Challenges of Using the ChatGPT Application in Journalism Work

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ABSTRACT

Technology of artificial intelligence (AI) has constantly evolved and become more widely used in various fields. Journalism is one of the tasks that AI technologies can enter and change many of the practices and tasks performed by journalists in newsrooms. The ChatGPT application is considered one of the prime examples of AI applications that have gained widespread popularity and that have brought about many changes in various fields, such as journalism. The use of the ChatGPT application among journalists has started, and despite the benefits, such as saving time and effort, it raises many concerns and challenges that have contributed to limiting the use of this application among journalists. The current study aimed to identify the challenges of using the ChatGPT application among journalists in journalism work. Based on the diffusion of innovations theory, in-depth interviews were conducted with nine Jordanian journalists working in various media institutions in Jordan. The results revealed three main challenges faced by journalists in using the ChatGPT application in their work, which are inaccurate information, lack of responsibility and accountability, and ethical concerns. The study provides further discussions on the application and use of ChatGPT in work. The study recommends conducting more research to understand the impact of AI applications in journalism work.

Keywords: *Artificial intelligence, ChatGPT, journalism, journalistic practice, Jordan.*

INTRODUCTION

Artificial Intelligence is extensively employed in diverse industries, including the media sector. The field of journalism has seen significant transformations as a result of improvements in communication and information technologies (Serdouk & Bessam, 2023). The media industry has undergone a digital revolution over several decades, significantly impacting all aspects of its operations. The advancement of AI, particularly generative AI, has notably improved the automation of content creation (Peña-Fernández, 2023). AI generative is a type of AI that focuses on creating content such as texts, images, videos, and codes (Ali et al., 2024). Journalism has rapidly adapted to technological changes, evident in the increasing use of algorithms and AI in the field (Adami, 2023).

The journalism industry has increasingly depended on technical advancements, such as websites, social media platforms, and data journalism. AI technologies are anticipated to bring about a revolution in journalism, exerting a substantial influence on the jobs and performance of journalists (Broussard & Dimakopoulos, 2019). AI is revolutionizing journalism by enabling robots to create real news stories, transforming intricate data into easily digestible news pieces for the public. For instance, WordSmith, an AI tool, can craft engaging sentences from structured data that closely resemble human-written news articles. Undoubtedly, AI significantly reduces journalists' workload and enhances the quality of their work (Guanah & Ijeoma, 2020).

AI has been used by media organisations worldwide in different ways. Some newsrooms use this technology to produce news articles, while others utilise it to attract new audiences and improve engagement through automating online conversations (Thurman et al., 2019). Moreover, AI has made notable impacts on the journalism sector (Almarzouqi et al., 2022). The development of AI-powered applications has increased, helping journalists in their work (Aburayya et al., 2020).

ChatGPT, developed by AI, has become a valuable tool for journalists by providing them with a lot of information they need in a short time (Beckett & Yaseen, 2023). The release of ChatGPT, a free AI chatbot, in late November 2022 received notable interest, drawing in 100 million unique users in just two months. Developed by OpenAI, this tool can comprehend and produce human-like text in response to user inquiries (Devi et al., 2023).

ChatGPT is a powerful tool for text understanding, creation, and media content production such as articles and reports. It can be utilised in newsrooms to craft engaging articles tailored to audience needs (Mhlanga, 2023). One of ChatGPT's advantages is its ability to handle multiple queries simultaneously and provide round-the-clock service without human intervention. The application can generate a large volume of text indistinguishable from human writing (Tang et al., 2021). While ChatGPT aids journalists in news analysis, information gathering, big data analysis, context comprehension, and fake news verification (Caramancion, 2023), it lacks the creativity, emotional intelligence, and intuition possessed by human journalists (Pavlik, 2023). Human journalists excel in communication, interaction with audiences, and meeting their desires, areas where AI falls short (Saurini, 2023). Despite the various benefits of ChatGPT, concerns have arisen among users, including journalists, regarding its usage. For instance, the Spanish Data Protection Authority is investigating the American company "Open AI" and its "ChatGPT" platform for potential data protection law breaches (Naghiyev, 2024). Similarly, the French Data Protection Authority is conducting a regulatory review of the "ChatGPT" platform. Italy took the lead in March 2023 by imposing a temporary ban on "ChatGPT". Rome authorities justified this action by pointing out the platform's non-compliance with personal data laws and its lack of age verification for underage users (Bertomeu et al., 2023).

The theory of the diffusion of innovations developed by Everett Rogers in 1962 is a widely relied upon theory when exploring the impacts of modern technology. The theory explains how an idea or technology spreads within a particular social system. The application of ChatGPT can be considered one of the innovations that journalists have begun to use in their work. Rogers (2003) suggested that there are five characteristics of innovation that influence its adoption: relative advantage, compatibility, complexity, trialability, and observability. Therefore, the challenges of using the ChatGPT application among journalists depend on the characteristics of this application.

The ChatGPT application is considered one of the modern applications that has brought about many changes in the world of journalism, so there are concerns accompanying the use of this application in journalistic work (Ray, 2023). The current study aims to address the following question: What challenges do Jordanian journalists face in using the ChatGPT application in their journalistic work?

PROBLEM OF THE STUDY

Journalism in Jordan is witnessing many changes that have imposed further challenges on journalists and news institutions. Among these challenges are financial difficulties, as the percentage of revenue from advertisements have declined along with the absence of government support (Tweissi, 2021). Additionally, there are challenges related to the digital transformations taking place in Jordan. Media institutions face difficulties in staying connected with these digital transformations (Alzubi, 2022). Despite these challenges, Jordan is witnessing advanced uses of advanced technological tools such as AI. For example, Al-Dustour newspaper implemented AI in its journalistic practices in 2021 (Dallal, 2019). Furthermore, Roya TV launched a unique program, the first AI television presenter in Jordan, designed to speak Arabic in 2023 (Al-Kadda, 2023). Therefore, it is expected that applications of AI will see an increased usage among journalists in Jordan, with ChatGPT being one of the applications that has garnered wide interest from journalists. According to a global survey conducted by Statista (Watson, 2023) on the use of generative AI in newsrooms, 39% of executives in newsrooms believe that journalists in their newsrooms are using ChatGPT.

Moreover, many studies in developed countries have explored the challenges faced by journalists when using AI applications, including ChatGPT, in journalism (Gondwe, 2023; Roe & Perkins, 2023; Pavlik, 2023). Most of the conclusions of these studies were from the perspective of Western countries and in the context of comparing the results of using ChatGPT with those of human journalists. While this study focuses on the challenges faced by Jordanian journalists in using the ChatGPT application in their journalistic work from the journalists' perspective.

THE USE OF ARTIFICIAL INTELLIGENCE IN NEWS ORGANIZATIONS

AI has been employed by numerous media organizations worldwide in various ways. Certain newsrooms utilize this technology for the purpose of generating news pieces, while others employ it to attract and interact with new audiences via automating online conversations (Thurman et al., 2019). The utilization of AI for generating journalistic material has experienced a significant rise in popularity. A recent survey by Reuters reveals that a significant 75% of media platforms have actively adopted AI to generate news material (Abdel-Zahir, 2019). Research conducted by Sharadga et al. (2022) suggests that international newsrooms are quickly embracing digital transformation to stay up to date with innovations in media and journalism, specifically through the implementation of automation and AI journalism. The anticipated outcome of this shift is the implementation of substantial modifications to press institutions and professional procedures to effectively address the requirements of the digital era. Studies recommend that traditional press companies should devise methods to seamlessly incorporate AI technology into newsrooms, evaluate their influence, and assure compliance with professional norms (Appelgren, 2018; Jamil, 2022).

Many prominent media outlets are currently employing automation and AI-driven tools and algorithms to produce and disseminate news, suggesting that AI-generated stories are becoming more prevalent in the news media industry (Marconi & Siegman, 2017). The British Broadcasting Company (BBC) has used an AI-powered technology called Juicer since 2012. This program is designed to extract and analyse data. In 2013, the Associated Press began utilizing AI to collect information and provide sports and business stories (Hare, 2021). News applications

like as Jinri Toutiao, Qutoutiao, and Kuaibao utilize AI to personalize material from several sources and offer improved suggestions to users (Biswal & Gouda, 2020). In 2015, the New York Times implemented an untested AI program called Editor, which is a Research and Development Lab. The purpose of this effort is to enhance the efficiency of the journalistic process by instructing journalists to use tags to emphasize important keywords, phrases, or points in the text (Schmelzer, 2019). In 2018, the news agency Xinhua launched the platform Media Brain, which has a specific focus on information technology and aims to integrate human-machine collaboration. By 2030, the Chinese government plans to invest approximately 2 billion euros with the goal of being the worldwide frontrunner in AI (Broussard et al., 2019).

Several major news organizations are currently vying to incorporate AI into their newsrooms. This competition reflects these companies' conviction that AI is here to stay in journalism and can effectively integrate with different journalistic responsibilities (Chan-Olmsted, 2019). As an illustration, The Associated Press (AP) was among the first media organizations to employ AI techniques in its reporting (Peiser, 2019). In 2013, it formed a partnership with Automated Insights, a company based in Durham, North Carolina, to implement an automated system for generating news items directly from data. Meanwhile, The New York Times is effectively employing AI to manage reader comments, encourage productive conversation, and prevent incidents of harassment and abuse. The comment section is presently supervised by a team of 14 personnel who are responsible for manually evaluating more than 11,000 comments on a daily basis. Commenting on stories in the New York Times is limited to only 10% of all articles due to the arduous nature of the process. AI technology facilitates the organization of comments, allowing users to exercise autonomy in choosing which comments they want to read or ignore. The New York Times is now testing an AI system that could revolutionize comment moderation and expand the availability of the comment function to a broader selection of stories. This innovation has the potential to result in financial savings for the newspaper and enable more dynamic and captivating experiences for its readers (Underwood, 2019). Furthermore, The Guardian introduced a Chatbot in 2016 to reduce the amount of time users spend searching for news online. Users of this software have the option to select the specific version they desire, be it for the United States (US), the United Kingdom (UK), or Australia. Additionally, individuals have the ability to determine their preferred timing for receiving news updates and indicate their preferences for either sports or political news (Valentin, 2022).

Research conducted on twelve European news organizations in the Netherlands, the UK, Switzerland, Germany, and Finland revealed that AI is employed to customize news content for certain audiences (Bodó, 2019). Media organizations employ algorithms to actively involve and maintain audiences, to establish enduring loyalty and achieve financial prosperity through audience monetization for advertisers, paid subscriptions, or obtaining public support for public broadcasters. The percentage of media institutions' use of AI depends on the ease of these systems and their acceptance among journalists, as well as their satisfaction with the results generated by AI. The method and degree of use vary among media institutions due to the continuous updates on these systems, thus overcoming the problems that arise at the beginning of using the systems, and then presenting them to journalists in a better way than they were presented earlier. The application of ChatGPT is considered one of the latest applications, which

some journalists and technology experts believe changes journalists' perception of AI. Therefore, this study focuses on the application of ChatGPT as one of the newest AI technologies and the most widely used, to identify the challenges facing journalists.

USES OF CHATGPT APPLICATION IN JOURNALISTIC WORK

The use of chatbots GPT has started in producing journalistic content in various media institutions. The emergence of the Chat GPT application has revolutionised journalism work and changed many ways in which news is handled (Bdoor & Habes, 2024). The ChatGPT application has played a significant role in creating content that serves journalism, providing journalists with many advantages. For example, ChatGPT can be used to gather news from various sources and present it in a way that is easy for the reader to understand (Adami, 2023; Pavlik, 2023). ChatGPT can contribute to creating articles and news stories based on data by analysing a large amount of big data that is difficult for journalists to analyse and incorporate into news stories (Filippo et al., 2024). For example, journalists can use the ChatGPT application to analyse election results.

ChatGPT can help in handling breaking news at times. For example, Adami (2023) found in her test that ChatGPT responds quickly to breaking news. For instance, the application was tested with a breaking news story in the UK, which was the Prime Minister's announcement of cuts to the high-speed rail project. In this case, ChatGPT provided an accurate and immediate response. Additionally, the ChatGPT application helps verify the accuracy of news stories and articles by checking for fake news. Journalists can use the ChatGPT application to verify news and identify stories with incorrect information (Jones, 2023). ChatGPT can also assist in managing social media accounts by creating posts automatically and responding to followers' inquiries (Reyes & Villaverde, 2024).

According to Kunova (2023), ChatGPT can assist journalists in translating news, providing them with fresh ideas and topics, as well as helping in composing emails and summarising lengthy texts that journalists may find challenging to handle. ChatGPT assists journalists in preparing for interviews by incorporating their questions about the interview topic and generating additional comprehensive questions. It also aids journalists as a copy editor, by input their articles for final review before submission to their editors, for instance by requesting ChatGPT to edit the article in a specific format such as APA style. However, journalists still need to review the changes made by ChatGPT and verify their accuracy to ensure there are no misinformation (Hochstein, 2023).

Despite the ChatGPT's advantages, it's crucial to consider its shortcomings and challenges, such as ethical concerns and potential job displacement (Esmaeil et al., 2023; Ray, 2023). It's important to weigh the pros and cons of using ChatGPT (Sallam et al., 2023). Further research on the challenges journalists encounters when using ChatGPT can contribute to discussions about its future and its integration into newsrooms (Gondwe, 2023). Thus, this study aims to identify the challenges Jordanian journalists face when using the ChatGPT application in their journalistic work.

METHODOLOGY

This study utilised a qualitative approach to systematically gather data to comprehensively describe events, situations, or population groups (Cheron et al., 2022). In-depth interviews were conducted to investigate the main challenges faced by Jordanian journalists when using the

ChatGPT application in their work. These interviews provided journalists with a free space to express their independent opinions about the obstacles they encounter. The interview protocol is a plan or framework used by researchers to organize and guide in-depth interviews in qualitative research (Hunter, 2012). The current study relies on the interview protocol previously used by Nofal and Al-Jayyar (2022) due to its similarity to the subject of the current study, as well as the similarity in the analytical approach used by the researcher in the current study. Additionally, using a ready-made protocol helps ensure data quality, as the protocol may have been tested and reviewed to ensure data quality, as well as helping to ensure data consistency. Two main research questions were identified, with three sub-questions for each main research question. The study protocol was prepared in Arabic to align with the native language spoken by the informants in the study, and then the protocol was translated into English with the help of a bilingual translator who holds a master's degree in translation from the University of Jordan. To refine the interview questions, a pilot study involving three journalists was carried out. Subsequently, interviews were conducted with nine journalists selected through purposeful sampling, a technique commonly used in qualitative research to identify information-rich cases (Meyer & Mayrhofer, 2022; Nyimbili & Nyimbili, 2024).

Sampling is a method used to select a smaller, more representative subset of a population for observation or experimentation in a study (Sharma, 2017). Purposeful sampling involves selecting individuals knowledgeable about a specific topic, enhancing the depth of understanding in the study field (Aleessawi, 2023). The researcher chose the sample according to specific criteria in this study. These criteria included prior experience using the ChatGPT application in journalism, a minimum of a bachelor's degree in journalism and media, good knowledge of the study subject, and membership in the Jordanian Journalists Syndicate. A list of journalists meeting these criteria was compiled, and those willing to participate in the study were selected. The researcher interviewed nine journalists who met the established criteria and standards. After completing the 6th interview, the researcher realized that the respondents' answers began to repeat, which was due to the homogeneity of the study sample, as they shared many characteristics among themselves. Therefore, the researcher conducted more interviews until reaching data saturation, realizing that additional interviews would not yield new results.

Table 1: Participant information

Participants	Media institution	Position	Experience
1	News website	Journalist	8 years
2	Television	News Editor	5 years
3	Newspaper	Digital Journalist	6 years
4	Television	Digital Content Producer	13 years
5	News website	Social Media Manager	5 years
6	News Agency	Digital Content Publisher	17 years
7	Radio	News Website Manager	7 years
8	Newspaper	News Editor	14 years
9	Television	Digital Journalist	5 years

Table 1 presents the demographic information of the journalists participating in the study. The interviews, conducted in the first quarter of 2024, included seven face-to-face sessions and two via Zoom, all held in Arabic to ensure accuracy as journalists find it challenging to articulate

ideas in other languages. The data was translated into English by language specialists, and manual thematic analysis was employed to derive the main findings, which are presented and discussed with existing literature in the following section.

FINDINGS

The data was analysed using thematic analysis, a qualitative research method for examining in-depth interviews. This approach involves systematically identifying recurring themes or key ideas within the data (Creswell, 2012). Initially, the researcher read the data multiple times to gain familiarity and develop an understanding of potential key themes. Next, initial code words or phrases that encapsulate these themes were identified. The researcher then sought to identify main themes, categories, and headings by grouping related initial codes. Main themes represent recurring ideas, concepts, or issues within the data. The researcher reviewed the potential main topics to determine whether they were consistent with the data. This may lead to merging, splitting, or modifying the topics. In the final step, the researcher identified the main themes. Based on in-depth interviews with nine Jordanian journalists, the results showed that there are three main challenges facing journalists due to their use of the ChatGPT application in journalism work, which are inaccurate information, lack of responsibility and accountability, and ethical concerns.

Inaccurate Information

With the use of AI tools in journalism, many errors have emerged that have made critics and experts focus on them, such as inaccurate research results and news that are not true and do not align with logic (Flores Vivar, 2019). Journalists participating in the study agree that one of the main challenges they face when using the ChatGPT application is that the results they obtain are often inaccurate and not true, which makes them hesitant to continue relying on this application, despite having a vast amount of data, its results are not always accurate.

Journalists participating in the study realize that news stories mostly contain exclusive and reliable information, but in the ChatGPT application, there are many results that do not fit the news, and cannot be relied upon because it is difficult to verify their accuracy. Participant 4 stated:

> When I search in the ChatGPT application for information to enhance the news or report I am preparing, I am surprised to find that the information it provides is not accurate, even though this information I am looking for is general and this application can access and present it accurately (Participant 4).

Participant 7 explained this through the following example:

> I needed to use ChatGPT when I was preparing a report on the suffering of refugees in the Middle East, I was surprised to find that the numbers provided by the application were not accurate compared to the official numbers from the United Nations High Commissioner for Refugees website (Participant 7).

Seven participants in the study agree that the ChatGPT application can only be relied upon for news and superficial information, such as knowing which countries use solar energy the most and the pros and cons of using electric cars. However, in the case of news stories, reports, and investigations, it cannot be relied on significantly, but the results must be verified accurately. Participants in the study agree that the results provided by ChatGPT, although some may have sources, often many results do not have clear sources, as stated by participant 1:

> When I search for information, the ChatGPT application includes some sources in the last paragraph, but these sources do not necessarily prove what was specifically mentioned in the search results (Participant 1).

Participants in the study realize the importance of news being completely accurate and free from misinformation when published on news platforms, and in the case of using ChatGPT, journalists understand that relying on ChatGPT will create more misleading news. Therefore, efforts must be made to improve the search results for this application so that the results are accurate and free from any inaccurate information.

Lack of Responsibility and Accountability
Despite the availability of many positives and negatives from the use of AI in journalism, there is still a debate about who is responsible for what is published, whether the journalist, the designers, or the media organization (Marconi, 2020). Journalists agree that the absence of responsibility and accountability poses a major challenge to the use of the ChatGPT application.

Journalists agree that they do not have a clear understanding of how the ChatGPT application works and how it reaches results. There is a lack of transparency in obtaining these results. Journalists agree that the ChatGPT application should be transparent with journalists, showing them the tools and steps taken to obtain the results. Journalists also emphasize that the ChatGPT application should be held accountable for its results, and recognized for mistakes if it commits errors such as fake or biased news. Participants stated the following:

> The ChatGPT application should inform users and journalists in particular about the mechanism by which information is scanned and results are reached. In addition, the application should be held accountable in case it obtains incorrect and biased results (Participant 3).

> Journalist cannot use the ChatGPT application in the same way as different users do, as the journalist uses this application to create news stories and publish them to the public, therefore the journalist must realize that the information obtained from ChatGPT is accurate and from reliable sources to avoid spreading false news and taking responsibility (Participant 9).

Most participants in the study agree that they often avoid using the ChatGPT application to avoid the responsibility that may fall on them if they rely on ChatGPT for inaccurate information. Participant 8 said:

The journalist is responsible for the news story he publishes, often avoiding using ChatGPT, as if I relied on this application for incorrect information, I will take responsibility, so I try to avoid using this application as much as possible to avoid responsibility (Participant 8).

Six participants in the study confirmed that their media organizations do not prevent them from using AI tools in journalism, but they hold them responsible in case of errors, thus there is a lack of responsibility and accountability that could cause many problems for journalists.

The Ethical Concerns
Since the emergence of AI applications and their use in journalism, the debate about the ethical concerns of AI and its applications remains a focus for many researchers and experts. AI applications pose many ethical challenges that hinder the adoption of AI. The introduction of ChatGPT has raised numerous ethical challenges. Some arise from the system's behaviour, while others result from the implications of a world where a sophisticated AI system is accessible to all (Azaria et al., 2024). Despite many ethical concerns about AI applications, Jordanian journalists are committed to objectivity in their work (Al-Zoubi et al., 2024a). In the context of Jordanian journalists, study participants agreed that ethical concerns present a major challenge to using the ChatGPT application.

Journalists recognize that their news stories should be written by them, but in the case of relying on the ChatGPT application, there is a fear of falling victim to the bias of this application because its algorithms can be manipulated and used for specific political or economic purposes.

Journalists agree that they should remain neutral, but their use of some AI applications, including ChatGPT, can make them victims and partners in bias. Some AI applications produce biased results, which is not in line with journalistic ethics. According to participant 2:

The ChatGPT application is based on generating texts based on the data entered into the application, thus there is a high possibility of bias (Participant 2).

Furthermore, participant 9 confirmed that:

AI is a tool that is not human, and therefore can be trained to adopt a certain approach and policy, making it difficult for journalists to determine whether the information they receive is biased or neutral (Participant 9).

Participant 5 explained this through the following example:

Often bias is committed in the results, for example, if you search for Qatar hosting the 2022 World Cup, the ChatGPT application will shed light on the criticisms faced by Qatar due to workers' rights and its rejection of homosexuals (Participant 5).

Furthermore, study participants agreed that the ChatGPT application could commit literary theft, by using information and texts belonging to others and attributing them to oneself. Therefore, journalistic ethics emphasize the importance of adhering to intellectual property rights when preparing news stories. According to participant 6:

> Many stories have proven the involvement of AI tools in literary theft and the use of others' content. We cannot trust these results even if they are correct because we will be partners in this intellectual property, whether it is studies, research, or articles (Participant 6).

Despite journalists being aware of the ethical risks of AI in various fields, they fully understand that ethics in journalism is an integral part of the work and cannot be bypassed. Participants agreed on the need to address the ethical concerns that is a source of worry for journalists due to their use of this application. The presence of transparency in working with the ChatGPT application will contribute to its adoption by journalists.

DISCUSSION

The developments in AI in the field of journalism have brought about many changes, making journalists feel empowered to use these technologies in their journalistic work. However, at the same time, these uses have presented many challenges, which hinder journalists from adopting them. The current study focused on the challenges facing journalists in Jordan due to the use of the ChatGPT application, one of the applications that operate with AI and has gained high popularity in a short time. The results revealed three main challenges that journalists face when using ChatGPT in their journalistic work: inaccurate information, lack of accountability and responsibility, and ethical concerns.

During the interviews, journalists focused on the inaccurate results they obtained when using the ChatGPT application. This highlights the journalists' concern to verify the information they receive from AI tools. This can be interpreted as ChatGPT being under development, with continuous efforts by the developers to improve and make it more reliable among users. This result also indicates that the AI system is based on data provided by networks and technology or human feeders, and this requires time for scrutiny, documentation, and then extracting the most accurate information. Furthermore, all journalists use the ChatGPT application in Arabic, so the data that ChatGPT has in Arabic is much less than the data in English, leading to the Arabic results being more prone to inaccuracies compared to the English results. Linguistic problems have always been a stumbling block to the use of AI in journalism, although most AI technologies have multiple languages, they rely on a system of translating these technologies automatically, meaning that the input language data is not the same as the output language data (Kothari & Cruikshank, 2022; Zakraoui et al., 2021). The results of the current study align with the theory of the diffusion of innovations, which provides a theoretical framework for understanding the adoption of new technologies and recognizing the role of innovation characteristics (ChatGPT application) in its use among journalists. The findings of the current study confirm what Rogers (2003) referred to as "complexity" as one of the characteristics of innovation in the theory of diffusion of innovations. Complexity refers to the extent to which an innovation is perceived as

difficult to understand and use. According to the study's results, inaccurate information is considered one of the complexities that pose a challenge for journalists in using the ChatGPT application.

The results of the current study align with Pavlik's study (2023), which mentioned that despite the benefits offered by ChatGPT, there are limitations in terms of quality and information gathering. Most participants in the study indicated that some of the application's results are inaccurate and lack sources, similar to what Zagorulko (2023) found in his test of ChatGPT results, where there was a clear lack of up-to-date information and ambiguity in the sources of the results. The study also agrees with Kabir's analysis (2024) of ChatGPT responses to 517 questions, where the results showed that 52% of the answers contain incorrect information and 77% contain lengthy information.

In addition, the results showed that the lack of accountability by journalists and the challenges in applying ChatGPT pose a challenge for journalists interested in using this application. The result can be interpreted as journalists lacking knowledge of the standards for using AI in journalism, highlighting the urgent need for journalists to have legislation and laws related to journalists' use of AI tools. At the same time, there are demands from journalists and media institutions for AI applications, including ChatGPT, to be subjected to legal accountability if they violate journalistic ethics and produce biased or negative results. The current study's findings align with Chavanayarn's (2023) study, which emphasised the importance of enhancing responsible decision-making when using ChatGPT by addressing cognitive limitations and biases. Similarly, Haoyu's (2024) study called for ChatGPT applications to be held accountable when they make mistakes and contribute to bias.

The ethical concerns were one of the main challenges that Jordanian journalists believed hindered their use of the ChatGPT application. This can be interpreted as the ongoing errors in AI applications, including ChatGPT, contributing to undermining trust between journalists and AI applications. This challenge may be due to a lack of experience in using, employing, and understanding the merits of the application software, and some of the fears are due to the ability of the application algorithms to violate journalistic ethics in content, whether by creating new, fabricated information or simulating a specific image that contains a violation. At the same time, journalists were keen to adhere to the ethical standards of journalism. Compatibility is one of the characteristics of innovation that affects adoption, as suggested by Rogers (2003). Based on the results, ethical concerns regarding the use of ChatGPT cannot lead to compatibility, as it contradicts journalistic principles.

Rogers (2003) argues that innovations compatible with the current system are more likely to be adopted quickly. Based on the responses of the journalists participating in the study, it is difficult for an innovator surrounded by ethical concerns to align with the work of journalists. The current findings align with Zhuo et et al. (2023) study on the ethical aspects of ChatGPT by examining over 305,000 tweets of user comments on Twitter, with ethical dilemmas such as bias in programming and dissemination of inaccurate information being among the prominent results. Similarly, Azaria et al. (2024) study found that critical ethical concerns related to copyright and privacy violations are among the main constraints facing the use of the ChatGPT application. The current findings also resemble Al-Zoubi et al. (2024b) study, which found that Jordanian

journalists have ethical concerns about using AI in newsrooms, such as privacy violations, bias, and the absence of legislation.

Finally, the three challenges highlighted by journalists in their use of AI technologies in journalism can be interpreted as involving limitations. The application of ChatGPT is limited in obtaining fully satisfactory and accurate results and there is a fear of limited and inaccurate results. Furthermore, the lack of responsibility and accountability is part of the limitations of the ChatGPT application. Despite the enormous potential offered by this application to journalists, it is unable to bear the responsibility for what it publishes and responds to users, making this a weakness in the application's capabilities. Finally, the ChatGPT application lacks commitment to journalistic ethics, with many allegations surrounding its misuse of others' private data. This point forms part of the limitations of the application and the absence of transparency that journalism always seeks to adhere to.

RECOMMENDATIONS

The study highlights the need for further research on the impact of AI on journalistic practices and the importance of focusing future research on ethical considerations, as this could lead to more results that address these concerns. Future researchers can conduct more research to identify the strategies and policies adopted within media institutions for using AI chatbots and AI applications in media organizations. The current study encourages more research using different methodologies, such as conducting more content analysis research created by AI, to monitor the successes and failures in the work of these applications for journalism. Furthermore, studies relying on secondary sources, such as analysing academic research content on AI in journalism and reports from media organizations, lead to more results that can help media institution managers make decisions regarding the mechanism of using AI. The study recommends media institutions to provide programs and training workshops for journalists to learn how to benefit from AI tools in journalism. The study also recommends the need for laws and guidelines within media institutions to regulate the use of AI in newsrooms in a way that does not expose journalists and media organizations to accountability.

BIODATA

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