-depth understanding of the perspectives of the participants. Subsequent to the analysis of the data, codes were produced on the basis of recurrent patterns. In order to generate overarching themes, the codes were examined, improved, and organized.

One of the primary obstacles faced during the data collection phase pertained to scheduling clustered interviews with the participants. Despite initial efforts to coordinate a time and place that would work for all participants, it became apparent that conflicting schedules and other personal commitments made it impossible to virtually gather all participants together at the same time. Consequently, it was necessary to modify the research methodology and administer individualized interviews to each participant, based on their respective schedules. Although this methodology afforded greater adaptability and individualized focus on each participant, it also yielded a reduced sample size and restricted possibilities for collective engagement and lively discourse. Another issue was the difficulty in finding advertisers for the study. A lot of advertisers were hesitant to engage because they were concerned about disclosing confidential information about their advertising strategy. Another disadvantage of the study was the limited sample size, which was attributed in part to the difficulties in recruiting people with appropriate advertising knowledge and experience. Another difficulty was the possibility of researcher bias, which was reduced through member checking and reflexivity (Tracy, 2013). Furthermore, in certain situations, attaining data saturation was problematic, which may have limited the depth of analysis for particular themes (Guest et al., 2020).

Data Analysis and Discussion of Findings

1. Power dynamics and imbalance

The study showed that there are differing perspectives on who holds the most power in the world of online advertising. Respondent 4 suggested that the power lies with the consumer, as they have the ability to choose whether or not to support a product. However, Digital Marketer 1 believed otherwise. He expressed that advertisers have more power than consumers, citing Facebook's invasive data collection practices as an example. This sentiment is echoed in their feeling of not having control over the ads they see online, particularly when they are being pushed and forced upon them. Also, the presence of power imbalances within the realm of online advertising was acknowledged by almost all participants. Below are some excerpts:

Example 1

Respondent 1: Advertisers do not really take into consideration how consumers feel when it comes to this interruption. And so, there is power imbalance in a sense that they think they have a high power or a high control over the ad. Obviously they do because it is their ad. So, we as consumers we are not able to we don't have a choice.

Respondent 2: You can advertise for all you want. But if I wouldn't buy, it's cos 90.

Respondent 3: The imbalance is not as a result of this ad advertiser it's not their fault. The greater percentage is the fault of the consumer because they give the access to the advertisers. If consumers will read their privacy and cookies, because if I don't give you the access and you take it or you do it, it is illegal.

The analysis of responses provided by the three participants suggests that a power asymmetry exists between advertisers and consumers in the context of computational advertising. Both respondents 1 and 3 concur that advertisers wield greater

influence owing to the absence of control that consumers possess over the advertisements that they are compelled to view. The observation made by Respondent 1 highlights the tendency of advertisers to overlook the impact of ad interruptions on consumer sentiment. Consequently, individuals are compelled to endure advertisements without any agency, leading to a feeling of helplessness. However, the assertion made by Respondent 2 posits that customers wield the ultimate power in the marketplace, given their ability to make purchasing decisions that determine the success or failure of a product. Nonetheless, the users conveyed their dissatisfaction regarding the absence of agency in regulating the advertisements they encounter on the internet, particularly on YouTube where ads are frequently mandatory. The third participant contended that the asymmetry of power is attributable, in part, to the lack of attentiveness and information on the part of consumers regarding their rights. However, the participant also conceded that advertisers can be shrewd in their tactics. The analysis also revealed that the power dynamic between advertisers and audiences is not necessarily one-sided.

Example 2

Respondent 4: If we don't patronize a product or we don't like a product then there's no need for you to continue producing. If there is no target audience then there's no need for you to produce a product. The advertisers will always put the consumer in mind so whatever they do is centered on the consumer not they themselves.

Digital Marketer 1: Definitely companies. In large corporations, they sometimes socially engineer people into buying their products. That's crazy. Like when Facebook invades my privacy to collect very personal data and information about myself, that's a very dangerous reality. Part of the reason why I left Facebook. Very very maniacal company.

The analysis of the participants' feedback suggests that the power dynamic between advertisers and audiences is not unilaterally inclined. According to the perspective of Respondent 4, consumers possess a significant degree of influence as they are capable of shaping the market through their purchasing choices. However, Digital Marketer 1 asserts that companies wield greater influence in the realm of online advertising by leveraging social engineering strategies to shape consumer behavior. Moreover, Digital Marketer 1 conveyed unease regarding the intrusive nature of companies such as Facebook in terms of gathering personal information, which is subsequently utilized for advertising objectives. The aforementioned explains the issue of surveillance within the realm of advertising and its ability to foster an asymmetry of power between advertisers and consumers, with advertisers themselves weary of the effect since at a point in time, they also become consumers of and audiences to other ads.

The observations are consistent with the current body of literature regarding power asymmetries in digital advertising. Academic literature has highlighted the utilisation of panoptic measures, such as tracking cookies and algorithms, as a means for advertisers to exert substantial influence and authority over the digital engagement of individuals (Turow, 2017; Zuboff, 2019). The reason for this is that advertisers have the ability to utilise these technologies to tailor and customize advertisements to particular individuals, as well as to monitor their online activities for the purpose of enhancing their advertising tactics (Nissembaum, 2010). Consequently, individuals may perceive that their virtual encounters are being influenced and regulated by marketers.

Additionally, the findings derived from the study indicate that power dynamics can exert an influence on the actions and choices of consumers. As an illustration, the first participant observed that being compelled to view an advertisement can result in a waste of their time and elicit feelings of inadequacy. The second participant conveyed a sense of dissatisfaction regarding the absence of power over advertisements, which may result in their complete avoidance of particular websites. The assertion made by Respondent 3 posits that consumers possess the

ability to make informed decisions provided they exhibit attentiveness towards media law and ethics. However, Respondent 3 also acknowledged that not all consumers have access to such information.

2. Agency and resistance

Audiences feel limited in their ability to control the ads that pop up on their screens but they have their own ways of navigating the system. Here is an example:

Example 3

Respondent 5: Okay, so it's going to be a bit difficult to try and control the ads that pop up on your phone or your laptop. Yeah, so I don't think people can actually have a lot of control when it comes to skipping ads or commercials or stuff like that. The best thing is **maybe you could** send a mail to the company. **I don't know** if it will work, but maybe you could try telling them that you didn't find the advert or the commercial useful so you wouldn't want to see such pop ups again. I feel maybe it could work, I'm sure there are other alternatives, but I feel this is one of the ways to tackle such situations.

Respondent 5: There's this thing that I do. I call it **cheating the algorithm**. What happens is that if I have certain things on my feed that I don't like but they keep popping I'd flag it to Google” Digital Marketer 4: “I don't think consumers have the amount of control **they think they do**. Normally, big corporations collect your data **whether you agree or not**. Like Google, TikTok, etc. These days, consumers actually have very little control than they think they do.

Based on the comments of the participants, it is clear that audiences feel limited in their capacity to control the advertisements that appear on their screens. Digital Marketer 4

suggests that individuals take control of the ads they see by quitting websites that force users to accept cookies, turning off personalized ads in settings, and avoiding forceful adverts. Respondent 5 emphasizes the concept of "cheating the algorithm" by flagging undesirable ads to Google or Instagram, which progressively lessens the frequency of such ads. However, Digital Marketer 4 feels that customers have little control over the advertisements they receive because large firms acquire data whether they approve or not.

Despite some efforts to regulate ads through settings or flagging undesirable ads, it appears that users still believe they have little control over their online advertising choices. This data supports the assumption that there is a power imbalance between advertisers and audiences in panoptic computational advertising, where advertisers have more influence over the ads that are displayed to audiences. Furthermore, the comments underline the impact of algorithms in determining which advertising consumers view. Respondent 5 observes that the system analyses users' internet activities and modifies the adverts displayed accordingly. This highlights the importance of future research into the function of algorithms and artificial intelligence in panoptic computational advertising and how they contribute to power imbalances between advertisers and audiences.

3. Targeted advertising and power

Several participants reported that they frequently receive ads that are customized to their interests or online behaviors, indicating that targeted advertising is a common panoptic strategy used in computational advertising. When asked how they felt about these targeted ads, one participant stated,

Example 4

Honestly, that's a very good feeling to see that. Especially an instance where you want to buy a dress or you are looking for a dress for a program, and then you see an ad from, let's say, Amazon or Alibaba Express and they are selling these dresses which are

nice, and you go like, oh, let me see this website and it feels good. **And it's quite an experience.**

These quotes suggest that a considerable number of participants demonstrated an awareness of the concept of targeted advertising and its influence on their online engagement. Advertisers may reach a specific audience, boost the relevancy of their adverts, and achieve higher engagement rates by using targeted advertising. However, because it includes gathering and analyzing personal information without individuals' explicit consent or knowledge, this technique raises problems regarding privacy, consent, and discrimination.

Many respondents, particularly the audience, voiced concern about the power imbalance between them and advertisers. They believed that advertisers had too much influence over the types of advertisements they saw and that they did not have enough control over their online advertising choices. One participant expressed:

Example 5

They're making the advertisement video **compulsory for you to watch** for a number of seconds kind of like **puts them in a superior position** because, at the end of the day, **you don't choose** whether you watch or you don't watch. You have to still watch. Even if you mute it, you are still seeing it. So, I think in that instance, that short period, the advertisers or people who upload their advertisements on social media have some sort of power.

In contrast, a number of advertisers reported a sense of empowerment resulting from the extensive data they could gather and scrutinise via computational advertising. As per the statement of an advertiser: "The availability of extensive data pertaining to our intended audience enables us to develop customised advertisements that effectively strike a chord with them. This is a powerful instrument for reaching our intended audience".

This indicates an uneven distribution of power in the world of computational advertising, wherein advertisers hold a greater degree of power than audiences. As rightly stated, “the sense of powerlessness that individuals express about emerging forms of data collection and data mining reflects both the relations of ownership and control that shape access to communication and information resources, and growing awareness of just how little people know about the ways in which their data might be turned back upon them” (Andrejevic, 2014). This power imbalance may lead audiences to feel disempowered and susceptible to manipulation by advertisers who possess extensive personal data. As confirmed by one advertiser, “Definitely, companies in large cooperations, sometimes socially engineer people into buying their products. That’s crazy”.

4. Cookies and surveillance

Surveillance and visibility are essential panoptic concepts in the field of computational advertising. Marketers employ diverse techniques such as cookies, tracking pixels, and device fingerprinting to gather information about their target demographics. The information is used to generate audience profiles, which can be leveraged by advertisers to optimize the targeting of their advertisements. Nonetheless, the act of collecting this data could be interpreted as a type of surveillance, given that the individuals comprising the audience may not possess knowledge of the data collection process. Most interviewees expressed a lack of knowledge regarding cookies and their functionality. Sample interview excerpt:

Example 6

I know about cookies, but I’m not so good when it comes to what I know, because all I can say is it has to do with advertisers; it has to do with pop-ups. You’ll be there, and then it just pops up, and then they even ask you whether to cancel or to just go ahead with the pop-up that is a cookie. So that’s what I think the cookie is to me, people’s ideas might differ from mine, obviously.

To me, cookies would basically be the terms and conditions. Attached to certain websites or certain apps before they tell you what the app is about. They basically tell you what everything something is about and how they are used in advertising; I've never seen cookies used in advertising yet.

Based on these responses, it appears it is safe to say most respondents were only making guesses and did not really have much idea about the subject. However, one out of all eight (8) interviewed students had a fair knowledge of cookies. These examples demonstrate a lack of knowledge and awareness about cookies and other tracking technology used in computational advertising. This implies that internet users should be educated and made aware of how their online behavior is recorded and used for advertising purposes as demonstrated by iPhone

5. Algorithmic bias/filter bubble effect and normalization

A common normalization technique employed in computational advertising involves the use of "personalized recommendations" or "similar products" features. These features are designed to normalize certain products or services by suggesting them to users based on their previous browsing or purchasing history. The algorithm uses user data and behavior to detect patterns and forecast potential products or services that may pique the user's interest. As noted by one participant,

Example 7

I've been watching lots of ads on this skincare product and Cera Ve. And then after I watched the first one, Cera Ve products kept popping up on my For You page. So, I kept watching them. I kept watching them. So, I felt like, personally, maybe when I use Cera Ve for my skin, I'll get a glass skin, I'll get a baby skin, and then I go back to TikTok and they're advertising a new skincare product. You go back again; they're advertising a new one. So now you get to sit down, browse through the Internet, do your own research about the various different brands of products, and

then you decide that's all well; most people are saying that Cera Ve is better than simply. Most people are saying that simply is better than tea tree. So, you sit down, you analyze it, then you decide to go for a particular one.

Since algorithms frequently rely on past data, they may exhibit inherent biases and discriminatory tendencies wherein advertisements for high-paying job opportunities are exclusively delivered to male users or advertisements for luxury items are solely targeted towards users residing in affluent localities. Algorithms are frequently employed for the purpose of analyzing user data and determining the optimal advertisements to display to specific users. Algorithms may exhibit bias in the event that they are trained on biased data or if they integrate human biases. The outcome of such actions may lead to discriminatory practices, wherein specific advertisements are exclusively displayed to particular demographics, predicated on their race, gender, or other distinguishing features.

The presence of algorithmic bias serves to perpetuate power differentials between advertisers and audiences, as it reinforces pre-existing inequality in society and restricts the autonomy of audiences. The panoptic concept of power is reinforced by algorithmic bias since advertisers can influence users' behavior and preferences by using the biases and preferences built into the algorithms. A 2012 Pew study in the United States, for example, found that a majority (65%) of people who use search engines did not approve of the use of behavioral data to customize search results, and that more than two-thirds of all Internet users (68%) did not approve of behaviorally targeted advertising.(Purcell Brenner, & Rainie, 2012).

Another prevalent theme among the interviewees was the normalization of accepting terms and conditions and cookies. Several participants stated that accepting terms and conditions and cookies was a routine part of using the internet and various apps and that they did not pay much attention to them. According to one participant:

Example 8

Most people don't pay attention to content, or should I say cookies? And this privacy thing, we just say, okay, and these people just use information about us. And you know, when we log on, for instance, when you log on to Facebook, they will tell you, can Facebook have access to your pictures, have access to your call log and all these things. And we actually give them we grant them those access.

These responses show the normalization of accepting terms and conditions and cookies. Participants saw it as an anticipated feature of using the internet and did not consider it abnormal behavior. While accepting terms and conditions and cookies is considered standard behavior, some people feel that it deviates from accepted levels of privacy control.

Conclusion

This study explored how panoptic practices in computational advertising contribute to power imbalances between advertisers and audiences, and how audiences navigate these practices. Most participants were not familiar with the term "cookies" or how it's used by advertisers, and many of them did not feel that they had much control over the ads that pop up on their screens. Moreover, the use of algorithms and artificial intelligence in computational advertising raises concerns about bias, discrimination, and privacy.

The findings of the study suggest that audiences in Ghana are exposed to various forms of panoptic practices in computational advertising, which often reinforce power imbalances between advertisers and audiences. While some audiences use strategies like flagging unwanted ads or leaving websites that force them to accept cookies, these strategies have limited effectiveness, and audiences generally have little control over their online advertising choices. The study highlights the need for more research on the political and social implications of panoptic practices in computational advertising, especially in

emerging markets and developing countries, and the need to enhance the digital literacy of audiences to make them more aware of their rights and options.

Based on the findings, it is recommended that policymakers, advertisers, and digital platforms take proactive steps to address the power imbalances and ethical concerns associated with panoptic practices in computational advertising. This may include improving transparency and accountability in data collection and use, empowering audiences with more control over their data and advertising preferences, and promoting digital literacy and awareness among audiences. Future research can also explore the interplay between cultural and political factors and panoptic practices in computational advertising in diverse contexts, as well as the ethical and legal implications of algorithmic bias and discrimination.

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