AI Applications for News

Sawsan Taha 1*, Rahima Aissani 2*, Rania Abdallah 3*
*Mass Communication and Media department, Al Ain University, Abu Dhabi - UAE
1 sawsan.taha@aau.ac.ae
2 rahima.aissani@aau.ac.ae
3 rania.abdallah@aau.ac.ae

Abstract—This paper explores the growing influence of Artificial Intelligence (AI) within the news media landscape. It highlights how AI has infiltrated news organizations, subtly shaping news production and dissemination processes. The paper examines various AI applications currently used in newsrooms, including. The paper acknowledges both the benefits and challenges of AI in news media. While AI fosters efficiency and combats misinformation, ethical considerations regarding bias and data privacy require careful attention. Finally, the paper provides a concise overview of several AI tools used in newsgathering, summarization, fact-checking, and content generation

Keywords— Artificial intelligence, Applications, News, Media, Journalism, Fake News.

I. INTRODUCTION

Within the contemporary information ecosystem, multifaceted incarnations of Artificial Intelligence, such as machine learning, have exerted a substantial, yet frequently clandestine, influence for a considerable period. As individuals exhibit a growing dependence on search engines and social media platforms to procure news and other informational resources, these platforms have demonstrably amplified their utilization of AI technologies. This translates to the filtering, curation, ranking, and moderation of content encountered by users. This necessitates the implementation of intricate algorithmic systems that meticulously analyse user predilections, behavioural patterns, and a constellation of other variables, ultimately shaping the information landscape in its entirety. However, in recent years, AI has infiltrated the very heart of news organizations – crucial gatekeepers of the public sphere and central actors within our information ecosystem [1]. This infiltration has often transpired surreptitiously, with the technology gradually permeating news production and dissemination processes, frequently eluding the cognizance of both readers and journalists themselves. News organizations have strategically deployed AI technologies to tackle a multitude of tasks, encompassing information discovery, verification, and content categorization. These implementations empower large-scale examinations of social media and news coverage, enabling the monitoring of public interest in specific subject matters, and ultimately facilitating various avenues of (investigative) reporting.

Several research studies have found that most news companies, have adopted artificial intelligence since 2021. For instance, [2] 57% of companies reported the adoption of artificial intelligence, and 67% of media leaders in 53 countries said they use artificial intelligence to choose stories or make recommendations to some extent [3].

For example, The Associated Press interviewed editors, journalists, media executives, and marketing managers in more than a hundred U.S. newsrooms to seek their opinions on the workflow of artificial intelligence and related technologies. The aim was to understand how to benefit from artificial intelligence during the production of news stories and what tools and applications are most useful in the field. The results found that respondents preferred human-supervised tools and systems that maintain the confidentiality and privacy of sources, provided they have low cost, low educational curve, and low maintenance. Noted that news media experts are beginning to document the increasingly crucial role of AI for news publishers and technology companies.[4] There is growing evidence that AI technologies are routinely used in both social platform algorithms and in daily news work. Generative AI now performs various tasks in newsrooms, such as creating draft articles, streamlining newsworthy information, and visually illustrating articles. AI tools have transformed journalism by combining storytelling with data analytics.

For Artificial intelligence exacerbates what is already an existential moment for journalism. While promising new opportunities, it also brings significant threats to information safety. Technological innovation, by its very nature, does not lead to progress: it must be guided by ethics to truly benefit humanity. To protect the right to access information, journalists and news organizations must unite their efforts to ensure that ethics guide the management and use of the most transformative technology of our time. [5]

In the field of news dissemination, said that Artificial Intelligence (AI) functions as a comprehensive designation encompassing a multifaceted array of technological advancements. For many, it signifies the computational emulation of human actions and competencies within well-defined domains. [6]

In this paper, we investigate the integration of generative AI into the multifaceted workflow of human-AI collaboration in newsrooms. We also clarify the ethical and journalistic values that must be negotiated during the design and development of technology and interfaces to ensure effective use in the field. Our research aims to illuminate the impact of AI applications on news media and communication practices. We also seek to examine how these applications affect the production, reception, and exchange of media content by the public. This objective can be encapsulated in the following questions: What are the most prominent features of artificial intelligence applications in news media?

II. METHODOLOGY

A descriptive approach has been used in this study, which talks in detail about the artificial intelligence applications that different media houses in the news industry have been using. It also points out the advantages of using AI in information extraction, news editing, news summary writing, and image and video creation. The imbalance and problems of standards, power relations, and warnings are formulated by the academics and professionals for the safe and effective use of these applications and tools, discussing concerns and warnings against journalists and news workers due to the spread of fake news, bias, and ethical and value concerns. In

this study, in-depth digital observation has been used to index and study the different tools.

A. Sample Used in the Study:

The sample was selected through a random sampling process from a pool of AI applications identified by the researchers, with additional consideration given to the relevance of these applications to the study's objectives. The researchers first identified a broad pool of AI applications available at the time of the study. From this pool, applications were selected using random sampling methods to reduce bias. However, the researchers also applied certain criteria based on their professional viewpoints and the relevance of these applications to the study's objectives. This ensured that the sample was not only random but also representative of the AI applications that were most pertinent to the research question

B. Validity:

This will be a valid research study because it clearly and fully explains and illustrates the most relevant AI applications and tools implemented in the news industry, regarding multiple media outlets. By presenting and discussing the warnings and threats generated by the implementation of AI in the news field, the paper provides a balanced review, meaning that its internal validity is enhanced. More aspects of AI impact are described whether related to writing, editing, production, or content distribution; therefore, its construct validity is very high.

III. LITERATURE REVIEW

The incorporation of the AI concept in the news media sector has revolutionized news production, dissemination, and consumption. Informed by this research question, the following discussion is a literature review on the different AI uses in news media and their implications on Journalism, personalization, content-fact checking, and audience engagement. The review incorporates ethical concerns and challenges on AI tools in news media. Artificial Intelligence applications are products of the Fourth Industrial Revolution, which conceptualizes the integration of all facets of life with the digital systems. The integration produces unlimited abilities, performing tasks relating to collecting information and executing them based on information and unimaginable details across the networks. The applications perform their functions more accurately and faster than the human brain. Success has been achieved, and several problems are reported to be solved and results attained with an improvement in efficient and effective ways when the applications are used in healthcare, education, and economic control. [7]

The importance of AI tools and applications in media industries is strengthened by the deep impact that these industries have on societal knowledge, trends, and behaviours, along with the creative nature of the field. Rapid developments in media have accompanied the adoption of the applications of AI, which are still at their early stages in the media environment.

A. AI in News Production

AI has made a significant improvement in the efficiency of news production. Automated journalism, also known as "robot journalism", is a practice in which news is written by the AI algorithms with minimal human intervention. Front runners like the Associated Press and Reuters have made use of AI for writing earnings and sports summaries. Automated journalism can produce news at a scale and speed unattainable by human journalists, which allows media organizations to cover a wider variety of topics. [8]

Another popular application is a platform called Wordsmith, developed Automated Insights, that produces natural language narratives from data. [9] points out, that the capability has come in handy with configuring thousands of earnings reports from AP. This shows the capability of the AI to handle routine news tasks efficiently. This automation frees journalists to focus on more complex and investigative reporting.

B. AI in Content personalization

Artificial intelligence has transformed how audiences consume news through AI-driven content personalization. By utilizing algorithms such as machine learning tools, a news organization can evaluate user behavior and preferences in delivering tailored news. Such an approach keeps the audiences engaged and satisfied in their quest for the news.

For example, Google News and Flipboard are some popular news-feed curation platforms. AI-powered algorithms understand reader preferences and reading behavior to offer a personalized news feed. According to Bartholomew & the collaborative filtering and natural language processing tools used by such systems will give article suggestions matching the users' interests. The result is an enthralling and personal news consumption that increases user stickiness and loyalty. [10]

C. AI in Fact-Checking and Detection of Fake News

The proliferation of fake news and misinformation has been a major challenge to the news media industry. AI has emerged as a vital tool in coping up with this menace by automated fact-checking and detection of fake news. These systems can scan through large data and analyze patterns that indicate false information.

Fact-checking organizations like PolitiFact and FactCheck.org have incorporated AI tools to strengthen their fact-checking processes. According to and AI systems leverage NLP and machine learning to evaluate the trustworthiness of the sources of news and check the authenticity of the news in question. [11]

D. AI in Engaging and Interacting with the Audience

AI has completely revolutionized user engagement, allowing the audience to have richer and more engaging news experiences. AI-enabled chatbots and virtual assistants have made it possible to serve up-to-date notifications and news alerts in a personalized manner.For instance, the BBC chatbot on Facebook Messenger offers news summaries and answers questions posed by users, thereby making the news experience more engaging and conversational.Moreover, other AI-based platforms, like Wibbitz and Lumen5, allow news organizations to create video content that increasingly captures audience attention. Wibbitz's and Lumen5's platforms automatically convert text-based news articles into short, professional news and production descriptions. For instance, such platforms use AI to automatically convert text articles into brief videos, synced with relevant images, animations, and voiceovers. As claimed by these features translate into tools that harness the power of technological change to reach broader audiences and address the emerging trend of video demand. [12]

E. Ethical Considerations and Challenges

While AI offers numerous benefits to the news media industry, it also raises ethical considerations and challenges. One primary concern is the potential bias in AI algorithms. As points out, AI systems can inadvertently perpetuate existing biases in data, leading to biased news coverage and

reinforcing stereotypes. [13] It is crucial for news organizations to ensure that AI algorithms are transparent, fair, and accountable. Another challenge is the impact of AI on employment in the journalism industry. The automation of routine tasks may lead to job displacement for certain roles. However, as argues, [14] AI can also create new opportunities for journalists by enabling them to focus on more complex and investigative stories. [15] Privacy concerns are also paramount, especially in content personalization. AI systems collect and analyze vast amounts of user data to deliver personalized news. It is essential for news organizations to implement robust data protection measures and ensure user consent and transparency in data collection practices. In general, tthical considerations in using AI in news media are complex and evolving, as they encompass broad issues like bias, transparency, and accountability, which can vary across different applications and change over time; therefore, addressing these concerns individually for each tool is challenging and may not fully capture the dynamic nature of these ethical implications. The interconnected nature of news gathering, writing, and editing, all influenced by AI, makes it difficult to isolate and comprehensively address ethical challenges specific to each individual application without considering their broader impact on the news ecosystem.

F. Future Directions

The future of AI in news media is promising, with ongoing advancements in AI technologies poised to further revolutionize the industry. One emerging trend is the use of AI in investigative journalism. [16] AI algorithms can analyse large datasets to uncover hidden patterns and correlations, assisting journalists in their investigative work. For instance, the International Consortium of Investigative Journalists (ICIJ) used AI to sift through the Panama Papers, revealing intricate networks of offshore entities. [17] addressed another potential application is the integration of AI with augmented reality (AR) and virtual reality (VR) to create immersive news experiences. AI can enhance AR/VR content by generating realistic simulations and interactive elements, providing audiences with a more engaging and informative news experience.

IV. DISCUSSION AND ANALYSIS

A. AI Applications for Newsgathering

Newsgathering is associated with finding and investigating potential sources of newsworthy interest before the journalist or editor decides to continue developing them into a full story . This entails the initial discovery of the story from sources such as the journalist's personal network, press releases, administrative documents, etc. Journalists then engage in a process of scrutiny and understanding of meaning as they try to ascertain whether the initial introduction is amenable to development into a story [21]. Modern newsgathering algorithmic support systems have supported content discovery through statistical assessments of potential clients' "newsworthiness" as well as through automated detection of anomalies . [22]. Systems have also been proposed to support further meaning making based on possible frameworks and narratives about the prospective client Similar to this earlier work, [23] we are not saying that generative AI can replace existing routines for news discovery and meaning extraction, but we believe that it can complement them in the ways described below. [24]

TABLE 1: AI APPLICATIONS FOR NEWS GATHERING

Application	Description	Advantages
SocialBob News	is a news aggregation platform that offers personalized and easy-to-understand news summaries. It uses advanced AI to deliver personalized news feeds based on more than 50 interest categories.	Quick News Briefs: Provides 40-word news briefs. Time Saving: The platform has saved over 70,000 minutes for busy users. Multiple categories: You can choose from more than 50 topics such as technology, science, business, entertainment, and sports. Custom Newsfeed: Users can focus their newsfeed on their interests. Available on multiple platforms: News can be accessed via Telegram or Twitter. Continuous update: The user stays informed no matter where they are.
Concise AI	Concise AI is an intelligent assistant for monitoring and analysing news, scanning thousands of news sources to deliver a personalized news feed every morning that suits the user's interests.	News monitoring and summarization: AI is used to monitor and summarize news. Daily Personalized News Briefs: Provides personalized news briefs daily. Save time: The assistant reads the news so the user doesn't have to. Increased productivity and efficiency: Helps stay on top of industry news and competitive information. Useful for market research and PR: Provides valuable insights for market research, sales prospects, and more.
NewsGPT	NewsGPT is the world's first AI-generated news site, promising to deliver an honest and refreshing news experience by providing fact-based content directly to the user's inbox.	Countering Fake News: Focuses on providing reliable information to combat fake news. Continuous update: Provides regularly updated news content. Customized news experience: Relies on artificial intelligence to deliver personalized news to the user's interests.
Aylien	Aylien is an AI-powered news platform that provides news aggregation, research, and surveillance capabilities to data teams and analysts, aiming to help companies uncover important insights from global news data.	Access to multiple sources: Provides access to 80,000 news sources and 1.5 million articles per day. Entity and Sentiment Analysis: AI is used to analyze entities, sentiments, and trends. Easy integration: Provides application programming interfaces (APIs) and SDKs for easy integration. Flexible subscription plans: Offers flexible subscription plans that suit the needs of different businesses.

Nüz	Nüz is a video news app that provides short, informative video summaries of top stories. It aims to give users a balanced perspective of world events in a fast and easy-to-understand format.	Short Video Summaries: Provides quick and easy-to-understand video summaries. Balanced perspective: Aims to provide a balanced perspective of world events. Dedicated development team: Developed by a small team of 3, Nüz aims to change how people consume news.
Fact-Checking	Fact-checking is a time-consuming and costly task for humans. As misinformation and fake news spread online, readers are increasingly appreciating the accuracy of their news sources. AI algorithms can quickly verify data and validate information from different sources, making it easier to spot potential errors or lies.	These systems can compare claims to extensive databases of trustworthy information, making the fact-checking process faster and Working together, AI and human fact-checkers can deliver reliable and accurate fact-checking results. This collaboration allows the speed of technology to be combined with the explanatory abilities of humans, leading to an effective fact-checking strategy.
ClaimBuster	ClaimBuster is an artificial intelligence system developed by the University of Texas at Arlington, which aims to automatically validate political and news statements. It relies on natural language processing (NLP) techniques to identify, classify, and evaluate statements	Real-time analysis of statements: It can analyze political speeches and statements as soon as they are issued. Prioritize: Identifies the statements that are most important and most likely to be verified. Easy integration: It can be integrated with news platforms and content management systems to automatically analyze statements.
Factmata	Factmata is an AI platform that aims to verify information and combat fake news. Machine learning techniques are used to analyze and classify texts based on their credibility and accuracy	Advanced Analysis: Machine learning is used to analyze texts and determine their validity and accuracy. Provide alerts: Alerts users about articles and news that contain misleading information. Integration with other systems: It can be integrated with news platforms and social media sites to analyze content on an ongoing basis.

B. AI applications for news article generating:

Leverage natural language processing and machine learning algorithms to create coherent and contextually accurate articles. These tools analyze data, generate insights, and produce human-like content, enhancing efficiency in newsrooms. They support journalists by automating routine reporting, enabling them to focus on investigative and creative tasks.

TABLE 2: AI APPLICATIONS FOR NEWS ARTICLE GENERATOR

Application	Description	Advantages
OpenAI'sGPT-4	GPT-4is a language model developed by OpenAI. He relies on deep learning technology to create humanized texts based on the text input provided to him. GPT-4 is one of the most advanced models in the field of text generation. [22]	Ability to generate complex texts: Can write detailed and comprehensive news articles covering various topics. Context understanding: possesses a high ability to understand context and generate consistent and coherent texts. Flexibility of use: It can be used in a variety of applications including journalism, marketing, and education.
Wordsmith by Automated Insights	Wordsmith is an automated text-generation platform that uses AI technologies to generate reports and news articles from data. They are widely used in the financial industry, sports, and many other fields.. [22]	Generate texts based on data: It can transform raw data into detailed and understandable texts. Integration with other systems: It can be easily integrated with other databases and data collection systems. Customize texts: Allows users to customize texts and reports according to their specific needs.
Heliograf by The Washington Post	Heliograf is an artificial intelligence system developed in-house by The Washington Post. It is used to generate news articles automatically, especially to cover recurring news events such as sports results and elections	Quick coverage of recurring events: It can generate news articles in near-real time, ensuring quick coverage of events. Big Data Analysis: It can handle and analyze large amounts of data to generate accurate and reliable texts. Saving time and effort: It helps journalists focus on more complex and analytical tasks while the system writes basic reports

C. AI applications for image generators:

Utilize advanced algorithms and deep learning techniques to create realistic and creative images from textual descriptions or existing images. These tools can produce artwork, enhance photo editing, and generate visual content for various industries. They offer vast potential for creative professionals, advertising, and media by automating and accelerating the image creation process.

TABLE 3: AI APPLICATIONS FOR IMAGE GENERATORS

Application	Description	Advantages
DALL-Eby OpenAI [25]	DALL-E is an AI model developed by OpenAI, capable of creating artistic images from text descriptions. He was trained on a huge collection of images and associated text, enabling him to generate high-quality and diverse images based on simple text input	Generate diverse artistic images: Can create images in a variety of artistic styles based on a textual description. Fine detail: Able to produce images that contain fine and complex details. Creativity and innovation: It can generate innovative and unique images, aligned with the textual description entered.

Canva with AI Integration [26]	Canva is a popular graphic design platform that uses artificial intelligence to simplify the process of designing images and graphics. Provides easy-to-use tools that enable individuals to quickly create professional designs	Easy UI: Provides an intuitive and easy-to-use user interface, even for beginners. Intelligent Design Tools: Uses AI to suggest designs and enhancements to graphic works. Ready-made templates: Contains a wide range of ready-made templates that can be customized according to individual needs.
Tableau with AI Integration	Tableau is a leading data analysis platform that uses artificial intelligence to generate advanced graphs and data visualizations. It helps companies analyze and understand big data through visual visualizations that are engaging and easy to understand	Intelligent Data Analysis: AI is used to analyze data and provide actionable insights and recommendations. Generate advanced graphs: It can create complex graphs and data visualizations with simple clicks. Integration with data sources: Easily integrates with a wide range of data sources such as cloud and on-premises databases.
Piktochart	Piktochart is a visual design tool used to create infographics, reports, and presentations. Piktochart provides a variety of templates and widgets that make the design process easier, even for beginners.	Intuitive user interface: An easy-to-use interface that enables users to create professional designs without the need for previous experience. Ready-made Templates: Contains hundreds of ready-made templates that can be easily modified and customized. Data Integration: Data can be easily entered from multiple sources and create interactive data visualizations.
Visme	Visme is another visual design tool that allows users to create infographics, presentations, and infographics. Visme uses AI to analyze data and make recommendations for improving designs	Advanced design tools: Provides a wide range of tools to create complex and engaging designs. Data Integration: Data can be pulled from spreadsheets and other databases to create accurate data visualizations. Rich Design Elements Library: Contains a huge library of icons, graphics, and images that can be used in design.
Infogram	is a graphic design platform based on artificial intelligence, which allows the creation of infographics, graphics, and data visualizations easily and effectively	Intuitive user interface and ready-made templates: Infogram provides a user-friendly interface with a wide range of ready-made and customizable templates. Data Integration and Content Interaction: Data can be imported from multiple sources and add interactive elements to increase interaction with content. Multiple export and sharing options: Allows exporting designs as image, PDF, and

		HTML files, as well as sharing direct links or embedding them in websites.

D. AI applications for sound generators, texts and video

One of the primary applications of AI in the newsroom is to turn audio interviews or discussions into written content. This shift is critical because it makes it easier to archive and disseminate information. For example, journalists often participate in verbal discussions or interviews, which are rich in content. By leveraging AI-based transcription services, these verbal exchanges can be quickly converted into text. This makes content readily available for editing, publishing, or sharing across different platforms, enhancing the newsroom's ability to repurpose or reference past content.

With the advent of artificial intelligence, the efficiency and accuracy of transcription processes have seen tremendous improvement, using tools such as VG's Jojo. Unlike manual copying, which is time-consuming and error-prone, AI-powered copying services offer a faster and more accurate alternative. Using sophisticated algorithms, they can decode speech accurately, even in noisy environments or with multiple speakers. This significantly reduces the time from recording to publishing, accelerating the news production cycle. It also frees journalists and editors to focus on the most creative and analytical aspects of news production.

Accordingly, AI-supported text-to-speech technology has made astonishing advances in speech synthesis, enabling realistic audio feedback in a minimal timeframe. This technology also enables accurate translation that maintains the original tone, thereby enhancing the authenticity of news reports. These developments pave the way for innovative applications such as real-time translations and automated dubbing. Such innovations make content more accessible and interactive to a global audience, thereby expanding the reach of newsrooms. [27].

By integrating AI-powered transcription, speech-to-text, and text-to-speech technologies, newsrooms can significantly enhance their efficiency, accuracy, and content quality. This integration simplifies workflows, helping newsrooms meet digital media requirements. In addition, AI helps create and distribute multimedia content, leading to a more informed and interactive audience. Through these technological advances, newsrooms are better equipped to deliver high-quality content across different platforms to wider audiences.

TABLE 4: AI APPLICATIONS FOR SOUND GENERATORS, AI TEXTS AND VIDEO

#	Application	Description	Advantages
	Wibbitz [28]	Wibbitz is an AI platform that converts text and news articles into short, engaging videos. The system uses advanced techniques to analyze texts and create interactive and visual news videos	Convert text to video: It can convert any article or text to video automatically. Ease of use: An easy-to-use interface that allows journalists to produce professional-quality videos without the need for previous editing experience. Video Customization: Provides tools to customize videos including text, images, and background music.

Lumen5 [29]	Lumen5 is an AI platform to easily convert written content into visual videos. It uses artificial intelligence to create videos from text, images, and data, making it an ideal tool for journalists and content creators	Convert text to video easily: It can quickly convert blogs and articles to videos. Rich Media Library: Contains a huge library of photos, audio clips, and videos that can be used in designs. Simplified visual editing: Provides an easy-to-use visual editing interface for customizing videos.	
Descriptor [30]	Descript is a comprehensive video and audio editing platform based on artificial intelligence. It can edit texts and videos in an integrated way, making it a powerful tool for journalists and podcast creators	Integrated video and audio editing: Can edit text, videos and audio simultaneously. Text to Audio: Can convert text to audios using text-to-speech (TTS) technology. Automatic transcription: It can convert recorded speech into written texts in high resolution.	

E. Personalized news: James

One of the most intriguing uses of AI in the newsroom is the possibility of individually delivering personalized content to readers and subscribers. A great example of content personalization is James, a digital server created by Twipe in collaboration with The Times to help news publishers boost readership engagement through customized emails to serve the evolving needs of contemporary news consumers. James customizes newsletter distribution by learning from reader behaviors and preferences, and tailors content to fit individual reader habits.

Custom newsletters are becoming increasingly popular in the news industry as they use data and machine learning to improve reader engagement and retention. Using tools like james and internal customization efforts, news organizations are better equipped to cater to the diverse interests of their readers while also achieving their digital growth goals. [31]

F. AI Article Summaries applications

AI can be used to create headlines, meta descriptions, and summaries of news articles.

Quick Summaries: Artificial Intelligence has the capability to generate summaries that give readers a concise overview of an article's key points. This functionality is similar to the feature found in the news apps such Artifact, a personalized social news aggregator that influences recommender systems to suggest relevant articles to the same topic

Custom Styles: AI can create tailored summaries for different audiences, using unique styles such as "explain like I'm five" or emojis to make them more appealing.

Save time: By summarizing lengthy articles, AI can save users' time, which is especially useful in the fast-paced news industry.

Accessibility: Easier access to news is critical, and AI can play a role in achieving this by providing summaries that are easy to read and understand. This can broaden the audience base and make the information more inclusive.

G. Comment moderation

AI can help monitor online discussions and identify inappropriate content across different media platforms. With increasing activity on the internet, it is becoming harder for human moderators to keep up with the sheer volume of user-generated and auto-generated content.

AI algorithms, especially those that use natural language processing, excel at scanning text and identifying patterns that may indicate hate speech, harassment, misinformation, or other inappropriate content. When such content is detected, AI systems can report it for human review, or in some cases, automatically remove it to maintain a safe and respectful online environment.

Ensuring an open and respectful dialogue on media platforms is a complex challenge, as it requires a delicate balance between freedom of expression and the need to prevent harm or toxic behaviour. AI can help achieve this balance by acting as a first line of defense against inappropriate content.

One mistake to note is that AI assessments can be inaccurate, sometimes leading to false positives and negatives. Therefore, human moderation remains critical to making more accurate assessments, understanding the context, and addressing evolving forms of inappropriate content. Media organizations must once again find a delicate balance between investing in human moderators and relying on AI-based moderation tools. [32]

V. CONCLUSION

AI has inwards in news, and it is here to stay. The introduction of artificial intelligence (AI) to the media promises a new kind of information environment. Nevertheless, this may not be the same case with all players in the industry. This brings out a possible difference between big and well-funded media houses and smaller under-resourced ones, especially those in the Global South.

The big media corporations have enough finances to invest in building their own AI systems. They can use trial and error method on it while automating certain jobs, customizing content sharing or even making simple reports. Such firms are always able to rationalize work processes which can reduce costs and enhance efficiency. It remains unclear how AI will affect small news organizations, especially those located in developing nations. There are many potential benefits for smaller news organizations from employing AI technologies. Automated systems based on AI can perform repetitive tasks such as data analysis or content extraction that need to be carried away by journalists so as they concentrate more on extensive reporting or investigative journalism. Bridging the gap must be done if the aim is for everybody to access AI solutions within journalism. A situation where only a few people within media space would enjoy advantages of AI's power does not go hand in hand with what journalism should be about – information that is accurate and accessible to everyone at all times. Fostering cooperation among. [33]

Advances in AI bring new legal and ethical challenges to how news organizations use AI in production and distribution, as well as how AI systems use news content for learning. For newsrooms, the use of generative AI tools provides benefits for productivity and innovation. At the same time, it risks inaccuracies, ethical issues and undermining public trust. It also provides opportunities to misuse the copyright of original works of journalists. To address these challenges, legislation must provide clear

definitions of AI categories and specific disclosures for each. It must also address the repercussions of AI-generated content on (i) copyright infringements or violations of terms of service and(ii) people's civil liberties that are likely to be difficult to identify and implement through policies in practice. Publishers and technology companies will also be responsible for establishing transparent ethical guidelines and teaching these practices. Progressive collaboration between policymakers, publishers, technology developers, and academics is critical [34]

AI-powered tools boost productivity and efficiency for journalists by streamlining writing and content creation through AI, natural language processing, and machine learning. These technologies assist in research, narrative crafting, source identification, and information discovery. AI tools also help evaluate news dissemination and timing. While AI can autonomously generate content, saving time and resources, human oversight is essential for scrutiny and validation. However, AI's use raises issues about acceptance, privacy, and data usage, as well as concerns about bias, accuracy, and the erosion of editorial control, potentially leading to biases and deepfakes in media production. [35]

For years, pre-generative AI has been instrumental in creating and distributing online news, streamlining production tasks in larger newsrooms by automating earnings reports, sports summaries, and other routine activities. Although less prevalent in smaller and local newsrooms, these technologies are gaining traction. Tech companies also leverage AI for crucial tasks like content recommendation, moderation, and generating search results and summaries. Public debate on AI's impact has traditionally centered on its disruption of manual labor sectors, assuming creative work would remain relatively unaffected. However, advanced generative AI systems are raising alarms about their potential to destabilize administrative functions and media work. Issues include misuse of copyright, dissemination of inaccurate information, and erosion of public trust. Nonetheless, these technologies also offer innovative pathways for sustainability in news production, from generating briefs and newsletters to managing comment sections. As newsrooms experiment with generative AI, practices are scrutinized for errors and lack of transparency. News publishers cite violations of copyright and terms of service by those using their content for AI training, while simultaneously dealing with AI's potential to divert search engine traffic away from their content. This dual challenge presents new legal and ethical issues for journalists, creators, policymakers, and platforms.

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