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Etika i odgovornost za upotrebu AI: Pregled literature

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Apstrakt: Brzi i kontinuirani razvoj veštačke inteligencije i njena integracija u skoro svim oblastima donosi veću efikasnost i mogućnost ekonomskih, društvenih i tehnoloških unapređenja. U isto vreme otvaraju se kompleksna etička pitanja i odgovornost za upotrebu AI. Rad razmatra različite aspekte upotrebe AI, uz uključivanje etičkih i društvenih izazova. Cilj rada je da identifikuje, sistematizuje i uporedi ključna etička pitanja i aspekte odgovornosti za upotrebu AI tehnologija u visokom obrazovanju, marketingu i menadžmentu, kao i da ukaže na pravce budućih istraživanja. Pregled literature je sproveden primenom PRISMA metodologije, obuhvatajući naučne članke objavljene u periodu od 2020. do 2025. godine. U radu ističemo značaj integrisanja etičkih principa u procesu upotrebe AI, sa ciljem minimalizacije rizike i maksimizacije prednosti AI. Pitanje etike i odgovornosti za upotrebu AI u daljem razvoju tehnologije bi trebalo biti u fokusu budućih istraživanja.

Ključne reči: etika, AI, obrazovanje, marketing, menadžment.

Ethics and Responsibility in the Use of AI: A Literature Review

Abstract: The rapid and continuous development of artificial intelligence (AI) and its integration into nearly all domains have led to increased efficiency and the potential for significant economic, social, and technological advancements. At the same time, this development raises complex ethical issues and questions of responsibility related to the use of AI. This paper examines various aspects of AI application, with particular emphasis on ethical and societal challenges. The aim of the study is to identify, systematize, and compare key ethical issues and responsibility-related aspects of AI use in higher education, marketing, and management, as well as to indicate directions for future research. The literature review was conducted using the PRISMA methodology and includes scientific articles published between 2020 and 2025. The paper highlights the importance of integrating ethical principles into the process of AI deployment in order to minimize risks and maximize the benefits of AI. Issues of ethics and responsibility in the use of AI should remain a central focus of future research in the further development of this technology.

Keywords: Ethics, AI, education, marketing, management.

1. Introduction

The integration of generative AI chatbots, enabling automated content creation, personalized user experiences, and data-driven decision-making, is revolutionizing all business sectors. The benefits of artificial intelligence to society are undeniable, but the integration of generative AI technology has brought a range of potential opportunities and challenges regarding ethics and security faced by all nations.

The rapid development of technology and the application of artificial intelligence in all spheres of society raise concerns about potential misuse and have spurred global initiatives to regulate issues related to the development and application of artificial intelligence. A large number of countries worldwide are engaged in regulating the development and use of artificial intelligence. In November 2021, 193 UNESCO member states adopted an ethical framework with recommendations for the responsible development and use of artificial intelligence, as the first global standard for ethics in the application of artificial intelligence, whose development also involved Serbia. The European Union Parliament adopted the Artificial Intelligence Act in March 2024. In the United States, the presidential Executive Order on Safe, Secure, and Trustworthy Artificial Intelligence was issued in October 2023. In the United Kingdom, the "Bletchley" Declaration was adopted (an agreement by 28 countries for a safe, secure, and responsible approach to the development and application of artificial intelligence). The United Nations has

adopted the Global Resolution on Safe, Secure, and Trustworthy Artificial Intelligence for Sustainable Development (A/78/L.49).

One of the five goals of the Artificial Intelligence Development Strategy in the Republic of Serbia for the period 2020 - 2025 is highlighted as the ethical and secure application of artificial intelligence (Official Gazette of the Republic of Serbia, No. 96/2019). Preventive mechanisms ensure responsible AI and machine learning development, aligned with high ethical and security standards. Serbia highlights the importance of AI ethics in education, science, the economy, and public administration. The AI Development Strategy (2020–2025) established foundations for adopting Ethical Guidelines for reliable and responsible AI. These guidelines aim to ensure AI development does not marginalize human agency, thought, or decision-making. AI systems must align with the well-being of humans, animals, and the environment, while improving productivity, optimizing resources, and enhancing quality of life (Official Gazette of the Republic of Serbia, No. 23/24). The principles promoted by the Ethical Guidelines include explainability and verifiability, dignity, the prohibition of harm, and fairness. They establish conditions for the development of reliable and responsible artificial intelligence, encompassing: operation and oversight, technical reliability and security, privacy, protection of personal data and data governance, transparency, diversity, non-discrimination and equality, as well as the promotion of social and environmental well-being, and clearly defined accountability. The Artificial Intelligence Development Strategy for the period 2025–2030 lists one of its fundamental goals as encouraging the continuous development of scientific research, innovation, education, economic growth, and the enhancement of citizens' quality of life. It lays the groundwork for creating solutions to numerous ethical challenges and preventing potential misuse of artificial intelligence (Official Gazette of the Republic of Serbia, No. 5/2025).

Privacy protection and potential misuse of artificial intelligence are becoming increasingly important ethical issues. The adoption of clear regulations, investment in education and technology, along with the application of an ethical approach to development at the level of individual states, combined with global cooperation, can enable artificial intelligence to reach its full potential. It is clear that artificial intelligence can serve humanity and benefit everyone exclusively through balanced use and the application of ethical principles.

2. Methodology

The paper examines various aspects of AI use, incorporating ethical and social challenges and its impact on user trust through a systematic literature review. The importance of considering and practically applying ethical issues and responsibilities in the use of AI technologies is analyzed. The results of the paper provide answers to the posed research questions:

RQ1. What are the most frequently identified ethical dilemmas and challenges in the literature on the application of artificial intelligence in higher education?

RQ2. What are the dominant ethical risks and responsibilities associated with the application of artificial intelligence in marketing and management?

RQ3. What research gaps and future research directions emerge from the analyzed literature?

A systematic literature review was conducted using the PRISMA methodology (Knight, 2025; De Leo & Miragliotta, 2025). Inclusion criteria for the PRISMA model:

- The literature review focuses on the application of generic artificial intelligence in the fields of education, marketing, management, and innovation.
- Emphasis on ethical issues in the application of AI technology.
- Scientific papers published in peer-reviewed journals in English from 2020 to 2025.
- Analysis of scientific papers in full text to make inclusion decisions.
- Search for papers using predefined keywords.

Excluded from the review:

- Papers that do not directly address ethical aspects of AI,
- Duplicates and papers without available full text,
- Non-professional publications, reports, and non-peer-reviewed sources.

The search was conducted in the following scientific databases: Google Scholar and ScienceDirect. The search process included papers published between 2020 and 2025. The following key terms were used: "ethical issues," "AI responsibility," "AI in education," "AI in marketing," "AI in management," "generative AI ethics," and "social challenges of AI." The analyzed papers were categorized by research area: education (Yusof et al., 2025; Aljabr

et al., 2024; Hadinejad et al., 2025), marketing (Salih et al., 2025; Kamila & Jasrotia, 2023; Haleem et al., 2022; Khalfallah & Keller, 2025), and management and innovation (Singh et al., 2024; Tzini et al., 2025; Stahl & Eke, 2024). In the initial phase, a total of 82 papers were identified. After removing duplicates and reviewing titles and abstracts, 37 papers underwent detailed analysis. Based on a full-text review and inclusion criteria, 10 papers were ultimately selected for thematic and comparative analysis. The results are presented in a table.

3. Research Results

The results of this study confirm that artificial intelligence is a key factor in digital transformation within the fields of education, marketing, and management. The full potential of artificial intelligence can be realized with a focus on understanding the associated ethical challenges. Table 1 presents the objectives and findings of the research from the analyzed scientific papers.

Table 1. Objectives and Findings of the Research from the Analyzed Scientific Papers

Reference	Objective of the Paper	Research Results
Hadinejad et al., (2025)	Research on how students use AI chatbots during their studies and how they perceive their ethical implications, i.e., how they evaluate AI-generated text.	Non-native English-speaking students, compared to native speakers, use GAI chatbots more for writing support, idea generation, task structuring, paraphrasing, and grammar improvement. This indicates that students view chatbots as personalized learning assistants to overcome linguistic challenges during their studies. Additionally, there are ethical dilemmas regarding plagiarism, the reliability of AI-generated content, and the lack of clear institutional guidelines on the responsible use of AI.
Aljabr et al., (2024)	Assessing teachers' attitudes regarding the adoption of AI technologies as educational tools from ethical and pedagogical perspectives.	Teachers hold positive attitudes towards incorporating AI into the teaching process, as well as a high perception regarding the ethical use and pedagogical implications of AI in the learning process. They recommended the use of AI tools not as replacements for traditional teaching methods, but rather to enhance student learning, while emphasizing the importance of conventional methods.
Yusof et al., (2025)	Analysis of the cognitive and ethical mechanisms of parroting among undergraduate students at a university in Malaysia.	Parroting is primarily driven by extrinsic pressures (unclear instructions, high workload), followed by intrinsic challenges (writing self-confidence, understanding of concepts), and finally by ethical rationalization, which becomes more pronounced when institutional guidelines on AI use are unclear.
Tzini et al., (2025)	Analysis of end-users' intention to seek advice from large language models, the degree of similarity between GPT's and humans' responses to ethical dilemmas, and the assessment of the impact of listing consequences of ethical decisions on encouraging ethical responses from GPT compared to humans.	GPT gives more ethical responses than humans in simple and moderate ethical dilemmas, whether concerning personal or company interests. In complex dilemmas, GPT and humans perform similarly. When using a technique to list consequences, both GPT and humans respond more ethically in personal interest scenarios. For company interests, this technique reduces unethical responses from GPT, but does not affect human responses.
Stahl & Eke, (2024)	Review of the ethical aspects of ChatGPT and similar large language model-based technologies. The study explores the ethical benefits and challenges related to analyzing ChatGPT's ability to generate human-like text and communicate seamlessly.	ChatGPT can provide significant social and ethical benefits, alongside ethical challenges in the areas of social justice, individual autonomy, cultural identity, and environmental issues.

Singh, et al., (2024)	Analysis of the complex relationships between the intention to adopt GenAI technology and its impact on innovation outcomes, competitive advantage acquisition, and the future performance of organizations.	The application of GenAI technology, under the moderating influence of environmental dynamism and ethical dilemmas, can enhance exploratory and exploitative innovations, organizational performance, and competitiveness.
Haleem et al., (2022)	Analysis of various applications of AI in marketing, the transformations that AI causes in the marketing industry, as well as the identification of the most significant ways AI is applied in marketing.	In the field of marketing, AI enables the identification and personalization of relevant content through the collection and analysis of data with the aim of providing the highest quality user experience. AI also assists in the implementation of email marketing and campaigns, as well as creating a more personalized brand experience, thereby increasing user engagement and loyalty. The most significant advantage of applying AI in marketing is data processing, providing marketing professionals with concrete results based on real data.
Khalfallah & Keller (2025)	Analysis of the impact of virtual influencers on consumer trust, perceived authenticity, engagement, and ethical issues related to transparency and consumer deception.	There is potential for virtual influencers to enhance brand engagement, but also concern that significantly affects consumer perceptions regarding authenticity, transparency, regulatory compliance, and cultural sensitivity, complicating their integration into marketing strategies.
Kamila & Jasrotia (2023)	Identifying ethical challenges when creating marketing strategies and the importance of responsible marketing in building consumer trust and loyalty.	The increasing application of artificial intelligence, automation, and digital channels in marketing raises ethical dilemmas such as algorithmic bias, data privacy protection, and the loss of personalization.
Salih et al., (2025)	Literature review and analysis of case studies aimed at identifying the advantages and challenges of GAI (ChatGPT, DALL-E, MidJourney, Jasper.ai, and Synthesia) in contemporary digital marketing.	GAI enhances marketing automation, facilitates user engagement, and strengthens brand interaction, leading to greater customer satisfaction, higher conversion rates, and improved campaign performance. Coca-Cola, Sephora, and Starbucks have confirmed increased efficiency and innovation through the use of GAI. On the other hand, the application of GAI raises concerns regarding data privacy, ethical dilemmas, employee resistance, quality control, and infrastructure limitations.

Source: Authors

The effectiveness of AI technology and technological innovation alone is insufficient and cannot be viewed in isolation without considering ethical issues. An integrated approach that can establish a balance between business objectives and the long-term sustainable interests of society is essential. Careful consideration of ethics and the responsible use of AI technology are the foundation for the future development of a responsible, transparent, and ethically grounded digital world.

4. Discussion and Future research Directions

The digital age has brought about a revolution that enables continuous innovations and transformations in business models and modern society. In line with the objective of this paper, we highlight the future research directions regarding ethical issues and the responsible use of AI technologies in higher education, marketing, and management, as identified by the researchers whose work we analyzed.

For the ethical application of AI technologies, in accordance with academic values, it is crucial to define clear guidelines on citation, acceptable and unacceptable uses of AI, and transparent expectations regarding students' academic integrity (Yusof et al., 2025). The study by Hadinejad et al. (2025) finds that as students increasingly use chatbots to aid learning, ethical issues are also rising. These include problems with academic integrity, plagiarism, fake references, reduced originality, and academic dishonesty. The results highlight the need for

clearer institutional policies on the ethical use of AI chatbots in higher education. Institutions must balance leveraging AI's benefits with fostering students' critical and independent thinking. A recommendation from the work of Aljabr et al. (2024) is the need to train students in the ethical use of AI, the use of AI-based plagiarism detectors, and the reformulation of assessment systems, with the goal of making both teachers and students familiar with safer AI use in the learning process.

Salih et al. (2025) conclude that the application of generative artificial intelligence is not a minor technological innovation in marketing, but rather a revolutionary force shaping how companies communicate, innovate, and compete in the market, requiring adequate strategies to achieve a balance between business opportunities and ethical challenges. The results of Singh et al. (2024) highlight the potential of generative artificial intelligence, as one of the most popular AI technologies, which generates various types of content (music, text, images, synthetic data, etc.), and raises ethical dilemmas for organizations regarding the areas in which AI technology should be used. Cognitive functions that require human intelligence - learning, reasoning, and interacting with the environment - can now be performed by machines thanks to the application of artificial intelligence. With the input of an increasing amount of data, the algorithm learns from previous experiences, improving performance and accuracy (Haleem et al., 2022). A review of 51 scientific research papers addressing virtual influencers, as a transformative force in digital marketing, confirms that the trust and engagement model of virtual influencers clarifies the relationships between authenticity, disclosure transparency, and cultural differences in consumer reactions to virtual influencers, pointing to trust as a key mediating factor (Khalfallah & Keller, 2025). Kamila & Jasrotia (2023) emphasize that the increasing application of artificial intelligence, automation, and digital channels in marketing triggers ethical dilemmas such as algorithmic bias, data privacy protection, and the loss of personalization. Tzini et al. (2025) stress the importance of developing ethics-based policies for the application of AI in organizations, aiming to achieve a balance between AI application and human oversight in complex business situations with significant ethical challenges. They also propose concrete steps to improve decision-making protocols using the consequence enumeration technique, which enables obtaining more ethical responses. Stahl & Eke (2024) point out that the current discussion on the ethics of ChatGPT is one-sided, focusing on only certain issues and lacking a balance between considering ethical benefits and challenges. A rebalancing is needed to overcome the ad-hoc approach dominating current works on ChatGPT ethics. The paper highlights the application of a holistic ethical perspective, emphasizing the need to view the entire socio-technical ecosystem of artificial intelligence, rather than just an individual problem, to encourage positive outcomes during application development while simultaneously identifying ethical downsides.

Through a careful analysis of the literature addressing ethical issues and the responsible use of AI technologies in education, marketing, and management, we obtained answers to the posed research questions.

RQ1. What are the most frequently identified ethical dilemmas and challenges in the literature on the application of artificial intelligence in higher education?

Based on the analyzed works, several key ethical dilemmas regarding the application of artificial intelligence in higher education have been identified, which are related to the transformation of academic norms and values. Significant challenges pertain to issues of academic integrity, plagiarism, authorship, reduced originality and academic dishonesty, the reliability and accuracy of AI-generated content, and the lack of clear institutional guidelines and policies (Hadinejad et al., 2025; Yusof et al., 2025; Aljabr et al., 2024).

RQ2. What are the dominant ethical risks and responsibilities associated with the application of artificial intelligence in marketing and management?

In the fields of marketing and management, the dominant ethical challenges stem from the ability of AI technologies to collect, analyze, and use vast amounts of consumer data. Significant challenges relate to privacy and data protection, algorithmic bias, loss of personalization, individual autonomy, cultural identity, and the development of ethics-based policies for the application of AI in organizations (Kamila & Jasrotia, 2023; Stahl & Eke, 2024; Haleem et al., 2022; Salih et al., 2025; Tzini et al., 2025).

RQ3. What research gaps and future research directions emerge from the analyzed literature?

The literature analyzed in this paper points to several research gaps. Although the number of papers addressing ethical issues in the use of AI technology is increasing, most existing research pertains to descriptive case studies or systematic literature reviews. There is a lack of quantitative empirical studies and contextually and culturally sensitive research. Future research could reduce this research gap by focusing on the role of responsibility and ethical literacy, while connecting the technological, organizational, and human dimensions of AI application, aiming for a responsible and sustainable application of artificial intelligence in education, marketing, and management.

The paper contains several methodological and research limitations. One limitation is the small number of included papers due to strict criteria. This may affect the breadth of insights. A second limitation concerns the analysis being restricted to publications in English, which could lead to the neglect of relevant works in other languages. Furthermore, only three application areas (education, marketing, and management) were considered, meaning the results cannot be fully applied to other sectors.

5. Conclusion

The digital age and AI technology tools represent a new paradigm of thought, enabling innovations and transformations across various business models. The digital technologies we use daily have changed the way we live, work, communicate, and create value. However, despite the significant positive potential of digital technologies, the downsides of the digital world present a constant challenge. The great power of digital technologies implies great responsibility and ethical application. The answers to the research questions show that in higher education, AI is transforming academic norms and the roles of students and teachers. Regarding marketing and management, risks stem from the increasing automation of decision-making and data processing. Furthermore, there are significant research gaps, particularly concerning empirical studies and the operationalization of ethical guidelines in practice. To adequately address the challenges of using AI technologies in higher education, marketing, and management, it is necessary to develop strategies that promote awareness, careful management, and ethical use of digital resources. Above all, a thoughtful approach to the digital world is required, one that recognizes the benefits of using AI technologies while also exercising caution and attention regarding their destructive power if used without awareness of the consequences. A balance between technological progress and human values is essential, because ultimately, we are all responsible for shaping the future of the digital world.

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