



Al Jazeera Audience's Perceptions of Using Artificial Intelligence as a Strategic Option to Enhance the Media Experience: A Study on a Sample of News Bulletin Followers

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Abstract:

The media industry has witnessed rapid developments with the emergence of artificial intelligence as a central tool in enhancing media creativity and improving audience experience. This study focused on analyzing the tools and techniques used by Al Jazeera to enhance its audience experience, such as media personalization based on big data analysis, multilingual machine translation, and the production of interactive content. It also discusses the impact of these applications on content quality, increased engagement, and higher levels of audience satisfaction, while reviewing the challenges faced by Al Jazeera, including technical difficulties, privacy issues, and the ethical aspects related to AI-supported media content production.

Keywords: *Al Jazeera channel , Artificial intelligence, Media creativity, Audience experience.*

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I. INTRODUCTION

Over the past two decades, the world has witnessed an unprecedented digital revolution that has brought about significant changes across various sectors, including the media industry. Rapid advancements in technology, particularly artificial intelligence (AI), have redefined traditional concepts of media creativity. Media organizations are increasingly seeking innovative ways to enhance content quality, boost audience engagement, and improve the user experience.

In this context, AI has emerged as a pivotal enabler, empowering media organizations to achieve these objectives through advanced applications such as big data analysis, interactive content production, and editorial automation. These tools not only enhance production efficiency but also enable content personalization tailored to the diverse interests and expectations of audiences.

Al Jazeera, as one of the world's leading media organizations, represents a pioneering model in leveraging AI to foster media creativity and enhance audience experiences. Through its advanced digital strategies, Al Jazeera has successfully delivered media content that blends technical professionalism with editorial creativity, positioning it as a leader among Arab and global media organizations that have adopted AI as a fundamental tool in their operations.

Despite Al Jazeera's achievements in this field, questions remain about the extent to which AI technologies impact audience experiences and the quality of media content. Based on this premise, the study seeks to address the following primary research question: How can AI-powered media creativity contribute to improving audience experiences?

To answer this central question, the study explores the following sub-questions:

- What are the key AI applications employed by Al Jazeera in the media field?
- How do these applications affect the quality of media content and audience engagement?
- What challenges does Al Jazeera face in utilizing AI to foster media creativity?
- What recommendations can be proposed to enhance audience experiences using AI technologies?

This study aims to:

- Analyze Al Jazeera's strategies in employing AI to enhance media creativity.
- Explore the impact of these strategies on improving audience experiences and content quality.
- Highlight the challenges faced by media organizations in adopting AI technologies.
- Provide practical recommendations for improving media performance using AI.

This study holds particular importance as it sheds light on the experience of a leading Arab media organization, offering a model for other media institutions in the Arab region. It emphasizes the critical balance between technological advancements and human creativity in the media industry, focusing on the audience as the primary axis of success for any media endeavor.

1 Definitions of the Study Concepts

1.1 Definition of Artificial Intelligence (AI)

AI is defined as "the ability of a system to correctly interpret external data, learn from such data, and use those lessons to achieve specific goals and tasks through flexible adaptation" (Haenlein & Kaplan, 2019, p. 17).

It is also described as "the science of making machines do things that would require intelligence if done by humans" (Minsky, 2006, p. 315).

Another definition states that AI is "a science concerned with creating machines that perform actions considered intelligent by human standards" (Abdel Nour, 2005, p. 7).

Based on these definitions, AI can be understood as a set of programs and applications that rely

on complex algorithms to assist and guide researchers in conducting scientific studies. It simulates human cognitive abilities, enabling tasks that require thinking, learning, and decision-making. AI aids in drafting scientific papers by generating texts based on data and analysis, performing complex calculations, creating graphical representations, translating and rephrasing texts, and conducting linguistic proofreading. These capabilities significantly save researchers time and effort, accelerating discoveries and improving the quality of results.

1.2 Definition of Media Creativity

Media creativity is defined as "the ability to respond to changes in products, processes, and services using creative skills that allow for problem identification and resolution through solutions that result in the introduction of something new, adding value to customers and the media organization" (García-Avilés et al., 2018, p. 27).

Creativity in media is closely linked to every stage of the production process for visual and audio content, starting from writing, where words must be crafted innovatively. The global evolution of the audiovisual landscape demands a vigilant pursuit of change. With intense competition, capturing the attention of audiences has become central to communication policies. These policies aim not only to sell entertainment through various television and radio programs but also to engage with the audience's diverse and intersecting cultural levels, sometimes touching on fundamental values and roots (Ismail, 2012, p. 334).

1.3 Al Jazeera

Launched from Doha, Qatar, on November 1, 1996, Al Jazeera was the first independent news channel in the Arab world. Its emergence marked the end of an era dominated by state-run media and the absence of alternative voices. It opened the door for Arab citizens to participate in the media landscape and express their opinions freely, in line with its slogan: "The opinion and the other opinion," making it truly "the voice of the voiceless." The term "Al Jazeera phenomenon" reflects this turning point in Arab and global media, prompting academics and researchers to analyze its profound influence, not just in media but also in politics and international relations. Despite facing significant challenges, including the killing, imprisonment, and torture of its journalists, Al Jazeera has achieved numerous successes, earning international awards and recognition for its unique media content.

Starting as a single channel, Al Jazeera has transformed into a global media network with multiple channels, specialized centers, and digital platforms in various languages. This continuous evolution has enabled it to adapt to rapid advancements in news technology, build cultural bridges, and foster knowledge and awareness. With its headquarters in Doha, over 70 offices worldwide, and more than 3,000 employees from over 95 nationalities, Al Jazeera broadcasts to more than 150 countries, reaching over 450 million households (Al Jazeera, 2024).

II. Methodological Framework of the Study

This study is classified as a quantitative study that relies on the collection of numerical data through a three-point Likert scale questionnaire.

This tool allows respondents to provide numerical answers across three options, facilitating statistical analysis. Quantitative measures such as means and standard deviations were used to interpret the results, providing an objective perspective on the attitudes of Al Jazeera news bulletin followers.

1. Population and sample

The population of the study includes all followers of Al Jazeera's news bulletins. The sample consisted of 586 participants, collected through an accessible sampling method, enriching the analysis with diverse perspectives.

The questionnaire was distributed electronically via social media platforms between 09/06/2024, and 30/10/2024, allowing broad access to respondents.

2. Study Tool

A three-point Likert scale questionnaire was employed to measure attitudes, offering respondents pre-defined options to express their views or agreement levels with the statements presented. This approach enabled the measurement of both negative and positive attitudes among Al Jazeera's news bulletin followers.

The questionnaire was distributed electronically using Google Drive and consisted of 20 items, designed based on theoretical literature and previous studies.

3. Validity and Reliability of the Questionnaire

3.1. Validity

The questionnaire's validity was ensured through face validity, which involves verifying that the questionnaire's questions effectively measure the intended variables. A panel of 10 university professors reviewed the preliminary version, suggesting modifications to enhance clarity and appropriateness for the target sample.

3.2 Reliability

The questionnaire's reliability was tested on a pilot sample of 49 individuals. Cronbach's Alpha was calculated for this sample, and the test was repeated after a month, yielding a reliability coefficient of 0.816. This high reliability indicates the questionnaire's suitability for the current study, as Cronbach's Alpha values above 0.60 are considered acceptable.

Table (1) : Cronbach's Alpha Coefficient for the Pilot Sample of the Questionnaire

Number of Items	Number of Respondents	Cronbach's Alpha Coefficient
20	49	0.816

The Source: Prepared by the researchers based on SPSS outputs

4. Data Analysis and Interpretation

Table (2) : Sociodemographic Data of Respondents

Variable	Frequency	Percentage
Gender		
Male	320	54.6%
Female	266	45.4%
Total	586	100%
Age		
Less than 20 years	90	15.4%
20-35 years	250	42.7%
36-59 years	180	30.7%
60 years and above	66	11.2%
Total	586	100%
Educational Level		
Secondary or below	136	23.2%
University Degree	300	51.2%
Postgraduate Studies	150	25.6%
Total	586	100%
Hours Spent Watching Al Jazeera Weekly		
Less than 1 hour	100	17.1%
1 to 5 hours	250	42.7%
6 to 10 hours	150	25.6%
More than 10 hours	86	14.6%
Total	586	100%
AI Usage in Daily Life		
Do not use AI technologies at all	150	25.6%
Use AI technologies minimally	200	34.1%
Use AI technologies moderately	150	25.6%

Use AI technologies intensively	86	14.6%
Total	586	100%

Source: Prepared by the researchers based on SPSS outputs

The table 2 provides a detailed qualitative analysis of the demographic and behavioral characteristics of the sample, highlighting key insights into gender distribution, age segmentation, educational levels, viewing habits, and AI usage patterns.

Gender

- The sample is relatively balanced, with 54.6% males and 45.4% females.
- This slight majority of male participants might indicate a stronger representation of male viewers in the selected audience, but the presence of a significant female proportion ensures a diversity of perspectives in the study.

Age

- The age group 20-35 years dominates the sample, representing 42.7%. This suggests that the majority of viewers are younger adults, likely reflecting the demographic most engaged with Al Jazeera's content.
- The 36-59 age group accounts for 30.7%, indicating a strong secondary presence of middle-aged individuals, likely a stable audience segment for news consumption.
- Younger participants under 20 years (15.4%) and older viewers 60 years and above (11.2%) are less represented. This may suggest that Al Jazeera's audience appeals less to these age extremes, potentially due to differing media consumption habits or interests.

Educational Level

- More than half of the sample (51.2%) holds a university degree, reflecting a highly educated audience base. This aligns with expectations for news consumers who are likely to seek detailed and analytical content.
- Postgraduate studies represent 25.6%, further emphasizing the advanced educational background of a significant portion of the audience. These viewers may demand more in-depth and intellectually stimulating content.
- Secondary or below education levels (23.2%) make up the smallest group, highlighting a lesser appeal to audiences with lower educational attainment.

Hours Spent Watching Al Jazeera Weekly

- Most participants (42.7%) watch Al Jazeera for 1 to 5 hours weekly, suggesting moderate engagement with the channel.
- A quarter of the sample (25.6%) consumes 6 to 10 hours of content weekly, indicating a dedicated audience segment with a deeper interest in the channel's news coverage.
- Those watching less than 1 hour weekly (17.1%) and those engaging for more than 10 hours (14.6%) represent the extremes, showing limited or very intense engagement. The smaller size of these groups may reflect differing viewer habits, from casual consumers to loyalists.

AI Usage in Daily Life

- A significant portion (34.1%) uses AI technologies minimally, reflecting an emerging trend of AI adoption in everyday life but with cautious integration.
- Equal proportions of the audience use AI moderately (25.6%) or not at all (25.6%). This suggests a divide between those fully disengaged from AI and those who are beginning to incorporate it into their routines.
- A smaller segment (14.6%) uses AI intensively, indicating early adopters or tech-savvy individuals within the sample. This group may represent forward-thinking viewers with expectations for advanced media experiences.

Insights and Implications

- **Balanced Demographics:** The sample reflects a well-rounded audience profile, with diversity in gender, age, and education level, ensuring a comprehensive analysis of audience behaviors.
- **Age Concentration in Young Adults:** The dominance of the 20-35 age group suggests that Al Jazeera's content and distribution strategies align well with the preferences of younger adults, who are more active media consumers.
- **High Educational Attainment:** The prevalence of university and postgraduate qualifications highlights the importance of delivering intellectually engaging and credible content to meet audience expectations.
- **Viewing Habits:** Moderate weekly viewership (1-5 hours) is the most common, suggesting that Al Jazeera maintains consistent but not overwhelming engagement with its audience. Understanding outliers (low or intensive engagement) may provide further strategic insights.
- **AI Integration:** The data on AI usage reflects varying levels of adoption. While a significant proportion of the audience is experimenting with AI, a large portion remains disengaged, presenting opportunities to integrate AI-driven features that enhance content delivery and viewer experience.

This analysis can guide strategic decisions for Al Jazeera to optimize content, engagement, and technological integration to improve audience experience in the era of artificial intelligence.

Table (3) : Applications of Artificial Intelligence at Al Jazeera

Item	Mean	Standard Deviation	Percentage	Sample Tendency
Al Jazeera relies on AI technologies to analyze big data and select topics of greatest interest to the audience.	2.68	0.67	89.33%	Agree
AI helps Al Jazeera improve the accuracy of real-time translation for news bulletins.	2.27	0.87	75.67%	Neutral
AI algorithms are used to design more visually appealing and interactive content.	2.75	0.63	91.67%	Agree
Al Jazeera employs AI to analyze audience feedback and tailor content to meet their expectations.	2.71	0.69	90.33%	Agree
AI technologies are used to optimize broadcast timing and personalize news bulletins to meet the needs of specific audiences.	1.49	0.82	49.67%	Disagree
Total	2.38	0.88	79.33%	Agree

Source: Prepared by the researchers based on SPSS outputs.

The analysis results indicate that Al Jazeera heavily relies on AI technologies to analyze big data and select topics that capture audience interest. The high mean response (2.68) and low standard deviation (0.67) reflect broad agreement among participants, with an approval rate of 89.33%. This highlights the strategic role of these technologies in delivering targeted content, thereby enhancing viewer experiences. Additionally, AI has significantly contributed to improving visual content, making it more appealing. This aspect received the highest approval rate (91.67%), with a mean of 2.75 and a low standard deviation (0.63), underscoring the channel's success in leveraging advanced algorithms to enhance the visual user experience.

Moreover, the results confirmed that the channel uses AI technologies to analyze audience feedback and tailor content to meet their expectations, which garnered a high approval rate of 90.33%, with a mean of 2.71 and a standard deviation of 0.69. This reflects the role of

these applications in enhancing audience interaction and providing content that meets their evolving needs.

However, the study revealed neutrality among the sample regarding AI's impact on the accuracy of real-time translation for news bulletins (75.67%, mean of 2.27, and a standard deviation of 0.87). This suggests noticeable improvements but highlights the need for further development, particularly in addressing challenges related to linguistic diversity and dialects.

table (4) : Impact of AI Applications on Content Quality and Audience Engagement

Item	Mean	Standard Deviation	Percentage	Sample Tendency
Improving the quality of images and videos in news bulletins is attributed to AI usage.	2.71	0.67	90.33%	Agree
AI-generated content demonstrates higher accuracy in information.	2.20	0.92	73.33%	Neutral
AI increases audience engagement with news bulletins through digital platforms.	2.66	0.66	88.67%	Agree
The audience feels that using AI makes news easier to understand and follow.	2.75	0.60	91.67%	Agree
Intelligent applications contribute to creating a distinctive media experience focused on audience interaction.	2.82	0.47	94.00%	Agree
Total	2.63	0.71	87.67%	Agree

Source: Prepared by the researchers based on SPSS outputs.

The analysis results indicate that AI applications play a significant role in improving media content quality and increasing audience engagement with Al Jazeera's platforms. Among the items, improving the quality of images and videos in news bulletins using AI received a high approval rate of 90.33%, with a high mean score of 2.71 and a low standard deviation of 0.67. This demonstrates that the audience perceives clear improvements in visual aspects thanks to these applications.

Participants also expressed significant satisfaction with the ease of understanding AI-generated news, with this item achieving the highest mean score (2.75) and the lowest standard deviation (0.60), reflecting strong agreement, with an approval rate of 91.67%.

Regarding accuracy of information, the audience showed relative neutrality towards AI-generated content (73.33%, mean score of 2.2, and standard deviation of 0.92). This suggests some doubts or hesitation among participants about fully trusting AI as a reliable source of accurate information. As for enhancing audience engagement with news bulletins through digital platforms, this item received a good approval rate (88.67%) with a mean score of 2.66 and a low standard deviation of 0.66, indicating a noticeable impact of these applications in fostering digital interaction with the audience.

One of the standout aspects is the positive impact of intelligent applications in creating a distinctive media experience focused on interaction, which received the highest approval rate (94%), with a mean score of 2.82 and a low standard deviation of 0.47. This reflects a high level of audience confidence in the ability of these tools to deliver an innovative and comprehensive media experience.

Table (5) : Challenges Facing Al Jazeera in Employing AI

Item	Mean	Standard Deviation	Percentage	Sample Tendency
Al Jazeera faces difficulties in providing	1.14	0.49	38%	Disagree

the technical infrastructure required for AI deployment.				
The costs of investing in AI technologies pose a challenge to developing news bulletins.	1.17	0.53	39%	Disagree
Privacy concerns limit the adoption of AI in some applications.	2.74	0.65	91.33%	Agree
The lack of specialized human expertise hinders the development of AI use in news production.	1.26	0.61	42%	Disagree
AI applications may face ethical challenges related to media credibility.	2.92	0.31	97.33%	Agree
Total	1.84	0.97	61.33%	Neutral

Source: Prepared by the researchers based on SPSS outputs.

The analysis results reveal significant variation in participants' perceptions of the challenges faced by Al Jazeera in employing artificial intelligence (AI). The items with the highest approval rates were those related to ethical and privacy concerns. For instance, the statement "AI applications may face ethical challenges related to media credibility" received a very high approval rate of 97.33%, with a high mean score (2.92) and a low standard deviation (0.31). This indicates a strong consensus among participants regarding the importance of this issue. Similarly, 91.33% of the sample agreed that "privacy concerns limit the adoption of AI in some applications," reflecting clear awareness of security and privacy challenges associated with AI.

In contrast, technical and financial challenges were perceived as less significant from the participants' perspective. The items related to the difficulty of providing the necessary technical infrastructure and high investment costs received low approval rates (38% and 39%, respectively), with low mean scores (1.14 and 1.17) and moderate standard deviations. These results suggest that the sample believes these issues do not pose major obstacles for the channel.

Regarding the statement "the lack of specialized human expertise," it received a moderate approval rate of 42%, indicating that participants believe Al Jazeera is relatively capable of overcoming this challenge.

Table (6) : Proposals to Enhance Audience Experience Using Artificial Intelligence

Item	Mean	Standard Deviation	Percentage	Sample Tendency
Developing AI-powered chatbots to improve direct interaction with the audience	2.76	0.58	92%	Agree
Integrating virtual reality (VR) and AI applications to create an immersive news experience	2.87	0.44	95.67%	Agree
Providing training sessions for the media team to enhance the use of AI technologies	2.86	0.50	95.33%	Agree
Enhancing transparency about how AI is used in content production processes	2.81	0.57	93.67%	Agree
Improving audience data analysis strategies to deliver more personalized and innovative content	2.75	0.66	91.67%	Agree
Total	2.81	0.56	93.67%	Agree

Source: Prepared by the researchers based on SPSS outputs.

The results indicate a strong consensus among participants on the importance of the proposed strategies to enhance audience experiences using AI technologies. The standout proposal, "Integrating virtual reality (VR) and AI applications to create an immersive news experience," received the highest approval rate (95.67%), with a high mean score of 2.87 and a low standard deviation of 0.44. This reflects significant audience interest in leveraging technology to deliver innovative media experiences.

The proposal "Providing training sessions for the media team to enhance the use of AI technologies" received a similarly high approval rate (95.33%), with a mean score of 2.86 and a standard deviation of 0.50, indicating the audience's recognition of the importance of building media capacity to maximize the benefits of AI.

There was also strong agreement on "Enhancing transparency about how AI is used in content production processes," with 93.67% approval. This underscores audience awareness of the need for greater trust in the use of technology.

Proposals such as "Developing AI-powered chatbots to improve direct interaction with the audience" and "Improving audience data analysis strategies to deliver more personalized and innovative content" achieved high approval rates of 92% and 91.67%, respectively. This highlights the importance of focusing on enhancing personal communication with the audience and tailoring content to meet their needs effectively.

III. Results and discussion

- The results show that Al Jazeera effectively uses artificial intelligence (AI) in various areas, such as big data analysis, visual content development, and audience feedback analysis, contributing to delivering personalized and more engaging content to viewers. The channel achieved high satisfaction rates in these areas, with these applications enhancing audience interaction and meeting their expectations.
- However, the results highlighted areas for improvement, such as tailoring news bulletins to audience interests and improving the accuracy of real-time translation. These gaps indicate opportunities for the channel to better integrate AI into its media strategies.
- AI has significantly contributed to improving the quality of media content and increasing audience engagement with Al Jazeera's platforms, especially in visual aspects and ease of follow-up. Nevertheless, concerns about the accuracy of AI-generated information remain, requiring the channel to enhance oversight and verification to ensure accurate and reliable content delivery.
- The key challenges Al Jazeera faces in employing AI include ethical concerns related to media credibility and privacy issues. On the other hand, financial and technical challenges were not deemed significant by the audience, reflecting confidence in the channel's ability to overcome these obstacles. These findings indicate the need for Al Jazeera to strengthen its ethical and security policies to maintain audience trust and continue its effective use of AI.
- The analysis also reveals strong consensus among participants regarding proposals to enhance audience experience using AI. Applications such as virtual reality (VR) have improved transparency and media competencies, aiming to advance the digital media experience. Al Jazeera can leverage these results by adopting strategies that enhance innovation, personalize content, and deepen audience engagement to ensure a comprehensive and distinctive media experience.

IV. Conclusion

The adoption of artificial intelligence in media organizations is no longer a mere option to be considered; it has become a strategic necessity in the digital revolution we are witnessing

today. With increasing audience expectations and evolving needs, media institutions are now compelled to embrace advanced technologies to enhance content quality and ensure an engaging, accurate, and innovative media experience.

The study results revealed that artificial intelligence significantly contributes to improving the accuracy of presented information, enhancing the quality of images and videos, and increasing audience interaction with digital content. Furthermore, intelligent applications have demonstrated their ability to create an integrated media experience that focuses on audience needs and facilitates access to information. However, media organizations face various challenges, including insufficient technical infrastructure, the high costs associated with adopting advanced technologies, as well as concerns about privacy and media ethics.

It can be said that the future success of media organizations, such as Al Jazeera, largely depends on their ability to overcome these challenges. The effective and ethical adoption of artificial intelligence technologies not only ensures the delivery of high-quality content but also enhances audience engagement and satisfaction, contributing to the institution's sustainability and performance development.

By analyzing the four axes of the study, which include the impact of artificial intelligence on content quality, audience interaction, challenges faced by the channel, and future proposals, a set of recommendations can be derived to support the improved utilization of artificial intelligence at Al Jazeera. These recommendations aim to enhance media performance, ensure the use of artificial intelligence technologies in innovative and ethical ways, and meet audience expectations in an era of rapid technological advancements. The following are some proposed recommendations:

- Recommendations to Enhance AI Applications

- Enhancing big data analytics: Invest in big data analysis systems to identify the most engaging topics that align with audience interests.
- Improving real-time translation applications: Upgrade AI-powered translation tools to ensure higher accuracy and faster translation of news bulletins.
- Expanding visual algorithms: Develop AI applications for creating interactive and visually appealing content that enhances viewer experience.

- Recommendations to Improve Content Quality and Engagement

- Improving content quality: Use AI to enhance information accuracy and the quality of videos and images used in news.
- Increasing ease of understanding and follow-up: Focus on applications that make news more accessible and easier to follow for all audience segments.
- Involving the audience in content design: Increase the use of AI to analyze audience feedback, enabling the development of content that meets their expectations and needs.

- Recommendations to Address AI-Related Challenges

- Addressing ethical issues: Develop clear strategies to tackle ethical challenges such as media credibility and privacy protection.
- Building technical infrastructure: Allocate budgets to develop a robust technical infrastructure that supports advanced AI applications.
- Developing human resources: Organize intensive training programs to enhance the skills of media teams in effectively using AI technologies.

- Recommendations to Enhance Audience Experience Using AI

- Launching smart chatbots: Develop AI-powered chatbots to interact directly with the audience, providing a personalized communication experience.
- Adopting virtual reality applications: Integrate VR technologies to create immersive media experiences that enhance audience interaction with news content.

- Improving audience data analysis strategies: Use AI to analyze audience behavior and deliver personalized content that reflects their preferences and interests.
- Enhancing transparency: Provide regular reports explaining how AI is used in content production, increasing audience trust.

These recommendations focus on strengthening infrastructure and human resources, addressing ethical challenges, and enhancing audience experiences using AI technologies. By adopting these strategies, Al Jazeera can gain a competitive advantage, ensuring the delivery of innovative and distinctive media content that meets its audience's needs in the digital age.

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