The Use of Multimedia in Newspapers: A Study on the Websites of Emirati Newspapers

Rania Abdallah¹, Reneh Abokhoza¹, Rahima Aissani¹

¹Mass Communication Department, Al Ain University, Abu Dhabi-United Arab Emirates, UAE
Correspondence: Rania Abdallah, Mass Communication Department, Al Ain University, Abu Dhabi-United Arab Emirates, UAE.

Received: December 25, 2023 Accepted: March 4, 2024 Online Published: April 2, 2024
doi:10.11114/smc.v12i2.6645 URL: https://doi.org/10.11114/smc.v12i2.6645

Abstract
The competition faced by journalistic websites has imposed the necessity of taking advantage of the capabilities offered by the Internet so that it can provide more distinguished journalistic services, to attract the largest number of users, as the strength of a newspaper website is measured by the number of people browsing it on the one hand, and the period that the user spends on it. The research problem is to monitor the use of multimedia websites of Emirati newspapers (Al-Ittihad, Al-Bayan, Al-Khaleej).

The study aimed to determine the extent to which Emirati newspapers use multimedia in their websites during the study period (January - March 2023), and the key elements they used to present and publish their news to the audience. This study used the descriptive analytical approach for 14 issues of each newspaper on their websites, and several results were obtained, the most important of which are: The newspapers sampled for the study relied mainly on pictures, using them in 1272 out of 1632 media, with a percentage of 77.9%. The use of audio clips ranked second, with 218 clips out of 1632 media and a percentage of 13.3%. Al-Khaleej newspaper ranked first with 212 clips out of the total clips used, with a large margin of 97.25%, as it distinguished itself by using audio clips in every news story and alongside every video as an additional feature. Al-Ittihad newspaper only used 6 audio blogs, with a percentage of 2.75% out of 218 clips, followed by videos in third place with 100 videos out of the total media used, with a percentage of 6.1%. Infographics came in fourth place in terms of using multimedia, with 42 infographics, accounting for 2.7% of the total multimedia used.

Keywords: multimedia, infographics, news production, digital journalism, digital media, newspaper websites

1. Introduction
Multimedia has become an essential component of today's media landscape, and the distinguishing element of newspapers from other newspapers, as online newspaper websites have become an important way for news outlets and journalists to share multimedia content, including photos, videos, live broadcasts, and other media. (El-Sayed, Firoz, & Dzamtoska, 2015).

Multimedia is one of the modern technological methods that help to increase the effectiveness of communication. It forms a textual, audio, and visual mix that adds aesthetics, attractiveness, skill, and interactivity to media websites. Through multimedia, the distinct differences and dimensions inherent in separate media tools have merged, and news can now be read, heard, and seen at the same time on one website. It has become one of the necessities and conditions for electronic media websites in light of the technological and information revolution that is constantly being updated and is one element in the technological arms race being waged on the network by media websites and their tools. It is, in fact, the essence of electronic media that has changed information (Bernice, 2017).

It can be considered Multimedia as an amazing invention of modern communication technology, as it enhances the usefulness of computers for people by enriching the information they provide. Here are some benefits of multimedia: it simplifies multiple and diverse ideas and connects all information by presenting it in simplified ways, using impactful methods (Prasanna, 2022).

When transforming media content into information, the key concepts and topics are critical for generating knowledge and formulating strategies. (Lai., & To, 2015) With the expansion of the Internet and the attractive infrastructure of websites, people may prefer to follow the news through these digital media. (Jarrahi, & Safari, 2023).
A news organization's website benefits from multimedia since it presents content in fresh and occasionally more impactful ways. More can be expressed with sounds and sights than with words; they can provide a more accurate portrayal of the current news, provide viewers with more information, and immerse them in the situation better than an article could. Additionally, multimedia is frequently a more effective medium for sharing "odd or unusual" news than print or photography, especially when it comes to conveying situations with a lot of motion. It can tell a story on its own, in documentary or short form, or serve as a "video illustration," enhancing a print piece (Grant, 2008).

Some scholars have noted a gap between the theoretical possibilities of multimedia in journalism and the actual practices of regional news organizations.

Seven out of the 10 newspapers under investigation used multimedia to improve at least one-fifth of their online content, according to a 2008 survey of ten newspaper websites worldwide. Most of these were picture slideshows. According to the author, this demonstrates that multimedia is still viewed as an optional component of web narrative and that online journalism hasn't lived up to expectations (Quandt, 2008).

According to a 2009 study, most of the online audio content was gathered by print reporters, while staff photographers shot the majority of the online video content. Additionally, the majority of reporters dedicated less than ten percent of their time to online content, leading the author to conclude that the average newsroom was not fully convergent (Russial, 2009).

Thankfully, specialists are becoming more and more prevalent in the profession, and more colleges and institutions are either integrating multimedia studies into their journalism curricula or focusing on these ideas as a distinct major. In the autumn of 2019, Elmhurst University introduced a multimedia journalism major that ought to... In classes for prospective multimedia journalists, journalism pioneers include media writing and news reporting as well as digital storytelling and web design, students expect to interact with the various mediums used to report news today.

Investigating video editing, technical software, site design, film production, and sound engineering are all essential for multimedia journalists. This is due to the rigorous standards placed on multimedia journalists, who must not only stretch their muscles but also exercise excellent news judgment while working under occasionally strict time constraints. Carefully and creatively choose the final product's shape. (Al-Jaabani, 2019).

Multimedia is an essential tool for processing news in the United Arab Emirates, as it allows news organizations to present information in multiple formats, including text, pictures, videos, audio, and infographics, which enhances competition between newspapers, thus maintaining position within the first ranks in this digital age. The study aims to better understand how these Emirati newspaper websites are responding to the shift.

Podcasts, one of the most important tools in Multimedia, are a significant instrument in digital journalism that has gained popularity recently. They provide a handy and distinctive venue for news analysis, storytelling, and distribution. An audio program known as a podcast is usually episodic and covers a variety of subjects, such as in-depth analysis, interviews, current events, and investigative reporting. Podcasts’ popularity has surged because of their portability, accessibility, and capacity to engage listeners while on the go.

Also good to take advantage of artificial intelligence, natural language processing, and machine learning, AI-powered solutions enable journalists, editors, and correspondents to increase their efficiency and productivity while optimizing the writing and content creation processes. Journalists can use this state-of-the-art technology to help with research, story development, finding credible sources, and information discovery. Additionally, AI-powered tools make it easier to evaluate the timeliness and distribution of news. It is important to note, however, that while some AI tools can produce content on their own, saving a great deal of time and money that would otherwise be spent on research and writing, they still require review, evaluation, and approval from editors, publishers, and journalists. (Aissani, et al., 2023).

However, the application of AI technology presents several challenges, including those related to institutional and individual acceptance as well as privacy and the usage of personal data in the vast databases that AI is dependent upon. Concerns exist around the potential for bias and inaccuracy in the proper provision and application of information and data. Furthermore, experts and practitioners in the domains of digital media and journalism worry about the loss of editorial control in the media, which could result in deepfakes and biases at all stages of production (outputs, productivity, and inputs) (Aissani, et al., 2023).

The problem of the content quality of digital media is global and linked to technological transformations that have changed the nature of the communication and media process. It seems that in Arabic content it is more complicated; It extends to other problems in the practice of journalism and the collection and processing of news in traditional media as well as weak capabilities in the use of digital media tools and the new skills required by the production of content appropriate to new means (Abokhoza, & Abdallah, 2023).

also, Social media use for journalism has several advantages and is quite important. First off, by reaching out to a variety of demographics on social media sites like Facebook, Instagram, Twitter, and LinkedIn, it broadens its audience
and reach. It also improves engagement and interaction by enabling readers to share, remark, and communicate with journalists directly. Thirdly, by displaying editorial procedures and offering up-to-date information on occurrences, it promotes openness and confidence. Fourthly, it makes news transmission faster and guarantees that viewers see critical information instantly. Finally, it encourages readers to engage with journalistic stories by utilizing multimedia elements such as photographs, videos, polls, and voting, which draws readers in and facilitates various forms of engagement. All things considered, using social media into journalism improves reader engagement through multimedia content, expands reach, promotes transparency, and improves audience interaction.

1.1 Research Questions
This study focuses on answering important questions:

a) To what extent do the websites of the Emirati newspapers in the study sample use multimedia elements (video, image, audio, infographics)?

b) What are the forms of pictures used in the websites of Emirati newspapers?

c) What are the forms of video used in the websites of Emirati newspapers?

d) What are the forms of audio clips used in the websites of Emirati newspapers?

e) What are the forms of infographics used in the websites of Emirati newspapers?

1.2 Importance of the Research
The significance of this study lies in the following points:

a) Explores a field of research that is new on account of the scarcity of studies that have addressed this field, especially in Arabic.

b) Keeps pace with modern trends in the use of multimedia in electronic news websites.

c) Contributes to understanding the use of news websites as a sample for multimedia provided by the Internet.

2. New Tools Used in Newspaper Production

2.1 Podcasts: A Rising Trend in Digital Journalism
The emergence of podcasts has significantly transformed the landscape of journalism, offering a multifaceted platform that enhances both the delivery and consumption of news and information.

Firstly, podcasts have facilitated an unprecedented expansion of audience reach for journalists, extending beyond the confines of traditional print and broadcast media. With the convenience of on-the-go access, busy individuals can seamlessly integrate news consumption into their daily routines, irrespective of time or location. (Riffe, et al., 2023).

Furthermore, podcasts enable journalists to explore a diverse array of subjects and storytelling styles, ranging from expert interviews to narrative storytelling and investigative reporting. This versatility not only broadens the scope of journalistic output but also fosters imaginative storytelling and in-depth analysis, thereby enriching the overall content experience. (Riffe, et al., 2023).

Moreover, podcasts foster deeper engagement and connection between journalists and their audience by virtue of their conversational nature. The intimate format of audio storytelling cultivates a sense of personal connection, leading to heightened engagement and loyalty among listeners. (Wilding, 2018).

Additionally, podcasts provide journalists with a platform for innovative storytelling techniques, such as serialized narratives, ambient noise, and immersive soundscapes. These creative approaches captivate audiences in ways that traditional media cannot replicate, enhancing the overall listening experience and sustaining audience attention (Riffe, et al., 2023).

In essence, podcasts represent a dynamic and evolving medium that has redefined the way news and information are disseminated and consumed. As journalists continue to harness the potential of podcasts, they are poised to further engage audiences, foster meaningful connections, and drive impactful storytelling in the digital age (Riffe, et al., 2023).

2.2 Artificial Intelligence in Journalistic Content
In the realm of media, the integration of artificial intelligence (AI) techniques into the creation and presentation of digital newspaper content has witnessed a surge in popularity, revolutionizing various aspects of journalistic practice (Mathias-Felipe, and Wilson, 2022).

One significant application of AI in journalism is automated content generation, wherein AI-powered programs leverage data inputs to produce news stories, summaries, or even entire reports. Through Natural Language Generation (NLG) algorithms, newspapers can efficiently generate substantial amounts of content on a large scale, including weather updates, sports recaps, and financial reports, without necessitating human input (Mathias-Felipe, and Wilson, 2022).
Additionally, AI systems play a pivotal role in enhancing user engagement and content distribution through personalized recommendations. By analyzing user behavior, preferences, and historical interactions, AI algorithms offer tailored content suggestions, thereby improving user engagement and retention by delivering relevant articles, videos, or multimedia content aligned with individual interests and reading patterns (Marconi, 2020).

Furthermore, AI-driven fact-checking programs are instrumental in detecting and validating erroneous or misleading statements in articles, thereby bolstering the credibility of newspapers, and combating misinformation. These programs leverage natural language processing (NLP) techniques to analyze textual content and cross-reference it with reliable sources and databases to ascertain authenticity (Mathias-Felipe, and Wilson, 2022).

Moreover, AI facilitates content aggregation and curation by gathering and selecting news articles from various online sources based on sentiment analysis, user engagement metrics, and trending themes. This enables newspapers to stay abreast of the latest events and attract readers with timely and relevant content (Eldridge II, & Franklin, 2018).

AI-driven image and video editing tools streamline the process of improving and altering multimedia content, such as photographs and videos, thereby saving time and resources while maintaining high-quality visual presentation. Computer vision algorithms automatically classify, categorize, and optimize graphic assets for online publication, ensuring an efficient workflow (Eldridge II, & Franklin, 2018) (Mathias-Felipe, and Wilson, 2022).

Additionally, AI technologies provide valuable insights into reader demographics, habits, and content preferences, enabling newspapers to refine their content strategy, advertising campaigns, and revenue-generating initiatives. By evaluating data from user interactions, social media participation, and website traffic, newspapers can tailor their offerings to meet audience demands effectively (Eldridge II, & Franklin, 2018).

Furthermore, AI-powered chatbots and virtual assistants engage with readers in natural language, helping, addressing queries, and enhancing the overall reading experience. These conversational AI interfaces foster consumer satisfaction and loyalty by providing personalized support and guidance (Mathias-Felipe, and Wilson, 2022).

2.3 Social Media: A Crucial Component of Journalism

Social media integration has revolutionized the landscape of journalism, presenting newspapers with unprecedented opportunities to engage with readers, expand their audience reach, and deliver news in real-time. (Hermida, et al., 2014).

One of the primary benefits of incorporating social media platforms into journalism is the enhanced reach it affords newspapers. Platforms like Facebook, Instagram, LinkedIn, and Twitter enable newspapers to connect with a broader readership spanning various demographics and geographical locations (Lasorsa, et al., 2012).

Additionally, social media allows newspapers to communicate directly with their readers through likes, shares, comments, and retweets, which further enhances engagement. This increases reader engagement by encouraging community interaction and discourse about news items (Lasorsa, et al., 2012).

Social media also plays an important role in providing real-time information, which helps newspapers quickly report breaking events and developments as they happen. This real-time feature makes sure that readers are aware of the most recent developments and stay informed (Lasorsa, et al., 2012).

Newspapers can also obtain important insights into reader preferences, interests, and activities by utilizing audience insights obtained from social media analytics. This information guides editorial choices and content strategies, allowing newspapers to effectively customize their products to match the needs of their readership (Lasorsa, et al., 2012).

A few instances demonstrate how journalism uses social media to its advantage without feeling awkward. Newspapers use social media to enhance their reporting with multimedia and personal accounts. Examples of this include employing user-generated content during major news crises and providing live coverage of events and conferences on platforms such as Twitter and Instagram (Deuze, & Yeshua, 2001).

But there are drawbacks and things to think about when using social media into journalism techniques. so journalistic standards and verifying information before disseminating it are crucial for newspapers to maintain their reputation and stop the spread of false information (Wasserman, 2019).

Newspapers also must deal with the intricacies of platform algorithms, which can affect the exposure of their material and the audience it reaches. Understanding these algorithms and strategically optimizing content in accordance with platform requirements are essential for maximizing engagement (Wasserman, 2019).

Moreover, social media integration necessitates the allocation of resources for community management, analytics tracking, and content production. Sustaining a strong social media presence and full use of its potential for journalistic activities requires proper staffing and financial allocation (Wasserman, 2019).
3. Literature Review

Several studies have addressed the issue of multimedia use in designing and producing media content on the websites of Arab and international newspapers, including:

A study by Puijk, et al. (2021) investigated the processes of convergence and innovation in five local newspapers in the inner region of Norway. Through an exploratory study on how the use of old local newspapers for digital technology is linked to organizational factors and business models, the study found that these local newspapers have adapted in certain ways, sometimes differing from their national counterparts. Each newspaper established a web edition and then implemented a payment system for granting further access. This change in the business model reflects a shift from clicks to subscribers. This change is also reflected in their journalism, with a focus on specific topics and more in-depth reporting. While attempts to produce video reports were costly, broadcasting local sports became an important element in attracting new subscribers. However, it was easier for those newspapers integrated into larger conglomerates to use these innovations because the parent company provided efficiency in analyzing viewer numbers and because innovations could spread from a local newspaper in the company to other newspapers (Puijk, Hestnes, Holm, Jakobsen, & Myrdal, 2021).

Mohamed's study (2020) aimed to investigate the use of multimedia elements on the websites of the Egyptian Al-Ahram newspaper, the British Times, and the American New York Times. The study monitored the use of video, audio, infographics, and image elements on the websites from January to December 2018. The study found that both the Times and the New York Times provided videos on their websites, with a percentage of 100%, while no videos were available on the Al-Ahram website. As for the audio element, neither Al-Ahram and the British Times used it at all on their websites during the study period, while it was heavily relied on by the New York Times. Regarding the availability of the infographic's element on the sample newspapers' websites, the Al-Ahram website did not use it at all during the study period, while it was available on the British Times website with a percentage of 94.2% and on the New York Times website with a percentage of 100%. The sample newspapers relied on pictures on their websites with a percentage of 100% (Mohammed, 2020).

A study by Labd (2018) aimed to determine the degree of interest of Palestinian websites in the art of infographics and its areas of use. The study revealed that the websites under consideration were interested in the art of infographics, although the degree and the form of the interest varied. The study showed that the websites being investigated showed interest in visual elements at a rate of 70.69%, while text elements were of interest at a rate of 29.31%. The news network, Al-Quds, ranked highest among the websites studied in terms of its interest in both visual and text elements, with relatively high percentages compared to the rest of the sample websites (Labd, 2018).

The aim of Khalil's (2016) study was to identify the attitudes of Sudanese journalists towards the use of multimedia technology and the extent of its utilization in the field of journalism, as well as the most important challenges and obstacles of multimedia technology in print journalism. The researcher used a questionnaire and personal interviews to collect data from the sample. The study's results showed that Sudanese newspapers have greatly benefited from current developments in the field of communication technology, leading to increased efficiency in their news reporting tasks and expanding the geographical coverage of events, in addition to speed and reach (Khalil, 2016).

A study by Vobić (2011) investigates the adoption of online multimedia news, the role of different newsroom organization models in producing online multimedia news, and the emergence of multimedia news formats on news websites of Slovenian print media organizations. Over the last decade, various multimedia news content has rapidly emerged on news websites of print media organizations, with online production organized differently and multimedia news formatted distinctly. A review of scholarly debates and research in media and journalism studies suggests that the institutionally structured features of online news production, as well as the technical and organizational attributes that influence what is represented in the medium and how it is done, have not yet been fully developed. Furthermore, based on a news format analysis, participant observation, and problem-centered interviews, the article concludes that there is a lack of vision in advancing the evolution of online production organization and news formats in the Slovenian print media arena, indicating the present marginal significance of online multimedia news (Vobić, 2011).

The research paper by Neil Thurman and Ben Lupton (2008) aimed to provide case studies on the changes that occur in newsrooms because of the shift towards consuming multimedia news on various platforms. To achieve this goal, the study conducted qualitative interviews with senior editors and managers from a selected group of national online news providers in the UK to describe and analyze their current experiences with multimedia and video storytelling.

The results showed that during a period of declining newspaper readership and television news viewing, editors are eager to adopt new technologies, which are seen as part of the future of news. At the same time, it is still said that text is the cornerstone of news sites, leading to changes in the rules and function of online video news when used on the Internet. The internal video complements the shared content, and the authors examine the resulting developments in newsroom training and employment practices (Thurman, & Lupton, 2008).
The study conducted by Mark Deuze (2008) analyzed the social and cultural context of multimedia in journalism and its significance for contemporary newsrooms and media institutions, as well as their current practices in Europe and the United States. It aimed to answer the question of how “multimedia” affects the practice and self-perception of journalists and how this process shapes and influences the emergence of the professional identity of multimedia journalism. The study provided an analysis of the professional and academic literature in Europe and the United States, using the concept of media logic as a theoretical framework. The study observed, based on the perspective of cultural competencies of news users and producers, the attraction of media usage rituals, both in terms of being engaged and separated at the same time, as well as multitasking and lack of attention at the same time. On the other hand, it also observed the reshaping of the relationship between news producers and consumers within journalism, representing the process of transitioning from individual news work to collective news work through departments. This is one of the important aspects of the competencies of multimedia journalists (Deuze, 2004).

Li’s (1998) study analyzed the content of three online newspapers in the United States and found that online newspapers prioritized textual information over visual information. Large graphics were more likely to appear on the homepage than on the article pages. The use of hyperlinks and multiple communication channels created a new environment for communication, involving both the host newspapers and the audience. Through interconnected links, the process of publishing newspapers shifted from a few individuals to many people, making it easier to access and distribute news. The interconnected news links allowed audience participation in producing newspaper content and providing information beyond the original newspaper content, indicating a shift in the balance of communicative power from sender to receiver (Li, 1998).

After reviewing previous research, this study is distinguished from others because it examines the degree of use of multimedia on Emirati newspaper websites and explains why it is important. For the first time, multimedia has been studied in the Emirates.

4. Methodology

This study belongs to the analytical descriptive studies, where it aims to study the different elements included in multimedia (video, audio, infographics, and pictures), which are widely used by websites in the current stage and represent a competitive field that distinguishes one medium from another. The study relies on the descriptive analytical method, to analyze a sample of Emirati newspaper websites (Al-Ittiihad, Al-Bayan, Al-Khaleej) in terms of their use of multimedia, in addition to relying on the comparative method to compare the sample websites through the multimedia used (video, audio, infographics, and pictures).

The Study Sample:

The Sample of this study is the Emirati newspaper websites on the Internet, while the study sample consisted of the oldest and most followed Emirati newspapers (Al-Ittihad, Al-Bayan, Al-Khaleej) within the period of the first quarter of 2023 according to the industrial week. The total number of the sample was 42, with 14 from each newspaper.

“Al-Khaleej” is issued in the Emirate of Sharjah, and expresses the direction of its local government, and “Al-Ittihad” is issued in Abu Dhabi, which is also close to the central Emirati government in the capital, but it generally expresses the vision of the Abu Dhabi government, while “Al-Bayan” is issued in Dubai and has the same orientation. Towards the government of this emirate. These newspapers are the primary source of information for other media outlets, as they are considered content creators directed to the target audience inside and outside the UAE.

5. Findings and Discussion

5.1 Multimedia On the Emirati Newspaper Websites

Table 1. Multimedia on the Websites

<table>
<thead>
<tr>
<th>The Newspaper</th>
<th>Multimedia</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Picture</td>
<td>Video</td>
</tr>
<tr>
<td></td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>Al-Ittihad</td>
<td>312</td>
<td>24.5</td>
</tr>
<tr>
<td>Al-Bayan</td>
<td>780</td>
<td>61.3</td>
</tr>
<tr>
<td>Al-Khaleej</td>
<td>180</td>
<td>14.2</td>
</tr>
<tr>
<td>Total</td>
<td>1272</td>
<td>77.9</td>
</tr>
</tbody>
</table>

Table (1) shows that the sample newspapers used multimedia to varying degrees, where Al-Bayan newspaper came in first place in terms of the number of media used, with 804 media and a percentage of 49.3%. Al-Khaleej newspaper
came in second place with 452 media and a percentage of 27.7%, and finally, Al-Ittihad newspaper came in third place with 376 media and a percentage of 23%.

The multimedia used in the sample newspapers varied in terms of type and quantity, where the newspapers relied on pictures primarily, with 1272 pictures used out of 1632 media and a percentage of 77.9%. Al-Bayan newspaper came in first place, with 780 pictures used and a percentage of 61.3% of the total number, followed by Al-Ittihad newspaper in second place, with 312 pictures and a percentage of 24.5% of the total number, and Al-Khaleej newspaper came in third place, with 180 pictures out of 1272 and a percentage of 14.2%.

The use of audio clips came in second place with 218 clips out of 1632 media and a percentage of 13.3%. Al-Khaleej newspaper came in first place with 212 clips out of the total number used and a significant difference of 97.25%.

Al-Khaleej newspaper distinguished itself by using audio clips in every news item and alongside every video as an additional feature. On the other hand, Al-Ittihad newspaper used only 6 audio blogs, representing 2.75% of the total number of clips.

The three newspapers used videos in third place in terms of usage, with 100 videos out of the total number of media used and a percentage of 6.1%. Al-Khaleej newspaper came in first place with 60 videos out of the total number and a percentage of 60%, while Al-Ittihad newspaper came in second place with 28 videos out of the total number and a percentage of 28%, followed by Al-Bayan newspaper in third place with 12 videos and a percentage of 12% of the total number. Infographics came in fourth place in terms of the use of multimedia, with 42 infographics and a percentage of 2.7% of the total multimedia used. Al-Ittihad newspaper came in first place with 30 infographics out of the total number and a percentage of 71.4%, followed by Al-Bayan newspaper in second place with 7 infographics and a percentage of 16.7%, and Al-Khaleej newspaper came in third place, with 5 infographics and a percentage of 11.9%.

These results indicate the diversity of multimedia use, which allows for a richer storytelling experience and caters to different audience preferences. If use of images and videos is also a good focus on visual storytelling, which can enhance reader engagement and comprehension.

The Union's extensive use of graphics also demonstrates its commitment to presenting complex information visually, which can aid in audience understanding and retention.

Also, Al Khaleej Al Aali’s use of audio clips indicate an innovative approach to storytelling, taking advantage of auditory elements to enhance the reader’s experience.

Overall, although there are differences in multimedia use across newspapers, the results reflect a commitment to incorporating diverse multimedia elements into journalistic content, catering to the preferences and interests of a broad audience in a limited way.

5.2 Forms of Multimedia Used by the UAE Newspapers (Samples) on Their Websites

5.2.1 Picture

Table 2. The Forms of Photos Used in The UAE Newspaper's Websites

<table>
<thead>
<tr>
<th>The Newspaper</th>
<th>Multimedia (Picture)</th>
<th>Total</th>
<th>Archive</th>
<th>Current Events</th>
<th>Sketch Pictures</th>
<th>Caricature</th>
<th>Storyboard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Al-Ittihad</td>
<td>104</td>
<td>21.8%</td>
<td>134</td>
<td>24.3%</td>
<td>36</td>
<td>24%</td>
<td>14%</td>
</tr>
<tr>
<td>Al-Bayan</td>
<td>336</td>
<td>70.6%</td>
<td>345</td>
<td>62.6%</td>
<td>88</td>
<td>11%</td>
<td>18.6%</td>
</tr>
<tr>
<td>Al-Khaleej</td>
<td>36</td>
<td>7.6%</td>
<td>72</td>
<td>13.1%</td>
<td>48</td>
<td>24%</td>
<td>40.7%</td>
</tr>
<tr>
<td>Total</td>
<td>476</td>
<td>37.4%</td>
<td>551</td>
<td>43.3%</td>
<td>172</td>
<td>13.5%</td>
<td>4.7%</td>
</tr>
</tbody>
</table>

Table (2) illustrates the types of pictures used in the materials published on the website, where pictures of current events ranked first with a total of 551 pictures and a percentage of 43.3% of the total number of 1272. They were followed by archival pictures, with a total of 476 pictures and a percentage of 37.4% of the total. Drawn pictures ranked third with a total of 172 pictures, including logo designs and other expressive graphics, with a percentage of 13.5%. Cartoon pictures came in fourth, with a total of 59 pictures and a percentage of 4.7% of the total number. Finally, only 14 illustrated stories were featured in the Al-Ittihad newspaper, representing 100% of the total number of pictures used.

The sample of the study realized the significant impact of using pictures in the news published on their websites, where pictures represent a rate of 1000 words and therefore are an important aspect of any news.

These findings provide a comprehensive analysis of the use of multimedia, specifically images, as the Union follows a balanced approach in the use of various types of images and the diversity in image types indicates a concerted effort to engage readers with a mixture of historical context, current affairs and artistic expressions.

As for Al Bayan newspaper, it is distinguished by its extensive use of multimedia, especially photos. It's a leader in
every category, with archive photos and current events being the standouts. High percentages of all image types indicate a strong multimedia strategy aimed at providing rich visual content to its audience. This approach is likely to enhance reader engagement and understanding of news stories.

Al Khaleej newspaper used images to a lesser extent compared to Al Ittihad and Al Bayan newspapers, but it still maintains a noticeable presence in the multimedia scene. Like Al-Ittihad, it focuses primarily on archival images and current events. The incorporation of sketches and storyboards adds variety to her visual presentations, although to a lesser extent.

Overall, these findings highlight the commitment of UAE newspapers to leveraging multimedia, especially images, to enhance storytelling and engage readers. The variety of image types reflects a thoughtful approach to meeting different readers' preferences and interests. In addition, the significant use of multimedia confirms newspapers' awareness of the importance of visual content in modern journalism, as it helps in conveying information effectively and attracting the audience's attention.

5.2.2 Video

Table 3. The Forms of Video Used in The UAE Newspaper’s Websites

<table>
<thead>
<tr>
<th>The Newspaper</th>
<th>Multimedia</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>Al-Ittihad</td>
<td>28</td>
<td>%28</td>
</tr>
<tr>
<td>Al-Bayan</td>
<td>12</td>
<td>%12</td>
</tr>
<tr>
<td>Al Khaleej</td>
<td>60</td>
<td>%60</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>%0</td>
</tr>
</tbody>
</table>

Table 3 shows the types of videos used in the materials published on Emirati newspaper websites. The videos used were limited to recorded videos only. Gulf News ranked first with 60 videos out of a total of 100 videos, representing 60%. Al-Ittihad newspaper ranked second with 28 videos, representing 28% of the total number used. Al-Bayan newspaper ranked third with 12 videos, representing 12% of the total number used. No live videos or motion graphics were observed in any of the three sample newspapers. Gulf News realizes the importance of videos and multimedia content combining sound and image to influence their target audience in presenting news, in addition to the importance of using audio clips for all news published, which represents a shift in how news is presented through websites.

Among these results, the large presence of video clips, especially on Al Khaleej Channel, reflects an awareness of the power of visual narration in attracting the audience’s attention and conveying information effectively.

The comprehensive integration of multimedia across all newspapers demonstrates a commitment to engaging audiences through diverse content formats, catering to diverse preferences and consumption habits.

These results indicate the proactive efforts made by UAE newspapers to adapt to the digital landscape and embrace multimedia as a means of enhancing the quality and accessibility of their journalism.

5.2.3 Audio Clip

Table 4. The Forms of Audio Used in The UAE Newspaper’s Websites

<table>
<thead>
<tr>
<th>The Newspaper</th>
<th>Multimedia</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>Al-Ittihad</td>
<td>6</td>
<td>%2.75</td>
</tr>
<tr>
<td>Al-Bayan</td>
<td>0</td>
<td>%0</td>
</tr>
<tr>
<td>Al Khaleej</td>
<td>212</td>
<td>%97.25</td>
</tr>
<tr>
<td>Total</td>
<td>218</td>
<td>%100</td>
</tr>
</tbody>
</table>

Table (4) shows the audio clips used on the three sample websites of Emirati newspapers. The study found that all audio clips were recorded, and no live clips were detected. A total of 218 recorded audio clips were identified and analyzed, distributed between Al-Ittihad and Al-Khaleej newspapers. Al-Khaleej topped the list, using recorded audio clips in all
its published materials on the website, including those accompanying videos, with a total percentage of 97.25% of the total number of clips. Al-Ittihad followed, with only 6 recorded clips, accounting for 2.75% of the total number. These results reflect a commendable effort made by all newspapers to diversify multimedia content, incorporating audio clips alongside other formats such as photos and video clips. This diversification enhances the overall wealth and attractiveness of its digital platforms.

Besides the clarity of engaging the audience well through the incorporation of audio clips, newspapers demonstrate an understanding of the importance of catering to diverse audience preferences. Audio content offers an alternative way to engage and is particularly attractive to auditory learners and those seeking immersive storytelling experiences.

In addition, the focus on audio clips, especially provided by Al Khaleej, indicates a commitment to innovation in digital journalism. Experimenting with new formats and technologies can help newspapers stay relevant and competitive in the increasingly digital landscape.

In conclusion, while there are differences in the use of audio clips between the newspapers sampled, the overall effort to incorporate multimedia content is commendable. Going forward, newspapers can leverage the strengths of audio storytelling to enhance audience engagement and innovation in digital journalism.

5.2.4 Infographic

Table 5. The Infographic Used in The Websites of The Emirati Newspapers

<table>
<thead>
<tr>
<th>The Newspaper</th>
<th>Multimedia (Infographic)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Informational infographics</td>
<td>Process infographics</td>
</tr>
<tr>
<td>Al-Ittihad</td>
<td>15</td>
<td>%68.2</td>
</tr>
<tr>
<td>Al-Bayan</td>
<td>7</td>
<td>%31.8</td>
</tr>
<tr>
<td>Al Khaleej</td>
<td>0</td>
<td>%0</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 5 shows the infographic used in the websites of the Emirati newspapers in the study sample, where the information infographic ranked first with 22 graphics out of a total of 42, with a percentage of 52.4%. In second place came the information infographic with 16 graphics, with a percentage of 38%. The step infographic and the timeline infographic ranked third, with two graphics each and a percentage of 4.8% for each. However, no comparative or geographic infographics were detected in any of the Emirati newspapers in the study sample.

Although Al-Ittihad newspaper was attentive to the use of infographics, it did not reach the desired level, as infographics are one of the forms of visual communication that helps simplify information and has an attractive visual impact. Visual memory is better than textual memory, and according to many studies, 90% of the information processed by our brains daily is classified as visual information. In addition, the speed of processing visual details (pictures) in the brain is 60,000 times faster than textual details, making it easier to convey information to the reading public faster and better.

These results reflect the variety of graphic types used by UAE newspapers, including informational, operational, timeline, and statistical charts. This diversity suggests a comprehensive approach to visual storytelling and information dissemination.

In addition to newspapers' efforts to highlight the results clearly and with good accessibility, infographics are known for simplifying complex information and making it accessible to readers. By incorporating infographics, these newspapers effectively communicate data and narratives in a visually appealing way, which may attract a wider audience, improve understanding, provide information, and support stories with relevant data. This enhances the credibility of their reporting and provides readers with additional context for understanding news events.

Overall, these findings highlight the positive efforts made by UAE newspapers in utilizing infographics as a visual storytelling tool, enhancing the quality and accessibility of their journalistic content.

6. Conclusion

The study focused on shedding light on the use of multimedia in the websites of Emirati newspapers (Al-Ittihad, Al-Bayan, Al-Khaleej). The results of the study showed that the websites of these newspapers have aimed to keep up with the development of communication tools in conveying events and presenting news to enhance the work of journalism. They have relied on multimedia in conveying journalistic material in several forms, and have become both audio and visual, which has made a qualitative leap in journalism in the United Arab Emirates. This has contributed to enhancing the credibility of news and the confidence of recipients in covering and reporting events. However, the Emirati newspaper websites in the study sample differed in their use of different multimedia formats.
Moreover, the results also indicate that despite the Emirati newspapers’ interest and awareness of the importance of using multimedia in conveying journalistic material in all its details, they focused mainly on using images (from current events) as the simplest form of multimedia, while completely ignoring the use of other innovative forms of images such as animations.

Additionally, the Emirati newspaper websites did not utilize live video interviews that display illustrative graphics, despite their strong media message and impact in conveying the news. Instead, the sampled Emirati newspaper websites relied solely on pre-recorded videos, ignoring the use of different forms of video that would make the news more attractive and easier to document and disseminate to the target audience. The same applies to audio clips, where the sampled Emirati newspaper websites did not use any audio clips other than recorded ones, despite the variety of audio clip types that could be relied upon in presenting the news, such as adding audio commentary to video graphics or presenting relevant audio clips to the news.

In addition, the results indicated the rarity of using infographics on the websites of newspapers in the study sample, despite its importance in documenting information, as it provides the largest possible amount of information in various attractive designs that help simplify the information and convey it smoothly to readers. Various forms of infographics can be used on newspaper websites in general, including list infographics, hierarchical infographics, comparative infographics, and other forms that can be relied upon to document information on topics that are difficult to present in traditional newspaper templates due to their inclusion of numbers, statistics, and branching subtopics, making their presentation through infographics more understandable to readers.

Based on the above, the study concluded that the websites of Emirati newspapers in the study sample did not take advantage of all the benefits of multimedia technologies, which could support digital journalism by providing innovative features and electronic advantages that improve the news service in line with current societal requirements in the face of ongoing developments.

To further improve the efficacy and reach of journalistic information, it is also critical to close the gap between traditional journalism and cutting-edge technology like social media platforms and artificial intelligence (AI). By automating processes like content generation, fact-checking, content aggregation, and tailored content suggestion, the use of AI techniques in content creation and presentation has the potential to completely transform the news production industry. This guarantees that users receive accurate and interesting material while also streamlining the editorial process.

Additionally, by using social media platforms as distribution methods, newspapers may engage in real-time discourse and community engagement around news articles by interacting with a wider audience. Newspapers may adjust to changing consumer preferences and expand their reach by sharing user-generated content, breaking news updates, and live coverage of events via social media platforms like Facebook, Instagram, and Twitter.

In addition, podcasts have become a potent tool for modern journalists, providing them with a different way to cover a wide range of topics and draw listeners in with captivating narratives. Journalists can enhance the journalistic experience by adopting podcasts as a means of reaching a wider audience, building stronger relationships with listeners, and experimenting with innovative storytelling methods.

To sum up, modern newspapers need to include artificial intelligence, make use of social media, and embrace podcasts to remain relevant, improve audience engagement, and successfully negotiate the always changing media landscape. Emirati newspapers may set themselves apart in the field of digital journalism by utilizing multimedia components in conjunction with these technological breakthroughs to produce stories that captivate and influence their readership.

The study recommends conducting further studies on the uses of multimedia in the design and production of media materials in both the Emirati and Arab newspapers, encouraging newspaper websites to use multimedia to keep pace with technological development, and implementing training courses on the use of multimedia in producing journalistic content for producers of journalistic materials.

Acknowledgments
Not applicable.

Authors contributions
Not applicable.

Funding
Not applicable.

Competing interests
Not applicable.
Informed consent
Obtained.

Ethics approval
The Publication Ethics Committee of the Redfame Publishing.
The journal’s policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review
Not commissioned; externally double-blind peer reviewed.

Data availability statement
The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement
No additional data are available.

Open access
This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).

Copyrights
Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

References:


