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Artificial Intelligence in Newsrooms: Ethical Challenges Facing Journalists

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Abstract

Artificial intelligence has started to expand in journalism, especially in advanced news organisations. It is evident that journalists are beginning to realise the importance of AI and that it will be a partner to human journalists in their work inside newsrooms. Despite the numerous benefits that AI contributes to journalism, several challenges hinder the expansion and spread of its adoption among journalists. The ethical challenges of AI systems have become a concern among journalists. Therefore, this research is guided by the relationship between technological development and media ethics as the philosophical study of morality, specifically the Social Responsibility Theory. This study adopts a qualitative approach to explore the ethical challenges of AI faced by journalists. In-depth interviews were conducted with 14 journalists working in the newsroom of a government-affiliated channel, Al Mamlaka TV in Jordan. Data obtained from interviews conducted were analysed thematically. The results concluded that the main ethical challenges faced by journalists in the newsroom in adopting AI are data bias; privacy violations; and the absence of legislation and international regulations regarding the use of AI in journalism. The study concludes that journalists at Al Mamlaka TV adhere to the basics of Social Responsibility Theory through their critical adoption of AI in the newsroom.

Keywords: artificial intelligence, journalism, journalistic ethics, newsrooms, biasness, Jordan

1. Introduction

The media industry, including journalism, has changed significantly in recent years due to advancements in communications and information technology (Ahmad, 2017; Jamil, 2021). Developed country newsrooms are preparing for the upcoming wave of data-driven journalism, which heavily relies on artificial intelligence (AI) (Goni & Tabassum, 2020). It has become common knowledge that media organizations are increasingly incorporating AI techniques in their newsrooms. AI automates tasks that can be performed by machines and robots, reducing the need for human involvement (Huang & Rust, 2021). In the field of journalism, AI is bringing about a revolution by transforming the way news is gathered, edited, and presented. It empowers robots to generate genuine news articles, while AI algorithms simplify intricate information into easily comprehensible news pieces for the general audience. One such program, WordSmith, is capable of converting data and complex texts into persuasive sentences that closely resemble articles written by human journalists (Guanah et al., 2020).

The emergence of AI technologies has opened the door to journalistic work for a new technological revolution (Tejedor et al., 2020; Tejedor & Vila, 2021). Although journalists can derive significant benefits from using AI tools, there are challenges associated with its adoption in newsrooms. Studies have shown that AI has the potential to replace journalistic jobs by performing routine tasks, leading to concerns about the future of journalism. Ethical and professional concerns have also been raised regarding the impact of AI on human journalistic creativity (Ali & Hassoun, 2019; Waleed, 2019; Hossain, 2021; Abdulmajeed & Fahmy, 2023).

Journalists must prepare for the forthcoming AI future (Dunajko, 2022). However, many journalists are unaware of the potential impact of these technologies on their work and are ill-equipped to embrace this technological revolution (Guanah et al., 2020). The adoption of AI in journalism has become common, in Western newsrooms as well as other regions across the world, including the Middle East. Yet, most journalists and media organizations lack the knowledge and strategic planning to effectively utilize these technologies (Webb, 2017). For instance, Diakopoulos (2019) highlighted the ethical risks posed by news automation, particularly in terms of objectivity and independence. He noted that control over news production lies in the hands of technology companies rather than news organizations. Ethical concerns in light of changes in technology, particularly AI in newsrooms, are concerning.

Media institutions are required to reconsider their media work style and programs to align with the requirements of AI (Sharadga et al., 2022). Meanwhile, Al Mamlaka TV consists of a distinguished team of journalists and technologists and is committed to keeping up with developments and the latest methods of news dissemination (Graham, 2018). Therefore, it has been at the forefront of Arab channels that have integrated the latest modern technological tools in newsrooms (Al-Su'oub, 2023). Yet, similar to other news organisations, the channel too faces challenges in its adoption of technology. Therefore, the study focuses on the ethical challenges faced by Jordanian journalists in adapting to AI technologies in newsrooms. It raises the following question: What are the ethical challenges of AI adoption faced by journalists working at Al Mamlaka TV?

2. Literature Review

In recent years, AI has become a top priority for enterprises due to the availability of large amounts of data and advanced tools and infrastructure (Davenport & Ronanki, 2018). The number of businesses using AI has increased by 270% in the past four years and quadrupled in the past year, according to a recent Gartner survey (Rowsell-Jones & Howard, 2019). The rise of AI applications has led to increased ethical concerns and professional challenges that could impact journalistic practices (Stray, 2021). For instance, the Chat GPT application has raised concerns among journalists and writers regarding its potential impact on AI-generated content production without human involvement (Pavlik, 2023; Jarrah et al., 2023).

The journalism industry has witnessed a shift as robots can now write news articles and reports. Critics and journalists have raised numerous concerns about the credibility and potential biases of automated news articles (Waddell, 2019), in addition to the perception that computer-generated news is less reliable than news written by humans (Waddell, 2018). The introduction of the first automated "journalist" at the Associated Press in 2014 immediately sparked ethical questions. Should readers be informed that a machine authored the article, or should this information be withheld? From a legal standpoint, who is considered to be the author of the content? Who should be held accountable for the accuracy of the facts, especially considering potential data flaws? How can we teach journalistic ethics to a robot? (Weeks, 2014; Montal & Reich, 2017).

The use of AI technology to gather, store, and share large data sets raises ethical concerns regarding governance, quality, security, standards, privacy, and data ownership (Zandi et al., 2019). In October 2018, the International Conference of Data Protection and Privacy Commissioners released the Declaration on Ethics and Protection in AI, highlighting the importance of reducing and addressing illegal biases and discrimination arising from data usage in AI. Automated journalism encounters ethical hurdles, including data exploitation, due to the absence of clear norms and standards. This poses potential data security and privacy risks for developers, governments, and consumers (Wang & Siau, 2018). Monti (2019) argued that using correct, unbiased, and accurate data is an ethical imperative in automated journalism. Data quality is also crucial, as it can lead to erroneous results in AI usage, including the source and accuracy of data.

Ethics is mainly concerned with the moral choices made to the rights and wrongs of human behaviour. It is the rationality imposed behind decision-making. Journalists are keen to adhere to the ethics of journalism, and with the emergence of AI technologies, their challenges in adhering to professionalism, objectivity, and the application of journalistic ethics outlined in the journalist's code of honour are increasing (Waddell, 2019; Dunajko, 2022). It is argued that journalistic ethics should be understood primarily as the means by which positions of economic or political domination are appropriated and contested and that individual journalists will adhere to ethical codes only insofar as they have a strategic interest in doing so (Markham, 2008).

This study is based on the Social Responsibility Theory, a type of normative theory based on the notion that media is responsible for society. Although the Social Responsibility Theory is more skewed towards the relationship between the media and government (Abigail, 2019), the theory postulates the ethical claim that the technologies of information (in this context, AI adoption in journalism) do not operate as ends in themselves but as tools in the development of civil society. Journalists partly shape the information consumed by society through their news report writings and presentations. The selection of news, sources and how they are presented to the public are partly shaped by journalists. An ethical journalist is aware that decisions made regarding a news piece, and how it is narrated and presented, should benefit society at large and be ethically sound. Technology can transform society (Ahmad, 2017). Any technology that is adopted for the making of a news piece nonetheless may influence the behaviour of journalists in the long run, and ultimately change the working conditions of newsrooms. Thus, based on these arguments, the theory becomes relevant to the study of AI adoption and journalistic ethics.

Ethical issues relating to data have become prevalent over the years. As a result, the European Parliament has taken the initiative to address various aspects of data usage in its Ethical Code of Conduct report (European Parliament, 2017). Since most studies on the use of AI in journalism are Western-based, this study aims to expand the literature on the pertaining issue by providing a non-Western perspective. It addresses the ethical challenges faced by journalists at Al Mamlaka TV with the implementation of AI in the newsroom.

3. Methodology

This research utilized a qualitative approach, which is commonly employed in social science research, to gain a comprehensive and interpretive understanding of the social world of research participants (Ritchie & Lewis, 2003). By examining the social and material circumstances, experiences, perspectives, and histories of individuals, this approach seeks to achieve a deep understanding (Myers & Avison, 2002). In this study, in-depth interviews were conducted with 14 journalists from the newsroom of Al Mamlaka TV, a Jordanian television channel that is affiliated with the government. The aim was to explore the ethical challenges they encounter when implementing AI in newsrooms. Snowball sampling was used to select the journalists for the interviews. This method involves the initial selection of a few individuals for interview, who then suggest additional individuals to be interviewed (Bleich & Pekkanen, 2013). Snowball sampling is advantageous in this context due to the busy schedules of journalists and the need to access topics that may be difficult to reach through conventional means (Ahmad, 2023). This method was also applied since the research focuses only on journalists with prior knowledge of AI applications and have utilized the technology in their daily news practice. It is expected that journalists who work in newsrooms would likely have the knowledge of their own peers and colleagues who fit the criteria set by the study's researchers. Therefore, with the snowball sampling method adopted, a journalist can recommend to the researchers the right candidate to be interviewed as a research informant in this study.

The interviews took place in mid-2023, conducted face-to-face at the main headquarters of the channel in Amman, Jordan. Pilot interviews were conducted prior to the interview to improve the quality of the interview questions. Ambiguous questions were revised for clarity and betterment of data collection. Consent forms were obtained from informants before interview sessions, and the recording of the interviews was kept securely by the researcher. The study sample varied from different journalistic positions in the newsroom. The study adopted thematic analysis as a method of data analysis. Interview transcripts were transcribed, translated from their original language (Arabic to English), and coded accordingly. The themes that emerged are discussed in the next section.

4. Findings

The results suggest that there are three ethical challenges faced by journalists in the newsroom when adopting AI: data bias, privacy violations, and the absence of legislation and international regulations regarding the use of AI in journalism.

4.1 Data Bias

AI applications rely on data, and as long as data is available, AI can serve users. Informants agreed that the credibility and quality of data play a role in their reluctance to adopt AI tools, as these data can be biased and serve one party at the expense of another. Study informants confirmed that data can be manipulated and stressed the ethical perspective of journalism to adhere to objectivity and neutrality. For example, informants mentioned the following:

> We cannot rely 100 percent on AI when it comes to news gathering. This news can be directed and supported by a certain party, making us partners in bias and lack of impartiality in conveying information. AI tools cannot adhere to objectivity because they are not exempt from errors (Informant 8, Assistant Producer, 2023).

Additionally, informant 10, who is an executive producer for the channel, commented that data bias can lead to discrimination based on race, color, or religion. The informant argues that the news needs to be neutral. Further, according to the informant, news organisations are not able to identify whether the data relied upon by AI is neutral or biased. Meanwhile, according to informant 5:

> As journalists, we can determine whether a news article or report is biased or not. I don't believe that AI is capable of distinguishing between biased content and neutral content, especially since it can be trained to avoid bias perception (Informant 5, Digital Content Producer).

The study informants further brought up their concern about the lack of transparency in AI. They attributed this to the absence of specialized AI companies informing journalists about how these applications work. Informant 3 mentioned the following:

> AI provided us with Chat GPT as a tool for gathering information, but in reality, it is the journalist's right to know how this programming works, its stance on bias, and whether it can be exploited to provide biased information to a specific party (Informant 3, Digital Reporter).

Furthermore, study informants expressed their fear of the absence of true sources for information or videos. They mentioned that knowing the source of the journalistic material is important and contributes to enhancing credibility. However, with the use of AI in journalism, it is common for news organizations to obtain news, texts, images, and videos without knowing their true source. One informant commented:

> AI provides journalists with texts, images, and videos based on scanning various data from multiple

> sources, such as social media and the internet. Therefore, it cannot determine the source from which the information was obtained, and thus you cannot trust these sources (Informant 2, Senior Digital Journalist).

Journalists are concerned about the credibility of data, especially in Arabic content. Informants mentioned that data for Arabic content on the Internet is limited, which poses a challenge in how data can play a neutral role in serving non-English-speaking audiences. One informant commented:

> AI relies on data, as data is considered the fuel for AI, and indeed, Arabic data is limited compared to English data. Therefore, if an American user, for example, searches for an Arab country in English, the results will undoubtedly be different from someone searching in Arabic (Informant 14, Producer).

In addition, journalists believe that language limitations can contribute to biased data, and AI tools cannot distinguish fairly between English and Arabic. Therefore, the narrative will be biased towards English content, even when it comes to topics and news related to the Middle East. One informant stated:

> AI provides answers based on the data it possesses rather than fairness. For example, AI cannot give you a bright image of the Middle East if most of the news in English revolves around conflict and humanitarian disasters. Most of the time, the news with the most data is favored, so we cannot ignore such serious biases (Informant 9, Content Creator).

Therefore, findings from this study suggest that the process of news gathering can neither be completed by AI technology nor by human elements. Both AI technology and human introspection are needed to support each other in the process of news gathering and news-making. As much as bias-free reporting is the ideal form of journalistic ethics to which journalists should adhere, Markham (2009) argues that journalistic ethics only make sense in retrospect and that their observed practical universalization in specific contexts should not be misinterpreted as absolute. The situation on Al Mamlaka TV aligns with Markham's argument.

4.2 Privacy Violation

Journalists must comply with publishing laws and local and international regulations regarding privacy protection. In terms of AI, study informants expressed their concerns about AI applications not respecting privacy. They can use personal content as AI-generated content, which exposes news organisations to accountability and privacy violations. Study informants emphasized that the data relied upon by AI applications can be exploited for other purposes, contradicting the principles of journalistic integrity. Informants confirmed that AI can collect sensitive information about individuals and use it unethically. According to one informant:

> AI is used to monitor and track user activities, which can lead to the opening of personal files containing accurate information about their interests and preferences. This makes it difficult for us as journalists to determine whether this data is considered private or not (Informant 5, Digital Content Producer).

The informants in the study indicated that AI can utilize information, images, and videos owned by individuals without referencing or compensating them for their ideas and information. One informant mentioned:

> AI can access information that journalists find difficult to obtain. As journalists, we need to know the validity of this data and whether it can be used for journalistic purposes or if it belongs to others. The journalist cannot intrude on the information and use it in his reports without referring to the source, but in cases of AI, the opposite is true (Informant 1, Multimedia Producer).

Additionally, the study's informants revealed that AI may allow misuse of this data, such as impersonation and the negative promotion of products. Many important personalities have had their identities impersonated through AI, and their real image and voice can be used to promote certain ideas and even some bad products.

> Sometimes we receive videos and audio recordings attributed to politicians or celebrities, and some people believe them and start spreading rumours. This is a point that makes us as journalists worried about the impersonation of personalities through AI. We have seen Mustafa Al-Agha, a well-known Arab presenter on MBC, who came out to the public and informed that AI had impersonated him using his likeness and tone of voice for product promotion (Informant 10, Executive Producer).

Informants in the study indicated that journalistic ethics require journalists to adhere to local and international standards for respecting individuals' privacy. Any doubts about the likelihood of AI use in newsrooms that could lead to privacy violations will make journalists hesitant to use the technology. Therefore, informants suggest that there is a need for more information on how AI apps work to protect privacy. To ensure ethical journalistic practice is adhered to, collaboration between experts in the field and journalists must achieve a safe use of AI that respects the privacy of individuals and maintains the journalistic ethics of news reporting.

4.3 Absence of Legislation and International Regulations

Informants in the study have indicated that the absence of legislation and international regulations regarding the use of AI in journalism is a significant challenge. Further, journalists interviewed believe that governance on journalistic transparency through AI adoption should be implemented. For example, informing informants if certain parts of a news article were generated using AI can help overcome this challenge and enable journalists to use these applications more comfortably and credibly. In response to this, one participant commented that

> We could use AI more extensively if there were guidelines, either local or international, on how to avoid AI errors. The journalist may be in charge of monitoring AI-generated content, but he is unable to ascertain whether his handling of this content is subject to clear rules and regulations that can prevent and protect journalists from many issues (Informant 6, Newsroom Manager).

Five informants of the study explained that AI is still in its early stages and rapidly evolving. This necessitates that decision-makers and experts in journalism allocate more time to developing clear recommendations and legislation for using AI in journalism.

Further, seven informants in the study indicated that AI still lacks legitimacy regarding its possession of this data, in addition to the absence of international standards for journalism regarding the use of AI in newsrooms. Informant 11 stated the following:

> I don't know who will protect me if I publish information generated by AI systems. There is no international journalistic organization that can demonstrate the legitimacy of using this data and information. If I face accountability issues regarding journalistic material that was published using AI, I don't think I can defend my position. Therefore, I prefer to stay away from relying on these technologies, especially when it comes to obtaining written and visual journalistic materials (Informant 11, Senior Reporter).

The informants in the study expressed their concerns about the lack of international legislation and regulations, which makes them apprehensive about the widespread use of AI. Therefore, among the informants, if there were a legal framework, their perspective would certainly be different regarding the use of AI.

5. Discussion

The limited use of AI applications in newsrooms can be attributed, in part, to ethical concerns. According to the study findings, issues related to data bias, privacy violations, and the absence of legislation and international regulations regarding the use of AI in journalism are the main challenges. One possible explanation for this is the ongoing development and evolution of AI technology, which makes it challenging for journalists to fully trust its capabilities. Given the sensitive nature of journalism, journalists strive to maintain neutrality, avoid bias, and uphold privacy standards. This result is supported by a previous study conducted by Bastian et al. (2021), which reached similar conclusions. Their research suggests that AI techniques may exhibit bias, compromising the objective standard expected in journalism. Moreover, Waddell (2019) found that news attributed to journalists tends to be perceived as more objective compared to news produced by machines.

Further, the study suggests that journalists are concerned about the potential for artificial intelligence to violate user privacy and misuse data. This finding aligns with a study conducted by Lewis et al. (2019) about ethical concerns associated with the use of AI in journalism, including defamation and privacy violations. Additionally, the study by Diaz-Copo and Chaparro-Dominguez (2022) emphasized the importance of respecting privacy and adhering to ethical principles outlined in journalism codes of conduct. Moreover, several data protection authorities in European countries have initiated investigations into potential violations of data protection laws. The Spanish Data Protection Authority, for example, has opened an investigation into the American company "Open AI" and its "Chat GPT" regarding potential breaches of data protection laws. Similarly, the French Data Protection Authority has decided to conduct a regulatory review related to the "Chat GPT" program. Italy, on the other hand, became the first country to temporarily ban "Chat GPT" in March 2023. The authorities in Rome justified their decision based on the program's non-compliance with personal data laws and the absence of a system to verify the age of underage users (Arcila, 2023; Rudolph et al., 2023). Informants in the study indicated that language can be a factor in data bias, noting that the amount of data in the Arabic language is lacking compared to the amount of data in the English language. This can be attributed to the fact that programming languages and most AI experts rely on English. Additionally, English can be considered the dominant language on the Internet, wherein 63.7% of all global web content is in English (Lavitskaya et al., 2022).

The study informants highlighted the urgent necessity for an international law that safeguards journalists' use of AI and the information derived from it while ensuring their objectivity and neutrality. Monti (2019) emphasized the importance of employing AI in journalism in a proper, objective, and accurate manner. In addition, Lewis et al. (2019) emphasized the need to address ethical challenges related to algorithms, particularly in cases of defamation and racism. Díaz-Noci

(2020) suggested applying intellectual property law to automated journalism outputs. This notion is supported by Broussard et al. (2019), who emphasized the significance of AI in processing journalistic information and data while adhering to journalism ethics and the code of honor.

6. Conclusion

This study explored the ethical challenges faced by journalists in adapting AI technologies inside the newsroom at Al Mamlaka TV in Jordan. Based on interviews with 14 journalists, answers indicate three main ethical challenges, which are data bias; privacy violations, and the absence of legislation and international regulations regarding the use of AI in journalism. It is argued that journalistic ethics partly depends on their operationalization of everyday practice and institutions in practices of individuation and intersubjectivity through interaction with colleagues (Markham, 2008). This means that there are internal and external forces that shape the ethical decisions of journalists and newsrooms. Thus, findings from this study suggest both internal and external forces shape the ethical practice of journalists at Al Mamlaka TV. That is, most of the interviewed journalists are aware of the changes driven by AI in newsrooms. However, journalists have doubts on several issues, which are indicated in the findings of this study. This suggests the difficulty of understanding and using the innovation.

Marshall McLuhan once said that "we are all robots when uncritically involved with our technologies" (McLuhan, 2019). This is not the case for the Al Mamlaka TV newsroom in Jordan. The crux of social responsibility theory is adhered to by journalists at Al Mamlaka TV through the critical adoption of AI in the newsroom. This study has shown that journalists at Al Mamlaka TV do adhere to journalistic ethics in their adoption (and non-adoption) of AI in everyday practice. It suggests that the use of morality and ethics is vital for journalists in their daily work-life as responsible citizens in which they operate. The use of technology cannot be sidelined from the moral and ethical principles that guide the life of any human being. The essence of the theory of social responsibility in the media focuses on journalists being responsible to society. They should condemn and combat unethical journalism that goes against morals and values (Foreman et al., 2022). This emphasizes the commitment of journalists participating in the study to be responsible toward society and condemn news that does not adhere to neutrality (Nwanne, 2014). This is in line with the study by Al-Zoubi et al. (2024) which confirmed that Jordanian journalists are committed to social responsibility in their social media pages, despite the challenges they face. Albeit neutrality itself remains a contestable journalistic issue. Journalists have pointed out that the bias in the data handled by AI poses a major challenge for journalists to adopt artificial intelligence in newsrooms. Furthermore, the current study's results align with the principles of social responsibility theory, which emphasizes ethical responsibility towards non-intrusion of privacy and non-violation of individual freedom (Schwartz & Carroll, 2003). The study confirmed that journalists' concerns revolve around the possibility of AI applications violating privacy. The principles of social responsibility theory also focus on adhering to a set of ethical codes to strike a balance between individual freedom and societal interests. Journalists participating in the study emphasized the need for ethical codes for the use of artificial intelligence in newsrooms that are agreed upon by international journalistic organizations. This is to ensure that journalists succeed in maintaining their responsibility to the public and achieve a balance between not violating freedom and harnessing AI to serve societal interests. In light of AI adoption, discourses on journalistic development need to further address issues brought up in this study, as these issues are not standalone cases of a particular newsroom but rather a concern to many others globally. The study recommends future researchers conduct further research on the ethical challenges of AI in newsrooms, with a focus on diverse categories of journalists and professionals on different platforms within media institutions and countries.

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