

# The Use of Artificial Intelligence Techniques in Digital Content Production and Arab Influencers' Attitudes Toward Them: A Study Through the Lens of Technological Determinism Theory

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## Abstract

This study seeks to identify trends among Arab influencers in the use of artificial intelligence techniques for producing digital content, using a descriptive survey approach. The study population comprised active Arab influencers across social media platforms. Given the difficulty of enumerating the population, a non-probability snowball sample of 87 individuals was used. The study relied on electronic questionnaires as the primary data collection tool. The results showed that most influencers have a good awareness of AI tools such as ChatGPT and Midjourney, with 64.3% recognising the potential of these technologies to transform content production in the future. The most prominent motives for use were accelerating production (56.3%) and improving content quality (52.8%), while the creative motive was less prominent, and interaction with the audience was no longer a priority. The study recommends further research into the impact of artificial intelligence on originality and creativity, expanding comparisons between influencer categories, and examining audience trends towards this type of content.

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## Introduction

The contemporary world is witnessing radical changes driven by rapid technological developments, with artificial intelligence emerging as one of the most prominent innovations, profoundly affecting various fields, foremost among them the digital media sector and the content industry. Artificial intelligence has evolved from an assistive technology for data collection and analysis to an essential partner in media creativity and production, with tools capable of generating text, images and video, analysing audience preferences, and customising media messages to enhance their effectiveness.

Given this reality, the role of digital influencers has emerged as one of the most important in the new media landscape, as they constitute a form of soft power capable of shaping general trends, influencing followers' decisions, and building the digital identities of communities. With the expansion of digital competition and the increasing public expectations for innovation and attractiveness, many influencers have found themselves challenged to use artificial intelligence technologies as a strategic tool to

develop their content, whether by automating production processes, enhancing visual and linguistic creativity, or even managing interactions with the public.

However, the use of these technologies by influencers raises multiple questions about their perception of artificial intelligence, the limits of their acceptance of it, and the advantages and concerns surrounding its use. It may be seen as an opportunity to enhance efficiency and reach. It may also be seen as a threat to the authenticity and credibility of content. This discrepancy opens the way for in-depth scientific studies that seek to reveal influencers' attitudes towards artificial intelligence and to understand the motives and obstacles that govern their decisions to adopt this technology.

Recent years have witnessed an unprecedented development in artificial intelligence applications within the digital environment, as these applications have moved from being auxiliary tools to a key component in the content industry across different platforms. It has become possible to produce high-quality texts, images and videos in a short time and at a low cost, which has opened the way for digital influencers to adopt these technologies in developing their presence and increasing the attractiveness of their content. In turn, this shift raises fundamental questions about how influencers perceive AI, the limits of their acceptance of it, and its impact on their credibility and public image.

Despite the growing global interest in this issue, academic studies – especially within Arabic studies – remain limited in addressing influencer trends towards the use of artificial intelligence in the production of digital content. Prevailing discussions often focus on the technical capabilities of applications, without deepening understanding of the behavioural and cognitive dimensions of influencers, who are among the most prominent actors in the new media landscape.

The complexity of the problem is compounded by the perceived disparity among influencers in their reliance on AI: while some see it as an opportunity to foster creativity and achieve rapid diffusion, others see it as a threat to the authenticity of content and a risk to their interaction with the audience. Many influencers also face challenges related to the ethical aspect (such as transparency and credibility), the technical aspect (limited experience or difficulty of use), in addition to concerns about the loss of humanity in digital communication. Accordingly, the research problem is the following main question: What are the trends of Arab influencers towards employing artificial intelligence technologies in the production of digital content?

This research seeks to achieve a main goal, which is to identify the trends of Arab influencers towards the use of artificial intelligence techniques in the production of digital content. Through it, a set of sub-goals emerge: Identifying the level of awareness among influencers of artificial intelligence techniques used in the production of content, monitoring the motivations of Arab influencers to use artificial intelligence techniques in the digital content industry, analysing the challenges and difficulties facing Arab influencers in adopting these technologies, determining the impact of artificial intelligence on creativity and originality in the content produced by influencers, and exploring the influencers' perceptions about the future of the digital content industry in light of artificial intelligence.

The importance of the study lies in enriching the scientific literature on the relationship between technology and the production of digital media content, and in expanding understanding of how technological determinism theory can explain the media behaviour of Arab influencers in the context of artificial intelligence. Its results can also benefit media organisations and digital marketing companies by helping them understand influencer trends and adapt to the requirements of the future content industry. They also help influencers themselves adopt AI-powered content production strategies in more effective and professional ways.

The study seeks to answer a set of questions, the most important of which is: What is the level of knowledge of Arab influencers about artificial intelligence techniques used in the production of digital content? What motivates Arab influencers to employ AI technologies? What are the most prominent challenges facing Arab influencers in using artificial intelligence to produce content? How does AI affect the quality and authenticity of digital content produced by Arab influencers? What are the perceptions of Arab influencers about the future of the digital content industry considering the rapid development of artificial intelligence technologies?

## **Literature Review**

Marshall McLuhan formulated the theory of technological determinism in 1946 and according to this theory, mass media technology not only shapes people's attitudes and behaviours but also revolutionizes the functioning of the social system. The theory also suggests that the mechanism of action of the social fabric changes as each new technology emerges. Technological (JAN, SHAKIRULLAH, NAZ, KHAN, & KHAN, 2020) determinism is the belief that technology is the main driver of society's transformation.

The emergence of this theory is usually attributed to the American sociologist Thorstein Veblen, who formulated the causal relationship between technology and society. Proponents of technological determinism argue that any social changes are controlled by technology, technological development, communications technology, and the media. The modern information society has emerged because of the development of new innovations and technologies and their social and political repercussions. (Hauer, 2017)

Critics of technological determinism argue in different ways, including that technology itself is socially determined, that technology and social structures evolve together in an emergent, non-deterministic process, or that the effects of any technology depend primarily on how it is applied, which in turn is socially determined. As new technologies proliferate in modern capitalism, the debate over technological determinism is constantly renewed (Adler, 2006).

The study relied on the theory of technological determinism of Herbert Marshall McLuhan as an explanatory theoretical framework for the results, and it was employed as follows:

1. The idea of determinism: The theory holds that technology is not just neutral tools, but a deterministic factor that imposes on individuals' new patterns of thinking and behaviours. Considering this, the study explained that influencers have no choice but

to keep pace with artificial intelligence, because it has become a guiding element in the content production process.

2. Change in the communication environment: The theory confirms that every new means changes the communication environment, as the results of the study represent the practical application of this hypothesis, as many influencers acknowledged that artificial intelligence will radically change the ways of producing digital content.

3. The impact of technology on culture and society: The theory indicates that the means of communication affect not only the form of messages, but also the culture and societal values, and this was shown in the results of the influencers' fear of losing the authenticity of the content, and their awareness of the need for ethical standards to regulate use.

Recent years have witnessed a significant increase in academic interest in the effects of artificial intelligence on various fields of media, whether in aspects of production, interaction, or ethical issues associated with it. Studies have varied from focusing on the public's awareness of the credibility of content produced by artificial intelligence, to the attitudes of journalists and media workers towards adopting these technologies, as well as analysing the ethical and professional dimensions associated with their use. Some studies have also addressed practical applications in areas such as automated journalism and sports and television content, to diagnose the opportunities these technologies present and the challenges they pose to traditional media practices. Hence, the review of these studies contributes to the formation of a knowledge framework that helps to understand the reality of employing artificial intelligence in the media industry, and to shape the future directions of its development

A study sought (Mahmoud, 2020) to measure the Egyptian public's perception of the credibility of the content produced by artificial intelligence compared to human content, through a field experiment on (400) participants. Two models were presented for news coverage of stock prices, one written by a robot and the other by a journalist. The results revealed the participants' preference for human content in terms of credibility, especially in the criteria of drafting, accuracy and objectivity. The study also monitored the most prominent applications of artificial intelligence such as automated chat and data analysis and confirmed the existence of significant differences in perception in favour of human content.

A study aimed (Reda, El-Naggar, & Abdel-Moaty, 2024) to analyse the employment of artificial intelligence in sports content sites and the extent of media students' awareness of it. It relied on a substantive and field analysis of a sample of (400) students at three universities. The results showed the awareness of sports sites of the importance of interactive services, with football leading the popular content. The study found that students' knowledge of artificial intelligence is medium, which indicates an urgent need to raise their technological awareness. The study recommended intensifying training and student awareness of smart media technologies.

The study aimed at (Ibrahim, 2024) identifying the cognitive and behavioural trends of media workers towards the use of artificial intelligence. The sample included (384) participants and used the descriptive survey approach. The results showed that the trends towards the use of artificial intelligence are medium in its three aspects. The

study also recommended the need for continuous training and follow-up of technical developments, with clear ethical controls. It also called for benefiting from the experiences of leading international institutions in this field.

The study dealt with journalists(Sabri & Hamza, 2024)' perceptions about the ethical and professional standards for employing artificial intelligence and its relationship to professional creativity, conducted on a sample of (150) journalists using the questionnaire and interview. The results showed that knowledge of artificial intelligence techniques is relatively good, with an awareness of the importance of ethical controls. It also monitored the stages of adopting technologies from experimentation to evaluation and then adoption, and their reflection on creative performance. The study recommended training journalists and enhancing professional and ethical awareness.

The study discussed the (Mohamed, 2024) impact of employing automated journalism on the development of news content in Egyptian newspapers, based on in-depth interviews with journalists in institutions such as "Al-Masry Al-Youm" and "Cairo 24". The results confirmed that automated journalism facilitates routine tasks and frees journalists to focus on analytical aspects and indicated that news is the most appropriate format for automated production. It also highlighted the importance of the human element in guiding the use of technical tools.

A study aimed (Abdel-Mardi, 2023) to analyse the trends of specialized journalists towards the use of artificial intelligence in the production of specialized content. It included a sample of (90) journalists in various Egyptian institutions. The results showed a growing awareness of the importance of these technologies in improving performance, especially in tracking news and developing interactive content. It recommended training journalists, reducing the gap between journalists and technicians, and developing new disciplines based on artificial intelligence. It also stressed the need to provide technical capabilities to activate optimal use.

A study aimed (Abdel-Maqsoud, 2023)to monitor the trends of Egyptian journalists towards the use of ChatGPT in journalistic work, based on the technology acceptance model. It included a sample of (180) journalists through an electronic questionnaire. The study found that there is a significant relationship between perceived benefit, available facilities and usage trends. It also confirmed that the use of ChatGPT helps to accomplish journalistic tasks effectively, despite some technical and ethical challenges, and recommended expanding training and modernizing the technological structure within institutions.

The study dealt with (Abbas, 2023)how artificial intelligence is employed in the production of television content, and its impact on the media industry. It focused on the evaluation of media experts of technical transformations and their impact on the job roles of workers. The results showed that artificial intelligence allows to keep pace with technical developments and changes the nature of traditional media tasks. It also pointed to technical and ethical challenges facing workers in adapting to these technologies. The study stressed the need to adopt effective strategies to keep pace with this change.

It is clear from previous studies that there is a growing research track on the effects of artificial intelligence in the media, and these studies have varied between the focus on public perception (Amr Abdel Hamid study, 2020) and the trends of journalists (studies: Magda Abdel Mardi 2023, Hana Aoun 2023, Mohammed Sami and Aya Hamza 2024) or practical applications such as automated journalism and sports and television content (studies: Wissam Abdel Samie 2024, Asma Fathi 2024, Mustafa Abbas 2023).

These studies share with the current study the importance of artificial intelligence as an aid in developing media content and improving its quality, as well as highlighting several technical and ethical challenges related to intellectual property and loss of originality.

The difference is that previous studies have often focused on the public or journalists and media institutions, while the current study focuses on influencers in digital platforms as independent actors in the content industry. This study not only monitors the level of awareness, motivations and challenges, but also seeks to analyse the future perceptions of influencers about the employment of artificial intelligence, which is yet to receive sufficient attention in the previous literature.

## **Methodology**

This study relied on the descriptive survey approach, because it is best suited to study trends and opinions related to a specific phenomenon, which are the trends of influencers towards employing artificial intelligence techniques in the production of digital content. The media survey method was used that allows collecting quantitative data from the sample members and analysing them statistically to draw conclusions and interpretations.

The study community consists of Arab influencers active in the production of digital content through social media platforms, and due to the difficulty of accurately counting the community, the non-probability sample method was used based on the (snowball sample), where the researcher begins to choose the first vocabulary from the sample in the probabilistic way, the rest of the vocabulary was selected based on the information obtained from the first vocabulary (Zaghib, 2023), and the study sample reached (87) individual influencers, their categories ranged in terms of gender, age, years of experience, and the number of followers, and this sample represents different segments of influencers, which enhances the diversity of data and enriches the analysis process of the results .

The electronic questionnaire was relied on as a main tool for data collection, as it was designed according to the triple Likert scale (agree – neutral – disagree) to measure the trends of Arab influencers towards employing artificial intelligence in the production of digital content. The questionnaire came in 25 paragraphs, and included several main axes:

1. Demographic data (gender, age, years of experience, number of followers).
2. Influencers' level of awareness of AI technologies.
3. Motives for using AI technologies.
4. Challenges facing influencers in producing digital content.

5. The impact of artificial intelligence on the quality and creativity of digital content.
6. Future perceptions of influencers about artificial intelligence technologies in the production of digital content.

The study focused on Arab influencers active in the space of digital platforms through the application on the TikTok platform, and the questionnaire was distributed and published to the sample during the period from 16/5/2025 to 23/11/2025.

The study was limited to trends of Arab influencers towards employing artificial intelligence in the production of digital content.

The questionnaire was reviewed by a group of professors specialized in media and communication, to ensure the appropriateness of the statements and their formulation, and their inclusion of the dimensions of the study, and thus achieve apparent honesty and content.

The stability coefficient was calculated using the Cronbach alpha coefficient on a survey sample of (15) individuals, and the results were within the statistically acceptable limits (greater than 0.70), which confirms the reliability of the tool in its application to the core sample.

## Results

**Table 1**

*Demographic variables of the respondents*

| Variable                             | Details           | Frequency | %    |
|--------------------------------------|-------------------|-----------|------|
| Gender                               | Male              | 36        | 41.3 |
|                                      | Female            | 51        | 58.7 |
| Age                                  | Under 20 years    | 27        | 31.1 |
|                                      | 20-29 years       | 34        | 39.1 |
|                                      | 30-39 years       | 07        | 8.0  |
|                                      | 40 years and over | 19        | 21.8 |
| Years of Content Industry Experience | Under 1 year      | 12        | 13.8 |
|                                      | 1-3 years         | 38        | 43.7 |
|                                      | 4-6 Yrs           | 26        | 29.8 |
|                                      | Over 6 Years      | 11        | 12.7 |
| Number of followers                  | under 10,000      | 10        | 11.4 |
|                                      | 10K - 100K        | 59        | 67.8 |
|                                      | 100K - 1M         | 15        | 17.3 |
|                                      | Million and more  | 03        | 3.5  |
| Total                                |                   | 87        | 100  |

Table (1) shows the demographic variables of the study sample, as the results showed that the percentage of females reached (58.7%) compared to (41.3%) for males. This high percentage reflects the prominent presence of women in the digital media space, especially in the fields of fashion, beauty, cooking and social activities that find

popularity on platforms such as TikTok and Instagram. This result is consistent with what some studies indicated, which confirmed that the digital environment provided wide opportunities for women to express themselves and expand their follower base.

The age group 20-29 years led by (39.1%), followed by the group less than 20 years by (31.1%), while the percentage of the group (30-39 years) decreased to (8.0%), and reached (21.8%) for those over 40 years. These figures reflect that the content industry and interest in artificial intelligence technologies is an area dominated by young people, who have greater flexibility in adopting modern technology. The decline in the percentage of older groups may be attributed to poor motivation or the absence of urgent professional need to use these technologies.

The results showed that the largest percentage of the sample has experience ranging from 1–3 years (43.7%), followed by those with experience (4–6 years) at a rate of (29.8%), while those with less than a year's experience reached (13.8%), and those with experience exceeding 6 years (12.6%). This shows that the content industry in the Arab context is relatively recent, and that most influencers are still at the beginning of their career, which makes them more open to the use of artificial intelligence tools as a means of excellence.

The data showed that the dominant percentage (67.8%) of influencers fall within the category of 10 thousand – less than 100 thousand followers, while the percentage of major influencers (more than one million followers) was only (3.4%). This result shows that the sample mainly represents medium-sized influencers, who are the group most in need of using new technologies to expand their presence and enhance their digital status.

**Table 2**

*The level of awareness of Arab influencers of artificial intelligence techniques*

| Item                                                                                            | Scale of agreement |      |           |      |           |      |
|-------------------------------------------------------------------------------------------------|--------------------|------|-----------|------|-----------|------|
|                                                                                                 | Agree              |      | Neutral   |      | Disagree  |      |
|                                                                                                 | Frequency          | %    | Frequency | %    | Frequency | %    |
| I know some AI applications for digital content production.                                     | 43                 | 49.5 | 38        | 43.7 | 06        | 6.8  |
| I have knowledge of how to use AI tools such as ChatGPT, Midjourney, and AI video editing tools | 51                 | 58.6 | 25        | 28.7 | 11        | 12.7 |
| I follow recent developments in AI associated with digital media.                               | 39                 | 44.8 | 31        | 35.6 | 17        | 19.6 |
| I believe that AI will dramatically change the ways content is produced.                        | 56                 | 64.3 | 27        | 31.1 | 04        | 4.6  |

Table data reveals that (64.3%) of influencers believe that artificial intelligence will significantly change the ways content is produced. This high percentage reflects a growing recognition of technological transformations and their role in digital media, while I know some applications of artificial intelligence for digital content production

came in at a rate of (49.5% agree (vs.) 43.7% are neutral), which indicates that influencers are aware of some tools but without sufficient depth, which highlights the need for specialized training, while (58.6%) agree they have knowledge of using tools such as ChatGPT and Midjourney, and AI video editing tools. This reflects that the new generation of influencers has already begun to integrate these tools into their daily work, while (12%) agree. 7%) of those who disagreed reflected a digital and knowledge gap, while I followed recent developments in artificial intelligence related to digital media (44.8%) less than expected, which may mean that influencers are more preoccupied with practical production than with academic or research follow-up.

**Table 3**

*The motivations of Arab influencers to use artificial intelligence techniques in the production of digital content*

| Item                                                                                        | Scale of agreement |      |           |      |           |      |
|---------------------------------------------------------------------------------------------|--------------------|------|-----------|------|-----------|------|
|                                                                                             | Agree              |      | Neutral   |      | Disagree  |      |
|                                                                                             | Frequency          | %    | Frequency | %    | Frequency | %    |
| I use artificial intelligence to make it easier and faster to produce content.              | 49                 | 56.3 | 21        | 24.2 | 17        | 19.5 |
| I see that AI is helping me come up with new ideas for content.                             | 38                 | 43.6 | 35        | 40.3 | 14        | 16.1 |
| I use artificial intelligence to improve the quality of the photos, videos, or text I post. | 46                 | 52.9 | 33        | 37.9 | 08        | 9.2  |
| AI helps me interact better with my audience.                                               | 26                 | 29.9 | 04        | 4.5  | 57        | 65.6 |

The results of the table reveal a clear presence of the logic of technological determinism in explaining the behaviour of influencers towards the use of artificial intelligence technologies. According to this perspective, technology is a driving force that contributes to shaping social and media behaviour patterns, as its tools impose the logic of efficiency and speed on users.

In this context, (56.3%) of respondents who use artificial intelligence to accelerate content production reflect a clear adoption of this logic, as influencers seek to employ technology to reduce effort and time, in line with the hypothesis that technical means reshape media practices according to the requirements of rapid production.

The emphasis (52.8%) on the role of artificial intelligence in improving the quality of images and videos reflects another dimension of technological inevitability, which is the imposition of new aesthetic and technical standards on digital content, as visual quality becomes a competitive standard imposed by the digital tools themselves, not just users' choices.

As for innovation, the percentage (43.6%) that believes that artificial intelligence contributes to generating new ideas, compared to the high percentage of neutrals (40.2%), indicates the limits of the impact of technological determinism. Although technology can support creativity, it cannot completely replace mental and human abilities, which reflects an integrated interaction between man and technology, not absolute subordination to it.

On the other hand, the result of disagreement (65.5%) on the role of artificial intelligence in enhancing interaction with the public reveals a critical dimension of technological determinism, as it shows that technology, despite its strong impact, cannot reproduce the human dimension in communication. Interactive relationships between influencers and audiences are based on elements such as trust, empathy, and direct communication, which are difficult to reduce to digital tools.

Thus, it can be said that these results support a moderate perception of technological determinism, as technology clearly affects production patterns and content quality, but it does not fully control all dimensions of the communication process, especially those associated with human interaction.

**Table 4**

*Challenges facing Arab influencers to use artificial intelligence techniques in the production of digital content*

| Item                                                                        | Scale of agreement |           |         |           |          |      |
|-----------------------------------------------------------------------------|--------------------|-----------|---------|-----------|----------|------|
|                                                                             | Agree              |           | Neutral |           | Disagree |      |
|                                                                             | %                  | Frequency | %       | Frequency | %        |      |
| I'm having a hard time learning to use AI tools.                            | 32                 | 36.8      | 12      | 13.7      | 43       | 49.5 |
| I fear the content will lose its authenticity due to over-reliance on AI.   | 44                 | 50.6      | 38      | 43.6      | 05       | 5.8  |
| I am concerned about copyright issues associated with AI-generated content. | 56                 | 64.4      | 28      | 32.2      | 03       | 3.4  |
| I feel that some AI technologies are still limited or inaccurate.           | 46                 | 52.8      | 32      | 36.8      | 09       | 10.4 |

The results of the table reveal a discrepancy in the ability of influencers to adapt to artificial intelligence techniques, as (49.4%) reported that they had no difficulty learning these tools, compared to (36.7%) who indicated that there were difficulties. This disparity reflects one of the dimensions of technological determinism, as the impact of technology itself is not only determined, but also influenced by the level of digital competence and technical expertise of users, which means that individuals' response to technological development is not homogeneous.

In another context, (50.5%) of the respondents expressed concern about the loss of originality in the content, which highlights a critical aspect of technological inevitability, as the dominance of digital tools may lead to the production of similar

patterns of content, as a result of relying on unified templates and algorithms, which threatens creative excellence and weakens the individual identity of influencers.

The results also showed that a high percentage (64.3%) is concerned about copyright issues, which reflects the growing legal and ethical awareness associated with the use of technology. This can be explained within the framework of technological determinism, whose effects are not limited to technical aspects, but extend to impose new regulatory and legislative challenges that require a reconsideration of intellectual property concepts in the digital environment.

On the other hand, (52.8%) of the respondents believe that some AI tools are still limited or lack accuracy, which indicates that the impact of the technology, despite its strength, is still governed by its technical limits. This reinforces the proposition that technological determinism is not absolute, but operates within a context of limitations and possibilities, where technology remains a supporting tool rather than a complete substitute for human capabilities in media production. This result differs with a study (Amer & Atbiqa, 2025) that considered the cost and lack of experience as one of the most important obstacles to the adoption of artificial intelligence in media organizations

Accordingly, these results show that the relationship between influencers and technology is complex; it is a relationship that combines adoption and benefit on the one hand, and caution and criticism on the other, reflecting a more balanced understanding of technological determinism.

**Table 5**

*The impact of artificial intelligence technologies on the quality and creativity of content from the point of view of influencers*

| Item                                                                                                                   | Scale of agreement |           |         |           |          |      |
|------------------------------------------------------------------------------------------------------------------------|--------------------|-----------|---------|-----------|----------|------|
|                                                                                                                        | Agree              |           | Neutral |           | Disagree |      |
|                                                                                                                        | %                  | Frequency | %       | Frequency | %        |      |
| Artificial intelligence has helped me deliver more premium content.                                                    | 47                 | 54.1      | 34      | 39.1      | 06       | 6.8  |
| Artificial intelligence has increased my ability to capture the attention of the public.                               | 23                 | 26.4      | 09      | 10.3      | 55       | 63.3 |
| Content produced using artificial intelligence gets more engagement from followers.                                    | 33                 | 37.9      | 17      | 19.5      | 37       | 42.6 |
| Artificial intelligence has enabled me to implement projects that were previously difficult without technical support. | 43                 | 49.4      | 29      | 33.3      | 15       | 17.3 |

The results of the table reveal that (54%) of the respondents confirmed that artificial intelligence contributed to enabling them to provide more distinctive content, which clearly reflects the growing functional value of these technologies in supporting media production. This is consistent with the logic of technological determinism, which assumes that digital tools reshape the quality of media output and impose new standards of excellence.

On the other hand, the results showed that (63.2%) do not see that artificial intelligence increases their ability to attract the public, which indicates the limits of the impact of technology on the communication process. Despite the development of tools, the audience remains more influenced by human factors such as the personality and style of the influencer, reflecting that technological determinism alone does not explain the dynamics of mass influence.

(42.5%) of the respondents do not agree that the content produced using artificial intelligence enjoys greater interaction, which supports the proposition that these technologies enhance the formal and aesthetic aspects of the content, without necessarily being reflected at the level of interaction. This shows a gap between improving production quality on the one hand and achieving communication impact on the other.

On the other hand, (49.4%) reported that artificial intelligence enabled them to accomplish projects that were previously considered difficult, which highlights its role in reducing technical and creative barriers. This is in line with the technological imperative that sees technical innovation as opening new horizons for users and redefining the limits of what is possible in media production.

Thus, these results can be interpreted within the framework of a balanced vision of technological determinism. It confirms that artificial intelligence contributes effectively to improving the quality of content and expanding production possibilities, but it does not have the full ability to influence audience behaviour or ensure interaction, which remains linked to deeper human and social factors.

**Table 6**

*Future perceptions about the employment of Arab influencers of artificial intelligence techniques in the production of digital content*

| Item                                                                                                              | Scale of agreement |           |         |           |          |      |
|-------------------------------------------------------------------------------------------------------------------|--------------------|-----------|---------|-----------|----------|------|
|                                                                                                                   | Agree              |           | Neutral |           | Disagree |      |
|                                                                                                                   | %                  | Frequency | %       | Frequency | %        |      |
| I believe that artificial intelligence will become an essential part of the content industry in the coming years. | 38                 | 43.6      | 41      | 47.2      | 08       | 9.2  |
| I expect AI to evolve to offer more creative tools and less human intervention.                                   | 52                 | 59.8      | 19      | 21.8      | 16       | 18.4 |

|                                                                                                                      |    |      |    |      |    |      |
|----------------------------------------------------------------------------------------------------------------------|----|------|----|------|----|------|
| I fear that AI will replace traditional content creators in the future.                                              | 56 | 64.4 | 22 | 25.2 | 09 | 10.4 |
| I believe that the use of AI in the content industry should be regulated and constrained by clear ethical standards. | 67 | 77.0 | 13 | 14.9 | 07 | 8.1  |

The results of the table reveal divergent future trends among influencers towards the use of artificial intelligence, as (59.7%) expect the development of more creative tools and less reliance on human intervention, which reflects a growing tendency towards adopting technology as a force capable of reshaping media production processes. This is in line with the logic of technological determinism, which assumes that technological development leads to a reduction in the human role in favour of automation.

In contrast, (64.3%) of the respondents expressed fears that artificial intelligence will replace content creators, which reflects a worrying dimension within the technological imperative, as technology is seen not only as an enabler, but also as a potential threat to jobs and professional status in the digital field.

On the other hand, the need for ethical standards recorded the highest approval rate (77%), indicating growing awareness of the need to control the use of artificial intelligence within ethical and regulatory frameworks. This reflects a realisation that technological determinism cannot be left unguided and requires human and legislative intervention to ensure it is employed responsibly.

As for the future of artificial intelligence in the content industry, the results showed that (43.6%) only believe that it will become an essential part of this industry, compared to a high neutral percentage of (47.1%), which indicates a state of caution and anticipation. This suggests that influencers, while aware of the importance of technology, are still unsure of how fully dominant it is in the field. This is coupled with a study (Atbiqa, Eldeib, & Alshibani, 2025) which showed great optimism about the potential of technology to improve media efficiency

Accordingly, these results reflect a composite perception of technological determinism, as it combines belief in the ability of technology to develop and influence, with awareness of its risks and the need to regulate it, which confirms that the relationship between human and technology in the future will remain an interaction and balance relationship, not an absolute dominance of one of the two parties.

As for the results of the hypothesis test, there is no statistically significant correlation between the level of significance (0.05 ) between the employment of Arab influencers of artificial intelligence techniques in the production of digital content and each dimension of the theory of technological determinism (the level of awareness of Arab influencers, the challenges facing Arab influencers, the quality and creativity of content, and future perceptions).

### **Hypothesis Testing Results:**

There is a statistically significant relationship at the 0.05 significance level between Arab influencers' adoption of artificial intelligence technologies in digital content production and each dimension of the Technological Determinism Theory, namely: Arab influencers' level of awareness, the challenges encountered by Arab influencers, the quality and creativity of digital content, and future perceptions.

**Table 7**

*Correlation coefficients between the dimensions of the theory of technological determinism and the employment of Arab influencers of artificial intelligence techniques in the production of digital content*

| Dimensions of Theory                       | Employing Arab Influencers for Artificial Intelligence Technologies in Digital Content Production |                          |                         |                          |                    |
|--------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------|-------------------------|--------------------------|--------------------|
|                                            | Correlation Coefficient                                                                           | Statistical Significance | Strength of Correlation | Direction of Correlation | Decision           |
| The level of awareness of Arab influencers | .621**                                                                                            | 000.                     | Moderate                | Positive                 | Correlation Exists |
| Challenges for Arab Influencers            | .649**                                                                                            | 000.                     | Strong                  | Positive                 | Correlation Exists |
| Quality and Creativity of Content          | .632**                                                                                            | 000.                     | Moderate                | Positive                 | Correlation Exists |
| Future Perceptions                         | .213**                                                                                            | 000.                     | Weak                    | Positive                 | Correlation Exists |
| All Dimensions                             | .433**                                                                                            | 000.                     | Moderate                | Positive                 | Correlation Exists |

Statistically significant at  $\alpha = 0.01$ .

Table (7) shows the values of Pearson correlation coefficients between the dimensions that represent the general framework of technological determinism theory and the level of employment of Arab influencers of artificial intelligence techniques in the production of digital content. The results indicate that there is a medium correlation with a direct trend between these dimensions and the employment of artificial intelligence, as the value of the correlation coefficient reached (0.433), at a level of statistical significance (0.000) and a level of significance (0.01).

This finding indicates that the more Arab influencers employ AI technologies, the more their behaviour conforms to the dimensions posed by the theory of technological determinism, reflecting a clear impact of technical development in shaping their media practices.

The results also reveal a disparity in the strength of the correlation between the different dimensions, as the dimension of the challenges facing Arab influencers recorded the highest correlation value of (0.649) at the level of significance (0.000), indicating that the challenges associated with the use of artificial intelligence represent a decisive factor in determining the level of employment of these technologies.

In contrast, the dimension of future perceptions recorded the lowest correlation value of (0.213), and although this correlation is relatively weak, it is still statistically significant at the level of (0.000) and with a significance of (0.01), which indicates a relationship, albeit limited, between the future trends of the influencers and the level of their actual use of technologies.

Considering these results, it can be emphasized that there is a statistically significant correlation between the variables of the study, which supports the hypothesis that the theory of technological determinism contributes to explaining the employment of artificial intelligence techniques in the production of digital content, as well as the attitudes of Arab influencers towards these technologies.

## **Conclusion**

The results of this study showed that influencers have a growing awareness of artificial intelligence techniques in the production of digital content, and that their most prominent motives for using them lie in accelerating the production process and improving visual quality, while their impact in creating new ideas or enhancing interaction with the audience remains limited. Several challenges have also emerged, the most important of which is the fear of losing creative originality, and the concern about copyright issues, in addition to the limited accuracy of some tools. Although artificial intelligence has contributed to enabling influencers to implement more distinctive projects, ethical and professional concerns remain, especially the possibility that it will replace traditional content creators. Most influencers agreed on the need for clear ethical standards and legislation regulating the use of these techniques.

Future perceptions indicate that influencers view AI as a tool that will become increasingly important in the content industry, while at the same time expressing professional and ethical concerns that it will replace traditional content creators. The highest percentage of influencers (77%) stressed the need for clear ethical and legislative standards to regulate the use of artificial intelligence in the media field.

Accordingly, the study recommends intensifying training programmes for influencers, developing legislation to protect intellectual property, and adopting an ethical code to preserve the authenticity of content and ensure the responsible use of artificial intelligence in digital media.

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