

## Advertising in the Age of Algorithms: A Critical Examination of Consumer Behaviour, and Future of Brand Communication

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### Abstract

The advent of digital media and algorithmic targeting and change in consumer agency has caused a seismic shift in advertising. The article is a critical reflection of the ways the advertisement techniques have changed in the digital realm of algorithms and how they influence consumer behaviour, persuasion, and communication of a brand. The study also questions the way the practices of advertising have adapted the mass communication to hyper-segmentation and personalised messages in real-time, based on such theoretical positions as the Elaboration Likelihood Model, Uses and Gratifications Theory, and surveillance capitalism. The article establishes the impact of AI-based advertising infrastructure on attention, engagement, and consumer autonomy by synthesizing the scholarly literature on the topic, industry reports, and available case studies. It also explains the recent contradictions between creativity and automation, authenticity and commercialisation, convenience and privacy, and persuasion and manipulation. Despite digital advertising providing unprecedented opportunities in accuracy and efficiency, it has also become an area of ethical concerns concerning data management, transparency of the algorithm, and psychological abuse. The analysis suggests that the future of advertising lies in the transparency, participatory culture and ethical innovation to keep consumers trust in advertising in the long term. The article concludes by suggesting the future research on the social impact of algorithmic advertising and the development of responsible communicative models.

**Keywords:** *Algorithms, Consumer Behaviour, Advertising, Brand Communication.*

### Introduction

Traditionally, advertising is one of the strongest powers in modern societies, not only due to the possibility to affect the dynamics of markets, but also due to the ability to manipulate cultural meanings, social identity, and political sensitivities. In the past decades, the advertising was geared on the one-way mass media like print newspapers, radio stations and TV commercials that reach a mass audience but have no specifics. The essence of this advertisement was the assumption that persuasion messages may affect mass opinion by repetition on high-visibility media. The introduction of digital media however brought this communicative structure on its knees. The emergence of mobile devices, search engine, social networks, e-commerce systems and AI-driven systems of analysis offered a paradigm in which individual consumers could be tracked, analysed and targeted with unbelievable precision by their advertisers.

The shift created a great consumer agency. The contemporary consumers do not passively watch, but they are actively engaged in generating content, distributing and interpreting content. They comment, share, remix, public reviews Brand messages, and this has formed feedback loops, which never existed in the traditional mass media. The prosumer who assumes the role of consumer as described by Toffler (1980) brought the culture of participation where consumers are no longer just consuming the advertisement but have a role in defining the meaning and disseminating it. This type of symbiotic relationship has provided advertisers with new possibilities of reaching individuals. It has also however taken the form of making it difficult to regulate the spread of messages and control the brand in dynamic digital ecosystems.

In the meantime, the contemporary media environments can be characterized by unprecedented information overload. Business messages are sent to the average person in thousands every day, leading to a phenomenon known by researchers as advertising clutter or sensory overload (Pikas and Sorrentino, 2016). This saturation puts pressure on the marketer to create devices that resonate in the fragmented and high-speed markets. Brands, in their turn, are moving to the level of algorithmically optimised content format, including short-form videos, ephemerally stories, and personally tailored micro-ads, which are developed to align with interests of consumers, and platform-specific behaviour.

But despite the new efficiencies offered by digital advertising, there are also emerging ethical issues of privacy, surveillance and psychological manipulation. Surveillance capitalism is becoming increasingly tangled with the advertising business. Human behaviour is monitored, anticipated and marketed (Zuboff, 2019) in such a system and the systems that collect personal data whether by biometric or sentiment analysis are commercialised. This questions the autonomy of consumers and democracy as a system in general, because algorithm prediction can enhance filter bubbles and affect political preferences without being held accountable as well. The advertising is, consequently, in a contradictory situation: it is stronger and more controversial than ever before, and more vulnerable to criticism. This research paper will try to explore the advertising in the time of algorithms. The complexity of the digital technologies, interaction between the consumer psychology and persuasive communication is challenged in the study using a longer literature review, critical analysis, and synthesised evidence based on the academic and industry sources. Illuminating the opportunities and risks, the analysis attempts to show how advertisers can become responsible, ethical, and socially constructive in their communication in the future.

### **Review of Literature**

The advertising literature is extensive and ever-changing. To track modern trends, one must revisit foundational theories, psychological models, and new scholarship on digital persuasion, platform governance, influencer ecosystems, and algorithmic infrastructures.

**Basic Theories of Advertising and Persuasion:** Early communication models, which theorised persuasion as a linear process, are the roots of advertising research. The AIDA Model by Strong (1925), Attention, Interest, Desire, Action, is still one of the oldest models to explain consumer cognitive and emotional reaction to advertising stimuli. Even though it breaks down behaviour into distinct phases, AIDA laid down the concept that advertising could be assessed by its ability to capture attention and inspire action. The Hierarchy of Effects Model, developed by Lavidge and Steiner (1961), posits that advertising affects purchase first through awareness, then attitude, and finally purchase. Although these models were applicable in the traditional media, scholars suggest that these phases through digital media have been flattened, with persuasion becoming fluid, contextual and multidirectional.

The Elaboration Likelihood Model (ELM) by Petty and Cacioppo (1986) contributed immensely by defining how individuals process persuasive messages through either central or peripheral routes. The focal path is associated with profound cognition and may be activated whenever the message is of personal interest or when the person is inspired and capable of assessing it. The peripheral path is based on superficial messages, such as celebrity recommendations, design, feelings, or repetition. Digital advertising often stimulates peripheral processing by the rate and volume of information people receive while scrolling. Nevertheless, by customising advertisements with behavioural information, it becomes possible to engage central processing, thereby obscuring the boundary between the two pathways. Such processing flexibility is a characteristic of algorithm-optimised advertising.

**Digital environment Uses and Gratifications:** Uses and Gratifications Theory (UGT), which was first theorised by Katz, Blumler and Gurevich (1973), has much to inform on the active utilisation of media by the consumer as a way of fulfilling needs of entertainment, social identity and information needs. In current online spaces, UGT has come to recognise the motivations behind social media engagement, such as self-expression, peer acceptance, and group membership. Promoters are placing more advertising content within gratification-based content, especially through influencer marketing, branded entertainment, and interactive storytelling. It has been found that consumers find the content associated with influencers more authentic than conventional advertisements since it corresponds to parasocial relationships, one-sided intimacy between influencers and followers (Audrezet et al., 2018). The integration of this type of persuasion into daily online communication makes it indistinguishable from regular dialogue, and consumers are less likely to recognise the difference between sincerity and advertising. Nevertheless, excessive use of sponsored content decreases perceived authenticity and can undermine followers' trust, indicating that there are boundaries to influencers' influence on advertising.

**Predictive Targeting, Surveillance Capitalism and Algorithmic Advertising:** The emergence of algorithmic advertising is one of the greatest changes in contemporary communication. Programmatic advertising systems leverage data analytics, machine learning, and real-time bidding to deliver targeted messages at scale. Such systems are based on elaborate profiles that are developed out of browsing history, app usage, geolocation, biometric indicators, social interactions and even anticipated future behaviours (Turow, 2017). According to Zuboff (2019), surveillance capitalism explains how personal

information is turned into a product to predict and control consumer behaviour. The focus of this economic Model is advertising; it is a way to monetise behavioural surveillance and turn human experience into data to optimise algorithms. The use of algorithmic targeting leads to serious ethical issues. Scholars contend that advertising algorithms are neither transparent nor accountable, and that they are unfair (Pasquinelli & Joler, 2020). Also, micro-targeting can reinforce discriminatory trends, as it can be used to present opportunity-based advertisements, such as housing or jobs, to certain demographic groups and not others. The literature is more insistent that digital advertising is not merely a means of persuasion but an infrastructural power that shapes social disparities, user autonomy, and discourse.

**Advertising Clutter, Attention Economies, and Neuromarketing:** The virtual advertising world is flooded with stimuli competing for scarce human attention. An attention economy is the idea that attention is a finite resource commodified by platforms (Carah, 2017). Sensory techniques that advertisers employ include cutting fast, vivid colour and emotionally provocative imagery to attract attention in seconds. Neuromarketing studies show that emotional arousal and visual salience are good predictors of engagement; thus, advertisers create content that is optimised towards biological engagement and not rational engagement.

The opposition embraces the growth of advertising. Goldfarb and Tucker (2011) show that negative brand attitude can also be a result of intrusive advertisement. Consumer dislike of intrusive advertisements is evidenced by the popularity of ad blockers, skip buttons and customized privacy settings. Therefore, this resistance has led to the implementation of less prompt models like native advertising, sponsored integration, and custom storytelling. However, these types of formats are removing the line between content and promotion, and these raise the question of transparency and persuading the consumer.

The Cultures of Influencers and Participatory Branding assumes influencer marketing as an influence supreme in the advertisement online. The followers are assigned the role of analyzing brand messages and incorporating them into their personal stories that they apply in their daily life. Here, the role of influencers as cultural intermediaries is based on the principles of authenticity, symbolic capital and ongoing communication with followers. The integrity, however, is compromised as brands are still cashing on relationships with influencers. Influencers have to balance earnings and credibility, and the research also indicates that inauthentic behaviour by an influencer is easily spotted by the follower, which can cause damage to the reputation of both the influencer and the brand (Audrezet et al., 2018). This relationship reveals the latent tension in the practice of participatory branding whereby consumer participation is solicited but often appropriated to serve as a commercial goal.

**New Technologies: Generative AI, AR, and VR:** Recent research studying the transformations in advertising through immersive technologies. Snapchat and Instagram augmented reality (AR) filters and virtual reality (VR) can be used to mix digital and real-world experiences and offer brands strong brand experiences, respectively. The technologies enhance the senses' experience and add persuasive intensity as they permeate embodied perception. Automated content production: Generative AI is now used to generate videos, graphics, and advertising copy, based on data-driven predictions. These technologies can help increase efficiency, but scholars cast doubt on the possibility that automation can kill the diversity of creativity and strengthen algorithmic biases (Pasquinelli & Joler, 2020).

### **Research Methodology**

The proposed research is qualitative, grounded in an interpretive approach, and uses critical discourse analysis of the scholarly literature, industry reports, and case studies. The study does not produce primary data but rather synthesises secondary sources to identify patterns, contradictions, and gaps in the current scholarship. The analysis draws on peer-reviewed journal articles in advertising research, digital media research, behavioural psychology, and communication theory. Also, reports from the Interactive Advertising Bureau (IAB), McKinsey, Statista, Deloitte, and the Pew Research Centre provide the latest industry-level data on trends in advertising, consumer behaviour, and technological changes. The approach suits well, since advertising research is rapidly changing, and a synthesised, interdisciplinary approach enables one to have a holistic view of changing systems.

### **Analysis and Discussion**

Digital advertisement is currently characterized by a combination of data analytics, social impact studies, psychological theory, and automated distribution of media. This new transgenic ecosystem presents new nuances of persuasion, consumer

autonomy and ethical responsibility. Advertisements that have adopted artificial intelligence have helped companies to customize messages in a spectacular manner. Through behavioural traces, AI systems can assume the desires of consumers and identification of the best time to influence them. This foresight ability is a radical break away of the past methods of advertising that considered generalised things about the inclinations of the audience. However, this accuracy creates the issue of manipulation. With customisation based on mood or vulnerability indicators, or targeted inference of insecurities, the threshold of persuasion moves over into psychological space, which is the stance taken by researchers that such practices can undermine autonomy (Nissenbaum, 2010). As an example, the fact that weight-loss advertisements are directed at people who demonstrate signs of body dissatisfaction provokes pertinent questions about the ethical accountability and exploitation. Along with autonomy issues, algorithmic advertising leads to the large information asymmetry. Facebook, Google, and Tik Tok are manipulating and storing data that are not publicly available. Such an imbalance gives the disproportionate power of knowledge, behaviour, and visibility construction in these platforms. The companies that possess advanced algorithmic capabilities have an upper hand in competition leaving the small businesses behind. Such financial difference is indicative of wider inequalities of digital capitalism, where market success is predetermined by the access to information and computing capacities (Zuboff, 2019).

Another complexity added to the persuasive environment is influencer marketing. It is through this authenticity that influencers are trustworthy by many consumers since they are seen as ordinary people. Nevertheless, the prevalence of paid partnerships makes them less authentic rather than plausible. This constant confusion of personal expression and commercial advertising prevents the followers to differentiate between actual recommendation and monetary promotion. This non-transparency is a challenge to existing regulatory frameworks that traditionally imply the disclosure of sponsored material. Even the presence of disclosures does not reduce the vulnerability to less significant persuasive messages and makes informed decision-making a complex concept due to the formation of the affective and parasocial relationships between influencers and their audiences (Audrezet et al., 2018).

In addition, the digital ecosystem values content exposure by the number of engagements, over its allure or factuality. As a result, the advertisers create the emotionally suggestive, sensational or comedic content to attract attention quickly. The success of such contents relies on clicks, share, and commentary levels, as opposed to the informational and creative worth. This change is more virality-focused than the content, which supports the idea that attention, instead of persuasion is the currency in the digital age (Carah, 2017). Therefore, advertising will probably become less deep and creative in favour of algorithmic visibility.

Another new problem is algorithmic bias. Through the inadvertent learning patterns shown by AI systems in optimising advertisements based on the historical data, social inequalities may be strengthened. As an illustration of this, the job advertisements may be favourably shown to demographic groups like men according to prior engagement behaviour without any intentional effort on the part of human beings. The discriminatory consequences highlight the need to establish algorithmic transparency and greater responsibility in online advertising systems (Pasquinnelli and Joler, 2020).

However, there are major innovation possibilities in online advertisement. Participatory campaigns, interactive narratives, and immersive AR/VR experiences provide possibilities of useful interaction with the user. Companies are getting more aware of ethical disclosures, sustainability and community-based programs. As a result, intentional advertising campaigns with social responsibility, environmental awareness, and human values have been developed. Nevertheless, this should be approached with a certain degree of apprehension, because these campaigns are often a type of a so-called woke-washing, where a brand attracts attention through its social concerns and makes a significant effort to improve the reputation without engaging in meaningful action (Carah and Brodmerkel, 2021). This type of activism as a performance runs the risk of undermining consumer confidence and confusing the problem of the authenticity of the brand.

The other aspect of change in advertising is the presence of conversational AI. Chatbots and voice assistants like Alexa and Siri are now the intermediaries of communication with consumers that was unimaginable ten years ago. These systems are not only responsive to questions but also propose products, tailor shopping experiences and impact decision-making. Their popularity lies in the features of the natural language processing and anthropomorphic design that provokes emotional response. However, due to the invisibility of such persuasion, there is a concern that this aspect of it brings up transparency issues because the product consumers, as a rule, cannot grasp chatbot recommendations as advertising. Digital advertising is at the intersection of persuasion, automation and surveillance, when studied through the lens of these developments. Its

main dilemma revolves around efficiency and ethics, innovation and accountability. With no regulatory measures algorithmic advertising is manipulative as opposed to entertaining.

### **Conclusion**

The sophistication, prospects, and threats define advertisement in the era of algorithms. The targeting, engagement and influence have been changed by digital technologies and these changes have also violated the traditional ethical norms. Surveillance of behaviour, algorithmic targeting, the influencer culture, and immersive content provide persuasive spaces that can empower consumers and at the same time exploit them. This duality requires an interdisciplinary research agenda that is critically oriented and concerned not only with economic and creative implications but also with cultural, psychological and political implications of algorithmic persuasion. The future advertisement must focus on accountability, consumer freedom and transparency. Artificial Intelligence (AI)-based advertisement tools should be designed based on ethical standards to prevent non-discrimination, promotion of privacy, and building trust. Brands that promote authenticity, participatory communication and social responsibility should be in a better position to develop long term relationships with the consumers in a sceptical and saturated environment. Scientists and policy makers should keep examining the general social impacts of algorithmic advertising and come up with regulatory systems that would be both innovation friendly and socially protective. Overall, the advertising as a cultural tool will continue to be influential, changing both the technological possibilities and because of the desire to live ethically, democratically, and humanely.

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