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Use of Artificial Intelligence Applications in Media Organizations: A Comparative Study on a Sample of Egyptian and European Media Professionals [(*)]

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Use of Artificial Intelligence Applications in Media Organizations: A Comparative Study on a Sample of Egyptian and European Media Professionals

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Abstract

Artificial Intelligence (AI) technology has brought about many changes in our recent lives and has come to play an important role in various areas of life, especially in media organizations. AI has become an important tool for performing many unconventional tasks, and at the same time, this technology has resulted in many challenges that have aroused the interest and concern of governments. In July 2023, the United Nations Security Council held a special session to discuss the opportunities and areas of benefiting from AI technology and the challenges and risks that could affect global security and peace. AI technology has enabled media professionals in general and content creators in digital media in particular to work more efficiently and productively, and there has become a need to define the limits of knowledge of AI among workers in media institutions. This article reviews findings of a study which was carried out on a purposive sample of experts and media professionals from Egypt and some European countries. This study aims primarily to identify the perceptions and opinions of experts regarding the extent of awareness and knowledge of AI and its uses in media organizations. It also aims to find out about the challenges which AI may bring to our life in general. The study relied on in-depth interviews, which is an important qualitative technique. The study also focused on identifying the extent of media professionals' knowledge in these countries of the basics and uses of AI, the efforts made to improve AI skills, and ethical concerns in institutions that adopt AI. The results of the study have shown that in general there is a significant lack of awareness, knowledge, and understanding of the role that AI can play within media institutions, whether in Egypt or some European countries. The results have also shown that experts in various countries called for the need to enact regulations and laws and emphasize the ethical aspect, and the urgent need to enact regulations to address ethical concerns, including the need to consider accuracy, copyright, bias, and privacy violations.

Keywords: Artificial Intelligence, Marketing, AI Journalism, AI, Challenges, AI Knowledge.

Introduction:

Artificial Intelligence (AI) has been making waves of changes over the past few years. There has been interest and even desire of many national and regional institutions to link to AI-based tools to simplify content production, facilitate documentation, participate in the association's newsletters, and follow up on new scientific knowledge of the specialists. However, the potential, and human beings still exist, and the competition between the use of promising AI tools and the value of journalistic integrity becomes major challenges for the media in all countries.

The use of AI has increased over the last few years. AI has become of great importance for different areas of business and has become of particular importance for media organizations to keep pace with technological progress. AI applications in various businesses help not only to raise the contribution but also to face competition. AI is a complex concept due to its reliance on complex algorithms for comprehensive social effects (Zhail et al., 2020). Scholars suggest different concepts and definitions of AI over the years. For example, AI includes "enabling mechanisms to present smart behaviors similar to the behavior of human being" (McCarthy *et al*, 1955). Similarly, cognitive scientist Marvin Minsky framed AI as the science of replicating human-like intelligence in machines. (Fjelland, 2020)

The use of AI in media institutions has brought about a major change by introducing new elements and techniques into the production process and supporting the formulation of content with minimal human intervention. This has led to the emergence of specialized terms such as "Automated Journalism", "Algorithmic Journalism", and "Robot Journalism". For example, Algorithmic Journalism involves structured data converted into narratives via Natural Language Generation (NLG), offering economic benefits by reducing production costs (Dorr, 2016).

Contemporary journalism extensively employs AI throughout the news production cycle. Machine learning aids in data analysis to uncover patterns that inform story discovery. AI technology assists in template-based story creation, enabling computers to autonomously generate data-driven articles. Furthermore, AI facilitates personalized story recommendations based on readers' preferences. Notable news organizations like The New York Times and The Washington Post have harnessed AI to expedite research, data analysis, and news generation (Underwood, 2019; Goni and Tabassum, 2020). The emergence of AI

in communication science has increased the need for media practitioners to know the basics and uses of AI in their work (Jamil, 2021).

Statement of Research Problem:

The extent of knowledge of AI can be measured by an individual's ability to understand and consciously use AI technology. It can also be measured by comprehensive knowledge of AI concepts applications, ethical considerations and social implications that enable individuals to make informed decisions in addition to the ability to evaluate the credibility of information and the ability to participate effectively in discussions about the effects of AI in society. There is no doubt that understanding the complex processes in AI and algorithms poses a major challenge, especially for non-users of these technologies (Long et al., 2020). This cognitive deficit may hinder the ability to deal with AI effectively, especially when making critical decisions (Eslami et al., 2019) in addition to the fact that reliance on AI may, in some cases, lead to making illogical and even misleading decisions and formulating policies (Stone et al., 2022). This shed light to researchers and experts in this field to the necessity of fully understanding and realizing AI and its uses in various professional fields. In the media field, for example, there is a need for good knowledge of the uses of artificial intelligence, considering all matters related to ethics and other social matters (Cai et al., 2023). The widespread adoption of AI in the field of journalism and other media practices has led to a large gap in understanding how these media professionals in general deal with this technological transformation.

Hence, **the problem of the study** can be defined in an attempt to identify the extent of knowledge of media professionals in media organizations in both Egypt and some European countries about the basics of AI and the extent of their awareness of its uses in their media practices, with a focus on identifying their awareness and understanding of the dynamic changes of AI and the ethical and social impacts on society and exploring the most important challenges they face in using this technology in their work.

Significance of the Study:
- AI technologies have become a prevailing trend around the world in various fields.
- AI has brought about significant changes in various fields and businesses.
- The study helps to identify the extent of adoption of AI technology in media organizations.

- The study sheds light on the extent of knowledge of media professionals in Egypt and some European countries about the uses of artificial intelligence.
- The current study is an exploratory study and can be followed by further studies.

Objectives of the Study

- To identify the extent of knowledge of AI in media institutions in both Egypt and some European countries.
- To examine the extent of media professionals' use of AI technology in Egypt and some European countries.
- To identify the visions of Egyptian and European media professionals regarding the use of AI applications in their media practices.
- To examine the most important challenges of using AI applications in media organizations.
- To explore the most important ethical and social impacts of the uses of artificial intelligence.

Review of Previous Studies:

This section deals with previous studies in the field which were categorized into two main axes:

    1- Use of AI in journalism/newsrooms.
    2- Impact of the use of AI on the future of journalism.

    1- Use of AI in journalism/newsroom:

In general, the interviewed media professionals and journalists agreed about the importance and potential of AI to enhance productivity and creativity on one hand, and on the other hand, they have expressed concerns about ethical implications, accuracy, and the potential losses of jobs as an important challenge to the use of AI in newsrooms.

Scholars investigate how journalists are utilizing large language models (LLMs) in news production (Brigham et al., 2024). The study relied on the analysis of interactions between journalists and LLMs, including case studies and content analysis. Findings of analysis of a sample of news articles produced with the assistance of LLSs and interaction from the Wild Chat dataset, have shown that journalists provide sensitive materials to LLMs to generate articles with the limited human interventions before publication. It was also found that there is a need for responsible AI use. In a study about the uses of generative AI such as ChatGPT in newsrooms (Cools et al., 2024) on a sample of journalists

from various news organizations in the USA, finding of the study have shown a cautious optimism among the interviewed journalists concerning the use of AI and the need for clear editorial guidelines.

In a multi-national study (Fletcher et al., 2024) which was carried out on 134 journalists from 35 news organization from Europe and the United States, concerns were also raised about reduced nuance and context in AI-generated news. Findings have shown that AI is being utilized to automate news writing, enhance data analysis, and personalize content. The emergence of hybrid "journalist–programmer" roles and the need for "AI literacy" among journalists were also highlighted.

A study on journalists from Denmark and the Netherlands about the dangers of using AI generative tools such as ChatGPT and Bard in the newsrooms found that while generative AI tools offer potential benefits in enhancing creativity and efficiency in news production, journalists expressed concerns about the ethical implications, potential job displacement, and the accuracy of AI-generated content (Hafied et al., 2024). This also matches what Fletcher (Fletcher et al., 2024) found in his study which was carried out on a sample of media professionals from the USA and other European countries. It was found that there is widespread skepticism regarding AI reliability in news production. Most respondents expect AI to significantly impact society within five years. It was also found that there is a widespread doubt regarding the credibility of AI in news production. Though there are the regional variations in AI use in the media industry, considering the cultural, societal, and regulatory differences that may affect its usage, worries about job replacement, bias, and ethical and value concerns remain of great concern for all (Aissani, 2023). The same conclusion was also found in the of the study of Porlezza (2024) which highlights the evolving nature of AI ethics in Journalism, emphasizing the need for continuous assessment and adoption of ethical frameworks to address different challenges posed by AI technologies. The need for having ethical criteria was also indicated by many studies (Chen et al., 2024; & Rostamian et al., 2024). It is also worthy indicating that there is widespread doubt regarding the credibility of AI in news production.

2- Impact of the use of AI on the future of journalism:

Johnson and Davis (2024) in their study examined the incorporation of AI-driven tools into journalism education and their impact on students' skills. Findings of the study have shown that incorporating AI-driven tools into data journalism courses improved students' analytical skills and their ability to

interpret complex datasets, preparing them for the evolving demands of the journalism industry. One of the challenges here is related to preparing future journalists for AI-integrated newsroom environment. Fletcher (2021) in a comprehensive study including interviews and surveys with media executives and journalists from various international news organizations found that there was a lot of concern among the media executives and journalists regarding maintaining journalistic integrity. The same concerns were shared by Abu and others (2024) who indicated that ethical issues such as bias, privacy, and transparency remain critical concerns. They also indicated that best practices of successful AI implementations have involved careful planning, ethical considerations, and ongoing evaluation. Wilczek and others (2024) also mentioned other concerns about the cost of applying artificial intelligence, the need for technical expertise as well as potential impact on editorial independence. Job displacement was also among the concerns (Hafied et al., 2023; Saheb et al., 2024).

De-Lima and Ceron (2021) explored the use of AI in the news industry, focusing on three major subfields: machine learning, computer vision, and planning, scheduling, and optimization. Machine learning is used to boost public engagement and adjust business strategies to individual readers. Third-party organizations like Piano and Deep BI build solutions for news outlets, while tech platforms like Google offer Jigsaw for managing toxic comments. Automated journalism governs planning, scheduling, and optimization, with NLP models being less frequently used due to language barriers and the need for simple instructions. Newman (2024) conducted an analysis of trends shaping journalism and media in 2024, focusing on AI's disruptive potential and its implications for newsrooms, media business models, and audience behaviors. He concluded that AI's rapid adoption will challenge media sustainability, particularly as AI-driven tools redefine content creation and distribution. News organizations are urged to balance innovation with ethical considerations and maintain trust in the middle of growing misinformation risks. It was also recommended that there is an urgent need to maintain trust in the middle of growing misinformation risks to balance innovations with ethical considerations.

Review of previous studies has shown that the use of AI applications in the media organizations is increasing rapidly. AI tools have the potential to enhance editorial accuracy and efficiency. Automated fact-checking systems, powered by machine learning, can verify the credibility of sources and the veracity of

information in real-time. AI can assist in the editing and proofreading process. Grammar and style-checking algorithms can detect errors, suggest improvements, and ensure that articles adhere to editorial guidelines. This not only streamlines the workflow but also upholds the quality of published content. At the same time, findings of previous studies have shown that there are a lot of concerns about ethical issues, job displacement and transparency. With respect to the used methodologies, most of previous studies relies on qualitative techniques, mainly the interviews with media professionals and experts.

Theoretical Framework:

This study adopts an integrated theoretical framework combining Rogers' *Diffusion of Innovations Theory* (2003, p.12) and Hallin and Mancini's *Comparative Media Systems Theory* (2003) to explore the adoption of AI in media institutions across Egypt and selected European countries. The *Diffusion of Innovations Theory* provides a lens to examine how AI technology is perceived, adopted, and integrated within media workflows, focusing on key factors such as relative advantage, compatibility, complexity, trialability, and observability. According to Rogers, the innovation, adoption of new ideas or technology, passes through 5 stages, knowledge, persuasion, decision, implementation and confirmation. This framework helps analyze the varying levels of AI awareness, skills, and usage among media professionals in both regions, as well as the challenges and ethical concerns associated with its adoption. Complementing this, *Comparative Media Systems Theory* offers insights into the broader sociopolitical and cultural contexts that influence AI adoption in journalism. By examining differences in media regulation, journalistic autonomy, professional norms, and market dynamics, this framework enables a deeper understanding of how structural factors shape the integration of AI within Egyptian and European media institutions. The integration of these two theories provides a comprehensive approach that captures both the internal dynamics of AI adoption and the external contextual influences, allowing for a nuanced comparative analysis of experts' perceptions and the evolving role of AI in contemporary journalism.

Methodology:

The present study is a qualitative study. Qualitative studies enable us to have a clear and deep understanding of the phenomenon being studied. The global trend in media studies has become based on qualitative studies. Qualitative studies differ from quantitative studies in that they provide us with a clear and deep understanding of the phenomenon being studied and enable us to identify

the reasons for occurrence of the phenomenon and the motives behind its occurrence, which leads to a great similarity between qualitative studies and scientific and investigative studies conducted by the investigator (Tayie, 2019, p. 65). The study relies on one of the important qualitative techniques represented by in-depth interviews.

The study was conducted on a purposive sample of 32 experts and media professionals who were selected from Egypt (19) and some European countries, including Spain (5), Portugal (3), Finland (3), and Italy (2). The interviews were carried out during the month of November/December 2024. Most of the interviews were conducted using Zoom and telephone in some cases from Egypt. On average, each interview lasted for about 30 minutes. The interviews were recorded with the consent of the respondents and were transcribed and analyzed afterwards. The in-depth interview guide included five main issues, including:

- Knowledge and understanding of artificial intelligence.
- Awareness of the importance of AI applications in media work.
- The importance of acquiring AI skills.
- Potential ethical concerns and challenges brough by AI.
- How to counter the negatives of using artificial intelligence.

Findings and Discussion:

This section deals with findings of the study which will be dealt with in a way to reflect the issues indicated above in the in-depth interview guide.

1- Knowledge and understanding of AI:

One of the primary factors determining the integration of AI in media organizations is the level of awareness and literacy among journalists and editorial staff. The results of interviews with Egyptian experts and media professionals have shown that journalists, in general, in various media institutions are not fully aware of the potential applications of AI in journalism. One editor-in-chief stated that "more than half of the journalists working in his institution have "a modest levels of awareness of AI and its applications".

However, at the same time, they are ready to integrate them into their work. Other interviewees stated that the level of knowledge of AI applications for most journalists in his institution is simple and that they plan to enhance their awareness in the future. An AI expert indicated that there is a kind of fear among some journalists of losing their jobs due to the rapid spread of AI. In general, most Egyptian respondents agreed that individuals working in

marketing in media organizations have a higher level of awareness of AI than journalists and have an appreciation for the useful potential of AI in their work. On the other hand, some journalists consider AI a threat to them and that it is possible that the use of AI applications poses a threat to their professional future and may take over their jobs.

However, the situation was different for junior media professionals who considered that AI applications would not constitute any threat to them, and this matches what was stated by one of the experts in the field of AI who indicated that AI technology will lead to the creation of new job opportunities.

Dealing with the results of the interviews with European experts and media professionals, it was found that the situation is not much different from that in Egypt. A respondent from Portugal stated that most media professionals realize the importance of using AI applications in their work as it will have an increasing impact on their work, and at the same time he mentioned that most journalists in Portugal "lack the necessary skills in the field of AI", and this was mentioned by another respondent from Portugal who stressed "the importance of training media professionals in Portugal on AI applications". Respondents from Finland have different viewpoints. The results of the interviews with media professionals from Finland show that there is a high degree of awareness and knowledge among media professionals about the uses of AI in their work, and at the same time one of the respondents stressed the need for the journalists to mention AI at the beginning of the news - as a source - similar to what is followed with other sources that media professionals rely on to obtain news.

The results of the interviews with the Spanish respondents show that the Spanish media professionals are fully aware of the importance of knowing, understanding and using AI applications, but the levels of knowledge among the respondents varied, as some have shown a high degree of knowledge of AI applications and its uses, while the level of knowledge was limited among others. Some attributed the difference in levels of knowledge to the size of the media organizations. In large media institutions, according to what they mentioned, the levels of knowledge were high, unlike the case in small institutions. One of the respondents stated that there is great cooperation between Spanish technology companies and media organizations to increase the knowledge of media professionals about AI applications. Another respondent stated that the knowledge of Spanish media professionals about AI in general is limited, and that the basic reliance on acquiring knowledge depends on individual efforts and self-learning. Spanish journalists generally acknowledge

AI as an emerging force in media production, their technical understanding remains uneven. Results of the interviews with Spanish respondents have also shown that Spanish universities and media organizations have recognized the importance of AI literacy for the future of journalism and communication studies among other areas of interest. Programs and workshops facilitated by media organizations often include modules on data analytics, natural language processing (NLP), and AI-driven fact-checking. These initiatives underscore a growing push towards equipping future journalists with the technical and ethical understanding necessary for contemporary media work.

In addition to academic programs in educational institutions, it was also indicated that "Spanish media companies increasingly partner with technology firms and research centres to boost AI capabilities. Some leading newspapers have collaborated with AI startups to develop content recommendation systems and automated text generation tools". These collaborations aim to bridge the gap between technology and editorial processes, offering journalists and communication specialist concrete examples of AI's utility and fostering deeper understanding of the AI tools. The situation in Italy was not much different from that in Spain, as the results of the interviews with media professionals from Italy show varying levels of knowledge of AI applications among Italian media professionals. Respondents from Finland were, to some extent, ahead of others with respect to their knowledge of AI applications in their work.

2- Awareness of the Importance of AI Applications in Professional Practices:

The results of interviews with Egyptian experts and media professionals have shown a kind of consensus that there is a lack of awareness among most media professionals of the importance of using AI applications in media work. At the same time, there is an agreement among most of the respondents that there are some areas in media work in which AI cannot replace the human element. They also stressed that there are some areas outside the scope of media work in which the uses of AI will be more positive, such as critical situations and emergency circumstances, as was the case during the spread of the Corona pandemic.

Robots and machines here can help the medical team in quarantine or during some accidents and emergencies until additional assistance arrives. One expert indicated that AI and robots can be used in times of war and conflict as one of the important factors for the protection and security of media

professionals. There was also an indication that older media professionals were less appreciative of the importance of AI applications in media work, unlike younger media professionals.

The results of the interviews with European respondents have shown that there is a near consensus among experts and media professionals from the Mediterranean countries (Spain, Italy and Portugal) that AI is of great importance in media work, especially with regard to automated production of some media materials, especially in cases of routine press coverage of financial reports and election results. In this regard, some systems related to AI enable the sorting, classification and analysis of large sets of data quickly, and that many of the journalists rely mainly on the ChatGPT application, "and here lie some risks", as on interviewee puts it. One of the respondents from Portugal indicated that most media professionals in Portugal are aware of the importance of AI in their work and use it to search for journalistic material, produce media materials and even publish them, but he stressed that this use depends on "individual efforts" and that Portuguese media institutions do not have a specific organizational strategy for using AI applications, and without this strategy, tangible progress cannot be made in this regard. A Spanish respondent indicated that the importance of AI in media outlets may be used in four important areas which include:

1- **"Content Production and Automation:** Among the most visible uses of AI in Spanish newsrooms is the automated generation of content, particularly for routine and data-heavy coverage such as financial reports, election results, and sports updates. AI-based systems can quickly sort, categorize, and analyse large datasets, delivering real-time insights that journalists can use to produce stories faster.

2- **Data Analysis and Investigative Reporting:** Beyond content automation, AI tools enable advanced data processing and pattern recognition. These features prove invaluable for investigative journalists analysing complex data leaks and large-scale documents. Spanish newsrooms have benefited from AI-powered text mining techniques to identify key connections and insights in corruption cases, tax records, or other extensive databases. By automating certain aspects of data analysis, AI augments a journalist's ability to find hidden stories and promotes a deeper understanding of critical societal issues.

3- **Personalized News Delivery:** Many Spanish media outlets use AI-driven recommendation engines to offer personalized news feeds to their readers. Drawing on user data—such as reading history and click patterns—these algorithms tailor content to individual preferences, increasing audience engagement and potentially boosting subscription rates. While this personalization can be beneficial for readers seeking more relevant content, it also raises concerns about filter bubbles and polarization, as users may be continuously exposed to viewpoints that reinforce their existing beliefs.

4- **Fact-Checking and Verification:** The recent rise in misinformation has underlined the need for reliable fact-checking mechanisms. AI-based verification tools, including image and video authentication software, help Spanish newsrooms quickly confirm the veracity of viral content. Automated solutions can scan multiple data points (location metadata, timing, or cross-references with known disinformation databases) to assess if a piece of content is genuine or manipulated. Consequently, fact-checkers have begun to incorporate AI into their workflows, allowing for quicker detection and debunking of false claims".

An interviewee from Portugal also indicated that the use of AI will improve the audience experience, especially "through personalisation and content prediction". The situation in Finland is, to some extent, different, as the results of the interviews with Finnish respondents have shown that the Finnish media unions set some instructions and rules that journalists must follow when using AI applications. Journalists in Finnish media organizations view AI as a useful and supportive element in their work in terms of helping to explore ideas for media materials and to obtain some supporting information (background information) for a news story or journalistic investigation.

3- The Importance of Acquiring AI Skills

It was clear that all the respondents from different countries agreed about the importance of acquiring AI skills. Most respondents from Egypt agreed that acquiring AI skills was an urgent task for all media professionals. They have also indicated that media organizations must organize AI training programs for all media professionals. One expert suggests that there is a need to integrate a course on AI for all media students in all universities. Another respondent went

even further to recommend that all university students must have a compulsory course on AI when they join the university.

Turning to the interviewees from Europe, it was also suggested that acquiring AI skills is needed for all media professionals. A respondent from Spain stressed on the importance of acquiring such skills, he said that "A common thread in journalists' reflections is the necessity of continuous professional development to keep pace with evolving AI tools". Reporters who lack robust technological backgrounds may feel overwhelmed by AI-driven workflows, thereby reinforcing a knowledge gap that can hamper effective newsroom transformations. Consequently, professional associations in Spain, such as the Federación de Associations de Periodistas de España (FAPE) and Universities, among others, have started to organize seminars focused on AI, data literacy, and algorithmic transparency". In brief, there was an agreement among all respondents that this kind of initiatives promote dialogue among reporters, media managers, and technologists on how to harness AI effectively while preserving journalistic integrity.

4- Potential ethical concerns and challenges brought by AI:

Findings of the interviews with media professionals and experts from Egypt, have shown that it is important to have human supervision while using AI applications. For instance, it is important to constantly review the code and correcting any erroneous information because in the end humans are responsible. 'A lot of technology means a lot of responsibility', said a professional interviewee. Another respondent indicated that "a lot of the organization's progress means a lot of responsibility to make sure that high principles and ethics are maintained in everything they publish because in the end they are the people who put the data in, so they are responsible for the outputs". Another interviewee assured the same idea, saying "human oversight can help rule out inaccuracies or misinformation created by AI". An expert in the field indicated that a lot of issues can arise from news publishing machines that can lead to inaccuracies, publish stories that are not kept by editorial policy, and can reflect negatively on the image of the organization. Bias is another one of the concerns presented by some interviewees and according to them, bias already exists within organizations, and this is how algorithms collaborate.

In Europe there was also some kind of consensus among the interviewees from different European countries about the importance of ethics. A respondent from Portugal indicated that there is a fear that AI may spread disinformation,

"not only the most common, but also that associated with hyper-realistic deepfakes, which are increasingly cheap fakes". He added that "journalists are concerned about their ability to manage the influence of AI". Therefore, while there is a general idea that AI is positive and increases productivity, there are fears that lead "at least some journalists to hold back optimism", he added. It was observed that this kind of feelings was common among the interviewees from different European countries.

5- How to counter the negatives of using AI

Experts and media professionals from Egypt and different European countries were largely in agreement about the importance of regulating the use of AI in media organizations. Most of them suggested that there should rules and regulations about the use of AI in media. At the same time, when using AI in the productions process, AI should be mentioned as the source.

Conclusion, suggestions and future research:

The integration of AI into newsrooms in media organizations has led to a paradigm shift that has brought about significant gains in efficiency and productivity and has brought about transformative changes in the way news is researched, produced, and disseminated. Media organizations powered by AI can enhance routine reporting, allowing journalists to direct their energy toward interpretive and investigative work. The application of data mining tools opens new dimensions to uncovering hidden stories and addressing societal concerns.

While personalization engines can help media outlets retain reader interest in a crowded digital landscape, the adoption of AI in the media is not without challenges. Inequality in access to resources, varying degrees of technical proficiency among journalists, and ongoing skepticism regarding job security underscore the difficulties of implementing AI smoothly. Moreover, regulatory and legal frameworks – particularly at the European Union level and in the Arab world as well – are still evolving, which imposes the need to scrutinize data protection, algorithmic transparency, and ethical accountability in any AI-led newsroom initiative. Furthermore, the potential algorithmic biases and their implications for public trust.

Despite the numerous benefits, the adoption of AI in news organizations also presents challenges and ethical considerations. One major concern is the potential loss of jobs. As AI takes over repetitive and data-driven tasks, there is a fear that journalists and editorial staff may face redundancy. News organizations must strike a balance between leveraging AI for efficiency and

preserving human creativity and critical thinking. Moreover, the reliance on AI raises questions about transparency and accountability. AI algorithms are often considered "black boxes", with their decision-making processes opaque to users. This lack of transparency can lead to biases in news reporting and content curation. It is imperative for news organizations to develop ethical guidelines and ensure that AI systems are transparent, fair, and accountable.

From a societal perspective, the integration of AI applications into media and communications institutions imposes an urgent need for strong ethical frameworks that clarify responsibility and maintain transparency. Media institutions must clearly highlight how AI tools affect editorial decision-making and how accountability is carried out if systems produce errors or amplify misinformation. At the same time, communicating with audiences, civil society organizations, and policymakers to build consensus around the responsible use of AI is crucial to preserving journalism's role as a cornerstone of democratic discourse.

To promote responsible adoption of AI, we may propose the following:

1- AI Literacy: There is an urgent need for AI literacy to protect the audience from negative effects of the exaggerated use of AI-produced materials.

2- Comprehensive training: Providing ongoing education on AI knowledge to journalists, editors, and other media professionals, ensuring a shared understanding of the technology's potential and limitations.

3- Collaboration and knowledge sharing: Fostering partnerships between academia, technology companies, and news organizations to facilitate research, experimentation, and the exchange of best practices.

4- Algorithmic transparency: Adopting clear and explanatory frameworks regarding how AI-powered personalization and content creation work, thereby alleviating concerns about bias and manipulation.

5- Ethical governance: Codes of ethics must be developed or updated to address the role of AI in journalism, and to clarify accountability when AI-generated or AI-powered content violates ethical standards.

6- Universal access and work to reduce the digital divide, to prevent AI-led journalism from exacerbating social inequalities or leaving vulnerable groups behind.

5- As media in general continues to evolve alongside AI capabilities, the crucial question is not whether journalists should use AI, but how they

can implement and leverage it to serve the public interest in an ethical, effective and inclusive manner.

6- Media organizations must balance innovation and accountability to ensure technology enhances journalism integrity and supports human values.

7- The need to introduce programs to teach AI to university students in general and media students in particular.

8- Work to spread the culture of AI.

9 - There is a need to conduct more studies on the uses of AI and its importance in media practices, with the need to study the challenges.

In conclusion, the adoption of AI in news organizations is reshaping the landscape of journalism and media practices. It has revolutionized the way journalism is practiced. From enhancing news production and distribution to personalizing news consumption and improving editorial accuracy, AI offers numerous benefits. However, it is crucial for news organizations to address the challenges and ethical considerations associated with AI implementation. By doing so, they can harness the full potential of AI while upholding the principles of journalistic integrity and fostering a future where technology and human creativity coexist harmoniously. This technological advancement, characterized by the ability of machines to perform tasks that typically require human intelligence, has presented both opportunities and challenges in the media industry.

The hope is hold on future research to explore more about the challenges and problems which may be resulted from the use of AI applications. There is also a need to carry out more research about the use of AI applications in different areas of life and not only in media organizations so that we can have more evidence about the influence of the use of AI applications on different aspects of life in society.

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