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Algerian Journalists' Attitudes Towards Using Artificial Intelligence Programs in Journalism Writing :
A Survey Study on a Sample of Journalists from Online News Websites

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Abstract: This field study was conducted on a purposive sample of 62 Algerian journalists working at echaab Online, Echorouk Online, and the Algerian International Channel AL24 website. An electronic questionnaire was distributed to them via the Messenger app. The study aims to explore the attitudes of these journalists toward the use of artificial intelligence programs in their professional activities. A survey method was employed for this purpose. The study concluded with several key findings, the most notable of which is that the majority of respondents view the use of artificial intelligence techniques positively in their professional work, especially in areas related to news gathering, verification, data analysis, and news story production. At the same time, they express concerns that artificial intelligence may lead to job losses in the future.

Keywords: *Artificial Intelligence, Journalism, Media, Online News Websites.*

1. INTRODUCTION

There is little disagreement regarding the increasing penetration of artificial intelligence (AI) into the news and report production processes within media organizations. This phenomenon has transcended mere infiltration and is now seen as an inevitable necessity and an urgent need for its application in journalism. This is due to the immense capabilities AI offers journalists in performing their tasks and activities, particularly in facilitating the search for information and data, as well as analyzing them in a precise and transparent manner. Such capabilities align with the ethical standards upheld in the practice of journalism.

However, the widespread adoption of AI has led many journalists and digital media professionals to express concerns over its potential negative impact on their work. Some fear that AI could encroach upon the core aspects of their profession or, in the worst case, prompt media owners to replace human labor, which is the

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foundation of media work and activity. Additionally, journalists are often troubled by the idea that AI programs may not respect the privacy of the journalistic profession, particularly the ethics that are considered the highest standards in media practice.

This study offers a partial overview of Algerian journalists' attitudes toward the use of AI programs and applications in journalistic writing. It is a field study that explores the perspectives of journalists based on their professional experiences in writing for electronic newspapers or online news websites in Algeria.

Previous Studies:

1- Study by Mona Mustafa Abdel Razek, titled: "Artificial Intelligence Technologies in Media: Reality and Future Developments… An Applied Study on Media Practitioners in Egyptian and Arab Media".

This study aimed to explore the attitudes of media practitioners toward adopting artificial intelligence (AI) technologies, the impact of AI on their media practices, and to project the future of AI tools in the media field. The study was conducted with a purposive sample of 451 individuals working in media institutions in Egypt and the Arab world.

The study concluded with several key findings, the most important of which include: the participants follow news related to AI technologies at a high rate, and they highlighted AI's ability to simulate human behavior in carrying out many media tasks. The most common areas of AI application, according to the participants, were ranked as follows: marketing, media, and technical and administrative fields. Among the key AI technologies in data journalism, the study identified the conversion of texts into data in various formats, translation technologies into other languages, and the use of robots for tasks such as news editing or presenting news in the studio or in the field. The majority of respondents expressed support for the use of AI technologies in media practice (Abdel Razek, 2022, p. 01).

2- Study by Hala Ahmed Al-Husseini Metwally and Doaa Hisham Gomaa Farhat, titled: "Artificial Intelligence Technologies and Their Impact on the Content of Media Messages on Foreign Newspaper Websites."

This study focused on analyzing the media content of foreign newspaper websites, specifically: *The Washington Post*, *The Wall Street Journal*, *The New York Times*, and *The Guardian*. The aim was to identify the most prominent artificial intelligence (AI) techniques used and how they are employed in

producing media content. The study concluded that the sample of newspapers used some AI technologies equally in presenting their media content, which resulted in a comparable level of richness in content, despite differences in the techniques used by each newspaper. The study also showed that all the newspapers in the sample benefited from digital revolution technologies in presenting their media content in various journalistic sections, with notable techniques such as Podcasts, E-learning, Master Class rooms, and Live Chats to enable direct communication between newspaper writers and readers. Furthermore, the study demonstrated that the foreign newspapers in the sample benefited more from digital revolution technologies compared to other foreign newspaper websites, which were part of a survey conducted by the researchers (Metwally & Farhat, 2022, pp. 1495-1519).

3- Global Survey on "Artificial Intelligence and Newsrooms," announced by the "Google News Initiative" and the Journalism Department at the London School of Economics.

This report is currently the largest study in the world providing a clear picture of how global media outlets rely on AI in their daily operations. The main question of the study was: "Will artificial intelligence replace the work of journalists?" The study included 105 media institutions in more than 46 countries worldwide. Its main focus was on how these institutions use AI, as well as journalists' views on AI technologies and their stance toward them. The results of the study reveal disparities in capabilities between media outlets in rich (Northern) countries and their counterparts in developing (Southern) countries. 75% of those surveyed reported having used AI at least once in their journalistic work. 40% of respondents indicated that their view of AI had not changed over the past years, either because they were still beginners in this field or because their media organizations did not use any AI technologies. Meanwhile, 60% of journalists expressed concerns about AI programs not adhering to journalistic ethics. A majority of the journalists surveyed (80%) agreed that AI will become an essential component of journalistic work (Al-Raymi, 2023).

Research Problem:

The use of artificial intelligence (AI) in various media platforms has become a prominent phenomenon, both in public and private sectors. AI's programs and tools perform functions similar to those of journalists (human staff) in producing media content in all its forms. This technology also facilitates their work, particularly in gathering, organizing, storing, reusing, analyzing, and eventually

publishing information. Consequently, we arrive at the idea that the use of AI in journalistic and media activities is inevitable, in line with the demands of the digital age, where we are constantly seeking news at all hours of the day. In light of these data and requirements, media institutions must engage with AI, benefiting from its programs and technologies to facilitate the production of newsworthy and informative media content for the public.

This leads us to attempt to study the same phenomenon in the digital media environment in Algeria, which will allow us to examine the extent to which Algerian journalists use AI in their profession, and their personal and professional attitudes toward using AI applications to produce their news stories and publish them on online news platforms.

Main Research Question: What are the attitudes of Algerian journalists (the study sample) toward the use of AI in their journalistic writings?

Sub-questions:

- How does the sample evaluate their understanding of AI, and how proficient are they in using its techniques and tools?
- Do media institutions provide AI programs and applications in their editorial offices?

Hypotheses:

- The higher the level of understanding of AI among the study sample, the more capable they are of using its applications to produce media content.
- The study sample considers AI to be an inevitability that must be dealt with and is always ready for its use.

Study Significance:

This study offers a partial view of the phenomenon of Algerian journalists' use of AI on online platforms and in electronic journalism, exploring their personal and professional attitudes toward utilizing AI tools to create news stories and reports related to event coverage. It also helps understand the reality of how Algerian media institutions use AI, which seems to be in its early stages compared to other Arab and foreign media outlets.

Study Objectives:

- Attempt to survey journalists' opinions on their use of AI.
- Provide an initial picture of the reality of media institutions' use of AI.
- Understand the level of proficiency of Algerian journalists in using AI applications to produce media content.

Study Methodology and Tools:

Research related to the study of general trends or public opinion is typically associated with survey studies, which aim to uncover respondents' attitudes towards a particular idea or issue of interest to the researcher. The survey method seeks to examine the phenomenon under investigation in its natural state and to describe its essential components (Delyo, 2024, p. 247). Consequently, this study adopts a survey approach. The primary tool utilized in this research is a questionnaire, which was designed to align with the research topic. It was tailored according to the educational and professional levels of the respondents and was written in a clear and concise manner to avoid ambiguity. Additionally, the number of questions was limited to encourage respondents to cooperate and provide answers (Delyo, 1997, pp. 74-75).

Research Community and Sample:

The research community for this study consists of all Algerian journalists working in electronic journalism and online news sites. Due to the large size of the research community and the difficulty of studying all its units, it was necessary to use a sampling method. A sample is a small subset of the research community that can represent it accurately (Dandani & Hashim, 2016, p. 102). The purposive sample for this study consists of 30 Algerian journalists working for online platforms such as *Chahab Online*, *Echorouk Online*, and *Algerian International Channel AL24*. They were surveyed through an electronic questionnaire sent to their Messenger accounts.

2. Theoretical Framework of the Study

2.1 The Concept of Artificial Intelligence

Artificial intelligence is the study of intellectual abilities by using computational models to simulate human thought through two processes: learning (acquiring information and rules) and reasoning (using the acquired rules to reach conclusions). It is a branch of computer science aimed at automating human intelligent behavior. In this context, it requires a data system, algorithms, and programming languages (Youssef, 2021, p. 89). According to AI pioneer John McCarthy, artificial intelligence is the science of engineering intelligent machines and computer programs. It is a way to make a computer or robot controlled by a computer or program think and act intelligently in the same way that intelligent humans think. AI is achieved through studying how the human mind thinks, learns, makes decisions, and works while solving problems, and then using this

study as the basis for developing smart programs and systems (Larara, 2023, p. 53).

2.2 Artificial Intelligence in the Media Profession

The brilliance of AI has spread across various professional fields, not just in major industrial sectors but also infiltrated media institutions, adding professional values suitable for producing unique news stories and reports. AI technologies have led to significant changes in many public sectors, directly impacting the media sector, whether in photography, editing, proofreading, translation, or handling big data (Mhamri & Bouchakoura, 2023, p. 85).

AI is a vital tool in the media and journalism field, significantly enhancing work efficiency and content quality. By analyzing large volumes of data, AI can identify trends and interests among audiences, helping journalists provide content that better meets readers' needs. Additionally, AI allows for the automatic generation of content, such as articles and summaries, speeding up media production. It also improves user experience by offering personalized content recommendations, increasing audience engagement with media platforms. AI also contributes to analyzing sentiments and opinions about news, allowing journalists to understand the impact of their content more deeply. Amid growing challenges in journalism, such as the spread of misinformation, AI serves as an essential tool in enhancing credibility and transparency, which helps build trust between media outlets and their audiences.

AI presents both opportunities and challenges. On the one hand, it provides advanced tools to help journalists improve work efficiency. For example, intelligent systems can analyze data quickly, identify trends, and offer personalized content, allowing journalists to focus more on the creative and investigative aspects of their work rather than routine tasks. On the other hand, challenges related to credibility and ethics emerge as AI is increasingly used to generate news. The risk of spreading misleading or inaccurate content increases, making it essential for journalists to remain committed to their ethical values and use AI to enhance credibility rather than undermine it. Furthermore, the journalism profession may experience a shift in the types of skills required, as journalists will need to understand AI techniques and how to use data effectively.

3. The Practical Aspect of the Study (Analysis of the Data from the Online Questionnaire)

In this section, we present the collected data resulting from the responses and answers of the study sample to the questions in the questionnaire.

3.1 The Academic Background of the Study Sample

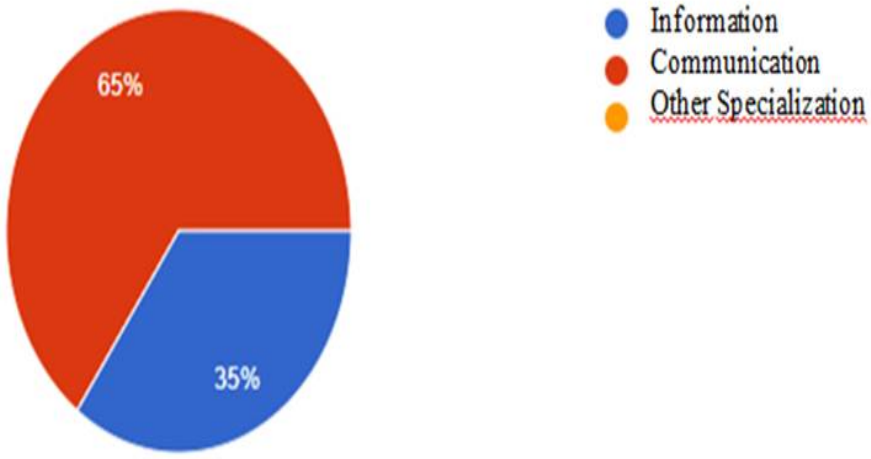


Figure 1: *Data related to the academic background of the study sample*

The data related to the respondents' academic background show that 65% of them pursued their university studies in the field of Communication, while 35% studied Journalism. It is noteworthy that many journalists have studied fields related to Communication, especially at the Master's level.

3.2 The Duration of the Study Sample's Work in Online Journalism or News Websites

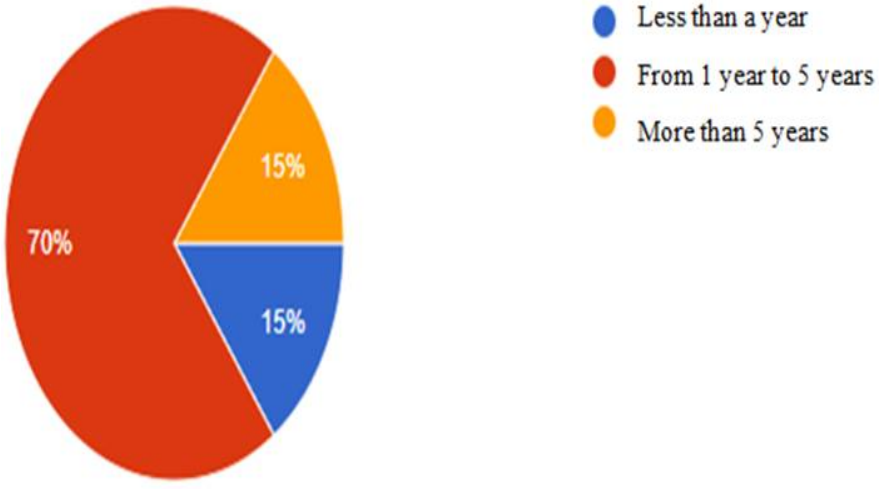


Figure 2:*Data for the duration of the study sample's work in online journalism or news websites*

The data obtained shows that 70% of the respondents have experience in online journalism ranging from 1 to 5 years, while 15% have been working in online journalism and news websites for more than 5 years, which is considered a substantial amount of experience. Similarly, the same percentage is observed among those who are newcomers to the practice of online journalism.

3.3 Use of Artificial Intelligence Techniques in Journalistic Work by the Study Sample

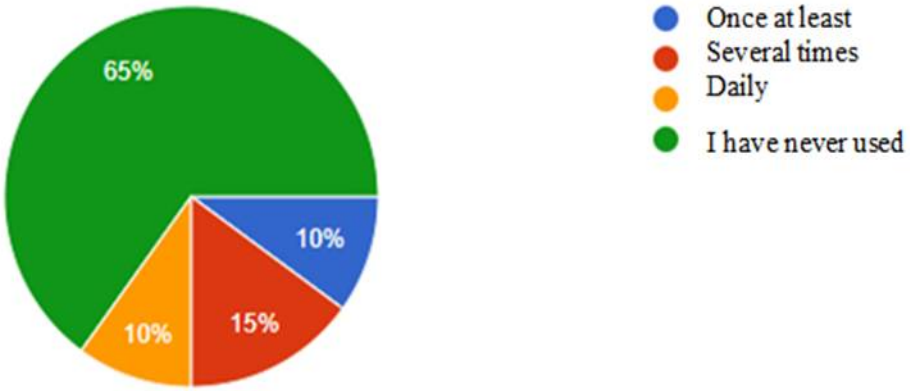


Figure 3:*Data for using Artificial Intelligence Techniques in Journalistic Work by the Study Sample*

The majority of the surveyed journalists expressed that they have never used artificial intelligence techniques in their fieldwork, as reflected by the percentage of 65%. Meanwhile, 15% of them reported using AI techniques several times, and 10% use them daily. The same result also applies to a group who have used AI techniques at least once during their professional careers.

3.4 The Level of Awareness of the Study Sample Regarding Artificial Intelligence and Its Methods of Use



Figure 4:*Data for level of Awareness of the Study Sample Regarding Artificial Intelligence and Its Methods of Use*

The data related to question four show that most of the respondents, accounting for 65%, have an intermediate level of knowledge about artificial intelligence and how to use its techniques. Meanwhile, the remaining 35% consider their knowledge of artificial intelligence to be weak. This may be a key factor in their lack of use of AI technologies in news editing rooms.

3.5 The study sample's participation in training courses on the use of artificial intelligence software

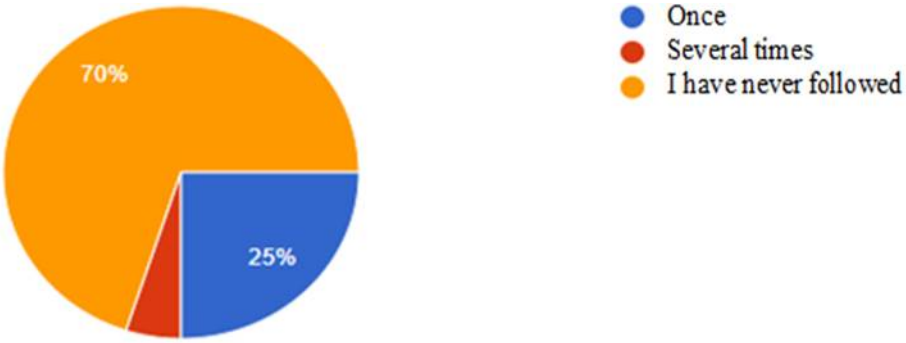


Figure 5:*Data for study sample's participation in training courses on the use of artificial intelligence software*

Seventy percent of the journalists in the study sample reported that they had never attended any training courses on using artificial intelligence programs and techniques. However, 25% of them had attended such training at least once, while 5% had attended multiple training courses.

3.6 Providing media organizations with artificial intelligence programs to edit news and data in newsrooms

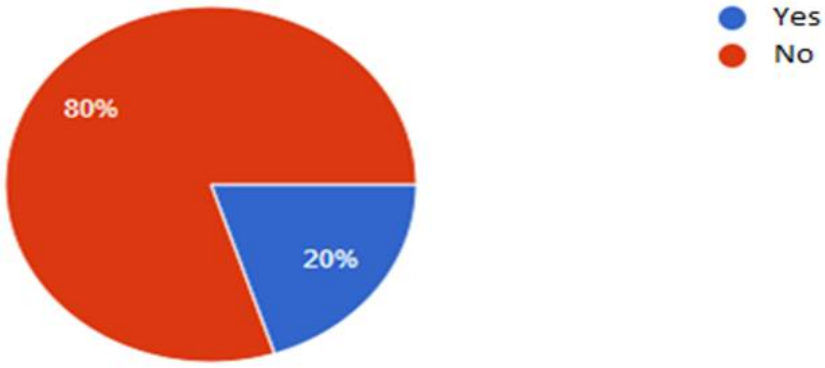
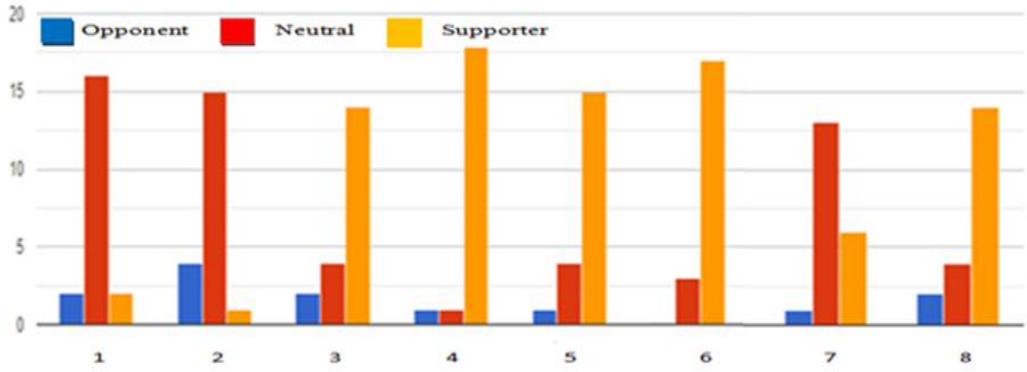


Figure 6:*Data for providing media organizations with artificial intelligence programs to edit news and data in newsrooms*

In a question directed to the respondents regarding the provision of artificial intelligence programs by media organizations for editing news and data in newsrooms, 80% of them expressed that such applications are not available in their newsrooms, while 20% of them believe that their media organizations enable them to use AI programs in the news editing rooms.

3.7 Attitudes of the study sample towards some of the statements presented in the questionnaire



1-Artificial intelligence helps journalists write their news stories with professionalism and accuracy.

2- Artificial intelligence helps journalists overcome professional obstacles and risks, such as overcoming restrictions on freedom of expression and the right to access information.

3-AI programs make it easier to gather and verify information.

4- It seems that AI will become an essential element in journalistic work, and journalists need to be prepared for this.

5- However, AI programs could tum into tools for spreading fake news and lack of transparency, and therefore, their use in newsrooms is not recommended.

6-There are concems about AI programs not respecting the ethics of journalistic practice.

7- It seems that you consider AI a threat that undermines the boundaries of your professional practice.

8- Many journalists fear losing their jobs due to the dominance of AI.

Figure 7:*Data for attitudes of the study sample towards some of the statements presented in the questionnaire*

This section of the questionnaire contains eight statements, which the respondents answered according to their attitudes. The data show that most of the respondents held a neutral position regarding the statement "Artificial intelligence helps journalists write their news stories with professionalism and accuracy." The same neutral stance was observed for the second statement: "Artificial intelligence helps journalists overcome professional obstacles and risks, such as overcoming restrictions on freedom of expression and the right to access information."

As for the third statement, "AI programs facilitate the collection and verification of information," it received support from the study sample. On the other hand, most journalists consider artificial intelligence to be an essential element in journalistic work. However, the respondents did not oppose the idea that AI programs could be used as tools for spreading fake news and misinformation, and therefore, they advised against using them in newsrooms.

Most respondents expressed concerns about AI programs not adhering to journalistic ethics. However, the attitudes of the study sample toward viewing AI as a threat to professional boundaries seemed to be inconsistent; while most remained neutral, others leaned toward supporting this view. Additionally, many journalists expressed fears about losing their jobs due to the rise of AI, with this concern voiced by a significant portion of the sample, while a few remained neutral toward this statement.

4. Discussion of the main results

The analysis of the questionnaire data led to a number of significant findings that reflect the weight of the study's topic. Among the most important results are the following:

- Most of the sample's members pursued their university education in fields related to communication studies, which can be considered a negative factor affecting their ability to master the fundamentals of electronic journalism, particularly news editing for websites. If their education had been more focused on electronic journalism, it would have been more beneficial.
- Most of the sample's members are new to the field of electronic journalism, and this can be considered a reason for their limited use of artificial intelligence (AI) applications.
- Journalists in the study sample do not use AI applications in their journalistic activities, which can be attributed to three main factors:
    - Their low level of knowledge about artificial intelligence.

  - The lack of AI programs and applications in their media institutions, especially within newsrooms to help them produce news stories.
  - Most of them have not had the opportunity to attend training courses on artificial intelligence, or learn how to use its technologies and programs in journalistic work.
- Most respondents favor using AI technologies in their professional work, especially for tasks related to news gathering, verification, data analysis, and news production.
- Most respondents expressed concerns about AI programs not respecting journalistic ethics, particularly in terms of their potential use in media manipulation and producing fake news.
- Many journalists fear losing their jobs due to the dominance of AI, as they view this development as an inevitable trend that must be dealt with on a wide scale.

5. CONCLUSION

This study addresses the intersection of artificial intelligence and media work, through a field study conducted with a purposive sample of journalists working in the field of electronic journalism. The respondents shared their views on the use of AI in media activities. The results revealed a lack of use of AI applications in journalistic and media work, particularly in news production, data collection, and analysis.

In conclusion, the study offers several recommendations that could help shift journalists' attitudes towards adopting AI in their professional activities:

- Media institutions should provide AI programs within newsrooms to assist their journalistic staff in producing high-quality media content.
- Journalists should be given continuous access to training courses on using AI programs.
- Journalists should use AI within a legal framework guided by journalistic ethics and general principles.

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