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Artificial Intelligence in Digital Marketing: Exploring Ethical Challenges and the Loss of the Human Touch.

الذكاء الاصطناعي في التسويق الرقمي: استكشاف التحديات الأخلاقية وفقدان اللمسة الإنسانية

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Abstract

In light of the recent substantial growth in artificial intelligence (AI), numerous companies have started incorporating it into their digital marketing strategies. The utilization of artificial intelligence (AI) in digital marketing has been demonstrated to engender a multitude of beneficial outcomes. Nevertheless, it is imperative for companies to deliberate on the ethical implications and the potential diminution of human interaction that accompanies its integration into their operational frameworks prior to its implementation.

This empirical research was conducted using a mixed-methods research approach, using a survey to understand the effects of using AI in digital marketing from a consumer perspective. The research also sought to ascertain consumers' perceptions of the most significant concerns associated with the implementation of AI in digital marketing. The present study identified several themes that were deemed to be of particular significance: data privacy, transparency, manipulation, and human interaction. These themes were identified in the survey to capture consumer perspectives, both positive and negative.

ملخص

في ضوء النمو الكبير الذي شهده مجال الذكاء الاصطناعي مؤخرًا، بدأت العديد من الشركات بدمجه في استراتيجيات التسويق الرقمي الخاصة بها. وقد أثبت استخدام الذكاء الاصطناعي في التسويق الرقمي قدرته على تحقيق نتائج إيجابية متعددة. ومع ذلك، من الضروري أن تدرس الشركات الآثار الأخلاقية المحتملة وتراجع التفاعل البشري الذي قد يصاحب دمجها في أطر عملها التشغيلية قبل تطبيقه.

أجري هذا البحث التجريبي باستخدام منهجية بحثية مختلطة، حيث استُخدمت استبانة لفهم آثار استخدام الذكاء الاصطناعي في التسويق الرقمي من منظور المستهلك. كما سعى البحث إلى تحديد تصورات المستهلكين لأهم المخاوف المرتبطة بتطبيق الذكاء الاصطناعي في التسويق الرقمي. وحددت الدراسة الحالية عدة محاور ذات أهمية خاصة، وهي: خصوصية البيانات، والشفافية، والتلاعب، والتفاعل البشري. وقد تم تحديد هذه المحاور في الاستبانة لرصد وجهات نظر المستهلكين، الإيجابية منها والسلبية.

الكلمات المفتاحية:

التسويق الرقمي، الذكاء الاصطناعي، أخلاقيات الذكاء الاصطناعي، التواصل البشري.

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1. introduction

The advent of Artificial Intelligence (AI) has precipitated a paradigm shift across diverse sectors, profoundly impacting the manner in which businesses interact with and conduct operations, as well as their engagement with customers. (Bharatiya, Thomas, and Ahmed, 2023, 85–103).

According to Gartner (Digitalization, n.d.), the term "digitalization" is defined as "the use of digital technologies to change a business model and provide new revenue and value-producing opportunities." The process of transitioning to a digital business is referred to as "digitalization." Goray (2024) posits that the term "digital marketing" refers to the practice of promoting services and products through the internet or other digital mediums. Digital marketing, in particular, has become increasingly accessible through electronic media, and its techniques have proven to be more efficient. The hypothesis that digital marketing can replace conventional marketing in its entirety is one that has been postulated by some parties.

In the contemporary era of digitalization, digital marketing has become a particularly salient aspect of contemporary marketing strategies. The utilization of smartphones, tablets, and computers for internet access has become a prevalent aspect of daily life for many individuals. It has been determined that more than half of the world's population utilizes the internet for a period of approximately seven hours on a daily basis. The number of individuals utilizing the internet will invariably increase over time. The magnitude of individuals utilizing the internet and accessing media serves as a testament to the significance of digital marketing for commercial enterprises. Digital marketing has been demonstrated to be a more effective medium for reaching target audiences than conventional marketing methods, such as billboards or television advertisements. The limitations of these

traditional methods, including their geographical reach, have been well-documented. (Goray, 2024).

Astapicks (2023) posits that digitalization and digital marketing have a multitude of positive impacts on companies. It is explained that a limited number of these positive impacts are cost-effective and provide companies with a competitive advantage. Digital marketing confers a competitive advantage on companies by enhancing efficiency. The digital transformation automates processes, leading to a reduction in errors and an improvement in productivity.

While the potential benefits of digital transformation are evident, it is important to acknowledge that these advantages are not universally applicable to all companies. A substantial body of research has indicated that a significant proportion of companies have been transitioning towards the integration of digital technologies and artificial intelligence (AI) in their operations. However, the findings of these studies have revealed that this strategic shift has not necessarily translated into substantial financial benefits, as evidenced by the modest increase in revenue observed in only 31% of cases, and the negligible impact on cost savings, with a mere 25% of companies reporting any reduction in expenses. This has the potential to prompt companies to engage in a cost-benefit analysis, thereby assessing the value of the investment in terms of its potential return. However, it is imperative for companies to engage in critical self-reflection regarding the necessity of digital marketing in the contemporary era. (Lamarre et al., 2023).

Despite the recent advancements in artificial intelligence (AI), the first successful AI was developed by Christopher Strachey in the early 1950s (Copeland, 2025). The widespread recognition of AI was largely catalyzed by the emergence of ChatGPT. This open-source artificial intelligence program boasts a wide range of capabilities, including the

formulation of business ideas and the development of software. A distinguishing feature of ChatGPT that sets it apart from previous iterations of AI is its capacity to generate code, produce original text, and, most notably, operate with unlimited capacity. (Mollick 2022).

In the context of deliberations concerning the utilization of artificial intelligence in the realm of digital marketing, inquiries pertaining to its ethical implications may emerge. The development and implementation of AI is subject to a series of regulatory frameworks, including the General Data Protection Regulation (GDPR) in Europe. These regulations establish minimum standards for AI in terms of data protection, accountability, transparency, and human interaction. (The Ethical Use of AI in Digital Marketing, 2025). A critical examination of the utilization of artificial intelligence in the context of digital marketing reveals that the primary concern is not the absence of established guidelines, but rather, the ethical considerations that arise in this domain. The ethical utilization of AI necessitates the assurance that it does not engage in discrimination against any individual or entity. For companies, this necessitates the integration of artificial intelligence into their operations while ensuring that they adhere to both legal and ethical frameworks. (The ethical use of AI in digital marketing, 2025.). Clark (2024) posits that artificial intelligence (AI) has the potential to exert a significant influence over consumers due to its extensive capacity for data accumulation. This practice can be regarded as unethical if consumers are unaware of the extent to which they are being monitored or influenced. As previously indicated, AI can exhibit discriminatory tendencies.

The objective of this research is to explore the ethical and human-touch implications of using artificial intelligence in digital marketing. The objective of this study is to collect data from the public and understand their opinions about

digital marketing using artificial intelligence. The study will explore whether respondents view digital marketing as ethical or unethical, and whether they believe it undermines the human touch in marketing strategies. Therefore, the independent variable in this study is the use of artificial intelligence in digital marketing. Consequently, the dependent variable of this study is perceived ethics and human interaction. The present study will concentrate exclusively on the perspective of consumers from various countries. The utilization of artificial intelligence in the context of digital marketing carries with it a multitude of ethical and human-centered considerations, a subject that this research will address in a limited capacity. The following implications are derived from the research: Data Privacy, Transparency, Manipulation and Consumer Autonomy, Human Connection.

The delimitations delineate the aspects of the research that will not be addressed, as they are the researchers' decisions to refine the scope of the study and to exclude certain features. As the scope delineates the parameters of the study, the delimitations assist in refining the focus and enhancing the clarity. By elucidating the aspects that will not be addressed in the study, it is possible to enhance the depth and specificity of the research. This approach is advantageous in terms of efficiency, as it allows the study to concentrate on specific aspects while minimizing redundancy.

The present study is not without its limitations. It is imperative to note that the publication's scope is exclusively digital marketing, excluding traditional marketing and other sectors. It is acknowledged that consumers may be subject to bias if the survey is administered in a single country or continent. As delineated in the objective, the present study will concentrate on several ethical and human interaction aspects of AI in digital marketing. However, it will not address broader ethical or human interaction issues,

such as its impact on employment and/or corporate responsibility or its potential to undermine or weaken human interaction.

2. Theoretical framework

In a globalized and automated context, the implementation of automated decision-making processes has become a standard practice for contemporary companies (Rusthollkarhu et al., 2022). A growing number of companies are now utilizing tools that are equipped with artificial intelligence (AI) capabilities or can be integrated with existing systems to augment their intelligence (Bobrytskyy & Stritesky, 2024). Algorithms driven by the development of AI are assisting businesses in increasing profitability, producing quality content, and optimizing their digital campaigns. One such example is the use of generative AI (Dwivedi et al., 2023). However, the subject of automated decisions in digital environments has been previously explored in other studies (see Kuziemski & Misuraca, 2020; Santos et al., 2022).

Indeed, initiatives such as the study of ethical design in social networks and digital environments are becoming relevant in the current literature (Saura et al., 2021). This analytical perspective on ethics in digital environments is predicated on a discussion of three fundamental variables. Firstly, it is necessary to undertake a thorough analysis to ascertain the existence of advertising objectives that are oriented towards the pursuit of users within digital environments. Secondly, it is necessary to examine whether there are (ii) growth objectives that attempt to interact with users in such a way that the existing relationship between the digital platform or digital marketing actions progressively increases over time, whether by generating dopamine or by prompting subscription or affiliation actions. Thirdly, engagement objectives are identified. These objectives endeavor to augment the quantity of interactions a user has with such a strategy, platform, or connected device, employing a

range of methods to achieve this augmentation.

The unethical design paradigm emerges when these three objectives are present in a strategy developed by a company in digital environments, whether in digital marketing or in environments like social media or digital platforms (Literat & Brough, 2019). Therefore, a design that infringes upon user privacy, and, in the worst cases, after extensive analysis and automation of decision-making by algorithms, can exert a significant influence on users' online behavior and their daily actions and habits (Zuboff, 2019). In response to this paradigm, there are already studies discussing surveillance capitalism (Zuboff, 2023) as a way to influence society's consideration and decision-making processes without their awareness, using AI-based digital marketing strategies as a means of action.

The pervasive use of connected devices and the Internet of Things (IoT) has led to a proliferation of data collection and ad exposure across various platforms. This has also facilitated the implementation of advanced digital marketing and social advertising strategies that are driven by artificial intelligence (AI). Large multinational corporations and governments have increasingly utilized algorithms to acquire personal user data, which they then employ during promotional periods or electoral campaigns. This practice, often characterized as unethical, involves the use of user data for machine learning algorithms, a field of study that aims to automate the learning process through the analysis of large data sets (Andrew & Baker, 2021). For instance, during the electoral campaign of Donald Trump against Hillary Clinton, the former utilized an algorithm developed by Cambridge Analytica to target undecided voters. Similar evidence has been documented in the Brexit campaign (see Risso, 2018). Additionally, the European Commission's initiative to enhance the "Privacy by default" in Internet of Things

(IoT) devices is emphasized (Saura et al., 2021). Advertising actions carried out on the Internet can be automated using artificial intelligence (AI) to influence users' considerations and achieve specific objectives in environments that may involve ethical concerns (Williamson, 2024).

Conversely, there are studies that emphasize the significance of identifying and educating users about the actions that companies can develop on the Internet (Sethi et al., 2020). Elgesem (2002) posits that the foundations of robust privacy in terms of personal data and ethical factors are as follows. Despite the existence of legal frameworks intended to safeguard users, the improper use of artificial intelligence (AI) in digital marketing platforms, such as social networks, can facilitate the collection of user data without their full awareness. It is imperative to acknowledge the distinction between user data points that are consciously published and those that are involuntarily collected. Indeed, these latter types of data are what can allow algorithms, through the automation of decision-making, to directly influence users' online behavior and, thereby, alter and modify their behavior (Shmueli & Tafti, 2023).

2.1 Artificial intelligence in digital marketing.

According to NASA (2024), artificial intelligence (AI) is defined as a computer system capable of performing complex tasks, including decision-making, problem-solving, and human-like reasoning. The integration of artificial intelligence (AI) within the domain of digital marketing can offer a multitude of benefits to businesses. One of the advantages of artificial intelligence (AI) is its capacity for personalization, given its ability to process vast amounts of data and utilize it to discern patterns and behaviors exhibited by customers. This has the potential to enable businesses to customize content and advertise with a high degree of specificity, thereby fostering stronger customer engagement. A

straightforward illustration of this phenomenon is provided by streaming platforms such as Netflix or Disney. These entities meticulously analyze their user base, leveraging data on past usage patterns to personalize the content and services offered to each individual. (Banzal, 2024).

Additionally, AI contributes to enhancing business efficiency. The processing of voluminous data by humans is a time-consuming process that is prone to errors, whereas artificial intelligence can efficiently manage such tasks with a high degree of accuracy and in a relatively brief amount of time. The utilization of accumulated data facilitates the capacity of artificial intelligence to discern trends, insights, and patterns that would elude human perception. The utilization of these analytics facilitates the decision-making process for businesses by providing a comprehensive overview of the available data. This data can provide businesses with insights into their social media performance, including the channels that generate the most traffic. The capacity of artificial intelligence to forecast future trends has the potential to assist businesses in maintaining a competitive edge over their market rivals. (Banzal, 2024).

Banzal (2024) explains that AI can present challenges to digital marketing. One challenge, particularly for smaller companies, is the cost of implementation and development. However, businesses can start small, and free platforms are available, although they might not work as well. Another challenge is ensuring data quality and privacy. If companies use AI, they must ensure compliance with all regulations, such as the GDPR. To do so, they must invest in data management and compliance measures to protect customer data. If the company uses general AI, it should avoid applying confidential data to these platforms. Another issue is how to implement these AI systems into existing ones. Many companies use older technology that might not be compatible with AI.

Although there are many positive aspects to using AI in digital marketing, these aspects can easily turn negative. Let's look at one of these effects: personalization. Before, personalization was more difficult to achieve because businesses had to spend a lot of time going through broad data and feedback to try to personalize their marketing manually, often missing the mark. Now, AI can help by processing countless data in no time, learning customer algorithms, and forecasting and adapting to consumers. AI can access customers' purchase and browsing history, as well as their social media activity, to provide specific recommendations. The more data AI analyzes, the more accurate its predictions and recommendations become. (Akilkhanov, 2024).

In addition to personalization, which enhances the customer experience, there are other advantages to using AI. We previously discussed ROI (return on investment), and AI can help achieve it. Since AI targets customers more effectively, it improves customer retention and conversion rates, which leads to better ROI. AI can make quicker decisions based on real-time data, making digital marketing more relevant and effective. Examples of AI in digital marketing include Amazon's personalized product recommendations and Spotify's customized music suggestions based on listening history (Akilkhanov, 2024).

H1: There is a statistically significant impact of artificial intelligence on digital marketing.

2.2 Ethical challenges of artificial intelligence.

The relationship between ethical AI challenges and their impact on digital marketing revolves around three main issues that threaten the credibility and effectiveness of AI-based marketing strategies.

Privacy violations and a lack of transparency are two fundamental ethical challenges that directly impact digital

marketing (Khan, 2023). AI algorithms use large amounts of consumer data to personalize ads and recommendations (Esam & Khadijah, 2023). Research indicates that a lack of transparency regarding how data is collected and used for marketing decisions—the "algorithmic black box" phenomenon—erodes consumer trust (Khudhair & Mardani, 2021). Consumers are often unaware of how they are being targeted, which makes them feel monitored or manipulated. This challenge is reflected in digital marketing through declining engagement rates, increased ad blocker usage, and a shift away from brands that are perceived as violating their users' privacy (Dervojeda et al., 2020). Therefore, regulations such as the General Data Protection Regulation (GDPR) restrict opaque practices and require marketers to provide clear mechanisms for managing privacy preferences (Ali et al., 2024).

Algorithmic bias is a significant ethical concern that arises from using unbalanced training datasets or datasets that reflect societal biases based on gender, race, or social class (Al-Saedi et al., 2023). AI amplifies the biases inherent in the historical data it uses, leading to discriminatory marketing outcomes (UNESCO, 2021). For instance, a marketing algorithm may exclude certain groups from seeing particular ads based on biased historical data, thereby perpetuating social discrimination (Saeed & Khudhair, 2024). Such bias in digital marketing unfairly targets certain groups, restricting their access to opportunities and promotions and harming the brand's reputation, which can lead to legal and regulatory sanctions (Ali et al., 2024). Furthermore, it causes the loss of large market segments that are algorithmically marginalized, which contradicts overall marketing objectives.

AI technologies enable hyper-personalization, predicting consumers' emotional states and vulnerabilities and raising ethical questions about manipulation (AnalytixLabs, 2024). This challenge centers

on the ethical principle of "do no harm" (UNESCO, 2021). Using AI to target individuals during times of psychological or financial vulnerability and push them to make irrational purchasing decisions would cross ethical boundaries and undermine consumer autonomy (Ali et al., 2024). The lack of clear accountability mechanisms for those responsible for errors committed by AI systems complicates redressing damages. In the long run, manipulation leads to a loss of consumer trust, making marketing efforts appear exploitative rather than valuable (Ali et al., 2024). Furthermore, a lack of accountability creates an environment of legal ambiguity, making companies vulnerable to regulatory risks and legislation that could impose strict restrictions on the excessive use of personalization.

The relationship between the ethical challenges of AI and digital marketing is supported by theoretical and empirical evidence showing that these challenges are critical determinants of the sustainability and success of digital marketing strategies, not merely philosophical issues (Ali et al., 2024). Failure to address privacy, bias, transparency, and accountability issues not only damages a brand's reputation, but also threatens to undermine consumer trust—the most valuable currency in the digital economy (Khudhair & Mardani, 2021). Therefore, adopting an ethical charter for AI in marketing is a strategic necessity, not an option, to ensure the responsible and effective use of this technology.

H2: The ethical challenges of artificial intelligence are having an impact on digital marketing.

2.3 Challenges of human communication for artificial intelligence

Artificial intelligence has fundamentally transformed the digital marketing landscape, casting a clear shadow over the nature of human interaction between brands and consumers. Although marketing is rooted in building human relationships, AI has

become a driving force for automation, reducing the need for direct human interaction at many stages of the customer journey.

AI's primary function in this context is to analyze big data and predict behavior — a capability that surpasses the human mind's abilities (IBM, 2025). Thanks to this capability, marketers can personalize content and target ads with pinpoint accuracy without phone calls or in-person consultations (Griffith College, 2023). AI algorithms identify the right customer, product, and optimal communication time, virtually eliminating the need for human intervention in the targeting process. The most prominent manifestation of the reduction in human interaction is the widespread use of chatbots and virtual assistants. Instead of speaking with a customer service representative during the initial stages of an inquiry or support request, customers now receive immediate, personalized responses from automated systems operating around the clock (NASSCOM Community, 2025). While these tools provide efficiency and rapid responses, they lack the empathy and ability to understand complex human contexts that algorithms cannot decipher. This flattens the interaction, transforming it into an automated exchange of information and replacing the human touch with mechanical precision.

Additionally, artificial intelligence contributes to the automation of content generation, including texts, headlines, and emails (Wake Forest University, 2024). These are tasks that previously required significant effort from human writers and editors. While this automation speeds up processes and reduces costs, it also reduces the scope for authentic human creativity in crafting marketing messages. This can result in clichéd messages that lack humanity and individuality. Ultimately, this overreliance on AI threatens to create the illusion of a personal connection. Consumers may believe that the message is directed specifically to them because of the precise personalization, but, in

reality, they are receiving programmed communication from a machine, not a caring human. This disconnect could erode trust and diminish the value of deep relationships in marketing in the long run. Undeniably, AI reduces direct human interaction in digital marketing, transforming it into highly efficient, automated interactions. Companies have an ethical responsibility to strike a delicate balance by directing human resources toward interactions requiring empathy and complex problem-solving. This allows them to maintain the human dimension and build authentic relationships with customers in an increasingly machine-dependent world.

H3: Artificial intelligence in digital marketing is undermining human communication.

3. Research Method

This study employs a mixed-methods approach. Mixed methods research combines qualitative and quantitative designs. This study employs both approaches and combines them. Because it uses mixed methods, this study's strengths surpass those of qualitative or quantitative research alone. (Creswell, 2009). The study uses a questionnaire with both closed and open questions to provide mixed methods research. There are some advantages to using mixed methods in the design. It mitigates the weaknesses of qualitative and quantitative research methods. One weakness of quantitative research is that participants' voices cannot be heard well because the questions are closed. A weakness of qualitative research is the researcher's susceptibility to bias, as well as the inability to generalize the study results to a larger population. In conclusion, mixed methods research helps answer questions that quantitative or qualitative designs alone cannot answer. (Creswell & Clark, 2018). When conducting research, one can formulate hypotheses, which are predictions about the results. Hypotheses are usually based on previous research and/or literature about the expected relationship between variables. A

hypothesis can be a null hypothesis ("there will be no difference") or a directional hypothesis ("women like animals more than men"). Directional hypotheses are more specific and are therefore more commonly used (Creswell & Clark, 2018). This study already has research questions and sub-questions, and the questionnaire will include both closed and open questions. This study will not include a hypothesis. The questionnaire was chosen to obtain consumers' opinions on whether they consider the use of artificial intelligence in digital marketing to be ethical or to undermine human interaction. The questionnaire was developed based on the research information obtained in the Theoretical Framework section and the research questions.

3.1 Data Collection

The main themes of this research are data privacy, transparency, manipulation, and human interaction. Therefore, most of our questions will relate to these topics. Let's take a quick look at them. Regarding data privacy, the focus is on how companies can maintain security when using AI for digital marketing. Regarding transparency, customers often don't know what data is being tracked, nor do they understand what they are accepting. Finally, manipulation is an issue because AI can easily manipulate customers into purchasing products by examining large amounts of data. Furthermore, human interaction is virtually nonexistent because, when customers call, AI answers.

The survey was created on Google Drive and shared on various social media platforms to collect respondents' opinions. It was presented as part of a research study on the ethics of using artificial intelligence (AI) in digital marketing and the challenges of human-to-customer communication when AI answers customer questions and inquiries. The survey was presented to customers who interact with companies digitally. Respondents were clearly informed that their responses

would be anonymous. The survey launched on August 9, 2025, and closed on August 16, 2025. It was available for a week to collect as many responses as possible, and 85 were received.

The survey consisted of forty-three questions, three of which were demographic. These questions were about age, gender, and popular products. These questions are important for understanding the participants' profiles and analyzing the results. They help us identify differences between participants. They also help us understand how gender, age, and different products influence consumers' views on the use of AI. Because men are generally more interested in technology, the survey results may show that men trust and understand AI more. Of the forty objective questions, twenty were closed-ended. The remaining twenty were open-ended and contained suggested answers, allowing respondents to share their thoughts. Some closed-ended questions were included in this survey to gain insights and data about consumer perceptions. Open-ended questions help us understand how each profile thinks about these concerns.

The survey questions were written in simple language to ensure participants understood them without any confusion. One question addressed the most important principles of AI marketing ethics and human communication. Topics included transparency, consent, and accountability. Participants may have difficulty fully understanding these topics without an explanation. Here is the survey question: In your opinion, what is the most important principle of ethical AI marketing and human communication? Transparency (clear disclosure of AI use), consent (control over opting in or out), fairness (no discriminatory labeling), accountability (the ability to appeal decisions), human communication (AI answers all customer questions), or other.

Some questions used a five-point Curt scale (strongly agree, agree, somewhat agree,

disagree, strongly disagree) to ensure diversity of responses. Since this research study focused on transparency, manipulation, data privacy, and human communication, most of the questions addressed these topics. Regarding transparency, participants were asked whether companies were transparent about their use of AI and whether consent mechanisms were easy to understand. Questions addressed personalized advertising manipulation, AI product recommendations, and willingness to share more data for improved personalization. Questions related to data privacy addressed AI data collection. Finally, questions related to human interaction addressed whether AI could replace humans when responding to customer inquiries.

4. Results and discussion

Discuss the results obtained

1.4 Validity and Reliability Testing of the Study Tool

A group of specialized experts was asked to review the study tool and provide feedback on the clarity and coherence of the questionnaire items, as well as their suitability for measuring the study variables. Their feedback was incorporated to ensure the questionnaire's apparent validity. The reliability of the questionnaire's phrases and dimensions used in the study was verified using Cronbach's alpha coefficient, one of the most widely used reliability measures. This coefficient measures the probability of obtaining the same results or conclusions if the same tool were reapplied under similar conditions. The results were as follows:

Table 1: Results of the reliability and validity test

Parts of questionnaires	Number of paragraphs	R2	Cronbach's alpha
digital marketing	5	.827	.866
Data Privacy	5	.727	.768
Transparency	5	.680	.645
manipulation	5	.879	.881
artificial intelligence	5	.884	.808
human communication	5	.894	.828
Fairness	5	.853	.863
Accountability	5	.872	.905
Variables as a whole	40	.945	.960

Source: Prepared by the researcher according to the results of the SPSS statistical analysis program.

As shown in the table above, the Cronbach's alpha coefficient value exceeds the acceptable limit of 6.0 for the questionnaire as a whole. The reliability rate for all variables ranged from 64% to 89%, which is acceptable. The reliability rate for all variables was 96%, which is excellent. This indicates a good correlation between the statements and reliable answers. These results confirm the stability and validity of the questionnaire and the reliability of the results.

4.2 Presenting the results related to the personal variables of the study sample members.

The study sample consisted of 85 consumers, and the following table shows their personal characteristics:

Table 2: Distribution of study sample members according to their personal characteristics

variable	Category	Repetitions	percentage
gender	Male	66	77.6
	Female	19	22.4
Age	25-35 years	5	5.9
	36-45 years	44	51.8
	More than 45 years	36	42.4
Most requested products online	essential goods	3	3.5
	luxury goods	9	10.6
	Other goods	73	85.9
Total		85	%100

Source: Prepared by the researcher according to the results of the SPSS statistical analysis program.

As shown in the table above, the percentage of males was 77.6%, while the percentage of females was 22.4%. The percentage of individuals aged 25 to 35 was 5.9%, followed by the percentage of individuals aged 36 to 45, which was 51.8%. The percentage of individuals over 45 was 42.4%. On social media, other non-essential and non-luxury goods were in the highest demand at 85.9%, followed by luxury goods at approximately 10.6% and essential goods at 3.6%.

4.3 Displaying the results related to the sample members' responses to the study variables.

The following table shows the descriptive analysis of the study variables:

Table 3: Statistical indicators for the study variables.

	N	Mean	Std. Deviation	percentage	Verification Score
artificial intelligence (X)	85	3.59	0.781	71.8	High
digital marketing (Z)	85	3.46	0.753	69.2	High
Data Privacy (YA)	85	3.40	0.697	68	High
Transparency (YB)	85	4.19	0.499	83.8	High
manipulation (YC)	85	3.49	0.749	69.8	High
human communication (YD)	85	3.39	0.747	67.8	High
Fairness (YE)	85	3.50	0.822	70	High
Accountability (YF)	85	3.37	0.892	67.5	High
Valid N (listwise)	85				

Source: Prepared by the researcher according to the results of the SPSS statistical analysis program.

The results of the table indicate that all studied variables—artificial intelligence (X), digital marketing (Z), digital privacy (YA), transparency (YB), manipulation (YC), human connection (YD), fairness (YE), and accountability (YF)—achieved high levels of mean scores ranging from 3.37 to 4.19, reflecting a positive perception among respondents of the importance of these variables in the digital work environment. Transparency (YB) ranked first with a mean of 4.19 and a percentage of 83.8%, indicating that respondents value transparency as a core value that enhances trust and credibility in the use of technology. This result is consistent with the findings of Albrecht & McMillan (2022), which confirmed that transparency is a pivotal factor in building trust in digital systems. It also aligns with the findings of Kaplan et al. (2021), which indicated that clarity of data processing procedures contributes to establishing ethical behavior within organizations.

Regarding artificial intelligence (AI), it showed an arithmetic mean of (3.59) with a standard deviation of (0.781), which is consistent with the results of Dwivedi et al.'s (2022) study, which showed that AI is viewed positively in terms of improving organizational performance, but it still raises challenges related to governance and ethics. Digital privacy (YA) and fairness (YE) recorded similar means of (3.40) and (3.50), respectively, indicating a growing awareness of the importance of data protection and achieving digital justice. This is consistent with Crawford's (2021) argument that fairness

and privacy constitute the cornerstones of building trust in the digital environment.

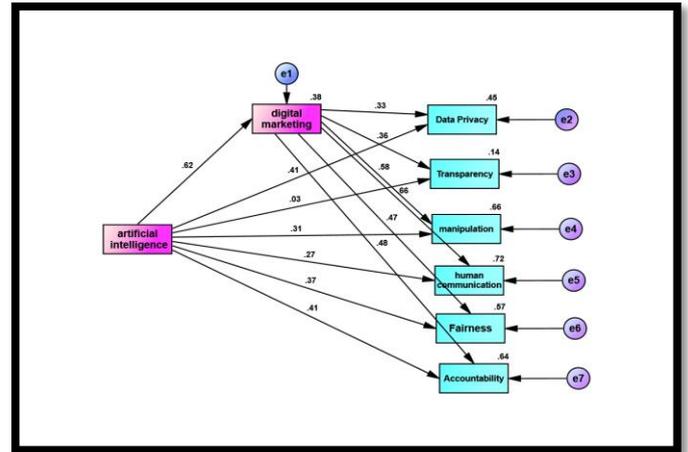
In contrast, accountability (YF) ranked lowest, with a mean of 3.37 and a relatively high standard deviation of 0.892. This reflects a discrepancy in respondents' perceptions of accountability within digital systems. This aligns with Jobin, Ienca, & Vayena (2019), who demonstrated that accountability remains one of the most challenging aspects of AI ethics implementation due to the lack of clear regulatory frameworks for determining responsibility. The manipulation (YC) and human connection (YD) variables also showed moderately high means (3.49 and 3.39, respectively), reflecting an awareness of the need to regulate the use of digital technology to preserve human values. Shah & Bhatia (2020) noted that the extensive use of digital tools may reduce the quality of human interaction and increase the likelihood of content manipulation.

Overall, the current findings are consistent with recent trends in the literature highlighting the importance of ethical values in AI management and digital marketing. They indicate that transparency and fairness are the two fundamental pillars of institutional trust, while accountability and human connection remain areas that require further organizational efforts to sustainably establish digital ethics principles.

4.4 Testing the Study's Hypotheses

The first main hypothesis was tested using simple and multiple regression coefficient tests, as well as structural equation modeling. A simple regression model was also adopted, which can be explained as follows:

Figure (1): Total and partial, direct and indirect influence among variables.



Source: Prepared by the researcher according to the results of the SPSS statistical analysis program.

The results of the statistical analysis revealed that artificial intelligence (AI) has a strong, positive impact on digital marketing. The path coefficient is $\beta = 0.597$, the critical value is $CR = 7.238$, and the statistical significance is high ($p < 0.001$). This impact is one of the largest in the model, reflecting AI's pivotal role in supporting organizations' digital transformation processes. These findings align with the observations of Lee & Chen (2023) and Kietzmann et al. (2022), who suggested that AI applications in marketing enhance efficiency in customer targeting, service personalization, and consumer behavior analysis, thereby improving overall marketing performance.

The results showed that digital marketing had a positive and statistically significant impact on several organizational and ethical variables. Specifically, it impacted data privacy ($\beta = 0.305$, $p = 0.001$), transparency ($\beta = 0.240$, $p = 0.005$), manipulation or regulation ($\beta = 0.377$, $p < 0.001$), human communication ($\beta = 0.652$, $p < 0.001$), fairness ($\beta = 0.513$, $p < 0.001$), and accountability ($\beta = 0.565$, $p < 0.001$).

These values show that digital marketing's strongest impact was on human communication, followed by accountability and fairness. This reflects the idea that digital transformation in organizations extends beyond the technical aspect to include reshaping organizational relationships and communication patterns. Similar results were

confirmed by Kumar & Gupta (2021), who demonstrated that the use of AI-powered digital marketing technologies enhances the speed and transparency of communication between organizations and their stakeholders.

Conversely, the results revealed that AI positively affects some downstream variables directly, such as data privacy ($\beta = 0.368$, $p < 0.001$) and manipulation ($\beta = 0.298$, $p < 0.001$). However, it had no significant direct effect on transparency ($\beta = 0.017$, $p = 0.835$). These results suggest that the relationship between AI and transparency is indirect and mediated by digital marketing. Digital marketing represents a mediating variable in the model. In other words, AI does not enhance corporate transparency unless implemented within a clearly structured and organized digital marketing framework.

This differs partially from the results of a study by Tang and Lim (2022), who found that AI directly affects transparency levels through intelligent data interpretation and tracking algorithms. The current research environment relies on marketing organizations with limited digital infrastructure or immature organizational systems. This makes the impact of AI indirect, requiring an institutional mediator, such as digital marketing, to be effective.

The current results are consistent with Alalwan's (2020) findings that digital marketing applications represent the intermediary link between technological transformation and institutional ethical performance. These applications enhance fairness and accountability by documenting data and making information more transparent to consumers. However, the same study also indicated that increased reliance on artificial intelligence could raise concerns about information manipulation and the exploitation of personal data. The current results demonstrate this through the positive effect of artificial intelligence on the manipulation variable ($\beta = 0.298$, $p < 0.001$). This can be explained by the fact that using advanced

technologies without regulatory oversight can lead to imbalanced audience targeting practices.

Analyzing the direct and indirect effects reveals that artificial intelligence's overall impact on organizational and ethical variables is primarily mediated through digital marketing. In other words, the indirect effect is sometimes more significant than the direct effect. For instance, although the direct relationship between AI and transparency was insignificant, the indirect relationship via digital marketing was substantial and positive (approximately $0.597 \times 0.240 = 0.143$), suggesting partial mediation of practical significance. This finding is consistent with that of Dwivedi et al. (2023), who demonstrated that digital transformation is the most important mediating factor in the relationship between AI and organizational performance.

Based on these findings, it can be concluded that adopting AI alone does not lead to positive organizational outcomes. Rather, it must be accompanied by the development of digital marketing systems capable of absorbing these technologies and regulating their effects. Digital marketing is the system through which the effects of AI on privacy, transparency, fairness, and accountability are realized. In the context of current research, this conclusion is significant because organizations that integrate AI into their marketing strategies can better balance technical efficiency and ethical responsibility.

A comparison with previous studies indicates that the results of this study are generally consistent with the global literature trend emphasizing that AI is a major driver of digital transformation. However, AI alone does not guarantee the achievement of digital and ethical governance principles unless it is managed through a clear, disciplined digital marketing system. Additionally, the results demonstrate that the distinction between direct and indirect influence is a new feature in recent research. This distinction highlights the

role of the mediator as the decisive factor in determining the type and direction of influence.

In light of these data, one could argue that AI contributes to the development of a smarter, more efficient marketing environment. However, the positive effects of AI on privacy, transparency, and fairness depend on the maturity of institutions' digital infrastructure. Thus, these results confirm that technological transformation must be accompanied by administrative and organizational changes to ensure the ethical and responsible use of AI technologies.

Table 3: Effect parameters between variables.

		Regression Weights	Estimate	S.E.	C.R.	P
digital marketing(Z)	<-- artificial intelligence(X)		.620	.597	.082	7.238 ***
Data Privacy (YA)	<-- digital marketing(Z)		.329	.305	.096	3.180 .001
Transparency (YB)	<-- digital marketing(Z)		.362	.240	.085	2.810 .005
manipulation (YC)	<-- digital marketing(Z)		.580	.577	.081	7.108 ***
human communication (YD)	<-- digital marketing(Z)		.657	.652	.073	8.964 ***
Fairness (YE)	<-- digital marketing(Z)		.470	.513	.100	5.132 ***
Accountability (YF)	<-- digital marketing(Z)		.477	.565	.099	5.722 ***
Data Privacy (YA)	<-- artificial intelligence(X)		.413	.368	.092	3.992 ***
Transparency (YB)	<-- artificial intelligence(X)		.027	.017	.082	.209 .835
manipulation (YC)	<-- artificial intelligence(X)		.311	.298	.078	3.816 ***
human communication (YD)	<-- artificial intelligence(X)		.268	.257	.070	3.660 ***
Fairness (YE)	<-- artificial intelligence(X)		.365	.384	.096	3.991 ***
Accountability (YF)	<-- artificial intelligence(X)		.413	.472	.095	4.957 ***

Source: Prepared by the researcher according to the results of the SPSS statistical analysis program.

5. Conclusion

This study analyzed the impact of artificial intelligence (AI) on digital marketing with respect to a set of ethical and humanistic variables: data privacy, transparency, manipulation, human interaction, justice, and responsibility. Results showed that AI has a direct and strong impact on digital marketing ($\beta = 0.62$, $p < 0.001$), indicating that AI-powered digital transformation is a key component of modern marketing strategies.

However, the results also showed that digital marketing substantially mediates the relationship between AI and ethical variables. All regression coefficients between digital marketing and the aforementioned variables were statistically significant ($p < 0.001$), except for transparency, which was not significant ($p = 0.835$). These results suggest that AI-driven digital marketing enhances

efficiency and impact, yet it may obscure the clarity of its operational mechanisms for consumers.

The results of this study align with those of Kaplan and Haenlein (2020) in recognizing the significance of AI in transforming marketing relationships through automation and personalization. However, the results contradict Broussard's (2018) findings that AI reduces the human dimension of communication and increases social isolation. The current study also lends support to Tussyadiah's (2022) assertion that ethical AI usage fosters trust between organizations and consumers but necessitates robust controls to mitigate manipulation and transparency issues.

- Results:

1. Direct Impact of Artificial Intelligence on Digital Marketing

AI was found to have a strong positive impact on digital marketing. This confirms its role in developing smart targeting tools, analyzing consumer behavior, and crafting personalized marketing messages. This finding aligns with the study by Chatterjee et al. (2022), which confirmed that AI is the primary driver of content personalization and improved marketing performance.

2. The Impact of Digital Marketing on Ethical Variables

Digital marketing had a strong positive impact on manipulation ($\beta = 0.58$) and human communication ($\beta = 0.65$). These results reflect two contradictory aspects.

On the one hand, AI improves communication and response speed.

On the other hand, it opens the door to exploiting data and emotions for marketing purposes.

These findings align with Martin and Murphy (2017), who indicated that intelligent systems could mislead consumers through "covert persuasion," but differ from Dwivedi et al. (2017), who believed AI enhances integrity through automated oversight mechanisms. The latter study believed that AI

enhances integrity through automated oversight mechanisms.

3. Weak Relationship Between AI and Transparency

It was observed that AI did not significantly affect transparency ($\beta = 0.027$, $P = 0.835$). This indicates a need to clarify the decision-making mechanisms within intelligent marketing systems. This is consistent with Jobin et al.'s (2019) findings that the "black box" of AI poses a major ethical challenge in commercial applications.

4. Direct and Indirect Effects on Fairness and Responsibility

The results showed a moderate direct effect of AI on fairness ($\beta = 0.37$) and responsibility ($\beta = 0.41$). This effect was amplified by digital marketing as a mediator ($\beta = 0.47$ and 0.56 , respectively). These results indicate that, while AI increases decision-making efficiency, it still requires regulatory frameworks to ensure accountability and fairness.

Recommendations:

- The need to develop clear ethical frameworks that regulate the use of artificial intelligence in marketing, especially with regard to transparency and data protection, is paramount.

- Incorporate standards of fairness and accountability into smart marketing algorithms to avoid hidden biases in content or targeting.

- Raise ethical awareness among digital marketing professionals through training programs that focus on balancing commercial effectiveness with social responsibility.

- Develop national legislation that addresses the ethical dimensions of using AI in digital communication and targeted advertising.

- Encourage algorithmic transparency by enabling consumers to understand how their data is processed and used in marketing campaigns.

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