

Journalists' Perceptions towards Employing Artificial Intelligence Techniques in Jordan TV's Newsrooms

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Abstract

The study aimed to reveal the perceptions of journalists towards employing artificial intelligence techniques in Jordan TV's Newsrooms. The study sample consisted of journalists working in Jordan TV's Newsrooms. The field study was applied to a simple random sample of (106) through the questionnaire tool. The study used the descriptive exploratory approach. The study concluded that there is a clear effect of employing artificial intelligence techniques according to the perceptions of journalists in the newsrooms of Jordan Television, and the presence of differences between the responses of the respondents of the journalists in the reasons why the newsrooms of the Jordanian television are not ready to employ artificial intelligence techniques. In addition to the above, the study indicated that there were no statistically significant differences in the other reasons for the lack of readiness, where the values of X^2 (Chi-squared) were not a significant. However, journalists in the newsrooms of Jordan Television possessed various skills, including: using social networks for research, publishing news stories, and automated content production programs. Finally, there were no statistically significant differences between journalists in digital media skills, and the X^2 values were not significant at the significance level (0.05), with the exception of info graphic production skills.

Keywords: journalism, artificial intelligence, newsrooms, jordanian television

1. Introduction

The digital revolution provided a new environment for the media, as it enhanced its communication capabilities and helped to develop the media landscape and achieve the quality of its operations in form and content (Ouchchy et al, 2020). However, there are five major changes in the media environment today that require a reconsideration of the press industry; the first change relates to the multiplicity of platforms, which has contributed to the increased use of media. The second change is related to the polarization and fragmentation of the audience between traditional and new media, the third change is the development and growth of media products in the digital environment, the fourth change is the decline in the status of traditional media institutions in the era of digital transformation, and the fifth change is the transformation of power in the communicative process between media institutions and their audiences (Cresswell et al, 2021).

In light of these changes, what is known as Artificial Intelligence journalism, Algorithmic journalism, Automated journalism, Robot journalism, Computational journalism, Metrics-Driven journalism, Mixed Reality Journalism, Drones Journalism, and Virtual Reality Journalism has appeared. (Goldberg & Rosenkrantz, 2019).

Cheng et al (2019) pointed out that artificial intelligence comes to play a major role in shaping the features of media and robotics as a physical component of smart media. Lau et al (2018) also indicated that there are other technologies such as various internet platforms, high-resolution mobile phones, fraud detection technology, 3D printing, smart sensors, big data, algorithms, and augmented reality. In addition to the technology of multi-level interaction with customers, blockchain technology, conversation systems, mixed reality, which combines the physical and digital worlds in journalism and media, and each technology has its role in pushing this new style, and creating a transformational impact on the nature and quality of journalism, thus increasing the efficiency of newsrooms (Sharadga & Safori, 2020).

However, Journalism is about curiosity, about digging into the previously unknown. The profession has always

welcomed new technologies and, since the middle of the previous century, has been heavily mediatized with the appearance of radio- and TV-broadcasting, and later Web 2.0 and social media. In the digital environment, the professional competencies of journalists went beyond the traditional gathering and processing of information, adding to it such skills as photography and video production, as well as photo and video editing. This happened mainly because of the media convergence (Kammer, 2013), but also due to economic issues, where newsrooms could not afford to send both writers and photographers to events. Surely, this became possible only because of technological progress, which allowed making both photos and videos with light, portable cameras. Recently, the ranks of journalistic skills joined copywriting (since many journalists engaged themselves in content marketing) and social media marketing (promoting materials through various social media). This multitasking of journalists arguably increases the risk of errors and harms the quality of materials (Kammer, 2013).

Likewise, computational assistance, though being quite difficult to grasp and use, eventually might become a breakthrough in the way people do journalism. Today the journalistic field is not a stranger to various technological innovations, from data journalism to VR-technology. Even automation in journalism has a longer history than many would expect. As early as in 1952 the large UNIVAC computer calculated the results during the US elections and predicted the victory of Dwight Eisenhower (Henn, 2012). Later, computer-assisted reporting developed into data and computational journalism. Coddington (2015) discusses the “quantitative turn” in journalism and identifies its following stages:

Computer-assisted reporting (CAR): CAR embodies two journalistic practices: data gathering with conducting statistical analysis and computer-based information-gathering skills (online and archival research, email interviews, etc.). In the 1990s, CAR emerged from the interaction between programmers and journalists, with more programmers moving to newsrooms and professional journalists increasingly being drawn to programming’s technical capabilities and norms. This tendency was heavily influenced by the open-source movement, which arguably first brought together “hacks” (journalists) and “hackers” (technologists) (Coddington, 2015). An important role in the movement towards computer-assisted journalism has been played by the National Institute for Computer-Assisted Reporting (NICAR), which was the main organization for CAR in the 1990s and remains the central organization for those practicing data journalism today. Coddington calls CAR “the foundation for the modern approaches of data journalism and computational journalism” (2015, p. 334).

Data-driven journalism: In the late 2000s a “hybrid” appeared in newsrooms that combined statistical analysis, computer science, visualization, web design, and reporting (Coddington, 2015). This concept closely co-exists with the emergence of data-visualization.

Computational journalism: This journalistic practice emerged from both CAR and data-driven journalism. Coddington (2015) argues that computational journalism lies farther from journalism than data driven journalism and has tighter connections to programming. It was defined by Hamilton and Turner (2009, p. 2) as “the combination of algorithms, data, and knowledge from the social sciences to supplement the accountability function of journalism”. Coddington (2015) explains the term less broadly as “a strand of technologically oriented journalism centered on the application of computing and computational thinking to the practices of information gathering, sense-making, and information presentation” (p. 335). The very profession of journalism underwent critical changes in the late 2000s, as developers started working in newsrooms and became computational journalists (Karlsen & Stavelin, 2014). Another way, chosen by many high-quality newspapers, was to integrate the technical staff into the newsroom (Kammer, 2013), without mixing system developers and journalists.

Automated journalism: Automated journalism, unlike computational or “algorithmic journalism” (Anderson, 2013), aims to assist human journalists in compositional and framing practices (Carlson, 2015) rather than in research. Unlike data visualization, which also serves a presentation purpose, NLG systems present data in the form of a narrative. If previously, computers were the source of information and passive assistants, today, with the introduction of NLG technology, for the first time in history machines are learning to write journalistic texts, playing a role of an active assistant.

The increased working speed in modern newsrooms led to less accuracy. If previously the integral part of newsroom presented correctors and proofreaders, today their number is significantly reduced, which leads to the increased frequency of serious mistakes in materials, especially when it comes to numbers. Moreover, with so many different tasks journalists are not able to concentrate on their crucial traditional practices (double-checking of sources, finding contextual information, etc.) (Kammer, 2013). Thus, the de-skilling of journalists manifests itself in the tendency towards the standardization of news, when journalists only slightly edit the news agency stories and publish them quickly on the website. While the technology made newsgathering much easier, journalists nowadays rarely work “in the field” (Kammer, 2013).

Studies indicate that by 2027, artificial intelligence technologies will lead major transformations in the concept of media, its working mechanisms, and the structure of its institutions. Therefore, the leading media organizations took the initiative; Such as: The New York Times, Reuters, The Washington Post, Quartz, Yahoo, The Associated Press, The Guardian, and the BBC to develop their newsrooms using software, machine writing and presenting data-driven stories (Arpaci, 2020).

In this regard, Pashevich's study (2018) showed that the Norwegian press automation contributes to the rapid and accurate automation of routine tasks, and frees journalists to creative tasks. In South Korea, Daewon & Seongcheol (2017) revealed that the employment of artificial intelligence by means of robots is the most important criteria for employing automated journalism in newsrooms, which is accompanied by a decrease in the number of human journalists in those institutions. The study of Fanta (2017) found that the use of artificial intelligence is one of the most important reasons for the transformation of American and European news agencies towards employing automated journalism applications in their newsrooms.

In this context, the trend of newsrooms towards adopting artificial intelligence is a source of hope as it is an opportunity to maximize the skills of journalists. This is achieved by automating routine tasks, saving time for creative work, analyzing data from multiple sources, enabling journalists to convert spoken words and videos into text, speeding up automated editing processes according to editorial policy, as well as creating structural effects in newsrooms and transforming them from Linear production lines to networked information that give journalists the structures needed for automated narrative texts (Musa, A. & Al-Fattah, 2020).

This trend has resulted in a discrepancy in the perceptions and attitudes of journalists and press makers towards employing these tools. Some of them are still at an early stage of their dependence on them, and others are wary of using them for fear of abandoning the human element in favor of smart technologies. In the same context, others emphasize the pivotal role of artificial intelligence in the journalistic work and its management. However, when human journalists learn how to adapt the nature of their work to the age of big data for social physics and intelligent systems, there are many opportunities for them to maintain their profession (Amazeen, & Wojdyski, 2020).

Within the framework of indicators that predict that press institutions will witness radical changes in the next decade and due to the introduction of automatic artificial intelligence and automation processes in all aspects of news production, and the prediction of intense competition between automated and human journalists, the current study comes to monitor the perceptions of journalists towards employing artificial intelligence techniques within Jordan TV newsrooms, as artificial intelligence is an innovation whose effects are reflected on the mechanisms and characteristics of the press industry (Sharadga & Safori, 2020; Safori, 2018b).

2. Problem of the Study

The results of some studies indicated (Indrati et al, 2018); (Mansoori, 2017); (Taming & Broersma, 2013) (Sharadga & Safori, 2020); (Safori, 2018b) that global newsrooms are experiencing a race towards digital transformation, and are forced to keep pace with developments at the media and journalistic levels, through automation, shortening time and employing the requirements of artificial intelligence journalism, which in turn will lead to major transformations in the structure of the press institution and its professional practices, in addition to the automation of newsrooms.

Accordingly, some studies have recommended the need for traditional press institutions to adopt a set of supportive strategies for employing artificial intelligence tools in newsrooms, measuring their efficiency, and their alignment with comprehensive professional standards. The study of Indrati et al (2018) showed that media integration with newsrooms represents a strategic choice that must be taken by media organizations to expand their markets in the future in line with advanced communication technologies. The Mansoori study (2017) also indicated that the private press organization, Gulf News, was a pioneer in achieving and strategically planning the merger between its print and electronic versions as part of the Hub Charter project to develop its newsroom.

In the same context, the study of Taming, & Broersma (2013) demonstrated the adherence to separating traditional newsrooms from digital newsrooms as a strategy for producing in-depth and creative articles. Lewis et al (2019) found that automated journalism in newsrooms faces legal challenges, and that computers do not have an independent awareness and judgment that makes them vulnerable to misinformation. Alzahrani's study (2016) confirmed that newsrooms face difficulties in embracing digital technology such as: tensions in newsrooms, and a lack of multi-skilled and trained journalists. Monti's (2018) study indicated that AI newsroom applications act as a process of monitoring and reviewing the results of algorithms and assigning responsibility to editors as one of the best ways to develop newsrooms.

With regard to the effects of artificial intelligence applications, the study of Ali & Hassoun (2019) indicated that artificial intelligence does not pose a threat to professional journalism, and that its employment in media organizations

has contributed to raising their revenues. Linden (2017) study also demonstrated that automated journalism helps increase efficiency and job satisfaction by automating routine tasks. Maruyama et al (2017) study examined American readers' perceptions of the role of the Times News robot as a writer for news stories on climate change and compared them with stories written by journalists according to criteria: (type of news - quality of stories - credibility of the news - relevance to the story. Readers have different perceptions of news stories; they referred positively to serious news written in the manner of artificial intelligence tools, while they failed to describe human news stories despite their higher credibility and quality compared to the mechanism.

Accordingly, many Arab countries, including Jordan, are trying to move forward towards addressing the obstacles facing their press and media institutions (Safari, 2018a). Therefore, these countries are trying to take advantage of artificial intelligence as a new ecological approach, which clarifies the features of the interaction between smart technologies and the profession of journalism, and defines the attitudes of Jordanian journalists towards it. Through this approach, these countries are trying to understand the role of artificial intelligence requirements in the development of news through algorithms and data collection systems, and to determine the readiness of newsrooms to adopt them, and the skills necessary to adapt to the new work environment and the most prominent challenges and features of its future (Safari, 2018a), and thus the problem of the study was identified through answering the following main question:

What are the perceptions of journalists towards employing artificial intelligence techniques in Jordan TV's Newsrooms?

Questions of the Study

1. What are the perceptions of journalists towards artificial intelligence techniques in Jordan TV's Newsrooms?
2. To what extent are the Jordan TV's Newsrooms ready to employ artificial intelligence techniques?
3. What are the most important skills of journalists Jordan TV's Newsrooms to employ artificial intelligence techniques?

Objectives of the Study

1. Quantitative monitoring and qualitative interpretation of the perceptions of journalists in Jordan TV's Newsrooms towards employing artificial intelligence techniques.
2. Revealing the readiness of newsrooms in Jordanian newspapers to employ these technologies
3. Monitoring the positive effects resulting from the application of artificial intelligence techniques in newsrooms.
4. Discovering the most important skills that fit the nature of work in smart newsrooms.

Significance of the Study

1. The importance of the current study lies in its handling of artificial intelligence and its applications, as the most important technological concepts that have gained popularity in recent years in the field of media and journalism.
2. Shedding light on the mechanisms of employing artificial intelligence techniques in Jordan TV's Newsrooms.
3. Attempting to reveal the innovative nature of artificial intelligence techniques in bringing about a qualitative leap and a radical change in the journalistic work and its management.
4. Attempting to build smart structural models that keep pace with global news competition, confront its challenges and provide executive mechanisms for their application and upgrading the skills of Jordanian journalists.
5. It is expected that this study will represent an addition to the research of the rapid technological development in the media, and help those in charge of press institutions to know how to bring about a qualitative and radical change in the press work and face its challenges.

Terms of the Study

Artificial intelligence: Artificial intelligence is defined as the development of computer devices and systems and developed programming techniques, which have three main features: intelligent recognition, intelligent communication, and intelligent simulation (Ding et al, 2021).

Artificial intelligence is also defined as smart systems and software based on simulating the mental faculties of humans using computational programs to be able to learn, plan, perform logical deduction operations, inference to process big data, model thought and behavior, make decisions based on understanding spoken language, and accomplish evolving Business (Muhlhoff, 2020).

Newsrooms: Engebretsen et al (2018) defined it as: the place designated for journalists and leaders in press organizations, in which news flows from its various local or international sources to be managed automatically; this enables editors to write and review news, and closely and quickly monitor the flow of news.

Munoriyarwa et al (2021) defined it as the main place for news gathering in press institutions, which in turn derive information from multiple sources; Such as: news agencies, television channels, radio stations, and government agencies.

What is meant by the newsrooms of Jordan Television in this study are the newsrooms equipped with the latest technological technologies, which play a central role in obtaining information from various sources: correspondents - news agencies - news sites, television and radio channels, and social networking sites), and disseminating it to the target groups through the platforms of press institutions, after verifying and editing them, and presenting them in a way that attracts the public to interact with them.

3. Methodology of the Study

The current study belongs to Exploratory Discovery, Descriptive Studies. It is exploratory because it is one of the studies that contribute to providing some knowledge about artificial intelligence journalism. The study also seeks to determine the nature, components and nature of artificial intelligence journalism and its work in Jordan TV newsrooms. In addition to the fact that the study can be considered descriptive; It seeks to research the factors affecting the studied phenomenon and determine its causes, as it aims to identify the perceptions of journalists towards employing these technologies and their effects, and their ability to bring about structural changes in the newsrooms of Jordan TV, and the challenges that impede their existence and features of their future.

The study adopted the Survey Method, both quantitative and qualitative, through the questionnaire tool to obtain data related to the phenomenon from journalists in the newsrooms of the Jordanian television. After that, the results are qualitatively interpreted by conducting interviews with the aim of deepening the analytical vision of the results, and supporting the interpretations of some of the study's questions through a systematic comparison method for the elements that make up the research problem, horizontally or vertically; To find out the similarities and differences in the respondents' attitudes towards Jordan TV's adoption of artificial intelligence.

Population and Sample of the Study

The study population was determined by the journalists working in the newsrooms of Jordan Television. The field study was applied to a simple random sample of (106) journalists working in the newsrooms.

Instrument of the Study

In collecting data, the study relied on the paper questionnaire instrument, which was developed in light of the research problem and its objectives to determine the attitudes of journalists in Jordan TV newsrooms towards employing artificial intelligence techniques. The electronic interview guide was also relied upon, and the questions of these instruments were formulated according to several axes: (general characteristics of the respondents and the degree of their knowledge of artificial intelligence techniques and their importance in newsrooms - the readiness of newsrooms to employ them, the skills required to work in smart newsrooms, the impact of technologies and their areas of application on aspects of journalistic work and the challenges of employing them, jobs created in light of the adoption of these technologies, the respondents' suggestions to enhance its use and their vision of its future).

Validity of the Questionnaire

The validity of the questionnaire was confirmed, and that it measured the objectives, questions and hypotheses of the study through the arbitrators, where the questionnaire was presented to a group of arbitrators from the specialization of media and administration, the agreement ratio among them was 80% to ensure the validity of the questions of the measurement instrument. The necessary modifications were made to some of the questions in light of the arbitrators' suggestions.

In a next step, the internal consistency was calculated between the items of the questionnaire dimensions and the total score for the same dimension. The Structure Validity was also confirmed to determine the extent of the correlation between the dimension of the questionnaire and the total score, and by calculating the correlation coefficients, it was found to be significant at the 0.05 level.

Reliability of the Questionnaire

The reliability of the questionnaire was calculated using Cronbach's Alpha coefficient and its value was (0.847), and this indicates the reliability of the instrument and the stability of its results.

4. Results and Discussions

The First Question: What are the perceptions of journalists towards artificial intelligence techniques in Jordan TV's Newsrooms?

This question was answered by extracting the value of X^2 (Chi-squared) and the value of the significance level, and the following table shows the results of the applied analysis.

Table 1. X^2 (Chi-squared) test and significance level value of journalists' perceptions towards artificial intelligence techniques

Readiness	Points	%	Rank
Artificial intelligence techniques are changing the roles of journalists and freeing them up for creative tasks.	276	6.9	5
It constitutes an economic strength for the press organization and reduces production and operating costs.	291	7.3	3
Helps in automatic transcribing of accompanying texts and videos.	234	5.9	10
Technologies help in the production of diverse, high-quality content that suits the interests of the audience.	239	6	9
Quick and reliable fact checking and fake news detection.	276	6.9	5
Provide journalists with a more comfortable working environment.	302	7.6	1
Facilitating the management of journalistic work in newsrooms.	295	7.4	2
Increases opportunities for journalists to communicate with readers.	277	7	4
Verify the diversity of the news narration in proportion to the digital platforms.	261	6.6	7
It works to raise the level of efficiency and diversity of journalistic work.	258	6.5	8
Technologies enable press organizations to keep pace with the development movement in the digital media environment.	259	6.5	8
It helps in the automated production of news on topics based on statistical data.	211	5.3	12
Develop the skills of journalists and leaders.	229	5.7	11
Increases interaction between journalists and programmers in newsrooms.	280	280	4
Artificial intelligence techniques are a way of merging between man and machine.	265	265	6
Total	3953		

The data in Table (1) show that the most important positive effects of employing artificial intelligence techniques according to the perceptions of journalists in newsrooms were that they provide journalists with a more comfortable work environment in the first place, with a total weight of (302) and a percentage weight (7.6%). After that, artificial intelligence techniques stabilize press institutions and facilitate the management of journalistic work in newsrooms with a total weight of (295) and a percentage weight (7.4%). It was followed in the third rank by the fact that artificial intelligence techniques constitute an economic force for the press organization and reduce production and operating costs with a total of (291) points and a percentage weight (7.3%). It also increases the chances of journalists communicating with readers with a total score of (277) and a percentage weight of (7%), which came in fourth rank. In the fifth rank, these technologies change the roles of journalists, devote them to creative tasks and keep them away from routine tasks, as well as that they help to check facts quickly and reliably, and detect false news with a total of points (276) and a percentage weight (6.9%). The rest of the effects came with close weights and percentage weights.

These results can be interpreted in light of the characteristics of artificial intelligence techniques, which contribute to providing high-accuracy content, choosing the most appropriate and fastest publishing methods to reach the target audience, providing the appropriate tools for analysis and monitoring, and providing accurate results. Therefore, it will dominate the media development process with its automatic data processing, content generation, and creation of distinctive experiences with the audience. The interpretation of this result also lies in the fact that the use of artificial intelligence techniques helped increase the efficiency of journalists' work and provide more relevant content to users,

and that the use of automated journalism based on artificial intelligence techniques helped increase the efficiency and job satisfaction of journalists, as it worked to reinvent journalism.

The Second Question: To what extent are the Jordan TV's Newsrooms ready to employ artificial intelligence techniques?

This question was answered by extracting the value of X^2 (Chi-squared) and the value of the significance level, and the following table shows the results of the applied analysis.

Table 2. X^2 (Chi-squared) test and the significance level value of the readiness of Jordan TV's Newsrooms

Readiness	X^2	Value of Significance Level	Coefficient of Contingency
The lack of editing algorithms for automated texts in the Arabic version.	0.374	0.572	-
Absence of innovation and modernization in newsrooms.	3.382	0.05	0.231
Lack of investment and funding newsrooms.	0.752	0.471	-
Failure to create new media jobs compatible with artificial intelligence techniques.	2.742	0.123	-
Poor training and qualification for journalists in newsrooms.	0.652	0.360	-
Absence of a human cadre capable of dealing with software systems and their complexity.	4.789	0.05	0.285
Weak organizational structures and lack of adoption of quality systems in the newsrooms of Jordan TV.	10.532	0.001	0.413

The data in Table (2) shows that there are differences between the responses of the respondents of the journalists in the reasons why the newsrooms of Jordan TV are not ready to employ artificial intelligence techniques. Among these reasons is the absence of innovation and modernization in newsrooms, the absence of a human cadre capable of dealing with technologies and software systems, where the values of X^2 reached (3.382 - 4.789), which is significant at the level (0.05). One of the reasons is also the lack of modernization of organizational structures and the adoption of quality systems in these institutions, so the value of X^2 reached (10.532), which is significant at the level (0.001). As it also became clear that there were no statistically significant differences in the other reasons for the lack of readiness, the X^2 values were not significant, and it is possible to explain these results to the lack of knowledge of artificial intelligence techniques, the absence of financial resources, and the lack of qualified and multi-skilled journalists among the most important factors impeding technological integration in press institutions.

These results can also be attributed to the fact that newsrooms are facing a technological gap and that newsrooms are still somewhat unprepared to keep pace with smart technologies in journalistic work. This is due to the lack of some advanced elements of technologies, hardware, software and smart machines, such as Video Call Conferences technologies, audio services, smart 3D cameras, and smart communication with voice translators such as Google Translate programs, as well as the ready and free voice translation on Google Voice Interpretation, computers powered by GPU technologies.

The Third Question: What are the most important skills of journalists Jordan TV's Newsrooms to employ artificial intelligence techniques?

This question was answered by extracting the value of X^2 (Chi-squared) and the value of the significance level, and the following table shows the results of the applied analysis.

Table 3. X^2 test and the significance level value of the most important skills of Jordanian TV newsroom journalists.

Readiness	X^2	Value of Significance Level	Coefficient of Contingency
Create a visual narrative (such as graphics and animation).	3.473	0.062	-
Use social media to research and publish news stories.	0.572	0.443	-
Generate comprehensive reports using the mobile phone.	1.724	0.172	-
Working with data journalism through automated content production programs and distribution platforms.	4.817	0.05	0.176
Working with video, audio, and digital tools.	3.732	0.068	-
Publishing press stories on social networking sites through digital photography.	1.723	0.161	-
Produce and distribute stories across multiple platforms.	0.472	0.506	-
Use of analytics and web statistics.	2.032	0.058	-
Website design, development and management.	3.522	0.222	-
Use digital tools to verify information.	2.302	0.383	-
Production of info graphics	5.380	0.05	0.186

From reviewing the data in Table (3), it was found that journalists in the newsrooms of Jordan Television possess a variety of skills, including: using social networks for research, publishing news stories, using video tools, then automated content production programs and distribution platforms. Journalists also have the skill to work in data journalism, and the data shows that there are no statistically significant differences between the sample members of journalists in the skills they possess according to their current job position in the newsroom. The value of X^2 was not statistically significant at the level of significance (0.05), while there were differences in working with data journalism, so the value of X^2 was (4.817), which is significant at the level of (0.05).

It was found that there were no statistically significant differences between journalists in digital media skills, so the values of X^2 were not significant at the level of significance (0.05), except for the skills of producing info graphics, where the value of X^2 reached (5.380), which is significant at the level (0.05). The explanation of this result is that technological transformations have led to the transfer of the press to the concept of the media institution through the production of diverse content across multiple platforms.

Summary of Results

1. There is a clear effect of employing artificial intelligence techniques according to the perceptions of journalists in Jordan TV's Newsrooms.
2. There are differences between the responses of the respondents of journalists in the reasons for the unwillingness of the Jordan TV's Newsrooms to employ artificial intelligence techniques.
3. There are no statistically significant differences in the other reasons for the lack of readiness, so the values of X^2 were not significant.
4. Journalists in Jordan TV's Newsrooms possess various skills, including: using social networks for research, publishing news stories, and automated content production programs.
5. There are no statistically significant differences between journalists in digital media skills; the X^2 values were not significant at the significance level (0.05), with the exception of info graphic production skills.

Recommendations

1. Building a comprehensive strategic document on the concept of artificial intelligence applications and its relationship to the media and the mechanisms in which they operate, in light of contemporary changes that take into account modern technologies.
2. The openness of Jordanian television to the world and communication and organized communication with advanced electronic means, call centers and international news agencies
3. Employing information and communication technology and applying it in all media centers, in addition to providing a variety of knowledge sources, such as electronic and paper centers, and providing a database and statistics that serve the work of these centers.

4. Reconsidering the method of media work and its programs in line with the requirements of artificial intelligence
5. The necessity for Jordan TV to pay attention to the requirements of artificial intelligence and to apply its technologies in newsrooms
6. Conducting more studies and research related to the work of journalists according to the requirements of artificial intelligence
7. Excessive attention to preparation and presentation processes in television programs related to artificial intelligence applications.
8. The mechanisms of preparing and presenting television programs should be a reflection of new technologies suitable for the smart age.

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