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RESEARCH ARTICLE

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Perception of Journalists about the Use and Effects of Artificial Intelligence in the Newsroom: A Case of District Lahore

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Abstract: This research has identified the perception of journalists about the use and the impact of Artificial intelligence in Newsroom. The researcher has taken Lahore based journalists as participants. The researcher has been concerned only with how newsrooms create, curate, and consume news with Artificial intelligence. The aim of this research has been to explore the usage of AI technology adoption, the impact of communication channel and factors that affect the classification of journalists. To process this purpose of study the researcher has picked diffusion of innovation theory as theoretical framework. Diffusion of innovation theory will help to identify the adoption process of Artificial intelligence in newsroom. Through DOI the researcher will achieve the adopter category as innovators, early adopters, early majority, late majority, and laggards. Therefore, the achievement process will be done through the qualitative methodology. In qualitative methodology the researcher has used thematic analysis and has implemented themes on six journalists as participants. Furthermore, theme analysis has been beneficial to identify the challenges in adoption, perceived benefits from AI, ethical consideration, willingness to use AI, innovation, and transformation on journalism.

Keywords: Journalists, DOI, Lahore, Artificial Intelligence

Introduction

Artificial Intelligence (AI) has revolutionized the journalism industry by introducing advanced technologies that automate processes and enhance storytelling. With the advent of tools like machine learning and natural language processing (NLP), newsrooms are transforming how content is created, curated, and consumed (Diakopoulos, 2019). These changes represent a significant shift in the media landscape, redefining the roles of human journalists and machines. The adoption of AI in newsroom has accelerated with technologies like ChatGPT and other generative AI platforms. These tools not only improve efficiency but also enhance personalization by analyzing audience preferences to deliver tailored content (Newman, 2023). For instance, platforms now use AI to recommend articles, curate news feeds, and provide real-time updates based on user interests, fostering higher engagement and trust in newsroom.

Despite these advancements, ethical and operational challenges persist. Issues such as algorithmic bias, lack of transparency, and the potential for deepfakes have raised concerns about the authenticity and credibility of AI-generated content (Noble, 2018). Moreover, over-reliance on AI tools risks diminishing human editorial oversight, leading to debates about the implications for media trust and public perception (Qureshi & Tekin, 2020).

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In response to these challenges, many news organizations are adopting differentiation strategies. By leveraging their editorial expertise, credibility, and brand identity, they aim to offer unique journalistic products that stand out in a saturated digital environment (García-Orosa et al., 2020). These include multimedia storytelling, interactive content, and rigorous fact-checking protocols to ensure the quality and diversity of news coverage (Newman, 2023).

The integration of AI in journalism represents both a challenge and an opportunity (Diakopoulos, 2019). By adopting responsible practices, newsrooms can harness the potential of AI to enrich storytelling and audience engagement while addressing its ethical and operational limitations. This dual focus will be critical in navigating the evolving dynamics of media production and consumption in the AI era (Newman, 2023)

Artificial intelligence tools are new agents that mediate and shape the way journalism works (Wu et al., 2019). It demands new theorizing or conceptualization of their extended role-say, that of communication, one of the emerging fields, Human-Machine Communication (HMC)-for which meaning among human and machine is being studied (Guzman & Lewis, 2020)

Importantly, operational costs are reduced along all improvements in quality and increasing volume production; AI can assist editors, reporting and journalism - driving the scale of journalism, overcome resource constraints in handling repetitive tasks, such as parsing financial reports or transcribing interviews - freeing human journalists to focus on depth and investigative focus. Further, the analysis must be interpretive and coherent narratively. AI can enable newsrooms to adapt in a rapidly emerging and changing media environment with the added urgency of audience feedback and response in maintaining relevance in a rapidly changing, digital, and hyper-competitive mediascape; we would argue the need to change the status quo of AI use in journalism, although, it is possible, but generatively adapting to, and in line the latest and important reading trends.

Moreover, current research supports AI implementation in ethically and with high quality data, but it may take time for news outlets to build trust in their readership and other news outlets from shifting approaches, but can also be achieved successfully through AI incorporation, focussing on those with data centred models emphasising openness, equity, and precision. Integrating AI on foundational values, and openness, equity, and precision, without compromising journalistic standards. AI enables a refinement to journalistic methods as without compromising core ethical standards of the field.

Objectives

1. To explore the usage of AI technology adoption in newsroom among Lahore-based journalists.
2. To assess the impact of communication channels in influencing the perception and embrace of AI technologies in newsroom.
3. To identify the factors affecting the classification of journalists as AI technology adopters.

Research Questions

Q1: How do Lahore-based journalists progress through the usage of AI technology adoption in newsroom?

Q2: How do communication channels shape journalists' perceptions and embrace of AI technologies among journalists?

Q3: Why do the factors determine how Lahore-based journalists' classified in AI adoption technology in newsroom?

Literature Review

The use of Artificial Intelligence (AI) in newsroom has become a subject of growing interest as it significantly impacts the industry, particularly regarding newsrooms, journalist roles, and ethical concerns. In Lahore, like many global newsrooms, journalists are grappling with the dual opportunities and challenges that AI

presents. The following literature review highlights recent studies that explore the integration of AI in newsroom, focusing on news writing in newsroom, automation, ethical challenges, and the changing role of journalists.

AI's role in automating news writing is one of its most prominent applications. As AI technologies such as Natural Language Processing (NLP) and machine learning algorithms advance, newsrooms have increasingly turned to automated systems to generate stories, particularly those driven by data, such as sports scores, stock market updates, and financial reports (Diakopoulos & Johnson, 2021; Pavlik, 2023). Studies by Hafied et al. (2025) and de-Lima-Santos & Ceron (2021) confirm that AI is extensively used to automate news writing, making up a significant portion of newsrooms' operations in the United States, Europe, and parts of Asia, including Lahore (Hafied et al., 2025).

Another key area where AI is reshaping journalism is in content personalization and recommendation algorithms. By analyzing user behavior, AI can predict and suggest personalized content to readers, increasing engagement and creating more targeted news distribution systems. This has been extensively researched by scholars such as de-Lima-Santos and Ceron (2021), who highlight how AI is used to recommend articles based on reading patterns, thus improving user experience and retaining audiences (Pavlik, 2023). However, these systems also raise significant concerns about privacy, bias, and the creation of echo chambers, as they might prioritize sensational over important news content (Helberger, 2021).

AI is also impacting journalistic efficiency by streamlining administrative and editorial tasks. A variety of tools are now used for tasks such as content formatting, headline generation, and SEO optimization, thus allowing journalists to focus on more critical aspects of their work, such as investigative journalism (Yuan et al., 2024). However, while many see this as a positive development, some scholars argue that AI could lead to job displacement, especially for entry-level positions like reporters or copy editors (Sharma & Sharma, 2024). The broader shift toward automation in newsrooms has led to the emergence of new hybrid roles, where journalists must possess programming and technical skills to effectively collaborate with AI systems (Diakopoulos & Johnson, 2021).

Ethical concerns about AI in journalism have been a major area of focus. Issues such as algorithmic transparency, data privacy, accountability, and the potential for AI to perpetuate biases have been extensively debated. A study by Marconi (2020) found that AI's ability to automate decision-making processes in newsrooms raises questions about accountability—particularly regarding the dissemination of false or biased information. Moreover, ethical concerns about algorithmic opacity have led to calls for greater regulation and oversight of AI systems used in newsroom (Liao & Vaughan, 2024). In Lahore, these concerns are heightened by the country's media environment, where political and social biases can easily be amplified through AI-generated content (Celik et al., 2022).

The changing role of journalists in the AI era is also a critical topic of research. Studies indicate that AI is leading to the development of hybrid "journalist-programmer" roles, where journalists are expected to not only produce content but also understand and work with complex AI systems (Allen et al., 2022). This shift requires journalists to acquire new technical skills, and the need for AI literacy is becoming increasingly important (de-Lima-Santos & Ceron, 2021). In Lahore, this transition is evident, with many journalists now seeking training in data science and programming to keep up with the evolving demands of the industry.

The research, referred to as Mainstream media and awareness of artificial intelligence by the residents of Asaba metropolis Delta state, Nigeria, was carried out by Jammy Seigha Guanah (2021). The objective of the study was to give back to the knowledge body in so far as the awareness producing impact of the mainstream media (Newspaper, Radio and Television) in relation to the mechanisms of Artificial Intelligence (AI.) is concerned. The research was meant to achieve three goals; it established the awareness status of the residents of Asaba about AI; the awareness status of the residents about AI through the media; and how AI is likely to affect their lives or careers. Diffusion of Innovation Theory gave theoretical basis to the study, questionnaires, as well as oral in-depth interviews were applied to the collection of data among respondents. Findings of the

quantitative study have revealed that the level of awareness about AI is low in the respondents; the media is not doing much in informing the people about how AI is conducted; most of the respondents are not aware about the effects of AI on them and their jobs, as well as the profession they belong to. The study suggested among others that all available avenues need to be employed to sensitize people on AI including the opinion leaders and mainstream media.

AI facilitates tailored news experiences by examining user actions and suggesting articles based on those insights. This has enhanced user interaction but brought about the dangers of algorithmic bias and echo chambers (de-Lima-Santos & Ceron, 2021; Helberger, 2021).

Journalists are progressively required to comprehend and engage with AI tools, resulting in hybrid positions such as “programmer-journalist.” This transition requires fresh skill sets, such as data analysis and technical proficiency (Diakopoulos & Johnson, 2021; Allen et al., 2022).

In countries such as Pakistan, the integration of AI in journalism is impacted by technological disparities, insufficient training, and cultural factors. Newsrooms in Lahore demonstrate a careful and gradual strategy for AI integration. The integration of AI in journalism is affected by technological disparities, inadequate training, and cultural circumstances. Newsrooms in Lahore exhibit a slow yet careful strategy toward incorporating AI (Qureshi & Tekin, 2020).

AI provides significant benefits for small or resource-limited newsrooms through the automation of content creation. News Corp Australia and Nottinghamshire Live utilize generative AI to create thousands of localized articles every week (Hurst, 2023). This highlights the role of AI in making news creation more accessible.

Insufficient AI training hinders adoption, particularly in developing nations. Journalists frequently find it challenging to utilize advanced tools because of insufficient institutional backing, inadequate skill enhancement, or poor technical infrastructure (Safari et al., 2024). Demands for AI education is rising to address this divide.

AI may disrupt editorial tone and human judgment, particularly regarding politically charged material. Numerous AI systems still fall short in cultural subtleties, resulting in risks to their credibility (Azizov et al., 2024). Human supervision continues to be vital for maintaining integrity.

Dinçer (2024) contends that the shift from pre-Generative AI to post-Generative AI has important effects on journalism education and practice. He stresses that journalists must always comprehend their own emotions as well as those of others, which enables them to narrate stories in a manner that resonates with people emotionally. This emphasizes the importance of journalism education to combine technical abilities with human-centered skills in the age of AI.

Recent research has deepened our comprehension of AI in journalism, indicating a dependence on AI for producing content and curating news. A survey revealed that 78% of digital leaders consider investment in AI technology essential for the future of journalism, highlighting the increasing acceptance of AI tools such as chatbots and automated writing software within newsroom. Amponsah reflects this view by highlighting the advantages of AI in journalism related to efficiency and personalization, while also considering ethical issues and the risk of job loss (Amponsah & Atianashie 2024). The dual aspects of AI's influence—boosting efficiency while presenting ethical challenges—have emerged as a key topic in the conversation about AI in journalism.

Theoretical Framework

This research examined the perception journalists have about the use and effect of Artificial Intelligence in the newsroom. The diffusion of innovation theory was selected due to its support for the research project. In this scenario, diffusion of innovation theory was applied since journalists adopt Artificial intelligence in

newsroom, and this theory specifically clarifies the perception with the adoption of AI. It explains how journalists adopt AI tools to create news.

The DOI theory identifies five key stages in the innovation-decision process:

It is important to take knowledge about the innovation. Therefore, journalists in the newsroom get information about the AI then they try to encounter their daily tasks with the help of AI in newsroom. For instance, after getting the knowledge about AI journalists was learned to prepare transcripts, scripts and do research about the interview questions. After taking the skill of AI tools journalist utilized it wisely enhance efficiency in analyzing content as well as mapping the trends. According to the after getting aware of AI tool, they perceive that it was tough to work with the innovation and it make more complexities. However, when they experience it, they feel very light and time saving.

Persuasion: Journalists were aware with AI from different sources like social media and their colleagues. Then they feel challenging as every innovation have some merits and demerits. Digital literacy is very important to fill this gap. Although AI tools are time saving and helpful in achieving daily task.

Therefore, it has risk on the same time as unbaisness was very challenging while using AI. Language barrier was most highlighted hurdle as AI only mechanize with English. After that accurate information about anything is the most important ethic that must be considered by the journalist while writing the news. However, AI adoption is enabled to deal with these challenges (García-Orosa et al., 2020).

Decision: Journalists feel free to adopt AI in newsroom but need some changes. They claimed that AI is the best tool for newsroom. The adoption of AI is the good decision they are interested in more advancement in AI regarding journalism. Journalists were concern about the taring of AI tools in journalism. They express that if they get more tools related to journalism writing content, it will more beneficial. Therefore, multiple factors of AI were involved to take decisions about the use of AI in newsroom. The most crucial factor is that it is important to aware with modern technologies and to upgrade the quality of journalism.

Implementation: Journalists implement AI in their daily routine task that as perform in newsroom. They feel free to make transcripts, question suggestions about the interviews, scripts, newsletters, writing blogs, trend mapping, doing research. Journalists use AI in creating news and it was sometime beneficial to check the fact about and latest news. For the ethical consideration journalist had to be conscious and validate any information in every step to maintain the credibility and accuracy.

Confirmation: Journalist whose participate in this research adopt AI tool after observing from their coworkers. They were not directly using AI in newsroom. They take suggestions from their seniors as well as the people who experience AI in news creation from many times. So, these all participants are lie in the early majority category if the DOI adopter category.

As Rogers (2009) also categorizes adopters into five groups based on their rate of adoption:

AI Technology Adoption Process

In this study participant express that they get aware about AI by co-workers, social media and early adopters. When they use it in their daily routine, they feel free about daily tasks like content creation, writing scripts and transcripts. These all factors persuade journalists to adopt AI in their daily tasks. Participants implement it consciously to avoid ant ethical consideration issue, and it saves their time. They face many challenges and demand some changes in AI tools. However, they also interested in innovation regarding journalism.

Communication Channels

In communication channel identification researcher was curious to analysis those factors who are involve in spreading the knowledge about the AI utilization in newsroom. Journalists in the newsroom get knowledge

from their co-workers. They impress with their colleague performance which he boosts after using AI. Digital media play the role in persuading them about the use of AI in newsroom. Furthermore, they try automated AI generator for writing any weather report.

Socio-Cultural Factors

Socio economic factor impacts the use of AI. This study has aim to analyses that journalists in newsroom face which sort of challenges regarding socio economic, professional background and resource access. In socio economic factor management of that organization were support them to purchase expensive automated writing AI tools. In professional background researcher had aim to identify the traditional writing pattern create hurdle while using AI in newsroom.

Adopter Categories

The aim of the study was to examine the adoption of AI in newsroom by the characteristics of DOI adopter category. In this context this researcher of this study makes the research question to identify the category of them AI adopters in newsroom. Either

- They are innovators who feel the need of technology in newsroom and innovate automated AI writing tool.
- They might be early adopters who get to know about AI tool from innovators and start to utilize it in their newsroom tasks.
- The early majority who adopt something after innovator and early adopter experience the new adoption as beneficial.
- They are late majority and adopt AI when they remove their all scepticisms and with a need for proof, they adopt AI in newsroom.
- Laggards were those who adopt AI when all the people experience it as beneficial for the newsroom and do their work efficiently.

Research Design and Methodology

The qualitative research methodology for this study was designed to explore journalists' attitudes, perceptions, and behaviours regarding adopting AI technologies in their newsroom processes. The study focused on journalists working in newsrooms based in Lahore. Participants might have at least 2 years of experience in journalism to ensure they have enough exposure to traditional and emerging technologies in news production. Journalists currently using or have been exposed to AI tools, such as automated content generation or data-driven journalism tools, will be targeted for the interviews.

Data analysis and findings

These 12 questions were followed by questions that the researcher had made to collect the data.

1. Growing closer to the Coexistence of AI in the Everyday Newsroom Activities

Most respondents indicated that AI has become an inseparable part of newsroom activities, particularly when it comes to such tasks as transcription, content writing, and research. Although the usage rates are different, AI is typically perceived as an assistive device as opposed to a substitute.

P1 said, "I use AI relatively often nowadays, and most of the time it can be used on transcriptions, script suggestions, research assistance, etc.

P5 also wrote, "Personally, I used AI to transcribe interviews... and help write early drafts of reports. It saves time, particularly when time is tight.

P6 introduced a more simplified use case: I use it to get simple information such as national and international issues.

This means that AI is mainly applied in tasks with a focus on efficiency.

2. AI as a Timesaving and Efficiency-Increasing Tool

One of the central themes of the responses is that AI plays a crucial role in enhancing speed and productivity in newsroom processes.

P1 emphasized, AI had saved me hours on simple things... transcription can be done in a few minutes. P2 stressed, it assists in creating news content that is timelier.

P5 went on to explain that it used to take me hours to transcribe... now it only takes me 5 minutes.

That is how we can see that AI is appreciated primarily because it helps to shorten the working time and achieve strict deadlines.

3. Optimistic yet Reservations Attitudes toward AI

The participants usually had a positive view of AI, however, with obvious concerns regarding overdependence.

P3 explained that I consider AI a good thing when used in a responsible manner.

P4 replied, it is good but not the alternative of human mind.

P5 was ambivalent: It is a lifesaver... and it is not real human creativity.

It is a moderate perception: AI is not a panacea but a helpful tool.

4. AI as a Supportive, Not Replacement tool to Journalists

There was a solid agreement that AI will not be able to substitute the human judgment, creativity and editorial control.

P1 claimed, AI is an aid, but not a substitute.

P3 clarified, AI cannot think critically and be sensitive to narratives.

P4 pointed out, AI enables journalists to concentrate on more in-depth investigations.

Nonetheless, there was another, opposite issue that was observed:

P2 cautioned that it has a great potential to eliminate jobs of writers and editors.

This embodies the confidence and job insecurity in the background.

5. Major Issues: Accuracy, Language, and Contextual Constraints

The subjects were found to have several limitations especially those related to accuracy and culture.

P5 added that in some cases, AI may be wrong or fail to grasp the cultural situation.

P1 replied, it is not good with Urdu content and local feel.

P2 emphasized, AI platforms are not as oriented towards eastern values.

This indicates that localization and contextual relevance are still significant impediments.

6. Ethical issues and risk of misinformation

The problem of ethical issues appeared to be critical among other issues, in particular, bias, misinformation, accountability.

P3 said, "Discrimination in algorithms and the absence of human responsibility are noteworthy issues. P1 cautioned, AI can be deceptive, unless you verify the information.

P5 continued by saying that there is also the threat of deep fakes and fake news.

This underlines the fact that there should be strong editorial control.

7. Step-by-step Learning and Adoption via Experimentation

Most journalists acquired knowledge about AI via social media, coworkers, or workplace, and then they engaged in self-learning.

P1 said that he heard about AI via social media and used ChatGPT to complete quick tasks.

P5 replied, I just began to play around with it myself.

Professional seminars and experimentation with teams, observed P3, contributed to it.

Adoption is mostly unstructured and self-directed, rather than organized.

8. Promising yet Manageable AI Use as Time Goes By

The respondents also indicated that their adoption of AI has been changing and it has become more strategic.

P1 elaborated, now I apply it where it is of assistance and avoid it where it will influence accuracy.

P5 described it as, “more of a co-pilot than a replacement.”

P3 stressed out, Editorial review is invariable.

This demonstrates a transition to experimental to selective application.

9. Future of AI: Permanent and Human-Guided

Many of the interviewees supported the idea that AI will continue as an irremovable part of journalism, however, controlled by humans.

P1 reported, saying that AI is here to stay, yet it should not be used by journalists to make editorial decisions.

According to P3, AI will be a permanent part of the picture, yet human editors will still be in the centre of the picture.

P5 likened it to evolution: AI will be a commodity component of the workflow.

AI is perceived as an unavoidable yet not significant force.

10. Training and Localization requires

According to the participants, the issue of training and locally specific AI tools is important.

P1 recommended, most people are unaware about how to utilise these tools effectively.

P5 pointed out, that AI tools should be capable of supporting Urdu and cultural allusions.

P3 suggested, “Newsrooms are encouraged to invest in AI solutions that are designed to meet their specific needs.

To be adopted effectively, capacity building and adaptation to the context is required.

Thematic Analysis

Challenges in Adopting AI

Adopting new technology could be challenging it's a universal truth. However, journalists face some sort of challenges by adopting AI in newsroom. According to the respondents, journalists face multiple challenges while using AI in newsroom. For instance, Urdu English language barrier, contextual understanding, accuracy, credibility etc. therefore language barrier is concern because Pakistan has Urdu language the national language. So, the journalism is Pakistan based on the Urdu language.

However, AI is unable to provide Urdu content and journalist in the newsroom must translate English language into Urdu. Journalists in the newsroom face language hurdle while completing their task in newsroom with AI tools. After that journalist face on the contrary, majority of the respondents believe that

AI is helpful in daily routine tasks but not efficient like humans. Therefore, the threat of job displacement does not exist. However, to maintain the core values of journalism while using AI still exists.

Perceived benefits from AI

Journalists embrace the AI technology in newsroom. AI is very beneficial in newsrooms. For instance, it is time saving, efficient in script writing, helpful in research, trend finding, reduce errors, improve audience engagement etc. journalists express that they do 60 min work in just 20 min. it saves their time from useless things and they effectively do their task quickly. It helps them to do more work and impress their editors. Meanwhile in scripts writing they don't need to sit on the table and think about the ideas to create an effective content.

Journalists in newsroom command the AI tool to give them idea about the topic and they do some changes in it and give for the further process. However, AI is also helpful in doing the research about the interview questions, trend research, to get knowledge about the assign topic for script. Trend finding is the trickiest task that the researcher in in the newsroom. It will help to grab the attention of the audience as well as maintain the traffic on the digital media. Journalists exclaimed that AI tool make easy their life as they can quickly find trendy topic for the audience and start further working on it.

Trust and Ethical Consideration

AI adoption affects the classification of journalism. According to the respondents, AI may affect the core values of journalism. For instance, it can be bias or mislead if journalist in newsroom avoid proper check, it affects the credibility and accuracy of content. As credibility is very important for the journalist because public relay on the news that they take from media. It is important for the journalist to maintain credibility and accuracy for the sake of public trust.

AI is unable to give credible and accurate response in this concern journalist in the newsroom act consciously to avoid any mistake in facts and misinterpretation. This conscious behavior and sense of responsibility boost the trust of audience; AI tool can be challenging in the context of dealing the ethical consideration. The absence of accountability in machine output can cause biasness in algorithm, data sourcing. However, journalists have some core values, AI pressure on those values like objectivity and creativity.

Adoption and Willingness to Use AI

Although AI is an influencing technology, but it is difficult to utilize it. Journalist express that we learn everything from start to now for instance we learn writing news from hand, learn the use of computer, different features of computer etc. Therefore, AI is also a innovation in the world of technology. We all need some training to use AI tool wisely. It demands proper Training and digital literacy of AI tool that use in newsroom.

According to the respondents there is no outside influence that force them to use AI instead of their curiosity. Management support to adopt news technology in newsroom. They express that there are many thing they must learn about the AI tools. AI innovators also launch some crash course with goal to familiar with AI tool. After they learn AI and it feature they are confident in the efficiency of the work. They ensure that they will deal with maximum challenges which they face in news after crack all the features of AI.

Innovation and Transformation in Journalism

Every new technology need some kind of transformation according to demand of adopters. AI technology also needs some transformation. For instance, journalist respondents demand some AI tools, which is specifically, use newsroom. They need Urdu language in AI. Technology to create scrips, storytelling etc. they

demand unbiased AI technology for newsroom which is ethically considerable. Although AI adoption saves journalists time but the accuracy and efficiency must be considered. AI technology must implement a new tool that is particularly beneficial for the newsroom. Journalists are worried about the AI tool related to news writing in newsrooms.

They propose that AI tools require innovative advancements in creative writing to ensure accuracy and surpass journalistic standards. AI technology must become more accountable, transparent, and impartial. This is crucial for the ethical aspects of journalism in the newsroom. The reporters are worried about eliminating bias in AI tools that they freely use in their everyday work. They also require precision and reliability in these tools since upholding accuracy while using technology can be difficult. Urdu language predominantly serves as the foundation for Pakistani journalism.

Urdu serves as the official language of Pakistan. Thus, journalists encounter language problems in AI since it primarily operates with global languages such as English. Participants believe that AI ought to refresh content in various languages. The most significant change is digital literacy. Journalists inquire about AI training to stay informed about the utilization of new advancements in AI. It is crucial to be informed about the new aspects of any advanced innovation. Consequently, users need to understand AI tools to achieve more effective results. Journalists must undergo appropriate training to use AI effectively.

Discussion, Conclusion and Recommendation

The findings of the study shed light on the current landscape of journalism in Lahore and provide valuable insight of the perception of journalists about AI in newsroom. The thematic analysis reveals several key themes, including the challenges while adopting new technologies, benefits of AI in journalism, trust and ethical considerations, adoption and willingness to use AI, innovation and transformation in journalism. One notable finding was the widespread use of AI tools in newsroom, reflection the global shift of AI in journalism. Participant highlights the efficient use of AI in newsroom for writing scripts, researching trends, storytelling and preparing tickers for news. This finding of AI paves the opportunities not only large organizations and the compact newsroom with limited resources (Hurst, 2023).

Another important theme identified in the study was the challenge of AI adoption in newsroom. Participants claims that AI work with efficiency under the assistance of human. It is not a threat for job displacement. However, the accuracy and credibility can be an obstacle of journalist avoid proper check. On the contrary, it is helpful in task completion in less time. These systems enable faster news production and efficiency, concerns about the loss of human nuance and the potential for oversimplification of complex issues persist (Zeng et al., 2023). de-Lima-Santos and Ceron (2021) also agree that AI is used to recommend articles based on reading patterns, thus improving user experience and retaining audiences.

However, these systems also raise significant concerns about privacy, bias, and the creation of echo chambers, as they might prioritize sensational over important news content (Helberger, 2021). Participants suggest the transformation in AI technology for the utilization in newsroom. According to them, AI tools must be made for newsroom. AI innovate must improve its ethical consideration to avoid any credibility issue. Moreover, advance technology needs advance training, in this context journalist emphasize on digital literacy. This shift requires journalists to acquire new technical skills, and the need for AI literacy is becoming increasingly important (de-Lima-Santos & Ceron, 2021).

Comparison with Existing Literature

The findings of this study are constant with existing literature on perception of journalist about AI in newsroom in the Lahore. AI research and development have gained momentum in Pakistan, with the establishment of AI-focused research centres and startups, as well as the introduction of AI related courses and programs at universities across the country (Siddiqui et al., 2023). The broader shift toward automation

in newsrooms has led to the emergence of new hybrid roles, where journalists must possess programming and technical skills to

Effectively collaborate with AI systems (Diakopoulos & Johnson, 2021). Participants express their ethical concerns while using AI in the newsroom, feel the need of specific AI tools for newsroom. As AI continues to evolve, it will be important for journalists in Lahore to adapt to these changes, ensuring that they can balance technological advancements with ethical considerations and journalistic integrity (Schiff, 2022).

Future Research Directions

Considering the findings of the present study, future research could consider multiple ways to enhance scholarly understanding of the adoption of contemporary reporting practices in journalism. Longitudinal studies could offer important insights about how reporting practices develop across time and track trends and patterns. Comparative studies in different regions could provide important evidence about the relationship between journalism practices and cultural, institutional, and technological conditions.

Further, research could pursue methods of developing responses to ethical and professional issues related to digital journalism, including methods for ensuring news reporters adhere to ethical values such as accuracy, transparency, and accountability. Considering the findings of the present study, future research could consider multiple ways to enhance scholarly understanding of the perception of journalists about AI practices in newsroom. Longitudinal studies could offer important insights about how newsroom practices develop across time and track trends and patterns.

Comparative studies in different regions could provide important evidence about the relationship between journalism practices and cultural, institutional, and technological conditions. Further, research could pursue methods of developing responses to ethical and professional issues related to AI in newsroom, including methods for curating, creating scripts adhere to ethical values such as accuracy, transparency, and accountability.

Conclusion

In conclusion, the qualitative research conducted on the perception of journalists about AI in newsroom provide valuable insights into the dynamic landscape of journalists in Lahore. Through in-depth interviews with open ended questions and analysis, it became evident that journalists in Lahore were actively embracing the adoption of AI in the newsroom.

The findings reveal that new technologies came with certain challenges in adoption process, including, accuracy, language barrier, ethical consideration, biasness and digital literacy (Helberger, 2021). However, the journalists in Lahore newsrooms are confident about their job safety in existence of AI, the claim that although AI is efficient and time saving but not replace human. So, there is no fear of job displacement after AI (Zeng et al., 2023).

The study sheds the light on the adoption of Artificial intelligence in the newsroom, specifically in writing style. The way journalists use AI in their daily task like writing script, storytelling, searching trends, preparing tickers etc. Hence, AI creates opportunities for well-established organizations as well as compact newsroom with limited resources (Hurst, 2023).

This study gives the valuable insight of journalism in newsroom with adoption of innovative technology. By contextualizing the findings within existing literature and theoretical frameworks, the study contributes to the deeper understanding of communication channels influence towards AI and classification of journalists as AI adopters. However, AI as new technology is communicated and adopted over time, categorizing individuals or groups based on their readiness to adopt new technologies (Rogers, 2009).

Recommendations

Based on findings of this study, several transformations are required to improve the efficiency of the emerging AI technology. It also helps to enhance the perception journalists about AI in newsrooms.

- AI technology needs to introduce new tool that is specifically useful for in newsroom. Journalists are concerns about the AI tool regarding news writing in newsroom. They suggest that AI tool need some innovation regarding creative writing that is accurate and beat the standards of journalism.
- AI technology needs to be more accountable, transparent, and unbiased. This is important for the ethical consideration of journalism in newsroom. The journalists are concern about the eradication of biasness in AI tools that they feely utilize it in their daily tasks. They also demand accuracy and credibility in these tools because to maintain the accuracy while working with technology might be challenging.
- Pakistani journalism mostly based on Urdu language. As Urdu is the national language of Pakistan. Therefore, Journalist face language issue in AI as AI only deal with international languages like English language. According to the participants AI should update content in different languages.
- Digital literacy is the most important transformation. So, journalists ask about the AI training to aware with the use of new advancement with the AI. It is important to aware with the new feature of any advance innovation. Therefore, user must be familiar with AI tool to create more efficient outcomes. As journalist need to take proper training to adopt AI wisely.

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