How to Avoid Blocking of Targeted Advertising

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Abstract

In the context of transformation of the digital advertising ecosystem driven by tightening regulatory norms and increasing user attention to personal data protection issues, the question of counteracting blocking of targeted advertising becomes especially relevant. The aim of the study is to construct and methodologically substantiate a holistic model capable of ensuring the resilience of targeted advertising strategies to blocking under strict requirements for protecting the confidentiality of user data. The methodological basis of the work includes a comprehensive analysis of profile scholarly publications, examination of key regulatory acts (in particular, GDPR and DMA), as well as analysis of practices and policies of leading global technology companies. The scientific novelty of the research consists in proposing an integrated strategic model of proactive compliance combining technical, ethical and creative components in a unified targeting management system, instead of the widespread reactive and narrowly focused solutions. The proposed model demonstrates that stable effectiveness of targeted advertising is ensured not by attempts to circumvent restrictions, but by building long-term engagement based on principles of transparency, mutual respect and value exchange. The practical significance of the work lies in the fact that its results may be used by marketers, digital communications specialists, advertising technology developers and scholars in the field of media communications to create more sustainable and ethically grounded advertising campaigns.

Keywords: *Targeted Advertising, Ad Blocking, Data Privacy, GDPR, Cookieless, Privacy Sandbox, Advertising Ethics, First-Party Data, Advertising Policies, Digital Strategy.*

INTRODUCTION

Modern digital advertising serves as a key driver of the economic model of the Internet environment, providing the resource base for a multitude of online services. According to forecasts, the average annual growth rate of advertising through 2026 will be 6.6 %, which exceeds that of the retail sector and the economy as a whole. Thus, the advertising market may reach a volume of 1 trillion US dollars. Growth is primarily driven by digital technologies. Over the five-year forecast period, global internet advertising revenue will increase by an impressive 9.1 % and reach 723.6 billion US dollars in 2026 [1]. At the heart of this ecosystem lies targeting, which enables advertising messages to be delivered to interested user groups based on their demographic characteristics, behavior, and preferences. At the same time, the effectiveness of targeted campaigns is seriously undermined by two closely related factors: the tightening of personal data protection regulations and the widespread use of ad-blocking tools. As early as the beginning of 2024, approximately 42 % of global internet users were employing ad-block solutions, directly impacting the revenues of both advertisers and media platforms [2]. The situation is exacerbated by the policies of the platform giants themselves (Google, Meta, etc.), which regularly restrict or suspend accounts and advertising activities that fail to comply with ever more complex internal regulations.

The relevance of research on this topic is determined by the need to develop adaptive strategies that respond to new realities in which traditional data collection methods, primarily via third-party cookies, are losing effectiveness. Chrome's planned abandonment of support for third-party cookies in 2025 can be considered a turning point that will radically change the rules of the game for the entire industry [3]. Academic literature discusses disparate aspects: technical alternatives to cookies, the legal consequences of GDPR and similar regulations, as well as user perceptions of such measures. Nevertheless, there remains a deficit of research offering a holistic, systematically validated approach to the problem of ad blocking that combines technical, legal, and behavioral components within a unified methodology.

The aim of the study is to construct and methodologically substantiate an integrated model capable of ensuring the resilience of targeted advertising strategies to blocking under stringent user data privacy requirements.

The scientific novelty of the work lies in the proposal of a comprehensive strategic framework that unites preventive mechanisms for averting restrictions based on the complementary interaction of technological evolution, adherence to ethical norms, and the establishment of a value-oriented dialogue with the audience.

The author's hypothesis is that long-term targeting

effectiveness is achieved not by operationally responding to each blocking event, but through the proactive integration into business processes of tools that enhance data processing transparency, expand user control capabilities, and improve the precision of advertising message relevance, which collectively minimize both the technical and motivational drivers for adopting blocking solutions.

MATERIALS AND METHODS

In contemporary literature on the problem of avoiding targeted-ad blocking four thematic groups of sources can be distinguished.

The first group comprises analytical reviews and reports reflecting trends in digital advertising and ad-blocker usage. PwC in the report Digital ad spending moves closer to the consumer shows that from 2023 to 2025 the share of expenditure on personalized advertising integrated into the user experience increased by 12 %, and advertisers are increasingly seeking formats less susceptible to blocking [1]. Backlinko publishes an analysis of the demographic characteristics of ad-blocker users, noting that 44 % of the online audience aged 18–34 regularly use ad blockers, with browser extensions on desktop being most popular while growth in mobile apps is slowing [2]. Behre J., Hölig S., Möller J. emphasizes that 30 % of German users of news websites install ad blockers for privacy protection and page-load speed optimization [8]. All this indicates mounting pressure on classical targeted advertising from users.

The second group of studies focuses on privacy-protection initiatives in the web ecosystem and governance issues. Google itself presents a chronology of the main Privacy Sandbox events, documenting the launch of individual APIs and browser-mechanism reconfigurations from 2020 to 2025 (for example, FLoC, Topics API, Attribution Reporting API) [3]. Olejnik L. [4] examines the institutional and regulatory aspects of Privacy Sandbox governance, asking whether this framework should be managed by an independent body or remain under Google's control. Masur P. K. [7], in a specification analysis of the privacy paradox, demonstrates how different methodological choices affect conclusions about the inconsistency between users' stated attitudes toward privacy and their actual online behavior, directly relating to motivations for installing or circumventing ad blockers. From a digital-security perspective, Sahi A. M. et al. [10] analyze research trends in digital-payment security and privacy; although the article's focus lies outside advertising technologies, the authors underscore the need for integrated solutions that account for the multithreaded nature of threats in the user-data ecosystem.

The third group includes technical developments and algorithmic approaches to delivering ads capable of bypassing blockers. Lin L. F., Huang Y. K., Hou K. C. [5] propose a mechanism called Social Endorser Advertising Dissemination, which combines social, mobile and contextual information to natively integrate advertising messages into user content in such a way that they are not recognized by classic tag- and script-based blockers. This approach emphasizes the use of trusted distribution channels—for example, embedded recommendations from acquaintances—which reduces the likelihood of filtering.

Finally, the fourth group investigates sociological and psychological aspects of advertising perception and privacy. Rus-Arias E., Palos-Sanchez P. R., Reyes-Menendez A. [9] construct a model linking socio-demographic variables to the installation and use of ad blockers, finding that individuals with high levels of digital literacy more often disable ad personalization but do not install blockers altogether. Rubin V. L. [6], in a study on manipulations in marketing, shows that advertisers increasingly employ elements of propaganda and epistemic misrepresentation to bypass users' conscious monitoring and anti-advertising filters.

Despite the diversity of approaches, contradictions are evident in the literature. On the one hand, PwC and Backlinko reports document the widespread adoption of ad blockers; on the other, technical developments such as Social Endorser Advertising Dissemination claim effectiveness but do not confirm large-scale practical implementation. Moreover, governance issues surrounding Privacy Sandbox remain unresolved. There is also no consensus in the assessment of the privacy paradox: Masur P. K. [7] points to heterogeneous results due to methodology, whereas Olejnik treats privacy issues as technical.

As for under-explored topics, foremost among them is the empirical evaluation of the real-world effectiveness of algorithmic ad-blocker circumvention in the context of the modern ecosystem of browsers and extensions. Equally underrepresented is the integration of interdisciplinary approaches: combining technical solutions with sociocultural factors of perception and legal regulation. In particular, little attention has been paid to the impact of regulatory acts (GDPR, ePrivacy Regulation) on the development and adoption of new targeting forms, as well as to research on user behavior in mobile applications and smart devices, where blockers operate on different principles.

RESULTS AND DISCUSSION

As a result of a comprehensive analysis of theoretical concepts and empirical practices a holistic strategic framework was proposed to minimize the risks of targeted advertising blocking. The basis of this framework consists of three synergistically interrelated components: technological adaptation and diversification; ethical compliance and trust-building; value-oriented creative design and selection of contextual platforms. Only through the simultaneous and coordinated advancement of all three directions does the advertising ecosystem acquire the necessary resilience and become less susceptible to blocking

The first component, technological adaptation and

diversification, implies abandoning exclusive reliance on third-party cookies in favor of a multichannel technological stack. The cornerstone of this approach is first-party data — information that users provide to an organization directly and voluntarily (registration forms, participation in loyalty programs, transaction history). This data handling model not only complies with regulatory requirements [6] but also increases targeting accuracy and relevance. In parallel the use of Privacy-Enhancing Technologies (PETs) should be scaled — tools that guarantee the protection of user privacy. An example is the Google Privacy Sandbox initiative [3], which combines the Topics API (interest topics without disclosing browsing history) and the FLEDGE API (remarketing without cross-domain trackers). Although these solutions are currently in the pilot phase, failing to adopt them threatens significant competitive lag. Moreover diversification of the technological strategy should include an updated version of contextual advertising based on page semantics analysis instead of user profiles [5]. Comparative evaluation of the presented approaches is set out in Table 1.

Table 1. Comparative analysis of targeting technologies in the post-cookie era (compiled by the author based on [3, 4, 5, 8])

Technology	Targeting accuracy	Privacy level	Platform dependency	Resistance to blocking
Third-Party Cookies (obsolete)	High	Low	Low	Very low
First-Party Data	Very high	High (with consent)	Low	High
Google Topics API	Medium	High	High	High
Contextual targeting	Low / Medium	Very high	Low	Very high
Deterministic identifiers	Very high	Low / Medium	Medium	Low / Medium

Analysis of the data presented in Table 1 confirms that there is no universal solution for optimizing retention and acquisition strategies: the most effective model combines the use of detailed first-party data when working with a loyal audience and, in parallel, the implementation of scalable yet privacy-preserving approaches (for example Topics API and contextual targeting) for attracting new users.

The second element of the proposed model is ensuring ethical compliance and building trusting relationships with the audience. Here the scope goes beyond mere adherence to GDPR regulations: the objective is to create an environment in which the user is perceived not as an object of data collection but as an equal partner. In practice this requires the implementation of transparent and detailed consent management platforms, allowing participants in the process to promptly track the volume and purposes of data collection and to withdraw their consent without difficulty. Moreover, a key element is the transition to systematic collection of zero-party data — information that clients consciously provide to the brand to personalize their experience (for example through quizzes, surveys, or preference settings) [8]. Empirical studies demonstrate a direct correlation: the higher the level of transparency in data processing, the more willingly consumers share data with a brand that clearly articulates the benefits of such exchange [7] (Fig. 1).
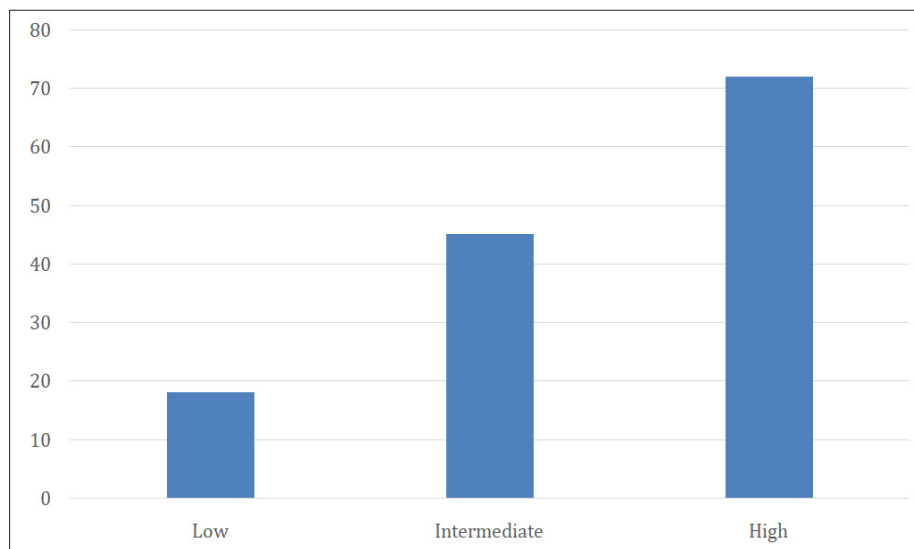

Fig. 1. Dependence of consumer trust on the level of transparency of data use (compiled by the author based on [7, 8, 10]).

The existing graph data presented in Figure 1 clearly demonstrate that transitioning to maximally transparent interaction with the audience alters their perception of advertising messages, which, in turn, reduces the propensity to install and use ad blockers.

The third, and largely underestimated, element of the strategy is the focus on value exchange in creative execution and context selection. Blocking of advertising content is often driven not so much by the fact of targeting as by its intrusiveness, irrelevance, and interference with the flow

of user experience [10]. Therefore, the primary objective should be the creation of advertising materials from which the audience does not seek to disengage. This can be achieved by offering the consumer not merely a commercial proposition, but genuine added value — be it professional advice, engaging content, exclusive privileges, or solutions to specific problems. Under such conditions, the emphasis shifts to high-quality presentation and exact alignment with the interests of the target group. The decision-making model for interaction with advertising can thus be structured as follows (Fig.2).
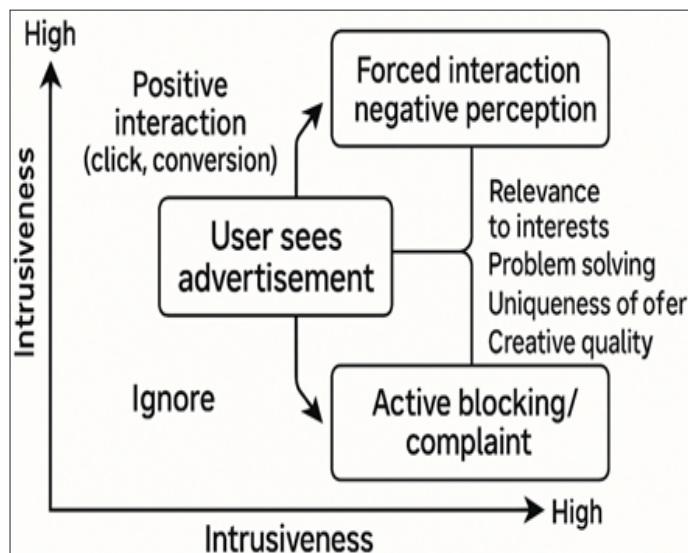
Fig. 2. Model for making a decision about interaction with an advertising message (compiled by the author based on [7, 9, 10]).

In other words, as can be observed, the implementation of the described approach implies not a superficial consideration of demographic characteristics, but a comprehensive investigation of the cognitive and behavioral features of target groups, as well as investments in high-tech and creatively elaborated content formats. The analysis of motivations, preferences and the most vulnerable aspects of the audience, employing both quantitative and qualitative methods (surveys, focus groups, psychometric scales and modeling of user scenarios), becomes the foundation for creating genuinely valuable communication. Practice demonstrates that such efforts yield a statistically significant inverse correlation: as the perception of advertising intervention as intrusive decreases, key engagement metrics increase, foremost among them the click-through rate (CTR).

A comprehensive proactive strategy, based on the integration of three key elements: technological readiness, ethical transparency and value-oriented creativity, ensures multilayered protection against blocking. Firstly, technical compliance with platform standards reduces the likelihood of triggering automated moderation algorithms. Secondly, transparency regarding the collection and use of user data fosters audience trust and diminishes the inclination to employ blockers manually. Finally, an emphasis on generating

value-driven creative transforms the targeted message from an irritating nuisance into a valuable element of the user experience.

Thus, the proposed model marks a transition from passive reaction to blocks to active elimination of their root causes. For successful implementation of this approach, organizations must not only adopt modern technological solutions but also transform corporate culture towards enhanced client-centricity and a responsible attitude at every stage of interaction with the audience.

CONCLUSION

The conducted study examined the issue of targeted advertising blockades and proposed an original methodology that extends beyond traditional practices. It was determined that in the modern digital environment, amid increasingly stringent legislative norms and rising user demands for personal data protection, conventional reactive techniques for circumventing restrictions fail to yield stable results and are destined to decline in effectiveness in the long term.

The outcome of this work was the creation and theoretical substantiation of a unified strategic model aimed at proactively preventing blockades. The structure of this model is built upon three fundamental components:

1. Technological adaptation to a post-cookie reality — via diversification of audience data and implementation of Privacy-Enhancing Technologies (PETs) that ensure privacy protection without sacrificing targeting accuracy;

2. Establishment of trust-based relationships with users — through ethical compliance, transparency in data collection and usage processes, and granting end consumers direct control over their informational footprints;

3. Development of value-oriented creative content — producing material perceived by audiences not as intrusive advertising but as relevant, useful, and engagement-stimulating informational products.

Thus, the initial hypothesis is confirmed: the reliability and resilience of advertising strategies are largely determined by the synergistic interaction of technological, ethical, and creative factors.

The scientific novelty of this research lies in the systematic integration of the aforementioned directions into a single methodology adaptable to diverse business contexts. Unlike existing studies that primarily focus on individual tools for circumventing blockades, the proposed approach shifts the focus toward creating advertising messages that do not provoke resistance in advance and do not require subsequent masking or filter evasion.

The practical significance of the model is manifested in its applicability as a roadmap for marketers, advertising

agencies, and business owners when revising digital strategies. Implementation of the articulated principles will help not only reduce direct financial losses from blockades but also:

- increase long-term loyalty of the target audience;

- strengthen brand reputation as a responsible and transparent market player;

- optimize return on investment in advertising campaigns.

Prospects for further work are associated with testing the developed framework in specific markets, conducting quantitative assessment of the economic effect of its implementation, and investigating the influence of modern technologies (including artificial intelligence algorithms) on the balance between personalization of the advertising experience and adherence to ethical standards.

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