

THE MEDIA INDUSTRY IN THE ERA OF ARTIFICIAL INTELLIGENCE MECHANISMS AND IMPACTS

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Abstract: Explore the role of artificial intelligence in enhancing the personalization of media content, improving the user experience, and increasing audience engagement. The study also discusses the potential ethical challenges that arise when using artificial intelligence in the media industry and provides recommendations for how to address them. Through an in-depth analysis of case studies and industry trends, this study provides valuable insights into how artificial intelligence can be leveraged to improve the efficiency and effectiveness of media content production and distribution. Overall, the findings of this study suggest that artificial intelligence has the potential to revolutionize the media industry, and that organizations that invest in this technology are likely to have a competitive advantage in the increasingly crowded media landscape.

Keywords: Artificial intelligence, mechanisms, impacts, media work

L'INDUSTRIE DES MÉDIAS À L'ÈRE DE L'INTELLIGENCE ARTIFICIELLE MÉCANISMES ET IMPACTS

Résumé : Cette étude vise à démontrer l'importance de l'utilisation des applications d'intelligence artificielle dans l'industrie du contenu médiatique et comment gérer le système d'intelligence artificielle pour atteindre l'efficacité médiatique grâce aux programmes et outils d'intelligence artificielle. Cela a facilité la création de contenu écrit, audio et audiovisuel, réduisant le temps, l'effort et les matériaux nécessaires aux méthodes de production traditionnelles. De plus, cette étude met en évidence le rôle de l'intelligence artificielle dans l'amélioration de la personnalisation du contenu médiatique et de l'expérience utilisateur. L'étude aborde également les considérations éthiques qui doivent être prises en compte lors de l'utilisation de l'intelligence artificielle dans l'industrie des médias.

Mots-clés : Intelligence artificielle ; mécanismes ; impacts ; travail médiatique

Introduction

In today's modern world, our reliance on information has reached unprecedented levels. Technology has permeated every aspect of our lives, revolutionizing the way we live, work, and interact. One of the most significant advancements in technology is the development of artificial intelligence (AI) and its integration into various industries. The media industry, in particular, stands to benefit greatly from the application of AI, as it offers the potential to streamline processes, save time and resources, reduce costs, and enhance the overall quality of media content. The concept of employing AI in media production has gained considerable traction among industry leaders who recognize the need for more advanced and effective means of creating media work. Artificial intelligence brings a wealth of opportunities and advancements that can significantly contribute to achieving this goal.

This intervention aims to explore the importance of AI applications in media content creation and provide insights into managing AI systems to achieve media effectiveness. Additionally, we will delve into the ongoing transformation taking place in the media industry, examining its impacts, and shedding light on the mechanisms of utilizing AI, as well as the challenges it poses in the Arabic context.

The media industry has undergone a profound evolution in recent years, primarily driven by technological advancements. Traditional methods of content creation and distribution have been disrupted, paving the way for innovative approaches that leverage AI capabilities. By harnessing the power of AI, media professionals can automate various tasks, such as data analysis, content generation, and personalized recommendations, resulting in increased efficiency and productivity. One of the primary advantages of employing AI in media production is the ability to automate repetitive and time-consuming processes. AI algorithms can analyze vast amounts of data, extract valuable insights, and generate content tailored to specific audiences. This enables media organizations to deliver personalized experiences to their consumers, enhancing engagement and satisfaction. Moreover, AI-powered tools can assist in content curation, suggesting relevant articles, videos, or news stories based on individual preferences and browsing history. Furthermore, AI can contribute to the improvement of content quality by providing valuable assistance to journalists, editors, and producers. Natural language processing algorithms can assist in grammar and style checks, fact-checking, and identifying potential biases in written content. AI-based video and audio analysis can streamline the editing process, automate captioning and subtitling, and even detect deepfakes or manipulated media. Despite the numerous benefits offered by AI in the media industry, there are also challenges that need to be addressed. One such challenge is the ethical implications of AI implementation, including issues related to privacy, data security, and algorithmic bias. It is crucial to ensure that AI systems are designed and deployed in a responsible manner, adhering to ethical standards and safeguarding the rights and interests of both content creators and consumers.

Artificial intelligence (AI) has become increasingly influential in the media industry, offering numerous applications and mechanisms for enhancing the production of audiovisual content. The impact of AI on media practice is significant, impacting both the audience and the content itself. AI finds diverse uses in the media industry. It aids media professionals in improving their performance and productivity by automating repetitive tasks and providing data-driven insights. With AI-powered data analysis, media organizations can gain valuable audience insights, enabling targeted content creation and personalized recommendations. Automation of processes like video editing and transcription saves time and resources, allowing media professionals to focus on more creative aspects.

In terms of mechanisms, AI revolutionizes the production of audiovisual content. Voice and image recognition technologies enable efficient indexing and retrieval of specific scenes or subjects from media libraries. Natural language processing facilitates automated transcription and translation services, expanding the accessibility and reach of content. AI algorithms analyze vast amounts of text, images, and videos to identify patterns, sentiments, and trends, aiding in content creation and decision-making. The impact of AI on media practice is far-reaching. AI-powered recommendation systems enhance the user experience by suggesting relevant content, leading to increased engagement and viewer satisfaction. However, the use of AI also raises concerns, particularly regarding deepfake technology.

Deepfakes, driven by AI, challenge the authenticity and credibility of media content, necessitating ethical considerations and measures to ensure trust and accountability.

In summary, artificial intelligence plays a crucial role in the media industry. Its uses span audience analysis, content personalization, and automation, while mechanisms like voice and image recognition, natural language processing, and data analysis drive the production of audiovisual content. The impact of AI extends beyond performance improvement and productivity, impacting audience engagement and necessitating ethical considerations in media practice.

To achieve the study's objectives, we pose the following questions:

Here are alternative formulations of the study questions :

1. How is artificial intelligence utilized in the media industry?
2. What are the methods and techniques employed in integrating artificial intelligence into the production of audiovisual content?
3. What effects and consequences arise from the utilization of artificial intelligence in media practice?

Two fundamental hypotheses can be proposed:

1. The hypothesis states that the utilization of artificial intelligence aids media professionals in enhancing their performance and productivity.
2. The hypothesis suggests that artificial intelligence has a significant impact on media work, influencing both the audience and the content.

1. The methodological approach to studying:

1.Previous Studies

In recent years, there have been several studies conducted in the field of employing artificial intelligence (AI) applications in media content production. One such study by Amr Abdelhami(2020) titled "Employing Artificial Intelligence Applications in Media Content Production" aimed to monitor the use of AI applications in media content production, The study, conducted in 2020, surveyed a purposive sample of 400 participants who follow economic news. The results of the study ranked the elements of message credibility produced through AI tools, with accuracy being ranked first, followed by objectivity, separation of fact from opinion, and fairness and impartiality. (Amr:2020)

Another study by Al-Zahrani and Ahmed Ali (2022) titled "Arab Journalists' Adoption of Artificial Intelligence Applications in Media Institutions" investigated the extent to which Arab journalists adopt AI tools in media practices. This study examined the concept of AI and its use in journalistic work, as well as the main obstacles faced by media institutions in adopting these technologies. It found that journalists have experience in using AI applications integrated with smartphones, with 24.6% having limited knowledge of AI beyond content editing applications. Additionally, understood AI employment as more than just the use of robots, drones, and automated content writing.(Al Zahrani,2022)

Al-Qadi conducted a study titled "Employing AI Journalism in Institutions," which focused on the utilization of AI journalism in institutions. The study discussed the technological advancements facilitated by AI journalism, such as automating tasks in the AI chain, including data mining, verification, story and chart production, selection, filtering, prioritization, tagging, and automatic article writing. The study also examined the advantages and disadvantages of AI applications in news institutions and the challenges they face. (A-l-Qadi:2021)

Choukri Menidjel conducted a study titled "Artificial Intelligence and Online Marketing" that explored the role of AI in online marketing. The study investigated the impact of AI on consumer behavior and its potential to improve marketing strategies. It also discussed the challenges and ethical considerations associated with AI in marketing. The study proposed a conceptual model that explained how AI influences customer engagement and loyalty, highlighting the managerial implications for service providers in developing personalized relationships with customers. (Choukri:2022). The use of AI applications in the media industry offers opportunities to improve productivity, product quality, and cost-efficiency. However, it is important to note that AI does not necessarily replace humans entirely in the audiovisual industry, While AI techniques can automate certain tasks such as audio and animation generation, video editing and montage, and data analysis, human skills such as creative thinking and social interaction remain essential. Technology can be used to enhance human capabilities, improve production quality, and reduce errors. Overall, the integration of AI applications in the media industry signifies a transformative shift, allowing users to interact with and utilize media content in new ways. Media institutions face various challenges during the transition to the digital environment, including economic considerations, human resource requirements, and content production challenges. The digital landscape has revolutionized the way we interact with media content, presenting opportunities for AI to contribute to efficient content production and dissemination.

The utilization of artificial intelligence (AI) in the media industry has brought forth numerous benefits and advancements. AI technology has been instrumental in combating the spread of fake news, helping media organizations verify information and ensure accuracy. Additionally, AI aids in predicting and managing media crises, allowing for prompt responses and efficient resolution.

One of the key advantages of AI is its ability to accelerate work pace. By processing vast amounts of data, AI algorithms can generate natural language that is easily understandable for humans, enabling quick and effective communication. Furthermore, AI systems can automatically identify spoken words and phrases, transforming them into readable patterns for analysis and comprehension, Machine learning is another significant aspect of AI implementation. By accessing and analyzing data, AI systems can autonomously learn and improve their performance over time. This enables them to work independently and make informed decisions without human intervention. Additionally, smart devices equipped with AI capabilities can autonomously perform mental processes and monitor data, enhancing efficiency and accuracy.

The analysis of big data is greatly enhanced by AI, as it enables the extraction of patterns and trends faster and more accurately than traditional methods. AI algorithms can automatically generate media content and enhance its quality, utilizing techniques such as image processing and natural language generation. This results in more engaging and tailored content for users, enhancing their overall experience, AI also facilitates cognitive simulation, where computers simulate human mind functions such as facial and voice recognition, handwriting recognition, image processing, data extraction, and memory activation. Expert systems, another application of AI, emulate experts and assist in making accurate decisions based on logical operations and available options.

Moreover, robotics imaging has been advanced through AI, enabling the creation of robots capable of capturing and processing visual information autonomously, AI has had a significant impact on the audiovisual industry, but it does not completely replace humans. While AI techniques can automate tasks such as audio and animation generation, video

editing, and data analysis, human skills like creativity, social interaction, and adaptability remain essential. Humans play an indispensable role in the industry, and technology augments their capabilities, improving production quality and reducing errors. Robots can also be utilized for hazardous or strenuous tasks, alleviating the burden on humans.

The integration of AI applications in the audiovisual industry presents opportunities to enhance productivity, improve product quality, and save time and costs. However, it is important to note that AI does not eliminate the need for human involvement. The digital transformation in media has empowered users to interact with and utilize content in diverse ways, with AI further contributing to this shift. Media institutions face challenges during the transition from analog to digital environments, particularly in terms of economics, human resources, and content production. The digital landscape has revolutionized how we engage with media content, breaking traditional journalistic practices and enabling personalized content reception and dissemination through search engines.

2. The most prominent challenges facing media institutions in the digital environment include:

The way people consume news has undergone significant changes. There has been a shift in audience preferences towards interactive and personalized news experiences, with a strong preference for accessing media content online rather than relying on traditional newspapers. This change in news consumption patterns has presented economic challenges for media institutions. They are finding it difficult to generate substantial financial revenue through online advertising compared to the revenue generated through advertising in traditional newspapers. Additionally, working in the digital environment poses technical challenges for these institutions. It requires a high level of familiarity with modern tools and technologies, as well as ongoing training to keep up with the rapid advancements in technology. The media landscape has undergone significant changes, driven by evolving news consumption patterns and advancements in technology. These changes have presented both challenges and opportunities for media institutions. One of the key challenges is the shift in news consumption patterns. Audiences now prefer interactive and personalized news experiences, accessing media content online rather than relying on traditional newspapers. This change requires media institutions to adapt their content delivery methods and engage with audiences in new ways. Economically, media institutions face challenges in generating revenue through online advertising. The revenue generated by online advertising often falls short compared to the revenue generated through traditional newspaper advertising. Finding sustainable economic models in the digital realm remains a priority. In the digital environment, media institutions encounter technical challenges. They need to be proficient in using technology and develop the necessary tools and applications to produce and disseminate media content effectively. Embracing digital platforms and understanding the latest technological advancements is crucial for success in the digital era. Content production poses another challenge for media institutions. They must develop new strategies to create media content that is suitable for the digital space. Effective communication with the audience and meeting their evolving needs are essential. The focus should be on producing engaging and relevant content that captures the attention of digital consumers. While these challenges exist, they also bring opportunities for media institutions to innovate and evolve. By embracing digital platforms, exploring new revenue models, and leveraging technology

for content production, media organizations can adapt to the changing landscape and thrive in the digital era.

Overcoming Challenges in the Digital Era: Strategies for Media Institutions

In the rapidly evolving digital landscape, media institutions face a range of challenges that require innovative approaches and strategic thinking. To navigate these challenges successfully, media organizations should consider the following strategies:

Diversify Revenue Streams: To sustain financial stability, media institutions need to explore alternative revenue generation strategies. This may involve studying successful models that transition from free or semi-free content to paid offerings. Implementing paid advertisements, subscriptions, and content-related financial donations can help create a more sustainable revenue base. Pricing structures should be carefully determined, taking into account factors such as content value, audience size, and quality.

Foster Collaboration and Global Presence: Collaboration with external partners, including companies and institutions seeking expertise and knowledge, can offer valuable opportunities for growth. By promoting collaboration and providing platforms for amateurs and professionals to contribute, media institutions can tap into additional sources of income, such as paid advertisements and sponsorships. This not only boosts revenue but also expands the institution's global presence.

Prioritize Content Quality and Accessibility: In the digital era, content quality is paramount for attracting and retaining audiences. Media organizations should strive for excellence by adopting modern and innovative media methods. Additionally, ensuring that content is easily accessible to readers anytime and anywhere is crucial. Embracing user-friendly interfaces and adhering to web standards will enhance the overall user experience, ultimately driving engagement and loyalty.

Facilitate Transition to the Digital Environment: Helping journalists transition from traditional paper-based practices to the digital landscape is essential. Media institutions should provide comprehensive support, including training and guidance on electronic journalism derived from web-based platforms. Equipping journalists with the necessary digital skills and fostering a culture of continuous learning will empower them to thrive in the digital era.

3. Harnessing Artificial Intelligence in Electronic Journalism: Expanding Possibilities and Transforming Practices

Artificial intelligence (AI) and its applications have become indispensable in various fields, including media and journalism. In the digital era, AI offers digital tools that can help overcome structural barriers, ensuring journalists' effective access to wider audiences and addressing constraints faced by the media system. AI applications encompass technologies that simulate human mental abilities, such as learning, reasoning, and self-correction. In electronic journalism, these applications automate tasks like content creation, editing, and distribution. They also enable data analysis and processing, allowing journalists to swiftly and efficiently access large amounts of data. Furthermore, AI applications can personalize news for each user by analyzing their preferences and behaviors, enhancing engagement and loyalty. The integration of AI applications in electronic journalism has the potential to revolutionize news creation, distribution, and consumption. While it brings forth challenges and ethical considerations, it can significantly enhance the quality and accessibility of news for audiences worldwide. AI has already surpassed routine tasks, such as automated email responses and topic suggestions, to the extent that it can generate news articles, leaving room for editors to modify or publish them automatically. AI applications have started automating

tasks that were traditionally performed by journalists, including writing press releases, entertainment news, and emergency services news. The implementation of AI applications in the healthcare industry has brought about significant changes in the media and journalism landscape. AI is increasingly utilized for news and report writing due to its ability to quickly and accurately analyze data and generate media content automatically. It is worth noting that AI is not limited to news writing; it can also be applied in areas such as financial analysis, economic forecasting, and even healthcare and medicine for analyzing medical data and providing accurate diagnoses. However, it should be emphasized that AI cannot entirely replace humans in these areas. The intervention of editors, journalists, and experts is necessary to review and edit the content produced by AI applications, ensuring the accuracy, credibility, and avoidance of errors resulting from automatic content generation. Journalism, as its name implies, aims to supplement human presence in journalistic work through solutions, particularly in the following areas:

- Data mining
- Managing comments on published content
- Choosing topics
- Writing news

This raises the question: What remains of journalism's unique role in producing effective communication?

3.1 The Evolving Role of Journalism in the Age of Artificial Intelligence: Embracing Technology's Advantages and Preserving Journalistic Privileges

Messages, especially as social media networks, with their support for all communication media, are backed by digital industries that have made devices readily available and emerged as unlimited repositories of data and information coming from billions of users, which humans cannot compete with in this regard. It can be said that journalism still has its privileges in producing communication messages. It relies on the skills of journalists and editors in analyzing events and data, as well as producing distinguished media content characterized by quality, accuracy, and deep analysis. It is worth noting that social media platforms cannot replace journalism in this regard as they rely on user-generated content that may not be accurate or trustworthy and is not produced by professional journalists and editors. Therefore, journalism still possesses its privileges in producing communication messages, and the process of producing media content is a significant responsibility that must be carried out accurately and with high quality. This can ensure the importance and status of journalism in society. If we know that the philosophy underlying artificial intelligence calls for continuous and sustainable machine learning, i.e., the evolution of its intelligence, then the ability of these applications to outperform journalists is possible, at least in the four aforementioned functions. One piece of evidence for the encroachment of AI algorithms on journalists in the field of news writing and editing is a study conducted on a group of recipients to determine their ability to distinguish between news edited by AI applications and news edited by journalists. The results showed no significant differences (Abdullah Saleh :2009).

Compared to news written by journalists, the results showed no tangible differences in distinguishing between the two types of news. Automated news seemed to be superior to its traditional counterpart, rather than being classified as weaker or being included together

in terms of quality or weakness. The logical explanation for this result is that AI algorithms specialized in journalistic writing and editing are built on the best human practices in journalism, including ethical values and writing techniques. Moreover, some people are expanding the potential benefits of AI.

4. Transforming Journalism Through Artificial Intelligence: Accelerating Local News and Enhancing Speed

It focuses on the value of news rather than the angle of the story, which is important to everyone. AI-generated writing is of high quality, making news stories suitable for instant publication. The algorithms are based on the best human practices in journalism writing and editing. Automation can also produce new content that attracts advertisers, indirectly making the content paid. Automation encourages following precise standards in journalism and editing, which improves the overall quality of journalism and reduces errors in journalistic content. AI's ability to analyze data quickly and accurately enables journalists to use this data to produce accurate and concise reports and news. AI can also produce multimedia content, such as images and videos accompanying news stories, increasing the attractiveness of the content and attracting more readers. Automation helps organize and manage journalistic data, making it more efficient and easy to access and use in the future. It also helps generate new ideas for news and reports, enabling journalists to discover new and important topics for readers. Most of us aspire to achieve a sense of fulfillment and satisfaction in our lives. However, this can be difficult to attain as we are often faced with challenges and setbacks along the way. To overcome these obstacles and find the path to contentment, it is important to have a positive mindset, determination, and resilience. By focusing on our goals and staying motivated, we can push through the difficulties and reach our desired outcomes. It's important to remember that success and happiness are subjective and can mean different things to different people. So, it's vital to define what it means to us individually and work towards it with a strong sense of purpose and dedication.

Sometimes, when we struggle with a problem for a long time, we can feel like we are stuck and can't find a way out. However, with persistence and determination, we can overcome the most difficult challenges. It's essential to believe in ourselves and keep pushing forward, even when things seem impossible. We need to be willing to try different approaches, seek advice from others, and have an open mind to new ideas and possibilities. By doing so, we can develop new skills, gain new insights, and eventually find a solution to the problem at hand. It's important to remember that setbacks and obstacles are an inevitable part of life, but how we choose to respond to them defines our character and our ability to succeed. Ultimately, we have the power to overcome any challenge we face, as long as we remain focused, positive, and determined.

Conclusion

Despite the growing use of artificial intelligence in media, journalism, and other creative fields, and despite the many benefits it offers in these areas, it still faces many difficulties and challenges. The current challenge does not relate to the material aspects of artificial intelligence, as software and algorithms are readily available. What is needed is a qualified and highly creative workforce to produce successful content that contributes to achieving the desired goals accurately. In conclusion, the integration of artificial intelligence

into the media industry has the potential to revolutionize content creation, distribution, and consumption. AI applications offer opportunities for increased efficiency, cost reduction, and improved content quality. By leveraging AI technologies effectively and addressing the associated challenges, media organizations can stay at the forefront of innovation and provide compelling and relevant experiences to their audiences. In the following discussion, we will delve deeper into the specific applications of AI in media content creation, the management of AI systems, and the unique considerations within the Arabic context. Enhance the collaboration among media institutions to raise awareness of the fundamentals of this field; foster a culture of artificial intelligence and enhance training and education in this field that is suitable for the digital age; improve the available infrastructure and technology for journalism and media, and develop the necessary tools and technologies to achieve the desired objectives; encourage scientific research and development in the field of artificial intelligence, and provide the necessary support to innovators and creators in this domain; promote ethics and human values in the use of smart technologies, and ensure their application in a manner that preserves the fundamental rights and freedoms of individuals; highlight the role of media and journalism in raising awareness and educating the public about artificial intelligence, and facilitating the public's benefit from

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