

# Tools of Artificial Intelligence Technology as a Framework for Transformation Digital Marketing Communication

Ana Mulović Trgovac\*, Antonija Mandić, Biljana Marković

**Abstract:** The article researches the transformative possibility of Artificial Intelligence (AI) technology tools in digital marketing communications. By leveraging machine learning, natural language processing, and data analytics capabilities, AI tools enable marketers to automate tasks, personalize content, optimize campaigns, and gain deeper insights into customer behaviour. The paper examines applications of AI in digital marketing, analyses the way of transforming digital communication by AI, compares it to the traditional PESO communications model, presents the utilization of AI tools within the PESO framework and their collaboration to enhance communications, and proposes a framework for successful implementation. The research question in this paper is: how do artificial intelligence tools transform communication in a digital marketing environment? The results provide valuable insights into how AI-based technology transforming digital marketing communications.

**Keywords:** Artificial Intelligence; Digital Communication; Digital Marketing; PESO Model; Transformation

## 1 INTRODUCTION

Digital technologies such as artificial intelligence (AI) are known to be highly complex and continuously evolving. Embracing them necessitates organizations to consistently realign their resources, personnel, culture, and decision-making procedures [1]. They are defined as "products or services that are either embodied in information and communication technologies or enabled by them" [1]. They exist as digital platforms or artifacts with digitized components. While there are various types of digital technology, they all share a common theme: separating digital information from the physical form of the device [1]. Digitalization extends beyond implementing technology to signify a fundamental shift in the entire business model and the evolution of work [1]. AI has been touted as a means for organizations to reduce costs and enhance the quality of their services, coordination, productivity, and operational efficiencies [1]. According to a market analysis of global AI in marketing, it is projected that the global AI in marketing market will experience a compound annual growth rate (CAGR) of 30% between 2023 and 2028 [2]. This demonstrates the rapid growth and adoption of AI in the marketing sector worldwide. Additionally, research by Statista shows that 84% of marketers are either using AI in their marketing activities or planning to do so, indicating the widespread adoption of AI among marketing professionals [2]. Furthermore, a study by Gartner predicts that by 2025, 80% of marketing organizations will utilize AI to personalize customer experiences, highlighting the increasing emphasis on using AI for customer-centric marketing strategies [2].

Spending on AI-powered advertising is expected to reach \$35 billion worldwide by 2025, indicating a significant rise in AI-driven marketing budgets [2]. The rapid growth of AI technologies emphasizes the need for extensive research in this field, as they are increasingly utilized in various business operations creating new opportunities for digital transformation, and presenting fresh challenges for process managers.

This article aims to identify available scientific literature and AI tools as a framework for transforming digital

marketing communications and to determine how AI tools transform digital communication.

Literature reviews on AI tools in digital marketing communication are being conducted, analysing key applications and benefits, and describing utilization of AI tools within PESO digital communications framework and provide examples of how they are incorporated in practice.

The primary aim of our research was to explore the ways in which artificial intelligence tools are revolutionizing communication in the context of digital marketing, how AI reshaping communications and compare it to the traditional PESO communications model (paid, earned, shared, and owned media). Furthermore, the study presents the utilization of AI tools like ChatGPT within the PESO framework. It determines how they can collaborate to enhance communications and also explores how businesses can use ChatGPT to enhance their PESO communications strategy.

The scientific contribution of this study is an exploration of a relatively unexplored and under-researched field, guiding future studies of AI-based technologies that enhance digital marketing communications.

The paper is structured as follows: Firstly, we outline the aims and purpose of the study. The main section of the study will introduce the research approach, including a review of the literature, an exploration of the framework for developing a comprehensive digital communication strategy, and an analysis of AI tools that transform communication. Our research findings offer valuable insights into the potential and challenges of AI in revolutionizing digital marketing communications. Finally, the last part of the paper will cover research limitations and provide recommendations for future research.

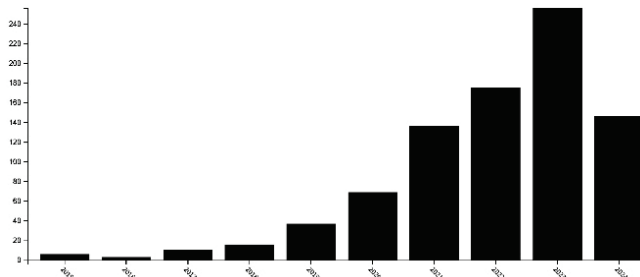
## 2 RESEARCH APPROACH

Through an in-depth analysis of relevant literature, we have identified the framework for developing an effective communication strategy in digital marketing. Additionally, we exemplified how AI, illustrated by Chat GPT, is reshaping digital transformation.

## 2.1 Literature Review

AI tools are pivotal in enhancing digital communication across diverse industries. These tools empower designers by expanding the range of solutions available [3], enable marketers to craft personalized customer experiences and gain a deeper understanding of their audience [4]. AI-powered tools not only provide quick insights and simulations to designers but also facilitate personalized and automated message-based interventions to promote sustainable lifestyles and healthy choices [4]. When integrated into digital marketing, AI allows marketers to automate tasks, enhance customer interactions, and gain insights into consumer behaviour, ultimately simplifying their work and improving communication strategies.

The utilization of AI tools in digital communication continues to transform various industries, offering innovative solutions and enhancing overall efficiency. According to citation database Web of Science there is a great interest in studying AI tools that are involved in all segments of life and speed up work processes and automation. Analyzing the available articles using the keyword according to the topic "AI and digital communication", 874 articles are available, which leads us to believe that this is still an unexplored topic. The oldest works appear in the early nineties of the 20<sup>th</sup> century. Refine our search by Web of Science Categories: Business, Management, and Economics we get 68 articles.



**Figure 1** AI and digital communication Articles from Web of Science Published by Year [5]

By examining the documents, the thematic framework evolves to prioritize personalized user experience and the utilization of various AI tools in their integration into the business process. When we look at the broader digital economy, AI technologies, such as machine learning and big data analytics, are transforming various sectors, improving efficiency, and personalizing customer experiences [6]. While AI offers significant value for businesses in areas such as process automation, decision-making, and personalization, its implementation also presents challenges related to security, privacy, and staff training. Successful AI application requires a strategic approach, including adaptation of work processes and organizational culture [7].

AI tools are transforming digital communication across various domains, including social media marketing, healthcare, and interpersonal interactions. In social media, AI-powered tools enable automated analysis of key performance indicators, supporting decision-making in

marketing strategies [8]. However, the accessibility of AI-mediated communication (AI-MC) tools varies based on factors like software access, demographics, and AI literacy [9]. In healthcare, AI chatbots offer versatile applications for information dissemination, appointment scheduling, and patient support, though challenges remain in their integration [10]. Across diverse contexts, AI technologies like virtual assistants, chatbots, and translation tools promise enhanced efficiency, personalization, and accessibility in communication. While these advancements offer significant benefits, further research is needed to address ethical concerns, improve accessibility for vulnerable groups, and develop user-centered guidelines to ensure responsible innovation in AI-mediated communication [11].

Travel and tourism industry (TTI) stands to gain the most from artificial intelligence (AI), potentially reshaping the entire industry [12]. Blümel identifies how customer service agents and conversational artificial intelligence (AI) applications can provide a personal touch and improve the customer experience in customer service [13]. The potential of AI tools in marketing communication suggests that there is a need for future research to delve into the impact of integrating AI into digital marketing on consumer behavior and brand-to-consumer relationships. Investigating the long-term effectiveness and sustainability of digital communication tools can provide insights into improving communication practices.

Examining the potential ethical implications and societal impacts of the widespread adoption of AI in digital marketing, such as job displacement and privacy concerns, to ensure the responsible and accountable use of AI in marketing practices.

## 2.2 Theoretical Background: A Framework for Developing a Comprehensive Digital Marketing Communications Strategy

AI has substantial potential within the field of marketing. It facilitates the dissemination of information and data sources, enhances the capabilities of software data management, and develops sophisticated and advanced algorithms [14]. AI is revolutionizing the dynamic between brands and users, fundamentally altering the nature of their interactions [14].

The definition of digital communication describes any electronic transmission of information that is digitally encoded and transmitted through digital media [15]. This available data covers multiple communication formats and different communicators (e.g. consumers, traders, etc.) [15]. Digital communication, can also be broadly categorized as one-way (e.g. digital ads, customer reviews, etc.) or interactive (e.g. chats via e-services, online brand communities, etc.), and it appears on a large number of platforms (e.g. Instagram) and stores (e.g. digital signage). As digital communication is purposefully constructed, repetitive, and subject to change, its dynamic development is just as important as its current content. In addition to its dynamism, digital communication is characterized by

different modalities (e.g. numerical, textual, audio, image, and video) [15].

The success of the PESO model as an integrated approach to digital communications is reflected in its application in practice in the last 10 years. Gini Dietrich, the author, and originator of the PESO Model™, introduced in 2014, combines paid, earned, shared, and own digital content to establish the thought leadership, credibility, trust, and authority that fuel a brand's reputation [16]. The PESO Model is used by experts to develop marketing or communication programs, suggesting how to strategically integrate the four types of digital content, how to measure results, and how to influence the organization's goals [16]. The PESO model has evolved from the initial categorization of media content into paid, owned, and earned, which Burcher calls the "media trinity" in 2012 to the present day, i.e. from the approach of acquiring space in the media for the distribution of brand messages in which marketers have access to three key types, i.e. the "media trinity" [16]. The rise and growth of social media and widespread access to the internet for direct publication by organizations have radically changed production and distribution strategies in both public relations and corporate communication, as well as in integrated marketing communication, with the priorities of the PESO model [17]. Undoubtedly, the importance of social media marketing has become a key foundation for organizations that communicate with existing and potential consumers [18]. Social media allows organizations to directly promote their brand and products to consumers and receive direct feedback [16]. For this, organizations use all four elements of the PESO model in social media to generate a positive attitude about the brand [16].

The integrated PESO model combines four types of digital content (paid, earned, shared, and owned) to frame a comprehensive media strategy. According to Gini Dietrich, the foundations of the integrated PESO model are [16]:

- 1) Paid media for a communication program refers to advertising on social media sites, sponsored content, and email marketing.
- 2) Earned media is commonly known as publicity or media relations. Content is recognizable by the printing of the name of the brand and/or organization, and includes publications in newspapers or trade publications that write about the brand and/or organization, then for example appearing in the midday news where experts would talk about their product or appearing in podcasts. Everything that the public relations industry is commonly known for because it is one of the few tangible things done so far.
- 3) Shared media is known as social media that evolves and continues to build on and beyond only the marketing or customer service teams that use it. Organizations have begun to use it as the main source of internal and external communication. This includes not only social networking, but also community, partnerships, distribution, and promotion.
- 4) Owned media is primarily known as the content that an organization owns and "lives" on its website and/or blog.

The organization controls the sending of messages and tells the story the way it wants.

When these four types of media content are integrated, it is revealed that there is also influencer engagement, partnerships, and incentive programs that go beyond the internal boundaries of the organization itself [15]. An organization's digital content elements can be used in social media marketing to generate a positive attitude about the brand [18]. In 2024 Dietrich's insight into understanding PESO model integrated approach in today's digital age is pivotal. For this reason, traditional success metrics, like media impressions, number of stories, follower numbers, or advertising equivalencies, are insufficient for capturing the actual value and reach of communications activities [19].

As one of the most significant advantages of the PESO model, when it achieves the set goals and works best, the author states that it can help organizations establish authority [15]. For Dietrich, authority means that the organization and/or brand is a thought leader, who is viewed by others as an expert, even by competitors themselves, while Google positions him on the first page of results because it also recognizes him as an expert [15].

### 2.3 AI Transforming Communication: Comparison of the Use of ChatGPT and the PESO Model

AI is poised to enter a transformative phase, where its utilization will lead to enhanced productivity, organizational efficiency, and increased profitability for businesses [20]. By leveraging AI, organizations can achieve a deeper understanding of customer needs and behaviors, thereby fostering and sustaining customer loyalty [20]. As AI technologies become increasingly cost-effective and accessible, they are expected to emerge as indispensable assets for digital marketers [20]. These advanced methodologies are likely to wield substantial influence over consumers' decisions regarding brand selection and product preferences. Consequently, it is imperative for markets to integrate these technologies into their operations to facilitate growth and align with evolving customer expectations. Notably, AI technology applications are anticipated to disrupt the digital marketing landscape over the forthcoming decade [20].

Rapid advancements in technology have firmly established AI as a critical and indispensable element in modern communications [21]. The potential of AI to significantly enhance the industry lies in its ability to improve efficiency, boost productivity, and refine audience targeting [21].

As businesses and organizations continue to navigate the ever-evolving landscape of communications and marketing, it's crucial to comprehend the different strategies and tools available. Many AI tools enable the transformation of communication like Google Bard (LaMDA), Microsoft Bing Chat, Anthropic's Claude, Meta's LLaMA, Amazon Lex, IBM Watson Assistant, Replika, Dialogflow, Rasa, ChatGPT, etc. AI and natural language processing have given businesses a new tool for enhancing communications and marketing efforts.

ChatGPT, a powerful language model created by OpenAI is selected for further analysis. ChatGPT can help with various tasks, including content generation, answering questions, and offering personalized recommendations [21].

The PESO Model is a framework for developing and executing a comprehensive communications strategy that covers all forms of media. Experts in the field recommend implementing the PESO Model using ChatGPT and emphasizing the importance of human editing, illustrated in Tab. 1, which compares the use of ChatGPT and the PESO model [21].

Incorporating ChatGPT and the PESO model in communication (Tab. 1) provides various benefits, regarding better efficiency, upgraded audience insights, improved messaging control, and powerful relationship building. Also, should be considered some challenges, such as adopting new technologies and the possibility of overuse of AI tools [21].

**Table 1** Comparison of the use of ChatGPT and the PESO model

| Aspect                | Traditional communications without ChatGPT                                | Communications with ChatGPT and PESO model  |
|-----------------------|---|---|
| Media types           | Focused on owned and earned   | Incorporates paid, earned, shared, and owned media  |
| Efficiency            | Relies on manual effort and time-consuming tasks                          | Can improve efficiency and productivity by automating certain tasks                           |
| Audience insights     | Limited understanding of audience behavior and preferences                | Can provide valuable insights into audience behavior and preferences through AI analysis      |
| Messaging control     | Relies on interpersonal communications and limited control over messaging | Allows for greater control over messaging and communication through ChatGPT                   |
| Coverage placement    | Limited ability to influence coverage placement                           | Can use AI tools to monitor and place stories to improve odds of favorable coverage           |
| Relationship building | Relies heavily on traditional relationship-building methods               | Can use shared media and AI tools to build relationships with influencers and target audience |

**Table 2** Revolutionizing marketing and communications with the assistance of AI

| PESO model   | AI applications           | Examples  |
|--------------|---------------------------|---|
| Paid Media   | Programmatic Advertising  | Using AI algorithms to automatically purchase and optimize ad placements for maximum ROI                          |
|              | Chatbots                  | Using chatbots to automate customer interactions and improve customer service                                     |
| Earned Media | Media Monitoring          | Using AI-powered tools to monitor media coverage and track sentiment around a brand or topic                      |
|              | Influencer Identification | Using AI algorithms to identify and connect with influencers who are most likely to engage with a brand's message |
| Shared Media | Social Listening          | Using AI to monitor social media conversations and identify trends and insights relevant to a brand or industry   |
|              | Content Creation          | Using AI to generate personalized content that resonates with specific audiences                                  |
| Owned Media  | Website Personalization   | Using AI to personalize website content and user experiences based on user behavior and preferences               |
|              | Chatbots                  | Using chatbots to automate customer interactions and improve customer service                                     |

Tab. 2 provides an example of how AI is revolutionizing marketing and communications using the PESO model as a framework [21].

Tab. 2 provides an in-depth analysis of AI transforming marketing communication by outlining specific guidelines for its application across the PESO model [21]. This comprehensive overview serves as a fundamental stepping stone for conducting extensive research into additional AI tools that can be leveraged for marketing purposes.

In marketing, ChatGPT can enhance content creation, customer service, and research efficiency [22]. However, ethical considerations and potential risks must be carefully managed [22, 23]. The technology's applications extend across various industries, including healthcare and education, with challenges such as data biases and safety issues requiring mitigation strategies [23]. In communication strategies, ChatGPT offers advantages in social media, customer support, and content creation, though its implementation comes with both benefits and drawbacks [24].

The findings affirm AI's significant potential in reshaping digital marketing communications. However, the responsible and strategic adoption of AI tools is crucial. Future research should focus on the long-term impacts of AI, ethical considerations, and developing frameworks that balance AI capabilities with human expertise.

### 3 RESEARCH RESULTS

The study yielded the following key results based on the systematic literature review and analysis of AI's integration into digital marketing communication within the PESO framework.

AI tools significantly enhance digital communication by: (a) Expanding Design Solutions: AI tools offer designers a wider range of solutions, enabling more innovative and customized designs; (b) Personalizing Customer Experiences: By analyzing customer data, AI facilitates personalized marketing strategies, enhances customer interactions, and tailors content to specific audience segments; (c) Automating Tasks: AI reduces the manual effort needed for repetitive tasks, allowing marketers to focus on strategic activities, and (d) Providing Insights: AI-powered tools provide quick and accurate insights into consumer behavior and preferences, aiding in the development of more effective communication strategies [25].

AI's transformative potential covers various industries: Social Media Marketing: AI tools automate analysis of key performance indicators and facilitate decision-making; Healthcare: AI chatbots assist in scheduling appointments, disseminating information, and providing patient support; and Travel and Tourism: AI improves customer service through personalized interactions and conversational applications [26].

Implementing ChatGPT within the PESO model offers several advantages: Efficiency and Productivity: automates content generation, customer interactions, and targeted

communications, thereby enhancing overall efficiency and productivity; Audience Insights: provides valuable insights into audience behaviour, preferences, and engagement, allowing for more precise targeting and personalized messaging; and Relationship Building: facilitates relationship building through shared media and AI-driven influencer identification and engagement strategies.

#### 4 DISCUSSION AND CONCLUSION

This research provides valuable insights into the potential and challenges of AI in transforming digital marketing communications. While the findings suggest a strong belief in the transformative power of AI, the research also highlights the need for a strategic and responsible approach to AI adoption. The research approach and research results exhibit a lack of scientific studies on AI tools in digital communication process. The lack of research opens up a new niche for research in this area.

The long-term implications of AI in digital marketing suggest a significant shift in marketing practices, emphasizing the need for responsible AI deployment that balances technological capabilities with ethical standards [27]. Future research should focus on the evolving impact of AI on consumer behavior and brand relationships [28]. It is recommended to include the following three components: qualitative studies: conducting in-depth interviews and focus groups with marketing professionals to gain a deeper understanding of their experiences and perspectives on AI, case studies: analyzing the implementation of AI in specific marketing contexts to assess its real-world impact and effectiveness, longitudinal studies: tracking the long-term impact of AI on digital marketing strategies outcomes.

This study, however, has some limitations. The main limitation is mirrored in the first stage of the study, i.e. in the selection of the scientific databases.

There may be other relevant published papers that could potentially contribute to this study but were not considered because they were not indexed in the selected database. Additionally, the tools mentioned in the second phase were not the only ones available on the market. It's important to acknowledge that new tools are constantly emerging, improving various aspects of business. AI tools are highly dynamic, just like the communication process, and more comprehensive tooling is required.

Recent studies have explored the potential of ChatGPT in marketing communications, highlighting its ability to enhance content creation, customer service, and data analysis [29]. While ChatGPT offers numerous opportunities in various marketing fields, including consumer behavior and advertising, researchers emphasize the need for human intervention and oversight [24, 30]. The technology's implementation across different communication channels, such as social media and customer support, has been analyzed, revealing both advantages and challenges [24]. Ethical considerations, including privacy concerns and potential biases, have been identified as crucial factors to address when integrating ChatGPT into marketing strategies [22]. Despite these challenges, ChatGPT has the potential to

revolutionize marketing practices by improving efficiency and enabling more personalized customer interactions, provided that ethical guidelines are followed and human expertise is maintained [22, 29].

The ultimate aim of this study was to indicate to scholars and marketing and communication experts that AI tools enhance digital marketing communication. The most effective approach will vary depending on specific needs and objectives. However, both the PESO model and ChatGPT can complement each other. ChatGPT can rapidly and precisely generate content across diverse media channels, while the PESO model offers a comprehensive framework for media strategy. It can be concluded that ChatGPT has the potential to enhance the PESO model.

#### 5 REFERENCES

- [1] Holmström, J. (2022). From AI to digital transformation: The AI readiness framework. *Business Horizons*, 65(3), 329-339. <https://doi.org/10.1016/j.bushor.2021.03.006>
- [2] Stone, M., Aravopoulou, E., Ekinci, Y., Evans, G., Hobbs, M., Labib, A., Laughlin, P., Machttynger, J. & Machttynger, L. (2020). Artificial intelligence (AI) in strategic marketing decision-making: a research agenda. *The Bottom Line*, 33(2), 183-200. <https://doi.org/10.1108/BL-03-2020-0022>
- [3] Karahan, H. G., Aktaş, B. & Bingöl, C. K. (2023, July 5 - 7th). *Use of language to generate architectural scenery with AI-powered tools*. 20th International Conference on Computer-Aided Architectural Design Futures 2023, Delft, Netherlands. <https://doi.org/10.1007/978-3-031-37189-9>
- [4] Priyanga, G. (2023). The effects of artificial intelligence on digital marketing. *ShodhKosh: Journal of Visual and Performing Arts*, 4(1SE), 158-167. <https://doi.org/10.29121/shodhkosh.v4.i1SE.2023.431>
- [5] Authors source according to citation database Web of Science
- [6] Riley, J. (2023). AI Powers the Digital Economy. *Ubiquity*, 2023(December), 1-10. <https://doi.org/10.1145/3636478>
- [7] Timofeev, A. V., Timofeev, A. A. & Sharlay, K. I. (2023). Role of Artificial Intelligence in the Digital Transformation of the Economy. *The economy of the North-West: problems and prospects of development*. <https://doi.org/10.52897/2411-4588-2023-2-64-71>
- [8] Gołab-Andrzejak, E. (2023). Measuring the effectiveness of digital communication—social media performance: an example of the role played by AI-assisted tools at a university. *Procedia Computer Science*, 225, 3332-3341. <https://doi.org/10.1016/j.procs.2023.10.327>
- [9] Goldenthal, E., Park, J., Liu, S. X., Mieczkowski, H. & Hancock, J. T. (2021). Not all AI are equal: Exploring the accessibility of AI-mediated communication technology. *Computers in Human Behavior*, 125, 106975. <https://doi.org/10.1016/j.chb.2021.106975>
- [10] Sun, G. & Zhou, Y. H. (2023). AI in healthcare: navigating opportunities and challenges in digital communication. *Frontiers in Digital Health*, 5, 1291132. <https://doi.org/10.3389/fgdh.2023.1291132>
- [11] Gholami, M. J. & Al Abdwani, T. (2024). The Rise of Thinking Machines: A Review of Artificial Intelligence in Contemporary Communication. *Journal of Business, Communication & Technology*, 3(1), 29-43. <https://doi.org/10.56632/bct.2024.3103>
- [12] Filieri, R., D'Amico, E., Destefanis, A., Paolucci, E. & Raguseo, E. (2021). Artificial intelligence (AI) for tourism: an European-based study on successful AI tourism start-ups.

- International Journal of Contemporary Hospitality Management*, 33(11), 4099-4125.  
<https://doi.org/10.1108/IJCHM-02-2021-0220>
- [13] Blümel, J. H., Zaki, M. & Bohm, T. (2023). Personal touch in digital customer service: a conceptual framework of relational personalization for conversational AI. *Journal of Service Theory and Practice*, 34(1), 33-65.  
<https://doi.org/10.1108/JSTP-03-2023-0098>
- [14] Haleem, A., Javaid, M., Qadri, M. A., Singh, R. P. & Suman, R. (2022). Artificial intelligence (AI) applications for marketing: A literature-based study. *International Journal of Intelligent Networks*, 3, 119-132.  
<https://doi.org/10.1016/j.ijin.2022.08.005>
- [15] Grewal, D., Herhausen, D., Ludwig, S. & Villarroel Ordenes, F. (2022). The future of digital communication research: Considering dynamics and multimodality. *Journal of Retailing*, 98(2), 224-240. <https://doi.org/10.1016/j.jretai.2021.01.007>
- [16] Mulović Trgovac, A. (2023). Place branding in a changing media environment applying the Holistic model. *Doctoral dissertation*, Josip Juraj Strossmayer University of Osijek CroRIS ID: 829608. <https://www.croris.hr/crosbi/publikacija/ojenski-rad/829608>
- [17] Macnamara, J., Lwin, M., Adi, A. & Zerfass, A. (2016). "PESO" media strategy shifts to "SOEP": Opportunities and ethical dilemmas. *Public Relations Review*, 42(3), 377-385.  
<https://doi.org/10.1016/j.pubrev.2016.03.001>
- [18] Mattke, J., Müller, L. & Maier, C. (2019, January 8 - 11th). Paid, Owned and Earned Media: A *Qualitative Comparative Analysis revealing Attributes Influencing Consumer's Brand Attitude in Social Media*. Proceedings of the 52<sup>nd</sup> Hawaii International Conference on System Sciences, Grand Wailea, Hawaii. <https://doi.org/10.24251/HICSS.2019.098>
- [19] Dietrich, G. (2024). *The PESO Model: A 2024 Comprehensive Guide*. Spin Sucks. <https://spinsucks.com/communication/peso-model-comprehensive-guide/>
- [20] Nair, K. & Gupta, R. (2021). Application of AI technology in modern digital marketing environment. *World Journal of Entrepreneurship, Management and Sustainable Development*, 17(3), 318-328. <https://doi.org/10.1108/WJEMSD-08-2020-0099>
- [21] Wright, R. (2023, March 24). *The Evolution of PR and Communications with AI: A Look at PESO Model and ChatGPT*. 2024 Communication Generation. <https://www.communication-generation.com/generate-paid-earned-shared-owned-media-with-gpt/>
- [22] Rivas, P. & Zhao, L. (2023). Marketing with chatgpt: Navigating the ethical terrain of gpt-based chatbot technology. *AI*, 4(2), 375-384. <https://doi.org/10.3390/ai4020019>
- [23] Ray, P. P. (2023). ChatGPT: A comprehensive review on background, applications, key challenges, bias, ethics, limitations and future scope. *Internet of Things and Cyber-Physical Systems*, 3, 121-154.  
<https://doi.org/10.1016/j.iotcps.2023.04.003>
- [24] Spajić, J., Milić, B., Lalic, D. & Bošković, D. (2023, October 5 - 6th). *Leveraging ChatGPT for creative communication strategies: Exploring Pros and Cons*. 19th International Scientific Conference on Industrial Systems, Novi Sad, Serbia. [https://doi.org/10.24867/IS-2023-T6.1-14\\_03041](https://doi.org/10.24867/IS-2023-T6.1-14_03041)
- [25] Senyapar, H. N. D. (2024). Artificial Intelligence in Marketing Communication: A Comprehensive Exploration of the Integration and Impact of AI. *Technium Social Sciences Journal*, 55, 64-81. <https://doi.org/10.47577/tssj.v55i1.10651>
- [26] Guellec, D., Paunov, C., & Planes-Satorra, S. (2020). Digital innovation: Cross-sectoral dynamics and policy implications. *The Digitalisation of Science, Technology and Innovation*, 99.
- [27] Potwora, M., Vdovichen, O., Semchuk, D., Lipych, L. & Saienko, V. (2024). The use of artificial intelligence in marketing strategies: Automation, personalization and forecasting. *Journal of Management World*.  
<https://doi.org/10.53935/jomw.v2024i2.275>
- [28] Durmuş Şenyapar, H. N. (2024). The Future of Marketing: The Transformative Power of Artificial Intelligence. *International Journal of Management and Administration*, 8(15), 1-19.  
<https://doi.org/10.29064/ijma.1412272>
- [29] Arviani, H., Tutiasri, R. P., Fauzan, L. A. & Kusuma, A. (2023). ChatGPT for Marketing Communications: Friend or Foe? *Kanal: Jurnal Ilmu Komunikasi*, 12(1), 1-7.  
<https://doi.org/10.21070/kanal.v12i1.1729>
- [30] Jain, V., Rai, H., Parvathy, P. & Mogaji, E. (2023). The prospects and challenges of ChatGPT on marketing research and practices. *Emmanuel, The Prospects and Challenges of ChatGPT on Marketing Research and Practices*.  
<https://doi.org/10.2139/ssrn.4398033>

**Authors' contacts:**

**Ana Mulović Trgovac**, PhD  
 (Corresponding author)  
 University North,  
 Trg dr. Žarka Dolinara 1, 48 000 Koprivnica, Croatia  
 +385 91 5018 292, [ana.mulovic@unin.hr](mailto:ana.mulovic@unin.hr)

**Antonija Mandić**, PhD  
 University North,  
 Trg dr. Žarka Dolinara 1, 48 000 Koprivnica, Croatia  
 +385 95 3531 096, [antonija.mandic@unin.hr](mailto:antonija.mandic@unin.hr)

**Biljana Marković**, Associate Professor  
 University North,  
 Trg dr. Žarka Dolinara 1, 48 000 Koprivnica, Croatia  
 +385 91 5710 678, [biljana.markovic@unin.hr](mailto:biljana.markovic@unin.hr)