

STRATEGIES AND TOOLS OF MARKETING COMMUNICATIONS IN THE ERA OF THE INTERNET OF THINGS (IOT) AND ARTIFICIAL INTELLIGENCE (AI)

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Abstract: *The article explores the strategies and tools of marketing communications 4.0 in the context of IoT and AI. It examines the impact of these technologies on creating personalized interactions, as well as their role in enhancing data analysis and addressing complex marketing strategy tasks. Ethical aspects of data usage are outlined, along with the importance of a balanced approach between automation and human expertise..*

Keywords: *strategy, communications, marketing communications, communication channels, Internet of Things (IoT), artificial intelligence (AI), virtual reality (VR).*

The impact of the digital economy on society, business conditions, and participant relationships is profoundly significant. The emergence of new phenomena such as online platforms, social media, big data, and online service providers is prompting a reevaluation of business models and the concept of “business” as a whole. Digital technologies are transforming consumer culture, expanding the digital experience, and driving innovation in data collection, processing, and communication strategies of modern enterprises. The utilization of digital technologies in business has significantly changed the paradigm of enterprise success, from automating marketing processes to complete digital transformation of order management.

Digitization, as noted by H. Kagermann, continually merges the real and virtual worlds, stimulating innovation and changes across all sectors of the economy[1]. In the terminology of the global leader in research and consulting in the field of information technology, Gartner, digitization refers to the use of digital tools to transform business models and create new opportunities for profit and value creation [2].

In a world becoming increasingly digital and interconnected, marketing communications undergo significant changes. Known as “Marketing Communications 4.0”, this new stage in the evolution of marketing is defined not only by technological advancements but also by their synergistic impact on interactions with consumers. In the era of the Internet of Things (IoT) and artificial intelligence (AI), we observe the emergence of new strategies and tools that transform the ways brands engage with consumers. Today, we are challenged to combine the capabilities of IoT and AI with marketing strategies to create more personalized and effective communications. A deep understanding of these technologies and their impact on marketing will enable companies to become a foundation for innovation and establish connections with consumers that were previously impossible.

The development of the Internet of Things (IoT) significantly transforms communication strategies, providing companies with far more opportunities to interact with consumers. Thanks to the vast amount of data collected through IoT devices, enterprises can gain deep insights into the habits and preferences of their customers. This allows not only to creation of detailed consumer profiles but also to provision of personalized services and products that meet their needs.

One of the key advantages of IoT is its ability to collect and analyze data in real time. This means that companies can instantly respond to changes in consumer behavior and provide individually tailored offers that address specific needs.

Additionally, IoT helps businesses optimize advertising campaigns. Data collection and analysis enable the creation of advertising targeted precisely at the intended audience, making it more effective and efficient. This ensures better utilization of the advertising budget and increases consumer engagement levels.

The utilization of artificial intelligence (AI) for data analysis and process automation in communications is a key strategy in modern business, as it enables companies to effectively leverage large volumes of information and engage in more precise and personalized interactions with customers.

Firstly, artificial intelligence provides the ability to analyze large volumes of data in real time. This allows companies to gain deep insights into consumer behavior, preferences, and trends. Through machine learning algorithms and natural language processing, AI can identify key patterns, trends, and sentiments

among vast amounts of information, such as customer feedback, social media posts, and web analytics data. This enables companies to conduct thorough market analysis and interact with their customers on a more informative level.

Secondly, AI can automate many routine processes in communication. For example, automated email response systems or chatbots can provide quick customer support by responding to typical inquiries or providing information about products and services. This frees up human capital to handle more complex tasks and enhances the efficiency of customer service.

Additionally, AI enables personalized communication with each customer. Machine learning algorithms can adapt the content and tone of messages according to the unique needs and preferences of each customer, making interactions more engaging and effective.

In the modern business environment, virtual reality (VR) and augmented reality (AR) are becoming extremely relevant in creating immersive marketing campaigns, as these technologies allow companies to immerse consumers in unique virtual or augmented experiences, providing a deeper and emotionally rich interaction.

Firstly, virtual reality enables users to immerse themselves in a virtual environment, which can be created using computer graphics and special equipment such as VR headsets. This opens up possibilities for creating immersive advertising campaigns where customers can “experience” the product or service before making a purchase. For example, automotive companies can allow customers to virtually test drive a car, architectural firms can allow customers to see their future home or office in a virtual space, creating a unique impression and increasing consumer interest.

Secondly, augmented reality allows virtual objects or information to be overlaid in the real world, opening up new marketing opportunities. For example, with AR applications, users can try on products before purchasing, receive augmented information about the product, and participate in interactive advertising campaigns that emerge in their real environment.

Such immersive marketing approaches increase consumer attention and interest, as well as contribute to brand and product memorability. Moreover, they enable companies to create unique and innovative advertising campaigns that set them apart from competitors and contribute to positive brand perception.

Overall, the use of VR and AR in marketing campaigns transforms ordinary advertising efforts into immersive experiences that deepen the connection with the audience and enhance marketing effectiveness.

Firstly, one of the main ethical issues is the collection and use of personal data without proper consumer consent. Gathering information about purchases, browsing history, location, and other personal data can violate privacy and raise questions about the protection of personal data.

Secondly, the use of algorithms and artificial intelligence to analyze this data may lead to inequality and discrimination. For example, if recommendation algorithms decide which products or services to show to specific users based on their race or socioeconomic status, this may result in the exclusion of certain groups or reinforcement of stereotypes.

Thirdly, there is a risk of using the obtained data to manipulate consumer behavior. Using psychological and emotional data to create personalized advertising messages can influence people's decisions and actions, infringing on their freedom of choice.

To address these ethical issues, strict rules and standards regarding the collection, storage, and use of personal data need to be implemented. Companies should be transparent about how they collect and use data, and provide users with the ability to control their personal information. Additionally, a careful ethical assessment of algorithms and systems is necessary to avoid discrimination and manipulation.

Building consumer trust in companies and their marketing practices in the digital age largely depends on how effectively these companies address the ethical issues associated with the use of data and personal information.

In today's information-saturated environment, consumer engagement strategies are taking on new forms and approaches as consumers are inundated with a massive flow of information and have a plethora of choices. To effectively engage the audience in such an environment, companies need to employ strategies aimed at addressing these challenges.

It is important to create meaningful content that meets the needs and interests of the target audience. Content should be engaging, useful, and original to capture the attention of consumers and pique their interest.

Personalization of interaction is a key strategy. Using consumer data to create personalized offers and messages helps attract their attention and enhance communication effectiveness.

It is important to utilize diverse communication channels. In a world of constant connectivity, consumers receive information through various channels such as social media, email, messengers, etc. Effective engagement strategies should leverage this diverse media space for maximum audience coverage.

Creating interactive and engaging experiences for consumers is important. Using interactive elements such as contests, polls, and quizzes allows consumers to actively engage with the brand and feel involved.

Considering that consumers have limited time and attention, it is important to use incentive strategies such as special offers, discounts, gifts, etc., to attract their attention and encourage interaction.

Overall, consumer engagement strategies in a world of constant connectivity and information overload require flexibility, innovation, and attention to audience needs. Employing various approaches and continuously adapting to changes in consumer preferences and behavior will help companies effectively engage and retain the attention of consumers in this competitive environment.

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