فعالية تقنيات الذكاء الاصطناعي في تغيير اتجاهات إنتاج محتوى الاتصالات التسويقية المتكاملة بالموقع الإلكتروني للمنظمة د. سعيد عبد المنعم الدسوقى محمود مدرس العلاقات العامة والإعلان بالمعهد العالي للإعلام وفنون الاتصال 6 أكتوبر د. منى عيد محمد عيد حاصلة على درجة الدكتوراه في الإعلام

## The Effectiveness of Artificial Intelligence Techniques in Changing the Production Trends of Integrated Marketing Communications Content the Organization's Website

Prepared by:

#### Dr. Saeed Abd El-Monem El-Desoqy Mahmoud

Lecturer of Public Relations & Advertising at the Higher Institute of Media and Communication Arts, 6th of October

#### Dr. Mona Eid Mohamed Eid

PhD in Mass communication

217

## الملخص:

هدفت هذه الدراسة إلى رصد ومراجعة الأدبيات التي تناولت التسويق باستخدام تقنيات الذكاء الاصطناعي. كما تضمنت عدة عناصر أخرى، مثل التعامل مع أساليب التسويق المتكاملة التي تمت طرحها في البحوث والدراسات، والمناهج البحثية المستقبلية، والأطر النظرية التي يمكن استخدامها في الدراسات الأكاديمية، بالإضافة إلى استخدام نتائج البحث. كما تقدم الدراسة عددًا من التوصيات في مجال التسويق الرقمي باستخدام الذكاء الاصطناعي. وقد أظهرت الدراسة أن الاعتماد على التطبيقات التي يوفرها الذكاء الاصطناعي يدعم العاملين في مجال التسويق في اختيار وتحديد استراتيجية التسويق المناسبة، بالإضافة إلى التخطيط للنشاط التسويقي بكفاءة وفعالية، حيث تساهم تقنيات الذكاء الاصطناعي في عمليات التجزئة والاستهداف وتحديد الموقع الاستراتيجي للعلامة التجارية في السوق. ويساعد الذكاء الاصطناعي المسوقين أيضًا على تحديد رؤية واتجاه الشركة المستقبلي من خلال استخدام تقنيات مثل تحليل النصوص وتنقيب البيانات وخوارزميات التعلم الآلي في العديد من القطاعات مثل البنوك والسياحة والتجزئة عبر الإنترنت، من خلال تحليل العملاء وتحديد العملاء الذين يجب استهدافهم بدقة. كما أكدت النتائج أن هناك تأثيرات إيجابية لتطبيق الذكاء الاصطناعي في تشكيل استراتيجيات التسويق من حيث قيادة التكلفة، والتمايز، والتركيز على التسويق، والتحالف، والتنويع، والتسويق المباشر. وركزت معظم الدراسات على التواصل مع الجمهور من خلال برامج الدردشة الآلية (Chatbots)، وغالبًا ما يتم استخدام الدردشة الآلية (Chatbots) في خدمة العملاء، ولكن يمكن استخدامها أيضًا لأغراض التسويق. وأوصت الدراسة الشركات العربية بأن تواكب التكوينات في التخصصات العالمية، وتدريب الإنسان على كيفية التعامل مع الآلات. **الكلمات المفتاحية**: الذكاء الاصطناعي؛ التسويق الرقمي؛ الاتصالات التسويقية المتكاملة؛ التحليل من المستوى الثاني.

#### Abstract

This study aimed to survey and review the literature on marketing using artificial intelligence (AI) technologies. It also included several other elements, such as dealing with integrated marketing approaches that have been raised in research and studies, future research methodologies, theoretical frameworks that can be used in academic studies, and the use of research results. The study also provides several recommendations in the field of digital marketing using artificial intelligence. The study showed that relying on the applications provided by artificial intelligence supports marketers in choosing and identifying the appropriate marketing strategy, as well as planning marketing activities efficiently and effectively, as artificial intelligence technologies contribute to retail operations, targeting, and identifying the strategic location of the brand in the market. Artificial intelligence also helps marketers to determine the company's future vision and direction using technologies such as text analysis, data mining, and machine learning algorithms in many sectors such as banking, tourism, and online retail, by analyzing customers and identifying customers who should be targeted accurately. The results also confirmed that there are positive effects of applying artificial intelligence in shaping

marketing strategies in terms of cost leadership, differentiation, marketing focus, alliance, diversification, and direct marketing. Most of the studies focused on communicating with the audience through chatbots, and chatbots are often used in customer service, but they can also be used for marketing purposes. The study recommended that Arab companies keep pace with the configurations in global specializations, and train humans on how to deal with machines.

**Keywords**: Artificial intelligence; digital marketing; integrated marketing communications; meta-analysis.

. . .

## **1. Introduction:**

The decade has witnessed technological past developments that have led to a major shift in the marketing process, & as a result the concept of marketing communications (IMC) evolved with the development of the marketing landscape, & the concept of IMC emerged As a result of the quantification of marketing communication that emerged in the early 1980s & which resulted in the development & use of computers, tools for collecting & storing data, as well as the development of data analysis & processing methods, are all products of the digital revolution (Schultz, 2010). Artificial Intelligence (AI) can be conceptualized as "the use of computational machinery to emulate capabilities inherent in humans" & refers to "programs, algorithms, systems or machines that demonstrate intelligence" (Huang, M., & Rust, R., 2021: Pp.30-50) in its simplest (Shankar, V., 2018: Pp.vi-xi). In sense more methodological terms, AI can be defined as "a system's ability to correctly interpret external data, to learn from such data, & to use those learning's to achieve specific goals & tasks through flexible adaptation" (Kaplan A., & Haenlein, M., 2019: Pp.15-25). However, one should not assume that definitions of AI will be permanently

. . .

stable given the conceptually challenging & changing nature of AI technologies (Stahl, B., &. Et.al., Pp.374– 388). The increasingly sophisticated developments & advancements in AI, creating excitement in the field of marketing & the high adoption rate of AI in the industry makes the topic of AI in marketing, ever more interesting to carry out further studies (Chow, M., 2017). In addition to that, AI provides constructive benefits to marketers, consumers, & the society by improving, creating, optimizing & distributing value which demands the need of more literature to identify the importance of AI in marketing (Gentsch, P., 2019).

It is one of the best intelligence applications (AI) in emarketing, where e-commerce sites are used Blogs & many social networks use (AI) to analyze the activities of their visitors on the internet & provide suggestions & recommendations for products & content that suit them, to increase conversion rates & spend more time on their sites. marketing people also seek it always finding new ways to communicate with customers, so that customers spend as much time as possible on their websites or applications, & here comes the benefit of AI, as it provides the visitor the user receives contents, products & services that suit his interests & needs, based on the user's online activities, the topics he searches for, the websites he visits, & the areas that catch his attention (Andre, Marchand, & Paul, Marx, 2020). As it stood out AI has become the top technology priority for organizations over the past few years. largely driven by the availability of big data & the emergence of advanced technologies (Gupta, P. M., 2021). & with these technological changes have greatly contributed to the development of integrated marketing communications programs the dividing line between most marketing communication activities, & its tools have become complementary & supportive of each other they move in one direction & seek to achieve very similar goals (Katrandjiev, H. I., 2000: Pp.87-93).

from this standpoint, it can be said that technological & digital development has led to the start of a new revolution in the field of marketing in general & IMC in particular has been called the 4<sup>th</sup> marketing revolution, AI has emerged as its latest feature, as marketing is considered one of the most prominent sectors in which the use of AI applications has recently emerged, & it is expected that intelligence will work in the near future (AI) is completely changing & transforming the marketing landscape (Roetzer, P., 2018). Where

confirmed Studies show that considering investment in all sectors of the market, there will be an investment of over 100% one billion euros annually in AI in 2025 AD (Rosenberg, D., 2018: P.123).

So, this paper performs the second-level analytical method (Meta-Analysis) for research & studies that dealt with AI techniques in IMC during 2020 & 2023.

## 2. The Problem:

advances in technologies always The present opportunities for looking into the effectiveness & efficiency of technological systems. Study of the use of AI in marketing serves a useful purpose in improving the technology & its applications. However, it has been found that a few marketing researchers had examined the use of different AI systems in the field of marketing (Wedel, M. & Kannan, P. K., 2016: Pp.97–121). The need for studies to be conducted on the application of AI-technologies to marketing communications has also been pointed out by the Marketing Science Institute (MSI), where many of their research goals for 2018-2020 focused on AI in marketing (Martin, K., & Murphy, D., 2017: Pp. 135–155). Only a few papers have examined the role of marketing managers in the development of AI & its integration into marketing

communications while reviewing the literature at the confluence of marketing communications, decisionmaking, & AI. Several surveys reveal that AI is being widely used & applied in a variety of fields (Kwarteng, M., & Pilík, M., 2016: Pp.90-103 & CMO Survey 2019). However, because of their deductive nature, they fall short of providing a deep knowledge of how advertising strategies & judgment processes are altered. So, the problem of the study is determined by monitoring & analyzing studies that dealt with the use of AI techniques in changing trends in the production of IMC content, revealing theoretical frameworks & future research approaches in digital marketing research, analyzing data collection tools.

analyzing data collection tools, & the most important findings.

## 3. Aims of the study:

This study aimed to:

• Monitoring & literature review that dealt with the use of AI techniques in marketing communications on organizations' websites during 2020 & 2023.

• Revealing the extent to which organizations are aware of the importance of employing AI techniques in IMC through websites.

225

• Revealing the degree of adoption of the use of AI in IMC through organizations' websites.

• Identify methodological designs for AI & IMC studies.

• Providing a future vision for the development of research on the use of AI techniques in changing trends in the production of IMC content & proposing research topics in the field of study.

## 4. Questions:

• What is the most important research & studies that dealt with the use of AI in marketing communications through organizations' websites?

• To what extent do organizations realize the importance of employing AI techniques in IMC through websites?

• What is the degree of adoption of the use of AI in IMC in organizations' websites?

• What are the most important methodological designs for studies of AI & IMC?

• What will the future of research on the use of AI techniques be like in changing trends in the production of IMC content?

## 5. Methodological design:

## **5.1. Type of study:**

This study is a descriptive study that relies on the second-level analytical method (Meta-Analysis).

## 5.2. Methodology:

The study relies on the second-level analysis method for research & studies that dealt with AI techniques in IMC. The applied of  $2^{nd}$  level analysis method depends on following the following steps:

- Defining the problem.

- Determine the objectives of the study.

- Collecting information from studies related to the topic.

- Develop a plan for classifying, analyzing & interpreting information.

- Monitoring the general results & coming up with future recommendations or visions in the field of research.

## **5.3.** The study community:

The study community consists of research & studies that have addressed AI techniques in IMC & digital marketing from 2020 to 2023.

## **5.4.** The sample:

This study is based on a deliberate sample of research & studies that dealt with AI techniques in IMC & digital marketing, The total sample included (75) studies, & the following table shows the details of the distribution of the study sample:

Table 1: distribution of the sample according toArabic & foreign research:

	The sample	Types of research			
		Arabic	Foreig n	Total	Time period of analysis
1	The research	29	46	75	2020-2023

The role of AI in marketing: Personalizing content through observation, data collection, & analysis is now possible with the help of AI. This technology in digital marketing assists marketers with email campaigns, allowing them to maximize results. Email marketing is one of the digital marketing services that help reach the target audience at the right time & ensure relevant conversion strategies. Analyzing data is the most critical advantage of AI in marketing. This technology will analyze massive amounts of data & provide marketers with real-world & actionable insights (Haleem & et.al., 2022: Pp. 119–132).

The proposition of (Jarrahi, M. H., 2018: Pp. 577–586) was that, in the face of growing AI, managers must be ready to change for taking advantage of marketing communications. In the face of rapidly emerging technology like AI, strategic decisions need to keep up

to date on how to apply it to their business & maintain their strategic advantage in the human-machine synergy. These findings provide some perspective on how marketing managers should experience AI & incorporate it into their marketing & communication strategies, but management in a general sense seems not to be making use of this opportunity.

## **6.1.** Levels of artificial intelligence:

There are four types of AI arranged in a parallel manner of intelligence (mechanical, analytical, intuitive, & emotional) listed in order of difficulty for AI, & companies should Decide which intelligence is appropriate for you. Here are the four types of AI:

## **6.1.1. Mechanical intelligence:**

Mechanical intelligence is the ability to perform routine, repetitive tasks automatically, which may seem insignificant Particularly clever but necessary for many missions, for a missionary mechanical operation do not require much of creativity because the processes have been performed many times, & thus insights can be generated with little or no additional thinking. Thinking (Daniel, 1996: P.123).

229

## **6.1.2.** Analytical intelligence:

Analytical intelligence is the ability to process information to solve problems & learn from them. Information processing, logical thinking, & mathematical skills (Howard, 1999: P.211).

### **6.1.3. Intuitive intelligence:**

Or intuitive intelligence is the ability to think creatively & adapt effectively to situations It can be considered a wisdom based on quantitative & experience-based thinking, & it also includes intuitive intelligence Professional skills in serious thinking require insights & creative problem solving (Picard, 2003: Pp.55-64). Understanding can be considered the main defining characteristic of intuitive AI that distinguishes it from analytical AI. Studies show Intuitive AI & "strong AI," where AI is designed to work More flexible like humans, AI is designed to mimic a wide range of human cognition Learning in a similar way to a human child (but faster due to computing power & communication) & in this way may Machine intelligence is viewed as no different from human intelligence (Munandar, Doan Ilman & Irwansyah, 2020).

## **6.1.4. Emotional intelligence:**

Or emotional intelligence, is the ability to recognize & understand the feelings of others, & to respond Emotionally appropriate, & influencing the feelings of others (Assyari, 2020: Pp. 406-417), Emotional AI is described as a machine that can feel or at least act as it does If she had feelings, Picard defines affective computing as computing that relates to emotions or creates emotions. From it or affect it, & says that the basic role of emotion in both perception & human perception. & the distinctive feature Emotional AI is "experience," the ability to experience things, & there is debate about whether it can AI can feel the same way as humans. Finally, emotional AI is the most advanced generation of AI, & current applications are still very poor service such as robots (Sofia, Rebecca) (Amri & Bambang, 2020: Pp.58-78).

# 6. Integrated Marketing Communications (IMC):

The popularization of the concept of IMC has been confirmed by both growing number of publications on the subject & examples from business practice showing the efficiency & effectiveness of IMC programs. In this area it is in particular the most interest in professionalization of communication activities for the benefit of brand that has grown. According to (Hajduk, G., 2010: Pp. 20–29), properly designed & efficient IMC should assure that all forms of contacts with clients & other target groups of a brand will be dedicated to a particular recipient, comprehensible & coherent in terms of the content of message. The author himself defines IMC as a "strategic business process used to plan, develop, execute & assess a coordinated, measurable, convincing program of communication of a brand with consumers, potential clients & other target recipients, both internal & external ones.

# 7.1. Major characteristics of this marketing revolution include:

• A shifting of marketing expenditures from traditional media advertising to other forms of promotion as well as nontraditional media.

• The rapid growth of the Internet & social media that is changing the nature of how companies do business & the ways they communicate & interact with consumers.

• A shift in marketplace power from manufacturers to retailers.

• The growth & development of database marketing.

• Demands for greater accountability from advertising agencies & changes in the way agencies & other marketing communication firms are compensated.

## 7.2. The IMC Planning Process:

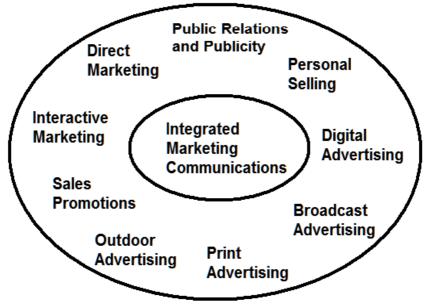
IMC management involves the process of planning, executing, evaluating, controlling the use of the various promotional mix elements to effectively communicate with target audiences.

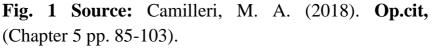
Summing up, we can highlight three basis planes on which IMC issues are researched. They cover (Camilleri, M. 2018: Pp.85-103):

• Managing IMC of an organization (brand) — planning, implementation, control.

• The process of IMC — a series of planned, coherent actions leading to conveying the message efficiently & maintaining relations with the recipients of an organization (brand).

• IMC tools used in purposefully chosen channels of communication with the environment (formal & informal communication) (Rydel, M. See, 2010: P.356). **Figure 1:** The Marketing Communications Mix





AI technologies are genuine development pillars for businesses since they aid in decision-making, forecasting, & the corporate economy. Moreover, if these technologies are backed up by strong leadership & training, the growth potential is larger (Bharadiya, 2023: Pp.24-30). In sum, the marketers' challenge is to communicate with customers in a way which triggers their purchase decision. At the same time, they must optimize their resource allocation among all promotional activities, as effectively as possible.

#### 7. The role of AI in IMC:

AI is a new interdisciplinary technological science that develops theoretical methods. technologies. & applications for the simulation & expansion of human intelligence (Fedorko, & et. Al., 2022: Pp.677-689). In addition, consumers may trust those who may be considered as thought leaders in their industry, so this strategy can bring in many inbound leads, coming through download pages, on the other hand, internet users can choose what content they wish to be exposed to, respond to, & share (Camilleri, M., 2018). The application of AI to marketing communication focuses on strategies for exploiting customer data to predict a customer's future purchase or choice, as well as to improve the customer journey (Marinchak, C.M., Forrest, E., & Hoanca, B., 2018: Pp.14-24). It provides a mechanism to bridge the gap between data science & implementation by sorting through & analyzing massive data sets, which was previously an intractable task (Schwab, K., 2016). Marketers are utilizing machine learning's capacity to correlate data pieces in order to acquire insights into their consumer base (Attaran, M., & Deb, P., 2018: Pp.1-9). These technologies can evaluate speech to extract sentiment from it, develop

235

visual representations of social media trends, & process data to make projections (Kelleher, J., MacNamee, B., & D'Arcy, A., 2015). AI performs several roles that can be performed by the organization employees saving the organization marketing cost. AI can collect data of organization customers from comments, blogs, social media for utilization, analyze consumer behavior, & above all, can be used to answer several customers complaints & enquiries as human being would ordinarily (Lasi, 2021: Pp.167-184).

For example, Google may have access to consumer profiles more than any other company, because it knows when consumers view Ads in Google Search, Gmail, YouTube, Google Maps, & Android apps. It also knows where consumers go, both online & in the physical world, based on cookies & location data from their phones. The company will shortly be able to track credit & debit card transactions & link them to online behavior. Google's moves will bring consumer significant marketing opportunities to advertisers. It may appear that businesses could leverage themselves if Google provides them with relevant data on the customers' needs & wants. Google could also indicate when prospects need products or services, & what price

they are willing to pay. These answers allow marketers to better target individual consumers. However, these advances will also raise privacy concerns. There may be wary consumers who may want to separate the greater personalization of content from advertising. For this reason, they may install ad blockers, tracking blockers, & they could decide to switch off their phone's location services (Camilleri, M., 2018: Pp.85-103).

(Nidhi, 2018) following the report by Gartner, noted that by 2020, it is presumed that 85 percent of organization interacting with its customers will be carried online through AI. One peculiar AI technology popular today is chatbots. (Brian, 2018) argued that chatbots is the solution to organization customer service that can interact with organization customers need in real time. The chatbots could chart with customers & responds to customer needs whether at night, day & anytime. It has saved most organization the stress of employing staff from different countries with different daytime & predicted that by 2022 chatbots is designed to save organization over \$8 billion marketing cost per annum. (Brian, 2018) further noted that Service has predicted that by 2025, about 95 per cent of consumer brand discussion will be powered by Ai. Most organization

have started to adopt chatbots to replace human in attempt to reduce cost & provide better response to customers. It facilitates better ads targeting based on consumer surfing behavior.

Today, Business environment created by the different & empowered capabilities of digital contexts, the marketing mix paradigm increasingly becomes object of criticism. When e-marketing research & practice will arrive to a deeper comprehension & maturity in the digital environment, we will probably see a new marketing mix paradigm which will put to the traditional 4 Ps to rest & give light to a new widely accepted paradigm for marketing operations (Lasi, 2021: Pp.167-184). (Marinchak, & et al., 2018: Pp.14-24) address the role of AI on marketing management & state that "AI is changing the rules, roles & tools of marketing" despite their inability to ground their findings in empiricism. As a result, the role of AI in marketing communications & judgment appears to be under-appreciated.

Relating the above-mentioned features of IMC to a specific area of science & research, it is worth emphasizing that also scientific-research institutions should go in this direction. Now the dominant strategy is the popularization of science & promotion of research

. . .

supported by the application of personal communication tools (contacts & appearances of researchers), group communication (conferences, presentations, publications), mass communication, events, advertising) & Internet communication (company websites of scientific & research units, websites of research projects, activity of units in some social media networks) (Osica, & Niedzicki, 2013; Warszawa, 2017; Kraków, 2013 & Promocja, w. & et.al., 2007).

## 8. The Results of the study:

Applying the chosen methods to gather & analyze the information allowed for the identification of the right AI technology tools for the company, as well as an assessment of the relevance of this technology in terms of resources (Kiseleva, 2023: P.52). Marketers can now focus more on the customer & meet their needs in real time. By using AI, they can quickly determine what content to target customers & which channel to employ at what moment, thanks to the data collected & generated by its algorithms. Users feel at ease & are more inclined to buy what is offered when AI is used to personalize their experiences. AI tools can also be used to analyze the performance of a competitor's campaigns

& reveal their customers' expectations (Haleem & et. Al., 2022: Pp.119-132).

AI captures & interprets client data in real-time using ML & applies those findings on a vast scale. AI makes it easier to separate, sort, & priorities this data. AI-powered marketing automation tools are revolutionizing marketing automation strategy. Next-generation platforms promise to boost marketing strategies by addressing shape-shifting needs such as hyper-personalized offerings for clients.

In the future, AI is likely to substantially change both marketing strategies & customer behaviors. Building from not only extant research but also extensive interactions with practice, the authors propose a multidimensional framework for understanding the impact of AI involving intelligence levels, task types, & whether AI is embedded in a robot (Davenport & et. Al., 2020: Pp.24-42).

Based on a review of the previous literature on the effectiveness of (AI) technologies in changing the trends of (IMC) content production on the websites of organizations, the study found the following results:

**9.1.** Using of AI in marketing through organizations' websites:

Generative AI is all about creativity & sounding as human-like as possible thanks to the use of natural language processing. It allows you to feed a prompt to an AI technique to create various kinds of media like images, text, & audio. Predictive AI uses algorithms to forecast what is most likely to happen in the future. By taking large amounts of data, predictive AI systems can analyze & draw out patterns & similarities that are then used to draw conclusions.

Combining the knowledge that predictive AI brings with the ability to produce content with generative AI will allow you to create super personalized marketing materials. You can make your current & future customers feel seen & understood, which will make them more interested in your product or service.

Easily create promotional & instructional using AI software. There are many platforms that allow you to upload a script (for example, an article you've written). It then can turn your script into an audio recording & provide templates for the visual elements. This will allow your team to save time by not needing to record & record audio, or save money by not needing to hire a voice actor for professional sounding videos. & then there's the need for vast quantities of content. Ever since

. .

the dawn of content marketing, marketers have listed content creation as one of the biggest challenges they face. Creating quality content takes time, & effective marketing requires a lot of it. AI can help, by generating some of that content for you. The content can be articles consisting of hundreds of words & read as if a live human being wrote it. Or the content generated can be more specific, such as the email subject lines & social media ads written in the AI-generated language. In either case, the content created is customer-focused & purposeful, intended to be useful to that customer seeking information or scanning their inbox or social media pages—without requiring countless hours on the part of an employee or freelancer to generate that content.

Selling, where, through AI, the features of automatic response are available that allow communication at any time & from anywhere, which achieves interactivity, & AI means provide an advantage for e-mail. Which confirmed the importance of using it in digital marketing, as it provides the feature of automatic response, notifications & interests, & the study recommended that dairy companies expand the use of AI techniques in electronic marketing, which contributes

212

to increasing sales & achieving competitive advantage (Hamad, 2021: Pp.427-376). that there is a significant relationship between AI & marketing innovation, which is that relying on AI techniques in marketing is one of most important factors for the the success of organizations at the present time, as AI provides ease & effectiveness of communication with customers, & it also provides the necessary data that helps the company to be innovative. most of the marketers in the retailing sector in Egypt, have a good attitude towards the benefit achieved from AI, but they need more understanding to facilitate the process of relying on AI techniques for them (Nader, 2021: Pp.112-179). has been proven that there is an impact & causal relationship between verification & shipping technology expenditures, marketing & content, technology investments & development, with shopping sales & online shopping in Amazon corporate. there is an impact & causal relationship between verification & shipping technology marketing & expenditures, content, technology investments & development, with shopping sales & online shopping in Amazon corporate (Qahairiya, 2021: Pp.366-385).

There is a positive, statistically significant correlation between the use of AI techniques & the purchasing decision-making process. The more shoppers use AI techniques, the more their purchasing decision-making increases. The impact of using process these applications on all stages of purchasing decision-making becomes clear & there is a positive, statistically significant correlation between all stages of the purchasing decision. It also became clear that the most prominent AI techniques used by the study sample while shopping online were respectively the smart visual search application, then the smart voice search application, followed by the chat robot application. The suggested product list technique, the technology of listing suggested products, then the technology of trying products before purchasing them, & finally the technology of 360 photography & measuring clothes electronically (Fawzy, 2023: Pp.179-225). AI provides ease & effectiveness in communicating with the target group, ensuring that the organization makes marketing decisions The right thing. The legal risks of using AI in advertising create opportunities for advertisers to be more effective in understanding recipients & try to reach them constantly (Mohammad, 2023: Pp.238-267).

In the digital era, consumers have easier access to a of knowledge, experience wealth & resources. Companies are looking to attract consumers to global branding strategies such as new product development. Digitization enables consumers worldwide to provide up-to-date advice & helps companies promote new products & services through digital technology. 'Crowdsourcing' as a new business model. Its superiority can be reflected in the social network. Enterprises can use the Internet to collect extensive data on foreign consumer demand, improve consumer participation, & understand consumer expectations promptly. Package to create new products. Utilizing different network platforms & digital technologies such as social media, customer databases, etc., enterprises can also develop & release new products in overseas markets, to obtain better market effects. Global crowdsourcing promotes customer-oriented branding strategies, while reducing the marketing costs of existing brands in the market (Zhiyu Pu., 2022: Pp.159-163).

AI is stepping strongly & progressively in the four stages of the data-based online advertising process. Moreover, it significantly showed that there is a relationship between AI utilization in each stage & the

. .

following one. using AI in each advertising stage promotes the perceived effectiveness of the overall online ad process (Tahoun, 2020). The integration of AI machine learning in marketing allows & for unprecedented data analysis, leading to valuable insights & informed decision-making. The ability to analyze vast amounts of data helps businesses detect & predict trends, leading to more accurate forecasting & effective marketing strategies. AI & machine learning technologies have the potential to revolutionize various aspects of fashion marketing. They enable personalized recommendation systems, streamlining the shopping experience, & improving customer satisfaction. These technologies help in identifying consumer preferences & trends, thus aiding in targeted marketing campaigns (Rathore, 2017: Pp.16-24).

# **9.2.** The importance of employing AI techniques in IMC through websites:

Marketers may find they are placing more importance on optimizing for voice search, virtual reality, & augmented reality as these features become more regular in households. This shift is like the one towards optimizing more for mobile shopping than desktop shopping (Dwivedi, & et. al. (2021: Pp.1-37). Businesses are using AI for customized pricing because applications & website bots can leverage predictive analytics by tracking cookies, search histories, & other activity data to recommend real-time pricing (Mustak, & et.al., 2021: Pp.389-404). Providing relevant keywords (both short & long) along with their search volumes. Here we asked ChatGPT to provide long tailed keywords based on the article titles it created above. It's also important to check the accuracy of these keywords before using them so you can be sure they are accurate. To be confident in the quality of Search engine optimization (SEO) research that AI platforms are outputting, it's probably best to go for a paid app for this one. While ChatGPT can help with keyword research, it hasn't been updated with data past 2021 (Haleem & et. Al., 2022: Pp.119-132).

The results highlight that there is an interest by public relations practitioners in obtaining information related to AI because it represents the future of the media, communication, publishing, news & marketing process, hypotheses confirm the existence of a statistically significant effect between the level of information of public relations practitioners about AI on the positive evaluation of its role in digital marketing (Abdel Halim,

. . .

2023: Pp.243-286). There has been significant scientific contribution in linking the employment of technologies AI & digital media, & studies have intensified in the field of digital marketing It was noted that there is research interest in the problem of analyzing & interpreting data according to AI techniques matter, which is influential & has demonstrated its impact on the ability to analyze the audience & its expectations. The ability to address him & send messages that target him well (Abdel Aziz, & Radwan, 2022: Pp.1901-1954). The using AI to analyses data helps to improve user experience & customize content better, as well as enhance creativity in marketing design. & how this information is used to design unique & customized user experiences, thereby increasing response rates & improving the user experience (Helmy, 2023: Pp.2329-2381).

The frontier of AI application to decision-making is moving in many management areas from operational to strategic. Given the competitive nature of such decisions & the insights from applying AI to defense & similar areas, it is time to focus on applying AI to strategic marketing decisions. There are strong implications for all businesses, particularly large businesses in

. .

competitive industries, where failure to deploy AI in the face of competition from firms, who have deployed AI to improve their decision-making could be dangerous (Stone, & et.al., 2020: Pp.183-200). Marketers have high standards that AI will continue to develop automation parameters & that automation will gradually take over most marketing procedures. Marketers today are willing to learn how to improve digital marketing to touch on every customer & clearly express their desires. AI can help companies reach their potential marketing goals (Mohamud, & Alkhayyat, 2022).

Eventually, humans oversee determining to which ethical principles & human values AI applications & systems (& their utility functions) should be aligned. Besides, decisions about AI design approaches to equip AI applications & systems with ethical judgments competences have to be taken by humans. Initially, humans have to determine whether AI systems base their ethical decision-making on pre-defined ethical theories (top down), on more flexible self-learning mechanisms based on certain values (bottom-up), or on a combination of both (hybrid) (Hermann, 2022: Pp.43-61). As the technology continues to evolve, it is expected that AI will become more sophisticated,

249

providing more personalized content that resonates with the audience. By harnessing the power of AI as part of their strategy, marketers can generate high-quality amount of time, improve short content in а personalization & relevance, & save resources. While it is uncertain if AI will replace marketers, it is vital for professionals to learn how to use these new tools & enhance their career prospects. As AI skills to technology continues to evolve, we can expect to see more sophisticated & intelligent systems that can produce authentic content as a human could. The combination of human creativity & AI technology can lead to more effective & efficient content marketing strategies that deliver optimized results & generate higher engagement & conversions (Lintulahti, 2023).

# 9.3. The degree of adoption of the use of AI in IMC:

AI is frequently employed in digital advertising to ensure maximum success; it is used across platforms such as Facebook, Google, & Instagram to deliver the best possible expert. Appropriate advertisements are offered by analyzing user information such as gender, age, interests, & other factors. Marketers may use AI technology to detect micro trends & even anticipate trends. They will then be able to make strategic judgments. Consequently, companies can decrease digital advertising waste & ensure that their investment yields the most significant returns possible. AI influences the future of digital marketing because it leverages the power of IoT & connected devices (Qahairiya, 2021: Pp.366-385).

There is a relationship between the extent of respondents' dependence on AI & their opinion through its positive effects in electronic marketing through social media. & there is a relationship between the extent of respondents' dependence on AI & the expected benefits of it. & there is a relationship between the effect of AI in electronic marketing through social media & its use in the future (Abdel Hamid, 2023: Pp.443-501).

That AI techniques & big data, have helped the great development witnessed by digital marketing today, & that the digital marketer relies on them very much in His marketing campaigns, & since these tools & techniques facilitate the tasks of the marketing campaign, save time & effort, & lead to more accurate results (Albembawy, 2023: Pp.1431-1467).

AI helps in improving digital marketing strategies & reaching the target audience, & that AI technologies can

be relied upon in writing digital content to attract the target audience. & the use of AI in digital marketing in social media will replace the human element (Al-Wasel, & et.al., 2023: Pp.337-369). AI helps marketers swiftly identify qualified leads, develop better nurturing tactics, & generate relevant content when integrated into marketing automation tools. Dynamic content emails, particularly one-on-one emails, are the most effective because they use contextual emails to energies what the brand says while also targeting what subscribers are interested in hearing. Dynamic content strategies guarantee that emails remain relevant to subscribers depending on their geo-locations, psychographics, behavioral data, & insights (Haleem & et. Al, 2022: Pp.119-132).

A great number of businesses now make use of chatbots & other types of virtual assistants to carry out a variety of functions. The use of AI will have the consequence of bringing digital people more in line with humans. Whatever the activities that are required of digital people, whether it be a sales & marketing tool or a customer-employee support representative, digital people are becoming more important. Because technological advancements in the realm of sound will

. . .

play a more significant role in the Metaverse, people would rather bargain than converse about nothing. Brands are going to decide to spend in this area so that they can provide the finest possible experience for their customers (Nalbant, & Aydin, 2023: Pp.9-18).

AI technology can provide technical support for IMC of brand. In terms of communication content, VR/AR, UAV, interactive games & chatbots are mainly applied. In the aspect of communication channels, the data mining technique is mainly used to achieve differentiated communication, & the big data analysis technique is adopted to integrate brand image communication information channels. Regarding negative information monitoring, the natural language processing technology can provide high-efficiency, fullcoverage & round-the-clock negative information monitoring (Lingling & Fuli, 2021: Pp.7-13).

The Metaverse provides an immersive experience & enhances customer interaction, fostering inclusivity for a global audience compared to other digital communication channels. Moreover, the utilization of NFTs allows for the sale of limited-access physical wearable, combining fashion & exclusivity. while the integration of virtual reality & augmented reality

. . .

technologies enhances real-time interactions & authenticity, it also raises concerns surrounding data privacy among its users (Nabukalu & Wanjohi, 2023). & emphasize the elements that influence AI integration in marketing, the benefits & obstacles of AI integration in marketing, as well as your company's pre & post AI marketing strategy, ethical considerations, & use of AI in the marketing industry. & integrating AI into marketing tasks to improve corporate performance &, as a result, achieve profitability & competitive advantage (Basha, 2023: Pp.993-1004).

# 9.4. Methodological designs for studies of AI & IMC:

Most foreign studies focused on analytical studies, (Huttunen, 2020), & (Basha, 2023: Pp.993-1004). while Arabic studies focused on field & exploratory studies. & Most foreign studies neglected to mention the size of the study sample, while the study sample was specified in Arabic studies, (Salah, 2020: Pp.485-530), (Hamed, 2021: Pp.427-376), (Nader, 2021: Pp.112-179), (Salama, 2021: Pp.646-689), (Bouzid, 2022: Pp.469-486), (Helmy, 2023: Pp.2329-2381), & (Albembawy, 2023: Pp.1431-1467).

. . .

• In Arabic studies, it focused on empirical study follows an exploratory approach, utilizing qualitative methodology & adopting an inductive research approach (Mah, P.M.; Skalna, I.; & Muzam, J., 2022). Study, it was empirical study & It relied on the behavior-oriented engine & influencing functionality of IoT for customers. & (Qahairiya, 2021: Pp.336-385) study's, it was used the (ADF) test & the causal test according to the error correction model.

• Arabic studies use questionnaire tools & interviews with experts & specialists to collect data, (Al-Asiri, 2022: Pp.255-270), (Abdel Jabri, 2023: Pp.678-690), except for (Mustak, & et.al., 2021: Pp.389-404). study's, it was used Content analysis tool. & Most studies have applied it to a sample of the public, while in the current situation the public hasn't been able to distinguish between communication via AI. while foreign studies rely on literature reviews except for (Tahoun, 2020) study's it was used Three in-depth interviews were also conducted before & after the online questionnaire to analyze the findings & results & demonstrate insights into the five proposed research questions.

255

## 9.5The future of AI techniques be like in changing trends in the production of IMC content:

In Arabic studies there is Many companies suffer from weak application of AI, & this is due to the weakness of the digital environment AI contributes to supporting various digital marketing activities through the various digital methods it adopts (Azizi, & Bardi, 2023: Pp.386-405).

The impact of AI on the advertising process is an increasing challenge that takes the form of systematic reorganization. A new set of process steps consumer insight discovery, Ad creation, media planning, & buying, & Ad impact evaluation has emerged, resulting in the emergence of a new class of advertising activities, AI will have profound impacts on media markets. While automation of production may play some role, the unique properties of media goods mean the more important effects are likely to occur on the demand side. Here, there is great potential for social good, as AI can make it easier for consumers to navigate the bewildering mass of online content through search & personalized recommendations, & to identify cases where 3<sup>rd</sup> parties are attempting to manipulate them. There is also cause for concern, as AI may tilt content more heavily toward

. . .

consumer demand in domains where this is at odds with social good, & AI tools may be used to persuade & deceive more effectively (Jain & et.al, 2022: Pp.7570-7576).

In addition to answering questions via chatbots, AI can be used to gather more data about prospects & customers, then AI can use that data to predict future behavior as well as develop more targeted messaging. That content might be delivered by a chatbots as described above, via dynamic content on a web page, or by email. That's because AI can help to deliver the right email message at the right time by using dynamic content & determining that content based on past customer behavior. By knowing which web pages a customer visited, which blog posts they read, which emails they've interacted with & more, AI can intelligently select the content most likely to appeal to a specific customer & automatically populate an email with that content. Using what's called "churn prediction," AI can also predict when customers are disengaging from a brand, they help to provide personalized content that's most likely to appeal to & reengage them (Sasikumar, 2023).

Future scope Marketers may use AI to evaluate consumer behaviors & patterns, anticipate future results, adjust advertising appropriately. It uses data, & statistical algorithms, & cutting-edge AI technology to forecast future trends. As AI systems examine more data, they learn how to enhance their results & deliver the best answers over time. AI-powered ML algorithms can analyze massive amounts of historical consumer data to identify which advertisements are appropriate for clients & at what stage of the purchasing process. AI will give marketers the optimization benefits of deploying content at the perfect moment by utilizing trends & data. ML is a process that uses observations or data, such as direct experience, or instruction, to recognize patterns in data that allow you to make better decisions in the future. ML aims to enable computers to learn automatically "on their own," without human intervention or assistance so that systems can adjust their actions accordingly (Haleem & et. Al, 2022: Pp.119-132).

A proposed a future vision for the development of marketing communication strategies & the content creation in digital advertising, in several dimensions, the most important of which are digital marketing strategies, AI tools, solutions & systems, the purchasing decision of the digital consumer, & ethical & legal regulation (Thabet, 2023: Pp.641-679). & the use of AI in the marketing process will give marketers access to deeper & actionable insights. & the use of artificial intelligence applications in digital marketing has become an essential & important role that cannot be denied in the world of E-commerce (Bouzid, 2022: Pp.469-486). AI will become the basis for a level of customer personalization that will not only be recognized but soon be demanded by fickle customers everywhere. & it is imperative for brands to utilize AI in their marketing because it allows them to have both a single view of the customer as well as a single view of their media (Pearson, 2020: Pp.245-269). As AI develops, digital marketers must keep up with the most recent developments & successfully utilize AI technology to promote business success. In addition, significant financial investments are needed to apply AI in digital marketing. Small businesses with limited resources & insufficient funding may find it difficult to implement AI. The absence of rapid adaptation in AI may result in lost opportunities or ineffective strategies & highlight the need for continuous learning & professional development at a digital marketing level. AI has been able to manage several tasks in digital marketing autonomously. However, it is still necessary to recognize the importance of human creativity & intuitions for creating efficient marketing campaigns. In conclusion, while the immense potential of AI for increasing digital marketing efforts is yet to be seen, the reliance on AI may lead to an erosion of human contact & authenticity, which can have negative effects on customer involvement & brand loyalty (Bashang, & Puttanna, K., 2023: Pp.125-133). The ways in which various AI intelligences can be used in marketing research, marketing strategy (STP), & marketing action (4Ps/4Cs). It shows the strategic roles that AI can play in marketing (Huang, & Rust, 2020: Pp.30-50).

AI facilitates promotional strategy in numerous ways. For advertising AI can be utilized in identifying & designing text, images & video contents to suit different market segments in different marketing channels. Direct marketing is also being expanded & developed with the use of AI. AI enables direct marketing by selecting which forms & types of contacts, types of channel & types of content is suitable for different target groups. Moreover, providing personalized responses from different consumers, analyzing & suggesting different personalized ideas are some of the approaches used by AI for personal selling. The utilization of AI is growing promptly, dynamically changing & progressively developing in the business & marketing platforms & there is only a limited number of studies carried out on application of AI in marketing mix. Therefore, to fill the research studies, conceptual literature gap more frameworks, articles need to be carried out on this regard. Alongside, we also denote future research directions to be investigated extensively as to how AI influences the marketing mix strategies & decision making process in different markets. The authors encourages such studies to focus on different AI mechanisms related to demographic & customer cognitive factors. More studies need to be carried out on maintaining innovativeness in strategic marketing decision-making related to 4Ps & planning in an AIdriven world. Conclusively, the author emphasizes the knowledge required on examining effectiveness of AI & machine learning as a strategy in developing marketing & branding with reference to different industries (Nanayakkara, 2020: Pp.530-542).

.

### **10.** Discussion of results:

• AI has vast potential in marketing. It aids in proliferating information & data sources, improving software's data management capabilities, & designing intricate & advanced algorithms.

• AI is changing the way brands & users interact with one another. The application of this technology is highly dependent on the nature of the website & the type of business. Marketers can now focus more on the customer & meet their needs in real time. By using AI, they can quickly determine what content to target customers & which channel to employ at what moment, thanks to the data collected & generated by its algorithms. Users feel at ease & are more inclined to buy what is offered when AI is used to personalize their experiences.

• AI tools can also be used to analyze the performance of a competitor's campaigns & reveal their customers' expectations. Machine Learning (ML) is a subset of AI that allows computers to analyze & interpret data without being explicitly programmed. Furthermore, ML assists humans in solving problems efficiently. The algorithm learns & improves performance & accuracy as more data is fed into the algorithm (Haleem & et. Al, 2022: Pp.119-132). • Relying on AI supports marketing people in choosing & determining Appropriate marketing strategy, in addition to planning marketing activity efficiently & effective, as AI techniques contribute to the segmentation, targeting & identification process the strategic position of the brand in the market (STP) (Huang, & Rust, 2020: Pp.30-50).

• AI also helps marketers define the vision & the future direction of the company using technologies, such as text analysis technology Text Mining, & machine learning algorithms in many sectors such as banking, Tourism, & online retail, by analyzing customers & identifying the customers who should be targeted accurately (Marnik, 2020: Pp.3-14).

• The most foreign studies focused on second-level analysis (Meta-analysis), which is the analysis of data that has already been collected. Arabic studies, on the other hand, focused on field research, which is the collection of new data through surveys, interviews, or experiments.

• The studies were conducted on a sample of the public. However, the current state of technology is such that the public is not always able to distinguish between communication through AI & communication from a

263

human. This could have implications for the validity of the studies' findings.

• Despite the use of Bot Chat technology as the ideal solution for providing information as it allows conversations throughout the day, which achieves effectiveness through conversations with users with intelligence that mimics the intelligence of the human, advertisements have also been used via augmented reality technology via smart phones, & thus not all of AI techniques have been used in all elements of IMC.

• Both Arabic & foreign studies focused on some elements of IMC is a strategy that uses a variety of channels to communicate with a target audience. The studies focused on different elements of IMC, such as advertising, public relations, & social media. & most of studies focused on AI techniques in IMC content through VR/AR, blockchain, interactive games & chatbots are mainly applied. & most studies have applied it to a sample of the public, while in the current situation the public hasn't been able to distinguish between communication via AI. Have we in the Arab world reached the stage of actual use of AI technologies until we conduct field studies? Of course not. This contrasts with the results that confirm that studies related to AI technologies are still at the beginning of the matter, & this is what some forward-looking studies have confirmed.

• The most studies focused on communicating with the public through chatbots. Chatbots are computer programs that can simulate conversation with humans. **Chatbots** are often used in customer service, but they can also be used for marketing purposes.

• Egyptian companies are ready -to some extent- to integrate AI techniques In their marketing communications, most experts noted an optimistic future for the merger, & most emphasized the strengthening Ethics include respecting the privacy & aspects confidentiality of customer data, transparency & honesty & social ethics when programming an AI machine (Hussein, 2021: Pp.71-133). On the other hand, The results showed that there is an impact between the applications of AI in digital marketing in developing Egyptian companies & achieving competitive advantage (Al-Asdoudi, 2023: Pp.837-903).

• AI has made social networking sites such as Face book, X & other means that facilitate electronic marketing campaigns provided by Islamic banking institutions (Mahdi, 2022: Pp.239-263).

• Social communication is based on AI techniques, & the management of communication strategies for

265

customer crises came as a first point in terms of the effectiveness of the use of AI techniques in social networking sites, & the use of chatbots programs as an effective means to benefit from artificial intelligence (Salama, 2021: Pp.646-689).

• AI has made social media sites, such as Face book, X & Instagram, means that facilitate the marketing campaigns provided by the company, & AI still has a great development space, as companies & individuals can benefit from it much more at the marketing level. Critics of AI argue that the speed & accuracy that advertisers get when they use technology in their marketing is compensated by the lack of emotional creativity stemming from the depth & human experience, & therefore AI systems may help media agencies in the future, but they cannot create curiosity & passion, so there will always be. A role for media agencies. But considering the great development & great effectiveness of AI tools in the marketing process, if traditional marketers do not keep pace with development; The potential of AI has the potential to threaten the very existence of their jobs or agencies (Salah, 2020: Pp.485-530).

• There was positive Effects of Applying AI in Forming Marketing Strategies in terms of cost leadership, differentiation, focus marketing, alliance, diversification, & direct marketing.

• Most studies have focused on digital advertising & in particular the presence of a huge importance through the analysis of big data, which has been recorded on the experience significantly, & that he will be guided by the relative greater inventions of AI so that he begins to see advertising companies that only interest him.

• It is clear that economic institutions, especially banking institutions, have responded widely to the public's expectations by relying on AI techniques, as well as media institutions, especially in advertising work, as AI technologies help improve propaganda & advertising methods.

• AI helps follow trends, changing customer needs in the market. The company can gather a wide range of information, assess customers, & then adequately respond to their requirements & habits by providing quality services. Once a proper response is chosen, the organizations entity can expect increased customer comfort, increased satisfaction, & balance of supply & demand mechanisms (Khrais, L. (2020).

## **11. Conclusion:**

AI has become intertwined in our technologies & our lives, making it easy for us as consumers to benefit. But

marketers must learn how to adapt the benefits of AI to their jobs too, to improve customer experiences, strengthen brand loyalty, & increase revenues. & AI is only one of the many new tools, trends & technologies marketers must stay on top of.

This study aimed to monitoring & literature review that have dealt with marketing using AI techniques. It also included several other elements, such as addressing IMC methods that have been covered in research & studies, future research approaches, & theoretical frameworks that can be used at the academic studies, in addition to employing research results. The studies provide several recommendations in the field of digital marketing using AI.

Relying on AI supports marketing people in choosing & determining Appropriate marketing strategy, in addition to planning marketing activity efficiently & effective, as AI techniques contribute to the segmentation, targeting & identification process the strategic position of the brand in the market (STP).

AI also helps marketers define the vision & the future direction of the company through the use of technologies, such as text analysis technology text Mining, & machine learning algorithms in many sectors such as banking, tourism, & online retail, by analyzing customers & identifying the customers who should be targeted accurately.

Personalizing content through observation, data collection, & analysis is now possible with the help of AI. This technology in digital marketing assists marketers with email campaigns, allowing them to maximize results. Email marketing is one of the digital marketing services that help reach the target audience at the right time & ensure relevant conversion strategies. Analyzing data is the most critical advantage of AI in marketing. This technology will analyze massive amounts of data & provide marketers with real-world & actionable insights.

### 12. Recommendations:

- Conduct more beginners & Arab studies that depend on the methods of AI analysis in creating marketing content, not rely on permanent studies & experts only, especially since we do not prefer to emerge as an expert in AI over any Arab researcher currently.

- Arab companies in general must keep pace with formations in global specialties.

- Training humans on how to deal with machines in the Arab world.

## 13. References:

#### **13.1.** Thesis & Dissertations:

Huttunen, Aleksi. (2020). Marketing in social media: Using Data & Artificial Intelligence for Segmentation, **bachelor's thesis.** LUT-University, Industrial Engineering & Management.

Kiseleva, Polina (2023). Artificial intelligence as a marketing tool in a company We Are The Planet, Degree Programme in International Business. **Bachelor's thesis**. JAMK University of Applied Sciences.

Lintulahti, Niilo. (2023). Creating a strategy for AI integration in content marketing, **Bachelor's Thesis**, Haaga-Helia University of Applied Sciences.

Mohamud, Ahmed & Alkhayyat, Abdulmoaz. (2022). The impact of Artificial Intelligence in Digital Marketing, **Master thesis in Business Administration**, School of Business, Society & Engineering, Mälardalen University.

Nabukalu, Resty & Wanjohi, Ambrosena. (2023). Impact of Metaverse on Marketing Communication A case study of the fashion industry, **Master Programme in International Business**, Lulea University of Technology Department of Social Sciences, Technology and Arts

Tahoun, Nouran. (2020). The utilization of artificial intelligence in online advertising & it's perceived effectiveness, **Master's Thesis**, the American University in Cairo. AUC Knowledge Fountain. Avilable at: <u>https://fount.aucegypt.edu/etds/1472</u>

## 13.2. Journals:

Abdel Aziz, Osama Al-Sayed & Radwan, Marwa. (2022). The societal impact of employing artificial intelligence techniques in traditional & modern media: a second-level analytical study, **Egyptian Journal of Media Research** - Issue 8. Abdel Halim, Samar. (2023). Public relations practitioners' realization of the role of artificial intelligence in developing digital marketing performance. Scientific Journal of Public Relations & Advertising Research - Issue 25.

Abdel Hamid, Mervat. (2023). Public Relations Officials vision in government organizations regarding the impact boundaries of Artificial Intelligence in Electronic Marketing, **Egyptian Journal of Media Research**, Issue.83.

Abdel Jabri, Muhammad Hamid. (2023). Artificial intelligence technologies & their role in digital marketing, **Journal of the Iraqi university**, Vol.60, No.1.

Al-Asdoudi, Noha. (2023). The Application of Artificial Intelligence Mechanisms in Digital Marketing & Its Effects on Achieving Competitive Advantages - A Field Study on Experts, **Journal of Media Research**, Vol.2, No.67.

Al-Asiri, Essam. (2022). Improving design efficiency using artificial intelligence: A study on the role of artificial intelligence in shortening the interior design process, **International design Journal**, Scientific society of designers, Vol.13, No.5.

Albembawy, Hany. (2023). The role of artificial intelligence technologies & big data in raising the efficiency of digital marketing methods from the point of view of marketing experts. **Egyptian Journal of Public Opinion**, Vol.2023, No.82.

Al-Wasel, Mashael Abdullah & et.al. (2023). Impact of AI technologies in improving digital marketing strategies: A field study, Journal of the Association of Arab Universities for Media & Communication Technology Research, Issue Eleven, Part.1.

Amri, Dunan, & Bambang, Mudjiyanto, (2020). The Republic of Indonesia Government Public Relations Communication Strategy in The Era of The Industrial Revolution 4.0, **JATI-Journal of Southeast Asian Studies**, Vol.25, No.1.

Andre, Marchand, & Paul, Marx. (2020). Automated Product Recommendations with Preference-Based Explanations, **Journal of Retailing**, Vol.96, No.3.

Assyari, Abdullah. (2020). Public Relations in the Era of Artificial Intelligence: Peluang atau Ancaman, **Journal Aristo**, Vol.8, No.2.

Attaran, M., & Deb, P. (2018). Machine Learning: The New "Big Thing" for Competitive Advantage. International Journal of Knowledge Engineering & Data Mining. Vol.5, No.1.

Azizi, Asmaa & Bardi, Hanan. (2023). Artificial intelligence as an input to support digital marketing Amazon & Alibaba case study, **Journal of Economics & Sustainable Development**, Vol.6, Issue.1.

Basha, Mahabub. (2023). Impact of artificial intelligence on marketing, **East Asian Journal of Multidisciplinary Research (EAJMR)**, Vol. 2, No.3.

Bashang, Sepideh & Puttanna, K. (2023). The Role of Artificial Intelligence in Digital Marketing: A Review, **IRJEMS International Research Journal of Economics and Management Studies**, Vol.2, No.3. Eternal Scientific Publications, Doi:10.56472/25835238/IRJEMS-V2I3P118.

Bharadiya, Jasmin Praful. (2023). A Comparative Study of Business Intelligence & Artificial Intelligence with Big Data Analytics. **American Journal of Artificial Intelligence**. Vol.7, No.1. doi:10.11648/j.ajai.20230701.14.

Bouzid, Sufyan. (2022). Employing artificial intelligence applications in E-marketing, **Industrial Economics Journal – Khezzartech**.

Davenport, Thomas & et. Al. (2020). How artificial intelligence will change the future of marketing, Journal of the Academy of Marketing Science, Vol.2020, No.48, Pp.24–42. https://doi.org/10.1007/s11747-019-00696-0

Don E. Schultz, (2010). New, Newer, Newest: Evolving Stages of IMC. Journal of Integrated Marketing Communications, Vol.15.

Dwivedi, Yogesh K. & et.al. (2021). Setting the future of digital & social media marketing research: Perspectives & research propositions, **International Journal of Information Management**, Vol.59.

Fawzy, Doaa (2023). The role of artificial intelligence applications in influencing the purchasing decision: a field study on a sample of online shoppers, **Middle East Public Relations Research Journal**, Special Issue (47).

Gupta, P. M. (2021). Artificial intelligence capability: Conceptualization, measurement calibration, & empirical study on its impact on organizational creativity & firm performance. **Information & Management,** Vol.58. Retrieved from www.elsevier.com/locate/im

Hajduk G. (2010). Poziomy, płaszczyzny i rodzaje komunikacji marketingowej, **Zeszyty Naukowe Uniwersytetu Ekonomicznego w Poznaniu**, Vol.135.

Haleem, Abid & et.al. (2022). Artificial intelligence (AI) applications for marketing: A literature-based study, **International Journal of Intelligent Networks**, Vol.3. <u>https://doi.org/10.1016/j.ijin.2022.08.005</u>.

Hamad, Ismail (2021). The Impact of Artificial Intelligence on the Development of Digital Marketing (A Case Study), **The Scientific Journal of Commercial & Environmental Studies**, Vol.12, No.4. Helmy, Walaa Mahmoud. (2023). The creative impact of artificial intelligence on marketing design in a digital world, **Journal of the Higher Institute for Qualitative Studies**. Vol.3, No.11.

Hermann, Erik. (2022). Leveraging Artificial Intelligence in Marketing for Social Good—An Ethical Perspective, **Journal of Business Ethics**, Vol.179, <u>https://doi.org/10.1007/s10551-021-</u> <u>04843-y</u>

Huang, M. H., & Rust, R. T. (2021). A strategic framework for artificial intelligence in marketing. Journal of the Academy of Marketing Science, Vol.49, No.1.

Huang, Ming-Hui & Rust, Roland, T. (2020). A strategic framework for artificial intelligence in marketing, **Journal of the Academy of Marketing Science**, No.49,.

Hussein, Noha. (2021). Expert trends towards the future of integrating artificial intelligence applications in communications Integrated marketing for Egyptian companies: a prospective study, **Middle East Public Relations Research Journal**, No.35.

Jain, Mallika. & et.al. (2022). A Transformative Impact on Media Markets based on Media and Artificial Intelligence, **NeuroQuantology**, Vol.2o, No.10, doi:10.14704/ng.2022.20.10.NO55745.

Jarrahi, M. H. (2018). Artificial intelligence & the future of work: Human-AI symbiosis in organizational decision making. **Business Horizons**, Vol.61, No.4.

Kaplan A., & Haenlein, M. (2019). Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, & implications of artificial intelligence. **Business Horizons**, Vol.62, No.1.

Katrandjiev, H. I. (2000). Some Aspects of Measuring Integrated Marketing Communications (IMC). Journal of Economics & Organization, Vol.1, No.8. Khrais, L. (2020). Role of artificial intelligence in shaping consumer demand in e-commerce. Future Internet, Vol.12, No.12. & Soni N, Sharma EK, Singh N, Kapoor A Impact of artificial intelligence on businesses: from research, **innovation, market deployment to future shifts in business models**, Available at: https://arxiv.org/abs/1905.02092

Kwarteng, M. A., & Pilík, M. (2016). Exploring Consumers' Propensity for Online Shopping in a Developing Country: A Demographic Perspective. International Journal of Entrepreneurial Knowledge, Vol.4, No.1, & CMO Survey 2019. Highlights & Insights Report. Computer Press.

Lasi, Masri Bin Abdul. (2021), The Relationship between E- Marketing Mix Strategy & Integrated Marketing Communication: A Conceptual Framework, **International Journal of Economics & Management Systems**, Vol.6.

Lingling, Wu & Fuli, Chen. (2021). Role of AI technology in brand building of Chinese higher education institution thought based on integrated marketing communication, **маркетинг** i цифровi технологiї, vol.5, No.2.

Mahdi, Murad. (2022). The Reality of Islamic Banks' Use of Artificial Intelligence Applications in Digital Marketing - Case study of Al Salam Bank Algeria as a model. **Journal of Economic Dimensions**. Vol.12, No.2.

Marinchak, C.M., Forrest, E., & Hoanca, B. (2018). Artificial intelligence: Redefining marketing management & the customer experience. **International Journal of Entrepreneurship & Innovation**, Vol.8, No.2.

Marnik G. Dekimpe. (2020). Retailing & retailing research in the age of big data analytics, **International Journal of Research in Marketing**, Vol.37, No.1.

Martin, K., & Murphy, D. (2017). The role of data privacy in marketing. **Journal of the Academy of Marketing Science**, Vol.45, No.2.

Mohammad, Alaa. (2023). Artificial intelligence between both artificial marketing &intelligent Advertising, **Journal of Architecture Arts & Humanities**, Vol.8, No.38.

Mustak, Mekhail. & et.al. (2021). Artificial intelligence in marketing: Topic modeling, scientometric analysis, & research agenda, **Journal of Business Research**, Vol.124.

Nader, Abd Rahim (2021), "The mediating role of the attitude towards modern technologies in the relationship between the use of artificial intelligence & marketing innovation" (An Applied Study on the Online Retailing Sector in Egypt), **Journal of Financial & Commercial Research**, Vol.22, No.3.

Nalbant, Kemal Gökhan & Aydin, Sevgi .(2023). Development & Transformation in Digital Marketing & Branding with Artificial Intelligence & Digital Technologies Dynamics in the Metaverse Universe, **Journal of Metaverse Research Article**, Vol.3, No.1, Doi:10.57019/jmv.1148015.

Pearson, Andrew (2020). Personalization the artificial intelligence way, **Journal of Digital & Social Media Marketing**, Vol.7, No.3, Available at: https://www.researchgate.net/publication/343583392

Picard, Rosalind W. (2003). Affective computing: challenges, **International Journal of Human-Computer Studies**, Vol.59.

Qahairiya Saif al-Din. (2021B). Artificial Intelligence Applications & their Impact on the Present & Future of E-Shopping, Econometric Study of Amazon Case. **Journal of Economic Dimensions,** No.2.

Rathore, Bharati. (2017). Beyond Trends: Shaping the Future of Fashion Marketing with AI, Sustainability and Machine

learning, **international Peer Reviewed/Refereed Multidisciplinary Journal (EIPRMJ), Vol.6, No.2, Available** at: www.eduzonejournal.com

Rydel, M. See (2010). Zintegrowana komunikacja marketingowa — nowe podejście — propozycja uporządkowania pojęć, Acta Universitatis Lodziensis Folia Oeconomica, Vol.179.

Salah, Wafaa. (2020). The effect of using intelligence on the effectiveness of digital marketing methods A survey of a sample of marketers, **Egyptian Journal of Public Opinion Research**, Vol.19, No.3.

Salama, Mai Wailed. (2021). The effectiveness of using artificial intelligence techniques in digital marketing through social networking sites from the point of view of students of marketing communication departments in Saudi universities. **Egyptian Journal of Media Research**, No.77.

Shankar, V. (2018). How artificial intelligence (AI) is reshaping retailing. **Journal of Retailing**, Vol.94, No.4.

Stahl, B., Andreou, A., Brey, P., Hatzakis, T., Kirichenko, A., Macnish, K., (2021). Artificial intelligence for human flourishing—beyond principles for machine learning. Journal of **Business Research**, Vol.124.

Stone, Merlin & et.al. (2020). Artificial intelligence (AI) in strategic marketing decision-making: a research agenda, **Strategic marketing**, Vol.33, No.2, Emerald Publishing Limited 0888-045X, DOI:10.1108/BL-03-2020-0022.

Thabet, Ghada Saif. (2023). Marketing Communication Strategies & Forecasting of Content Creation in The Digital Advertising. **Egyptian Journal of Public Opinion Research**, No.1. Wedel, M. & Kannan, P. K. (2016). Marketing Analytics for Data-Rich Environments, **Journal of Marketing**, Vol.80, No.6.

Zhiyu Pu. (2022). Research on the Choice of Marketing Strategy Based on China's Digital Era, **Highlights in Business**, **Economics and Management**, Vol.2.

#### 13.3. Books:

Camilleri, M. A. (2018). Integrated Marketing Communications. In Travel Marketing, Tourism Economics & the Airline Product (Chapter 5 pp.85-103). Cham, Switzerland: Springer Nature.

Daniel, Goleman. (1996). Emotional Intelligence: Why It Can Matter More than IQ. London, UK: **Bloomsbury Publishing**.

Gentsch, P. (2019). AI in Marketing, Sales & Service. Cham: Palgrave Macmillan.

Howard, Gardner. (1999). Intelligence Reframed: Multiple Intelligence for the 21<sup>st</sup> Century. New York: **Basic Books**.

Kelleher, J., MacNamee, B., & D'Arcy, A. (2015). Fundamentals of machine learning for predictive data analytics: Algorithms, worked examples, & case studies. **Cambridge, Mass.: The MIT Press.** 

Osica, & Niedzicki (2013). Sztuka promocji nauki. **Praktyczny poradnik dla naukowców, wyd**.

Rosenberg, D. (2018). How marketers can start integrating AI in their work. **Harvard Bus**. Rev.

Warszawa, OPI. (2017); Promosaurus. Poradnik promocji nauki, wyd. Centrum Transferu Technologii, Uniwersytet Jagielloński, Kraków. & Promocja, w. **nauce. Poradnik dobrych praktyk**, MNISW, & Warszawa (2007).

#### **13.4.** Conferences:

Munandar, Doan Ilman & Irwansyah, (2020). Artificial Intelligence Disruption on Public Relations Practice: What do Practitioners Think About it, **Proceedings of the 5<sup>th</sup> International Conference on Social & Political Sciences, ICSPS 2019, 12<sup>th</sup> November 2019**, Jakarta, Indonesia.

Nanayakkara, Sonali. (2020). Application of Artificial Intelligence in Marketing Mix: A Conceptual Review, **The Conference Proceedings of 11<sup>th</sup> International Conference on Business & Information ICBI**, University of Kelaniya, Sri Lanka.

Schwab, K. (2016). The Fourth Industrial Revolution: what it means, how to respond. **World Economic Forum**., from: <u>https://www.weforum.org/agenda/2016/01/thefourth-industrial-revolution-what-it-means-and-how-to-respond/</u>

#### **13.5.** Internet:

Brian, M. (2018). **online marketing.** Retrieved from Grin: <u>https://www.grin.co/blog/onlinemarketing-trends</u>.

Chow, M. (2017). AI & machine learning get us one step closer to relevance at scale. Retrieved from Emerging Technology,: <u>https://www.thinkwithgoogle.com/marketing-</u> resources/ai-personalized-marketing/

Fedorko, Richard, & et. Al. (2022). Artificial Intelligencein E-commerce: A Literature Review, Chapter · July 2022,Pp.677-689.Availablehttps://www.researchgate.net/publication/361675958DOI:10.1007/978-981-16-9113-3\_50.DOI:

Mah, P.M.; Skalna, I.; & Muzam, J. (2022). Natural Language Processing and Artificial Intelligence for Enterprise Management in the Era of Industry 4.0. Appl. Sci., 12,9207. Available at: <u>https://doi.org/10.3390/app12189207</u>

Nidhi, D. (2018). **11 digital marketing trends you can no longer ignore in 2018**. Retrieved from Single grain: https://www.singlegrain.com/digitalmarketing/11-digitalmarketing-trendsyou-can-no-longer-ignore-in-2018/

Roetzer, P. (2018). **The 5P's of Marketing Artificial Intelligence. Marketing artificial intelligence institute blog**. Retrieved from: <u>https://www.marketingaiinstitute.com/</u> blog/the5ps-of-marketing-artificial intelligence?\_72.9&\_hssc=96041603.1.1511696900272&\_hsf p.

Sasikumar, Srihari. (2023).How Companies Are UsingAIInDigitalMarketing,https://www.simplilearn.com/how-companies-are-using-artificial-intelligence-ai-in-digital-marketing-article

. . .