THE USE OF ARTIFICIAL INTELLIGENCE IN CREATIVE ADVERTISING CAMPAIGNS

Dunja Bošković[1] [0000-0003-3313-661X], Jelena Spajić[2] [0000-0003-2890-969X], Bojana Milić[3] [0000-0001-6327-6424], Ksenija Mitrović[4] [0000-0002-1454-3298], Danijela Lalić[5] [0000-0002- 1277-5116]

Abstract

The rapid advancement of Artificial Intelligence (AI) has revolutionized numerous industries, with advertising being one of the most significantly impacted. This paper explores the transformative effects of AI technologies on advertising strategies, practices, and outcomes, particularly in the creation of creative advertising campaigns. By analyzing a wide range of relevant literature in the field, the study aims to understand the current trends, methodologies, and effectiveness of AI-driven campaigns. Additionally, practical examples from leading companies are examined to illustrate how AI technologies are being implemented in real-world scenarios to enhance creativity, target audiences more effectively, and measure campaign success. This research contributes to the growing body of knowledge by providing a comprehensive overview of AI's role in modern advertising, offering valuable insights for marketers and academics interested in the integration of AI in creative processes. The findings are expected to highlight the transformative potential of AI in advertising and suggest best practices for leveraging these technologies to maximize campaign impact.

Key words: *artificial intelligence, advertising, marketing communication, creativity.*

[1,] University of Novi Sad, Faculty of Technical Sciences, Serbia, dunja.vujicic@uns.ac.rs
[2] University of Novi Sad, Faculty of Technical Sciences, Serbia, stankovicj@uns.ac.rs
[3] University of Novi Sad, Faculty of Technical Sciences, Serbia, bojana.milic@uns.ac.rs
[4] University of Novi Sad, Faculty of Technical Sciences, Serbia, ksenijam@uns.ac.rs
[5] University of Novi Sad, Faculty of Technical Sciences, Serbia, danijela.lalic@uns.ac.rs

1. Introduction

The integration of artificial intelligence (AI) in creative advertising campaigns has emerged as a transformative force within the marketing landscape. Theoretical frameworks and practical applications illustrate how AI technologies enhance creativity, optimize audience targeting, and measure campaign success. This paper explores the theoretical underpinnings of AI in advertising, supported by empirical evidence and case studies from leading companies.

2. Theoretical background

Theoretical perspectives on advertising creativity emphasize the importance of emotional engagement and originality. Advertising creativity significantly influences customer loyalty, particularly when advertisements evoke positive emotions, thereby enhancing their attractiveness and memorability (Nurlibna, 2024). This aligns with findings that creative advertisements bridge the gap between products and target audiences, facilitating voluntary engagement through innovative designs and emotional evocation (Shen et al., 2020). The role of creativity in advertising is further supported by research indicating that creativity acts as the "soul" of advertisements, essential for their effectiveness (Shen et al., 2020).

AI technologies have revolutionized the creative process in advertising by enabling the generation of personalized and interactive content. discusses how digital technology allows for the creation of personalized print ads that enhance consumer engagement, demonstrating that creativity remains relevant in today's market (Thakkar, 2023). This is complemented by the study of Wang et al. (2021), who explore how intrinsic motivation and emotional appeals in advertisements can significantly influence purchase intentions, suggesting that AI can be harnessed to tailor messages that resonate with consumers.

Practical applications of AI in advertising are exemplified by leading companies that have successfully implemented AI-driven strategies. For instance, AI-generated content (AIGC) technologies have been utilized to optimize ad creatives, as seen in Yang's research on real-time advertising systems, which highlights the impact of creatives on click-through rates (CTR) (Yang, 2024). This capability allows companies to dynamically adjust their advertising strategies based on real-time data, enhancing both creativity and effectiveness.

The synergy between AI and digital marketing has been explored by Logalakshmi (2023), who emphasizes that AI enhances the efficiency of marketing campaigns, optimizes customer targeting, and facilitates seamless interactions. This is particularly relevant in the context of neuromarketing, where AI applications can analyze consumer behavior and preferences to create targeted campaigns that yield long-term brand value (Papić et al., 2023). The ethical considerations surrounding AI in advertising are also crucial (Mogaji et al., 2020) in the context of potential biases inherent in AI systems that could adversely affect vulnerable customers.

The effectiveness of AI in enhancing advertising creativity is further supported by empirical studies that demonstrate the positive effects of creative advertising on consumer behavior. For example, increased advertising creativity enhances perceived product value, influencing consumer intentions to engage with brands (Aichner & Shaltoni, 2019). Similarly, research by Papić et al. (2023) illustrates how AI can facilitate sustainable marketing campaigns by optimizing resource allocation and targeting, thereby enhancing overall campaign effectiveness.

AI's role in measuring campaign success is underscored by the ability to analyze vast amounts of data to derive actionable insights. The work of Zhou et al. (2020) introduces a neural model for evaluating creativity in advertising, providing a framework for understanding how consumers perceive and respond to creative content. This model can be instrumental in refining advertising strategies based on consumer feedback and engagement metrics.

The collaborative potential of AI in creative processes is also noteworthy. A framework for modeling interaction in human-AI co-creative systems was proposed by Rezwana & Maher (2023), emphasizing the importance of communication channels between humans and AI to enhance collaboration quality.

The aforementioned findings highlights the necessity for further in-depth research into how AI can effectively augment human creativity in advertising contexts.

3. The analysis of practical examples: AI & Creative campaigns

Practical examples from leading companies are analyzed to demonstrate the application of AI technologies in real-world contexts, aimed at enhancing creativity, optimizing audience targeting, and improving the measurement of campaign success.

Heinz A.I Ketchup is an award-winning campaign for *Winner of a 2023 Clio Gold Award for Product/Service* (Rethink, 2023). This creative campaign was launched alongside the release of the DALL-E 2 image generator powered by artificial intelligence. The campaign creators leveraged the growing popularity of this technology, asking the question, "What does ketchup look like?" The generated images consistently resembled a Heinz ketchup bottle. Based on these results, Heinz decided to create a global campaign where users on social media shared their unique and intriguing results from the prompt "What does ketchup look like?" Heinz then utilized all the AI-generated images to produce promotional ads, billboards (Fig.1), and eventually curated a gallery featuring user-generated images, both in the metaverse and a physical exhibition. The campaign achieved global success, generating 850 million user interactions.

Figure 1: Heinz A.I Ketchup

The "Have A(i) Break" campaign by Kit Kat was inspired by research conducted by Google DeepMind, which revealed that even artificial intelligence performs better when given a break (CourageInc., 2024). Researchers found that the phrase "Take a deep breath and solve the problem step by step" was the most effective in improving AI performance. The agency Courage connected this finding with Kit Kat's iconic message "Have a break," adding the phrase "Have a break, then..." to a series of AI prompts (Fig. 2). The improved and more accurate responses demonstrated that Kit Kat's "Have a break" ethos, or in this case "Have an 'AI' break," resonates even with artificial intelligence.

Figure 2: Have AI Break. Have a Kit Kat.

A creative campaign **Your Skills are irreplaceable** was launched in Belgium in 2023, to promote the IMPACT HR platform, which specializes in construction job recruitment (Business Today, 2023). A humorous billboard was placed on a busy street, emphasizing that not all skills can be replaced by artificial intelligence (Fig. 3). Interested candidates could apply for construction jobs by scanning a QR code on the billboard. This innovative approach combined AI with a non-traditional method to promote an HR agency.

Figure 3: Your Skills are irreplaceable - IMPACT HR

Nutella launched the **"Nutella Unica"** campaign, utilizing an algorithm to design 7 million unique labels (Possaible, 2023). Each label featured a combination of lines, shapes, dots, and zigzag patterns, generated by a program ensuring no two labels were identical (Fig. 4). The campaign, launched in February 2017, resulted in a quick sellout of all products. The algorithm also generated a custom ID code for each label to guarantee its uniqueness. This campaign demonstrates how AI can enhance creative processes in the design industry, showcasing the potential of intelligent automation.

Figure 4: Nutella's AI-Designed Labels Campaign

Nike and AKQA created a virtual match between Serena Williams from 1999 and 2017 using advanced AI technology and machine learning. By analyzing archival footage, they modeled Serena's playing style from different periods, including decision-making, shot selection, responsiveness, recovery, and agility. Launched two days after Serena announced her retirement, the campaign showcased the results of a year-long study through a virtual match between the two versions of Serena. The live broadcast on YouTube garnered over 1.69 million views, with the campaign achieving over 12 million media impressions and generating 1,082%

more organic views compared to other Nike content. This campaign set a new benchmark in sports analytics, offering deeper insights into the evolution and performance of athletes and won an award as *Best in Category - Digital Design2023* (PremiersDesignAwards, 2023).
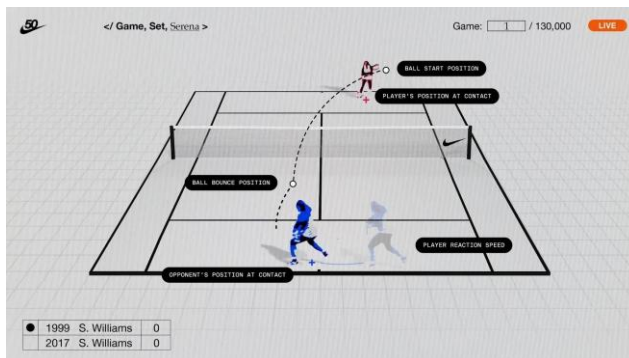

Figure 5: Nike's "Never Done Evolving"

4. Concluding remarks

The integration of AI in creative advertising campaigns presents a multifaceted opportunity for enhancing creativity, optimizing audience targeting, and measuring campaign success. The theoretical foundations and practical applications discussed herein illustrate the transformative potential of AI in the advertising industry. As companies continue to explore and implement AI-driven strategies, the landscape of advertising creativity will undoubtedly evolve, leading to more engaging and effective campaigns. However, the literature and practice has often ignored the negative implications of AI for the interaction between digital marketing and vulnerable customers. Therefore, ethical considerations of using AI in advertising are crucial for ensuring fairness, transparency, and accountability in marketing practices. These factors foster consumer trust and help prevent discriminatory practices that could arise from biased algorithms. Future research could analyze cases of misguided AI application in advertising to draw conclusions and establish ethical frameworks for creative communication.

Acknowledgments

REFERENCES

[1] Aichner, T., & Shaltoni, A. M. (2019). The impact of perceived advertising creativity on behavioural intentions and quality perceptions in mass customization. *International Journal of Industrial Engineering and Management*, *10*(2), 131–138. https://doi.org/10.24867/ijiem-2019-2-234

[2] BusinessToday. (2023). *'Hey ChatGPT finish this building': This advertisement takes a wicked dig at AI enthusiasts*. Business Today. https://www.businesstoday.in/latest/corporate/story/hey-chatgpt-finish-this-building-this-advertisement-takes-a-wicked-dig-at-ai-enthusiasts-384375-2023-06-06

[3] CourageInc. (2024). *Have AI break, Have A KitKat*. CourageInc. https://www.courageinc.com/press/work-detail/kitkat-canada-have-ai-break/

[4] Logalakshmi, S., Krishnan.M, D., & Maheswari, D. P. L. (2023). Carving a brighter path with synergy of digital marketing & AI. *International Journal of Trendy Research in Engineering and Technology*, *07*(05), 18–24. https://doi.org/10.54473/ijtret.2023.7505

[5] Mogaji, E., Soetan, T., & Kieu, T. A. (2020). The implications of artificial intelligence on the digital marketing of financial services to vulnerable customers. *Australasian Marketing Journal*, *29*(3), 235–242. https://doi.org/10.1016/j.ausmj.2020.05.003

[6] Papić, T., Mihajlović, A., & Gajić, J. (2023). Advanced technologies as a framework for sustainable marketing campaigns (AI application in neuromarketing). In M. Stanišić (Eds.), *Proceedings of the International Scientific Conference - Sinteza 2023* (pp. 180–184). https://doi.org/10.15308/sinteza-2023-180-184

[7] Parker, M. (August 10, 2023). *How Nutella sold 7M jars in one month with AI*. Possaible. https://www.possaible.com/p/nutella-sold-7m-jars-one-month-ai

[8] PremiersDesignAwards. (2023). *Nike 50th Anniversary - Never Done Evolving*. PremiersDesignAwards. https://premiersdesignawards.vic.gov.au/entries/2023/digital-design/nike-50th-anniversary-never-done-evolving

[9] Rethink agency. (2023) *A.I ketchup*. AdsOfTheWorld. https://www.adsoftheworld.com/campaigns/a-i-ketchup

[10] Rezwana, J. and Maher, M. L. (2023). Designing creative ai partners with cofi: a framework for modeling interaction in human-ai co-creative systems. *ACM Transactions on Computer-Human Interaction*, *30*(5), 1–28. https://doi.org/10.1145/3519026

[11] Shen, W., Bai, H., Ball, L. J., Yuan, Y., & Wang, M. (2020). What makes creative advertisements memorable? the role of insight. *Psychological Research*, *85*(7), 2538–2552. https://doi.org/10.1007/s00426-020-01439-5

[12] Tazkiya Nurlibna, A., Izdiharjati, C., Arnanda, M. G., Aras, M., & Mani, L. (2024). Analysis of the influence of advertising creativity, product campaigns, and brand ambassador credibility on customer loyalty for the wearing klamby brand. *Journal of Economics and Business* UBS, *13*(2), 438–450. https://doi.org/10.52644/joeb.v13i2.1533

[13] Thakkar, K. Y. and Ganatra, N. J. (2023). The power of creativity in print advertising: a study of its relevance in today's market. *Journal of Management Research and Analysis*, *10*(3), 169–172. https://doi.org/10.18231/j.jmra.2023.029

[14] Wang, J., Dang, W. V., Wang, H., Zheng, M., & Wu, Q. (2021). Investigating the effects of intrinsic motivation and emotional appeals into the link between organic appeals advertisement and purchase intention toward organic milk. *Frontiers in Psychology*, *12*, 679611. https://doi.org/10.3389/fpsyg.2021.679611

[15] Yang, Z., Sang, L., Wang, H., Chen, W., Wang, L., He, J., … & Shao, J. (2024). Parallel ranking of ads and creatives in real-time advertising systems. *Proceedings of the AAAI Conference on Artificial Intelligence*, *38*(8), 9278–9286. https://doi.org/10.1609/aaai.v38i8.28780

[16] Zhou, S., Luo, J., Yu, T., Li, D., Yin, Y., & Tang, X. (2020). Towards a neural model of creative evaluation in advertising: An electrophysiological study. *Scientific Reports*, *10*(1), 21958. https://doi.org/10.1038/s41598-020-79044-0