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	<p align="center">Title of research article</p> <p align="center">Online Storytelling Before and After AI: Shifting Realities in Text, Image, Video, and Audience Experiences</p>
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<p>Abstract</p> <p>This study explores how online storytelling has evolved before and after AI, focusing on changes in text, image, video, and audience experiences. It analyzes how digital media platforms adapt their informational strategies in response to AI challenges. This comparative content analysis explores the evolution of online storytelling strategies by theorizing the engagement of these platforms with the pressures and benefits of AI integration. The results reveal important new perspectives on how digital media might adapt to technological disturbance. The diversity of content published across digital press platforms and the disparity with variance between the size, type, and methods of displaying content among these platforms highlight the dynamic changes in audience experiences. Text remains the most common form of online storytelling, but images and videos are increasingly highly regarded in the news industry, reflecting a broader shift in how information is consumed and engaged with by audiences. Our work presents a new way of understanding the evolution of online storytelling through various forms, emphasizing the move towards more significant visual interaction without losing sight of the importance of text. By examining online storytelling before and after AI, this study underscores how digital platforms navigate and reshape audience experiences through adaptive content strategies in an evolving media landscape.</p>	
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1- Introduction

The shift to the digital age has also shaped other media and content industries beyond journalism – in print, broadcast, music, and gaming – reconfiguring every aspect of their operations and reflecting the changes seen in journalism, producing content, audience relations, and technology. They have revolutionized the creation, production, distribution, use, and storage of information. News platforms struggle to exist and excel in the current competitive news ecosystem (Mishra, 2017). Additionally, the move toward digital platforms and the global information explosion have created a swift and intertwined media environment. It meant that reporters had to match their hands with the changes in media technologies (Waisbord 2019; Pavlik 2001). This has expanded the “5Ws and a H” framework (Ambadas, 2024) so you can use it in data journalism, immersive storytelling, mobile journalism and AI-driven content creation. However, the boundaries between citizens, activists, professional journalists and corporations are being eroded by these developments, with a continuing central role in mediating information (Witschge et al., 2016). Into this shifting environment, scholars have adapted to study news produced by both traditional and non-traditional actors, as well as news producers and audience use practices. Online journalism is changing, and journalists along with scholars need new ways to produce high-quality, up-to-date content that is more accurately based on the media environment we work within (Ambadas 2016; Witschge et al., 2016).

This also leads to the apparent discussion of the basis of innovation –in more precise terms, the convergence with several new technologies and user practices – or, as highlighted even a couple of decades ago, its blend with journalism as a convergence product: the latter note might have served what journalism has turned into in present-day immediacy of the digital realm: the necessity for an engaging audience, for one, and at utilizing the prettiness of the similar empowerment processes that have reshaped their engagement in modern mass communication. The trick to linking the audience is excellent, compelling content; many contemporary digital newsrooms know this (Gravino, Servedio, & Tria, 2024). However, online journalism is more than articles since it includes video, audio, and graphics as interactive graphics. It also uses social media to enhance news coverage and manage the news. As stated by Langton and colleagues (2021), content personalization using AI and machine learning algorithms is a game changer for a personalized user experience without compromising the integrity of journalists. Intelligent recommendation engines are enabled by behavior analytics for content recommendations, and users do not need to sacrifice their privacy at any time. Adaptive Media; An intelligent content distribution platform that provides newsrooms with behavior analytics for intelligent recommendation engines without compromising user privacy. This customization is impossible without privacy-preserving frameworks in online journalism, which are limited in numbers but increasingly needed. As we measure the impact of content, online journalism certainly is changing. It is not just story views anymore; it is how long readers spend on a story.

2- Theoretical Foundation and Literature Review

Modern media theories have played a pivotal role in shaping the evolution of online journalism by examining changes in the production, consumption, and dissemination of news. One such theory, Castells's Network Society Theory (1996), explores how digital networks have restructured societal structures (Fernández-Ardévol & Ribera-Fumaz, 2022). This theory applies specifically to online journalism, whereby with the shift in the news system from the traditional media systems to the networked digital platforms, the news is no longer stored and forwarded or broadcasted on a scheduled basis. It does not have many flows, but it flows continuously across global networks, promoting greater audience participation, real-time updates, and access to different content sources, fundamentals of modern online journalism.

Agenda-setting theory (McCombs & Shaw, 1972) is another theory directly related to our study's subject because it assumes that the media occupy a pivotal position in determining what people perceive about a particular topic and ranking their importance before others in people's eyes for implementation. (Safran, Safar, & Almakaty, 2024). This theory has been made more truthful in today's digital news environment, where online journalism outlets and news aggregators decide which information is popular among the public and coordinate the entire process. Moreover, algorithms now considerably define what news we watch, discuss, or interact with more actively. This implies that media plays a role whenever news is broken and personalized to fit people's choice and subject matter of desired news delivery; such news would prevent the falsification and manipulation of the truth that we are made to believe and act upon.

Furthermore, the concept of disruption, which Christ Jensen put forward earlier in his theory of disruptive innovation, bears the most in unraveling the misfortune that traditional media companies are likely to fall into in the age of artificial intelligence. Based on disruptive innovation technology, new technologies are launched to reach the low-end or niche market before completely displacing the incumbent industries. (Felix, Lee, Eddie, & Yu, 2024). AI is a revolutionary technology in the field of online journalism which poses great threat to traditional production modes such as investigation and editing. This research seeks to investigate how online news outlets, including TMZ, Huffington Post, and Gizmodo, manage AI's challenges by changing their content creation and news delivery to retain the audience. The manner in which these platforms will be able to innovate while keeping the core values of Journalism will help explain how the traditional media will respond to technological advancement.

Ultimately, (Jenkins, 2006) argues that digital media allows audiences to engage with content actively, produce their own media, and collaborate with others (Ihlebaek, 2017). This change in online journalism represents a move away from being a passive audience and towards one that now acts both as a creator and distributor of content. This participatory culture finds expression in citizen journalism, user-generated content, news consumption as a social media interaction, and questioning traditional journalistic authority with the blurred lines between producers and consumers of news. (Cheriti & Mehiri, 2025, p. 9).

3- Methodology

3-1 Research Design and Sampling Method

This study uses a quantitative comparative content analysis to examine news presentation across five major online journalism platforms: HuffPost, Business Insider, Gizmodo, Mashable, and TMZ. Platforms were selected through purposive sampling based on visitor rates and online influence using data from Semrush and SimilarWeb. A two-tier sampling method was applied, combining purposive selection of platforms with random sampling of 1086 articles from each platform's main page over six months. This approach ensures a representative and unbiased analysis of the platforms' informational strategies (Johnstone, 1989)

Table 01 translates the relationship between two variables; the first is independent, which are the platforms of the study sample, and the second is dependent, which represents the subject of the message (content) and is related to the analytical study sample (1086) posts.

The tabulated units of analysis are the frequencies and percentages of the study community, which embody the type of content that the communicator chooses to publish, except the null values indicated by the symbol (-), which, of course, indicate the absence of political, economic, artistic or social and mixed topics on the Gizmodo platform, as well as the lack of interest of the communicators in the TMZ publications in religious, technological, mixed issues and others.

The general percentages, therefore, indicate the significant increase recorded in the percentage of posts with technological and artistic content, as they reached (36.18%) and (33.13%) respectively, which gives a clear picture of the reality of the message on online journalism platforms and enables us to compare this with the most popular topics in other media outlets in general. The overall variance reached its maximum range from about (0.55%) or (06) posts with mixed content to about (36.18%) or (393) posts with technological content and from zero value (-) or no technological posts on the TMZ platform to (22.92) or (249) posts on Mashable. On average, we find that the size of the presence of technological content is (78.6) posts, followed by artistic content (72), then economic (16.8), and political (16.8).

According to the median value, half of the total posts with technological content are more than (33), while the other half is less than that, and half of the total posts with artistic or political content are more than (27) and (21), respectively, while the other half are less than those two values.

On the other hand, the variance results show a high degree of dispersion in the distribution of technological, economic, and artistic posts, which means that they are less homogeneous than others.

By focusing on a different dimension of the data presented in the table. The general percentages indicate a significant increase in the percentage of reliance on the personal source of the journalist to obtain the material

to be sent on digital press platforms, compared to other sources. This is demonstrated by the majority percentage (98.95%), which indicates the growth of the activity of sending and shaping the message or content by the journalist, in addition to their interest in the journalistic scoop, which means making more efforts to obtain the message or information or create content.

The general disparity in the percentages has reached its maximum, from about (7.73%) or (84) posts on the Business Insider platform to (46.77%) or (508) posts from the Mashable platform that relies on the personal source as a primary reference in the process of publishing news and dealing with media content and its various diverse materials, about the percentage of the personal source to the total number of sources. In contrast, this disparity in the percentage of reliance on other sources of zero value (-) or no personal inclusion in both the Business Insider and TMZ blogs reaches (0.46%) or (05) non-personal inclusions on the Gizmodo platform.

On average, we find that the size of the study sample publications from a personal source is (215) and (2.2) for the average size of publications from other sources. According to the median value, half of the total content publications from personal sources are less than (119), and the other half are more than that value. Also, half of the content publications from other sources are less than their median value (02), while the other half are more than that value. Meanwhile, the variance results show a high degree of dispersion in the distribution of the size of personal content sources from the study sample's vocabulary, which means less homogeneity compared to other sources.

Moving over to the third part of the table, the data reveals the specific types of experiences targeted by online journalism platforms. The tabulated units of analysis reflect the kind of recipient in the communication process via digital press platforms, as the statistical data presents us with the reality of the communicator's interaction with the content of the message according to its recipient (journalists/communicators) target more specialized categories with their publications. The same applies to the general public, whose public life and interests the majority of them fit into the message.

The general variation in the percentages reached its maximum, from about (7.73%) or (84) publications from Business Insider and TMZ to (46.96%) or (510) publications in Mashable targeting a general audience, except the missing values indicated by the symbol (-), which suggests the absence of publications targeting a specific audience in each of Business Insider, Mashable, and Gizmodo. The percentages indicate a significant increase in the rate of journalists publishing general content, reaching (80.91%) or (879) posts. This means broad categories of recipients or users of online journalism platforms are targeted by messages with general content. On average, we find that the number of posts targeting a general audience is 175.8, and according to the value of the median, half of the number of posts targeting a general audience exceeds 96, while the other half exceeds that. On the other hand, the variance results show a high degree of dispersion in the first category, which means there is less homogeneity than its counterpart.

Visual content dominance across different online platforms

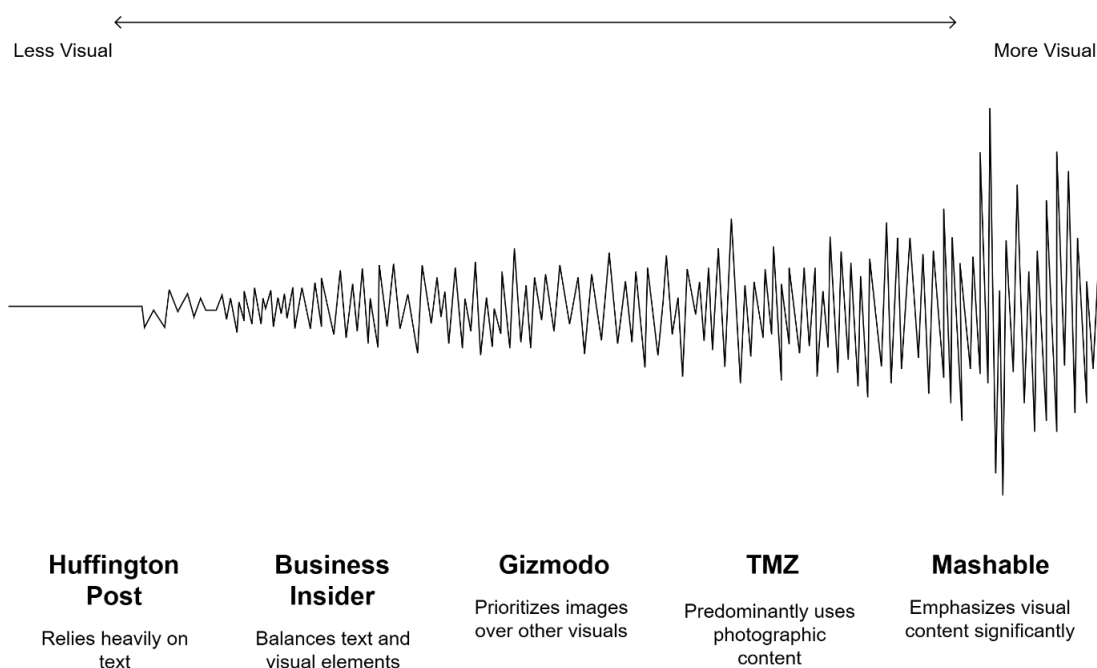


Figure 1

Self-designed Visualization of Prominent Online Journalism Platforms Profile in 2024.

Note. Data sourced from SimilarWeb (2024) and Semrush (2024).

Figure1; indicates the absence of topics in the form of audio or link in the publications of the study sample, which may be due to factors, the most important of which is the emergence of applications and platforms specific to audio and link media that are more effective than digital news platforms. The general percentages, therefore, indicate the significant increase in the demand for "text publishing" and the dominance of what we can call "the authority of electronic text" over other forms. This pattern, represented by the demand for using text in a way that exceeds other media, indicates, first of all, the nature of electronic platforms and the compatibility of the act of making news, whether recorded or written text, where the difference is only between the paper and electronic space, while the act remains the same. Therefore, it is natural for the proportion of text to increase compared to other forms. The overall variance reached its maximum range from about (3.22%) or (35) text posts in Gizmodo to (22.09%) or 240 text posts in Mashable, which is the same for the image medium in both platforms. In comparison, the variance reached its maximum range from about (0.82%) or 09 video posts in Business Insider to (2.76%) or (30) video posts in Mashable.

On average, we find that the size of the text presence in digital press platforms is 97.2 posts, followed by the image (96.8) and then the video (23.2). Depending on the value of the medium, half of the total posts in the text form are more than (50) while the other half are less than that, and half of the total posts in the image or video form are more than (49) and (26) respectively, while the other half are less than those two values. On the other hand, the variance results show a high degree of dispersion in the distribution of text and image posts, which means that they are less homogeneous than others.

A closer examination of the subsequent section of the table reveals notable trends in the shape and type of images utilized, further highlighting their strategic role in tailoring visual content to audience preferences and platform-specific requirements. The analysis units that we dealt with the statistical data reveal to us how journalists employ and use the image medium and the extent of benefit from the applications provided by computer programs for dealing with that medium (Photo editing software) or photographic devices and other means or mechanisms that activate the role of the image medium and help it spread the message, as it is a crucial media container and carrier among other media (text, sound).

However, the null values symbolized by the sign (-) are excluded from this statistical data, which do not indicate percentages, of course, but rather the lack of use by journalists of the animated image with the suffix (gif) or the form of icons that appear more dynamic and interactive than other forms and suffixes of images, as it is considered an element of attraction for the blog reader or visitor, and thus acquires excellent importance in embodying the content of the message, as it may be due to the lack of compatibility of the topic of the post with its embodiment in the form of an animated image, in addition to the lack of interest in the forms in which the contents of the posts and their inclusions are employed, as much as the direct focus on the topic of the post. Still, there will inevitably be great opportunities for Them to enrich the meaning and significance of the message's contents.

The overall variation in the percentages reached its maximum from about (54.05%) or (20) Business Insider posts containing a photograph to (71.42%) or (35) posts in Huffington Post, and from (4.58%) or (11) posts containing designed images to (20) or (07) posts containing designed images, and from about (2.91%) or (07) in Mashable to (32.43%) or (12) posts containing flash images.

On average, we find that the number of photographs is higher than the averages of other forms of pictures in the publications of the digital press platforms in the study sample, as it amounts to (76.6) photographs compared to (9.4) (10.8) for designed photographs and flash photographs, respectively. According to the median value, half of the pictures are less than 35, while the other half exceeds that value. Also, half of the number of different forms of photographs (designed photographs, flash) is less than (08,07), while the other half exceeds that value.

By examining the data on picture size, the table highlights significant preferences in dimensions, shedding light on how platforms prioritize visual clarity and aesthetic appeal. The general percentages indicate a substantial increase in the rate of journalists' focus on including images larger than (300x300) pixels, i.e., more than (7.95 x 7.95) cm, as they represent more than half of the size of published images, which means that their area exceeds 63.20 cm² or (17316.8) cm² combined, if the frequency of their appearance on the pages of digital press platforms is calculated, which reflects the extent of the richness of the content or message embodied in the image medium on the one hand, and an aspect of professionalism and control over the image as well by modifying its extension, dimensions, and dimensions, Dimensions, Sizes Type on the other hand. The general variation in the percentages reached its maximum extent from zero value (-) or no post in Gizmodo that contained images smaller than (100 x 100) to about (6.19%) or 30 posts in TMZ.

On average, we find that the size of images with more than (300 x 300 pixels) in digital press platforms is higher than the average size for images with (less than 100 x 100 pixels) and (from 100 x 100 to 300 x 300 pixels), where it reaches (54.8) images in the first.

In contrast, it goes (27.4) and (14.6) images in the second and third, respectively. According to the median value, half of the total size of images with (300 x 300 pixels) is less than 35 images, while the other half exceeds that value. In comparison, half of the total size of images with (less than 100 x 100 pixels) and (100 x 100 to 300 x 300 pixels) is less than (06) and (14) images, respectively, while the other half exceeds those two values. At the same time, the variance ratio indicates a high percentage of dispersion in the distribution of individuals in the third category sample, which means that it is less homogeneous than others.

The section of the table dedicated to video duration unveils significant variations in time lengths, underscoring how platforms tailor content to optimize viewer interest and completion rates. The tabulated analysis units reveal the time of video files' inclusion in digital press platforms and the implications of that for the journalist as the video and the image, its duration is linked to the extent of interest and its strength for the

sender in this case; that is, the longer the video, the more it indicates a type of interest of the journalist in the message and vice versa.

The general variation of the percentages reached its maximum from zero value in Business Insider, which was devoid of video files less than a minute, to about (7.75%) or (09) video files in TMZ and from (7.75%) or (09) video files in Business Insider, to (20.68%) or (24) files for the second category (from one minute to 5 minutes).

In addition, the general percentages indicate an increase in the rate of video files ranging from one minute to 5 minutes, reaching (48.25%) of the total number of video files included in digital press platforms. Any double (02) percentage of files less than one minute, which is a suitable time for the nature of the platform on the one hand and the content of the message on the other hand. On average, we find that the period for video files from one minute to 5 minutes reaches 18.6 files. Thus, it is higher than the two remaining periods (less than a minute) and (more than 5 minutes), as their averages reach (4.40) and not a minute (-) respectively, and according to the value of the median, half of the total period for video files ranging between one minute and 5 minutes is less than 19 files, while the other half exceeds this value, while half of the total period for video files (less than a minute) and (more than 5 minutes) is less than (0.5) and not a minute (-) respectively, while the other half exceeds that value.

The variance results also clearly indicate a high percentage of dispersion in the second category's vocabulary distribution, which means less homogeneity.

Discussion

This section examines how the research findings connect online journalism content to AI. It explains how the findings apply to discussions of current online journalism platforms and how to address AI shortcomings while preserving the principles of objectivity and fairness in reporting.

Characteristics of Content in Online journalism Platforms

This research contributes helpful insights regarding the key quality elements of content in online journalism, focusing on the users and the interaction with the content. It is imperative that we expand our understanding of three vital categories of content generalizations that foster user interaction in the digital realm: The most aspects of usability are; reach and accessibility, interactivity and customization/personalization. For real change, however, content has to be findable and consumable. (Avgousti and Papaioannou2023). The content must have a large audience, as well as engage both the new viewers and those who earlier may not have shown much interest. These are quite useful on several platforms, which eventually raises the post's reach and exposure. In turn, when the users observe active participation of their companions, their interest is piqued, and they follow the example of their friends. (Ijomah et al.2024). By focusing on these aspects, the online journalism platforms will be able to better the objectives and functioning thus actively contributing to the online journalism practice. A research shows that the online journalism tool might help increase readership loyalty while actively engaging readers. The addition of such elements, as polls, quizzes and multimedia is effective to increase users' activity. Analysis of prior studies shows that it is beneficial to promote tailored content to the audience in order to increase satisfaction and user retention.(Zayani, 2021)

As our study indicates, while the image plays a significant role in conveying the message, it complements the text, which remains the primary vessel for communication (Cheriti & Mehiri, 2025, p. 17), but some studies have proven that the text is superior to the image element in conveying the message, followed by the video element, not only through the sending activity but also through the activities of liking, commenting and re-sharing, where online journalism users interact with the image more (Kim & Yang,2017). The content material or the message format in the communication process is of great importance, as it feeds the latter and ensures its formation and continuity. Although the nature of the message is the nature of the medium itself, we notice a kind of difference or incompatibility -online journalism platform sample- in the use of message formats,

According to our findings, technological and artistic content are the most prominent across the online journalism platforms in that they take the largest part of the posts. Overall, technological posts were the most common and the next were those containing artistic content. These results are in line with the general increase

in hypertextuality and interactivity towards the consumption of news reported by Villagómez-Rodríguez (2023). This multimedia approach enhances the user experience, in tandem with the increasing mixture of informative, entertaining, and visually stimulating content that characterizes online journalism, addressing a wider audience and encouraging an active news environment (Wunderlich et al., 2022).

Research in communications has explored the direct and media effects of reach in more traditional mass media contexts. Content also needs to be accessible through interfaces or technologies that the audience can use, an idea that moves from one of the key functional criteria for the quality of content, in terms of standard gates to interaction and motivation (Onyejelem & Aondover, 2024). Interactivity is not a keyword but a reflection of the fact that meaningful engagement is an effective way of enriching content. In other words, interactivity may be defined as a set of interactions that result in a transfer of knowledge for at least one party. The more often people engage with one other, the more pronounced the possibility of learning and change. Part of this, which is also particularly impactful in terms of interactivity is what we can describe as participative experiences, that is, the integration of physical capabilities into digital platforms. Moreover, personalization is extremely important in the sense that it enables the creation of personalized content according the specific preferences of different consumers (Wang, 2021). Efforts towards personalization are motivated by consumer interests in both enjoyment and practical benefits. Ultimately the satisfaction that results in individual participation is crucial to the production of a content - as a good - which may be seen as high quality entertainment. By adopting these principles, not only will online journalism platforms boost the usability of its content for the user but the content's standard will boost the overall standard too.

Text

The study shows that text content is the most significant type of content on the digital news, which represent the high importance of the text as a media type. The lack of the audio or link post suggests the emergence of other digital environments for these formats. In details, the same study reveals that there is a variation in the number of text, image and video posts made on the different platforms and that most of the posts made are in the form of texts. This pattern underlines the fit of text to the digital environment and the general tendency of news to be produced in textual format. Methods for big data analysis on text data especially in the fast evolving domain of online journalism are being developed rapidly. Nevertheless, in terms of quantitative analysis of the presence of sensitive content in television journalism, quite a few obstacles persist, particularly, the challenges of massive transcription of spoken language. It also lead to the understanding that it is time to develop insights for the newer bigger fields of our traditional media while at the same time underlining the possitive potential for improving our current online journalism with the help of new approaches (de-Lima-Santos et al., 2024)

The use of text in online journalism has taken centre stage in the current society where media consumption is continuously changing. In the course of the advancement of technology in the dissemination and receipt of information, text has been a key component of the new age (Bell et al., 2017). In the same way, Kozhakhmetova et al. (2020) stated that media texts are coheres and integrated messages that can portray social phenomena and can be considered as an actual manifestation of the communication process. Previous works are in agreement with the present study and emphasize the role of the online journalism platforms analyzed in this study, especially when using text as the main content component.

Image

The point of view of the communicator in the media may be clarified in the text through some techniques such as editing decisions, hint words, images, ... (Cheriti, 2024, p. 913)

Also Journalists and designers in textual and online journalism organizations use photographs, infographics, and illustrations, among other media, to provide visual storytelling support or add extra relevance or layers of information (Hamza2023). A photograph can make news on its own, a diagram can complement an explanatory article, and an illustration can be the main vector for the cover of a digital magazine.

In this study, we discover that images are intentionally employed by journalists to improve the message they are conveying, and that they have a higher affinity for photographs as opposed to other forms of images such as animated or designed ones. The lack of some image formats, including GIFs and icons, also indicates a

narrow scope of a wider range of image materials. Furthermore, the trend towards bigger images is observed which may indicate the users' interest in clear and business-like image display. The data also presents a clear pattern of differences in image types and sizes, suggesting different methods of handling visual materials. It is crucial to turn to online journalism and pay special attention to the visual elements of images and their important position on the top of the headlines of most news articles. This is an opportunity to learn and appreciate how images influence the perception of news in great detail. (Bengtsson & Johansson, 2021) .

But with this increased focus on images, the detractors of this visual-dominant paradigm opine that visuals carry with it a danger of shallowing out textual density. They argue that overdependence on imagery may create the risk of distorting several issues by quantifying them since images can easily be given different meanings and can imply the complication of all the cases than required. (Huxford, 2023).

In addition, some scholars also remark on how possibly the visual content could propagate gender biases and stereotypes, because online images tend widely to highlight and intensify already existing biases in the society. (Guilbeault et al., 2024). Overall, we can say that whether images play a dominant role in newsprint or hyperlinked online journalism is a deeply matter of opinion.

Video

We find that video durations vary considerably, a reflection of how platforms adjust content to optimize viewership and completion rates. Data indicate that, on average, longer videos usually mean more interest in a message by journalists, but shorter videos are more common – especially in categories ranging from 1 to 5 minutes. Nearly half of all video content falls within this timeframe, making this suitable for both platform freeforms and message delivery. An extensive survey indicates that audiences prefer to watch a video over a online journalism, blog post or an infographic. The same survey predicted that by 2021 video will comprise 82 percent of consumer internet traffic. Journalists just need information to make those editorial choices. That's what metrics provide. To summarize, this evidence shows that video is necessary to increase emotional responses and to reinforce a message in the form of recall and information retention (Zhou et al. 2021).

There is a discussion regarding the nature of text and video in online journalism in the age of the digital revolution. Video has become popular due to the development in video technologies, the increased usage of mobile gadgets, social networking sites. In his study of video journalism, Bock et al. (2023) argue that video journalism is a social and material practice , reshaping the relationship between the journalist and the source (Bock, 2011).

The use of video in online journalism has faced some challenges that include; Resource constraints, Short term focus, and Lack of leadership and training. These factors lead to creation of low-quality videos which do not utilise the video as a medium to its full potential (Kalogeropoulos & Nielsen, 2017; Bock et al., 2023). Moreover, the length of video in online journalism is still unclear, as current research investigates whether news videos are shifting or staying consistent with traditional media habits.

Audience

Furthermore, the findings reveal the increased focus on the targeting of particular and, more so, general audiences with the total number of publications directed to the general public experiencing the most robust growth. Amidst this constantly evolving digital media trend in journalism, the beauty of the written word is seen grossing the audience of the contemporary journalism; when the way of delivering an information has altered completely, the word has to be used tactfully so the reader in the virtuality of digital news feels it and connects with it.

It was pointed out in the seminal research on the “platform press,” technology firms control the attention and advertising spaces; therefore, news organisations continue to reshape the structure as well as the mechanisms to fit into this new tech-world. (Bell et al., 2017). Given this perspective, the written content has become perhaps the central point of competitive advantage, since audiences expect to find interesting, insightful, and visually appealing stories in their informational consumption space. Further (Mishra, 2017) the study reveals that interest management has become a major worry for media organizations given that the

readers are now presented with lots of opportunities hence the targeting of both specific and broad audiences for a conducive online journalism platform presence.

Responding to AI Challenges in Online journalism

AI, especially through machine or algorithm-assisted methods, is revolutionizing the landscape of online journalism and deserves our full attention. The benefits are undeniable as it becomes an integral part of how news is produced, curated, personalized, and consumed. Journalists and news organizations or platforms are harnessing a multitude of AI tools to streamline various processes in news production and distribution (Onyejelem & Aondover, 2024). These tools are used in content creation, data analysis, news-worthiness determination, package news for users, engaging audience and manage comments among other functions. It's not a question of whether online journalism platforms should adopt AI or not; it is a requirement for surviving in today's dynamic world of journalism. AI can assist journalists in getting a clearer picture of what is going on in the world in less time than it would take a human to do so, as well as identifying patterns and trends in the data that are not always apparent to human journalists and which they may choose to ignore. In this context, the maximum accuracy within the shortest time possible seems to be deemed more important than the maximum level of disclosure. (Jamil, 2021).

The lack of content variety is a main deficiency in our study sample of online journalism platforms. For instance, the spectrum of topics and related involvement of readers decreases based on absence of the political, economic and social publications and entries. However, as it is, TMZ provides a minimal attention to such important topics as technology and religion. In order to fill these gaps, we could create content using AI to diversify. AI driven recommendation systems could mine on user preferences and recommend topics that were under represented such as politics and economics. Natural language processing (NLP) algorithms could also search for content holes and create material during missing areas such as reach and engagement across platforms.

Furthermore it is quite evident that computer generated writing poses no risk and that in the context of content writing, AI has no advantage in choosing between options. But, the negative information about such events may contribute to the long-term changes of readers confidence. These events could also raise questions regarding how artificial intelligence might be utilized in more indirect ways to control. AI is not capable of identifying and understanding data as effectively as a human being does (Dong et al., 2020). Such could result in unfairness based on liability or even undue discrimination.

Conversely, our study reveals the major shortcomings in online journalism platforms, the most significant of which, in our perspective, is the extreme dependence on individual sources to produce the content; that is to say, the journalist's individual work of acquiring the news and monitoring its contents. This reality, while reaffirming the need for journalistic independence and displaying his personal effort, in turn exposes the narrow range of views and sources. Here in this context, the overwhelming importance of personal sources might inadvertently strengthen bias, restrict the range of content and, narrow the range of perspectives on the opposite side of the news story. This implies that such an approach to sourcing can create an echo chamber effect, where certain common narratives are being reinforced, causing the platform and the depth of its news coverage to lose credibility in the eyes of its readership.

As for this problem, AI presents a potential in increasing content range by using the automated systems that collect and analyze more diverse number of opinions. Conventional information technologies in the form of recommender systems and natural language processing can help determine which topics have been left uncovered and what additional sources, opinions of industry professionals, or other forms of data might be useful. By adopting the use of machine learning analysis in media outlets, journals, and social media, digital press platforms will be able to expand their database and feed the public a more diverse and inclusive view of the events.

Furthermore, the challenges posed by online journalism, including the need for enhanced digital literacy among journalists and audiences alike, are critical for navigating the complexities of the digital information landscape. we argues that while digital journalism offers new engagement opportunities, it also demands a higher level of statistical and digital literacy from journalists to effectively utilize data journalism techniques.

This necessity for continuous learning and adaptation underscores the evolving nature of journalism in the AI age.

Conclusion

This study has drawn attention to the emerging dynamism on how online journalism operates, with a markedly preference for text-based articles and images, alongside videos to make content more accessible, appealing, and effective. Interactive and personalization factors increase audience engagement but lack of content richness variety and excessive use of self-sources may hinder equal representation. The findings highlight the requirement to solve these issues through AI-enabling the generation of content, advanced data analysis, and individual experience. In order to reinforce thematic offerings on online journalism platforms, the publication of this research suggests a reorientation towards utilizing AI to detect underserved subjects and producing corresponding content. More interactivity by adding dynamic features with multimedia can also make online journalism platforms interesting to the audience. These strategies can help online journalism platforms continue to function, maintain their relevance and standing among other media outlets, and reach a more and broader audience. Thus, they can ultimately ensure their existence in the competitive and rapidly changing digital space.

Limitations and Future Directions

Limitations of the study include the small sample of online journalism platforms as well as our lack of focus on the level of audience engagement and participation. Future research should explore the role of AI in content diversification, its impact on journalistic practices, and its ethical implications.

Conflict of Interest

The authors declare no conflict of interest. All observations, interpretations, and recommendations presented in this article are based on professional experience and research conducted independently.

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Table 1
The Nature and Source of Content in Online Journalism Platforms:

Platforms	Political	Sports	Economic	Religious	Artistic	Technological	Social	Mixed	Total	Personal Sources	Other Sources	General audience	Specialized audience
Huffington Post	36 (3.31%)	09 (0.82%)	09 (0.82%)	06 (0.55%)	27 (2.48%)	12 (1.10%)	18 (1.65%)	06 (0.55%)	123	119 (10.95%)	04 (0.36%)	105	18
TMZ	03 (0.27%)	12 (1.10%)	03 (0.27%)	-	234 (21.54%)	06 (0.55%)	15 (1.38%)	-	273	273 (25.13%)	-	84	189
Business Insider	21 (1.93%)	09 (0.82%)	06 (0.55%)	03 (0.27%)	06 (0.55%)	33 (3.03%)	06 (0.55%)	-	84	84 (7.73%)	-	84	-
Mashable	24 (2.20%)	42 (3.86%)	75 (6.90%)	09 (0.82%)	93 (8.56%)	249 (22.92%)	18 (1.65%)	-	510	508 (46.77%)	02 (0.18%)	510	-
Gizmodo	-	03 (0.27%)	-	-	-	93 (8.56%)	-	-	96	91 (8.57%)	05 (0.46%)	96	-
Total	84 (7.71%)	75 (6.83%)	93 (8.54%)	18 (1.64%)	360 (33.13%)	393 (36.18%)	57 (5.24%)	06 (0.55%)	1086	1075 (98.95%)	11 (1.00%)	879	207
												80.91	19.05

Note: This table illustrates the distribution of content types and sources across selected digital platforms. Categories include political, economic, technological, and social content, with percentages reflecting each platform's contribution. Personal and other sources of content are also detailed for comparison. Additionally, a column is included to highlight the targeted audience for each platform, distinguishing between general and specialized audiences.