ACADEMIA International Journal for Social Sciences
Volume 4, Issue 4, 2025 ISSN-L (Online): 3006-6638

Adoption of AI Tools in Journalism: Technical and Ethical Challenges

Mohsin Raza
mohsin38raza@gmail.com
PhD Scholar, School of Media Studies Superior University Lahore, Pakistan

Dr. Nasir Khan
fastian.mentor@gmail.com
Supervisor, School of Media Studies Superior University Lahore, Pakistan

Corresponding Author: * Mohsin Raza mohsin38raza@gmail.com

Received: 15-11-2025 **Revised:** 27-11-2025 **Accepted:** 12-12-2025 **Published:** 26-12-2025

ABSTRACT

This current study "Adoption of AI Tools in journalism: Technical and Ethical Challenges" study explores the difficulties in implementing artificial intelligence (AI) in Pakistani journalism and evaluates the methods used to overcome these difficulties. In this study a realistic approach is used to broadly understand the factors impacting AI adoption. The result based on Resonant Theory's Technological Acceptance Model (TAM) is evaluated. The utilization of TAM makes it helpful to analyze how a journalist's perception of AI adoption is influenced. A sample size of 358 media persons surveyed to gather quantitative data about their experiences with AI, how often it is used, and what obstacles they face. The outcomes of the correlation analysis are useful in gaining a better understanding of the response to research question two, as follows: It was demonstrated that there is a somewhat positive link between technological hurdles and ethical issues, with a correlation coefficient of 0.539, a significance level of $p < 0.01$, and a total sample size of $N = 358$. These results were determined on the basis of the findings of the analysis. This indicates that journalists who have a greater number of technical challenges while using AI technologies are also more likely to have more significant ethical concerns. In the TAM model, internal variables like organizational readiness to incorporate AI and external variables like industry forces impact journalism AI adoption. Management support, personnel skills, newsroom culture, and technological availability determine how well artifice works. AI adoption is needed for audience expectations, competition, and digital changes. The correlation research also demonstrates that journalists' AI sentiments altered as they confronted light TAM model technical challenges. Reporters with technical concerns like system errors, data biases, or a lack of training are more likely to have ethical issues like accuracy, openness, and responsibility. These findings show that journalism must develop internal capability, establish ethical safeguards, and maintain human oversight to responsibly employ artificial intelligence to maintain credibility and public trust. The results intend to serve as a guide for news organizations, reporters, and legislators in handling the integration of AI while upholding journalistic standards and encouraging creativity.

Keywords: *Artificial Intelligence, TAM Model, Automation in News Production, Journalist, Machine Learning in Journalism and News Media*

INTRODUCTION

In the last decade, applications based on artificial intelligence have migrated from being pilots to the core of many newsrooms, implementing various types of productions and processes like analysis of data, content creating, translation, and individualized dissemination of news. (Zaki, 2018). Currently, a variety of top media companies, such as Reuters, the Associated Press, The Washington Post, and Bloomberg, apply AI in their work, which includes financial reporting and real-time updates, thereby increasing the speed,

efficacy, and profitability of the news production process (Estel Huh Emily Kubin, 2025). The necessity for a collaborative strategy where AI enhances rather than replaces human efforts is highlighted by the fact that, while AI can perform data-driven activities swiftly, it lacks the ethical judgment and nuanced understanding that human journalists provide. (Sachita Nishal C. L., 2024). . It raises is concerned about job displacement and digital inequality, challenges established media structures, and provides new skill wants. (Shi Y. &., 2024). Issues such as algorithmic fairness, fake news, and artificial intelligence opacity add another level of concern in a field based on visibility and credibility. (Porlezza C. &., 2024). . Nearly two decades into its digital technology "revolution," newsroom organizational structures and professional practices have changed as a result of the need for a change in media path dependencies. (Ogola, 2023). The study has pointed out a number of factors that influence perception of AI in journalism including transparency, trust within the organization, as well as the quality of the news produced by AI (McElroy, 2023). AI technologies have the potential to completely transform the media sectors by facilitating the production of content, audience interaction, and income (Amna Khurshid, Ali Bhadur, 24th April 2023). The study has pointed out a number of factors that influence perception of AI in journalism including transparency, trust within the organization, as well as the quality of the news produced by AI. (McElroy, 2023). Additionally, research indicates that audience desires for AI-generated news are influenced by their previous opinions on technology, with organizational trust and transparency being important considerations in determining whether an audience is willing to embrace or object. (Estel Huh and Emily Kubin, 2025).

These changes attract generalized contingents in terms of their responses from media professionals, including readiness in their organizations, training opportunities and national media. That shift is now a reality in places such as Pakistan where journalism practice faces enormous political, economic, and regulatory challenges. AI has the potential to boost newsroom efficiency and give viewers and editors more autonomy, but its effective implementation may be restricted by issues with the digital media infrastructure, a lack of complete AI training programs, and a lack of ethical guidelines.

Problem Statement

The use of AI in journalism raises questions regarding the profession of journalism because it could suggest that human reporters will no longer be the only reliable providers of information. This change has the potential to completely transform the nature of journalism, raising questions about ethical implications and through AI system virtual journalists will take the place of journalists (Jammy Seigha Guanah, 2024). This study aims to investigate the various issues that artificial intelligence (AI) brings to journalism and evaluate the approaches that must be taken in order to implement AI in a way that maintains journalistic integrity, builds public confidence, and promotes long-term newsroom operations.

Technically, there are numerous tenacious constraints which journalists must work to overcome: difficulties in accessing solid tools and reliable systems, a lack of proper digital infrastructure to support these tools, the need for training both on how to use them effectively as well as dealing with "black box" outputs from models or algorithms, integration problems between new newsroom processes with whatever the current status quo is and an increase in security issues including questions of data privacy. These restrictions might limit what journalists are able to do with AI, make them rely more on vendors and provide new points of exposure in editorial processes. In reality, these sorts of barriers can result in varied use of AI tools, inconsistent quality control or overdependence on the blind outputs particularly when under pressure to mix out findings quickly.

In terms of ethics, the use of AI in journalism poses challenges to conventional norms related to accuracy, fairness, accountability, transparency, and minimizing harm. This is in the sense that AI technology is capable of replicating the discrimination that existed in the training datasets used to develop the system.

Additionally, the technology is capable of producing content that is deliberately misleading and inaccurate. There is also the possibility of errors that may not require specific knowledge for detection. Furthermore, the application of AI technology in sourcing, verification, and content generation poses the problem of accountability when the content contradicts the ethics of journalism. This is the case due to the responsibility for the content being placed on the journalist or the organization. There is also the problem related to the use of AI technology for content generation that poses the possibility of exploiting user data.

Thus, this research thesis contends with the challenge wherein journalists are being forced to adopt AI-enabled technology solutions much faster than the evolution of well-defined technical capabilities and related ethical guidelines that help close the emerging divide between innovation and journalism ethics. Through this research that will provide a comprehensive inquiry into the various issues that have been associated with the application of technology in journalism ethics, the potential outcomes can help shape journalism ethics.

Objective:

- To investigate the moral and ethical issues raised by AI in journalism Examine issues including bias, misrepresentation, accountability, and transparency in AI-generated material.

- To assess the major technical challenges journalists face when using AI tools, including issues of access, skills and training, system reliability, transparency, infrastructure, integration with newsroom systems, and cybersecurity.

Research questions:

- What technical and ethical challenges journalists face while applying AI tools for journalism?

- What is the connection between organizational support, education for journalists, and policies on the one hand, and the appropriate use of AI techniques in journalism on the other?

LITERATURE REVIEW

The potential advantages and difficulties that AI technologies bring have led to a dramatic shift in the media landscape with the introduction of artificial intelligence (AI) into journalism. (Carlson, 2023). The term "artificial intelligence" encompasses an extensive spectrum of related technologies. AI is often referred to as "cognitive technologies" because we work with an assortment of technologies that may carry out and/or improve duties, analyses, conversations, and decisions (Olmsted, 2024). But the rapid advancement of AI technology has equally brought significant ethical issues related to privacy, bias, accountability and the impact on community. (Ademola, 2024). Adopting AI in journalism is not without its operational and ethical difficulties, though. One major area of dispute in the sector has been worries about automation leading to job displacement. Proponents of AI contend that instead of displacing journalists, these technologies can enhance existing abilities, resulting in the creation of new professional jobs that combine technological know-how with journalistic ability (Tejedor, 2021). The ethical-political structure of news-making acts as the analytical foundation for a number of research that investigate AI in journalism. Some studies that also look beyond Western democracies focus on national or supranational laws and how they affect the journalism profession. (Schjøtt, 2025) AI's capacity to analyze vast datasets enables journalists to uncover trends and insights that would otherwise remain hidden, thereby enriching the storytelling process (Calvo-Rubio, 2004). The studies, on the other hand, adopt a more practice-oriented approach, investigating how newsrooms are or could cope with new ethical rules and regulations. While document

analysis with a focus on legal documents is the dominant methodology, a lot of studies concentrate on automated journalism and how it creates new legal concerns. (Schjøtt, 2025). The variety of content available to the general public has grown recently, and news automation in journalism is becoming increasingly reliant on AI-based solutions. However, research on way readers perceive this innovative authorship and how it could impact how the message is evaluated is still in its infancy. (Angelica Lermann Henestrosa, 2023). Large media companies like the Associated Press, Reuters, and Forbes now produce thousands of stories each month, demonstrating the significant increase in the use of automated story production systems in recent years. These stories are created using structured data sources, emphasizing sports scores and company success (Lecompte, 2015). . The journalists concluded that Pakistan's constitutional constraints and the question of culpability were the two primary legal issues. Media freedom has been repressed by Pakistan's stringent regulations, such as those relating to government secrecy and blasphemy, and the use of automation will require revisions and fresh laws pertaining to digital media. (Jamil, Automated Journalism and the Freedom of Media: Understanding Legal and Ethical Implications in Competitive Authoritarian Regime, 2021) Automated journalism is the use of artificial intelligence, mostly through software and algorithms, to create news stories automatically without human involvement, even in situations where programmers have (finally) created the algorithm (Jamil, 2019). The increasing use of AI in news operations is shifting the power balance in favor of tech giants, which raises questions about "rent" extraction and possible dangers to independent publishers' business models, especially those who depend on search-driven traffic (Siomn, 2023). This is already done by some companies like Bloomberg and Associated Press, giving reporters the time to do the more important tasks of reporting and analysis. Of course, there are issues with accuracy, and biases that may have been programmed into algorithms, automation of news production is almost always an improvement. Still, there are critical shortcomings of the practice, like the halogenation of reported narratives from the use of templates in reporting, that need to be addressed. (Nandini, 2024). The nation's strict rules have the potential to stifle media freedom. In the context of automated journalism, journalistic ethics offer further challenges. (Jamil, Automated Journalism and the Freedom of Media: Understanding Legal and Ethical Implications in Competitive Authoritarian Regime, 2021). The future of journalism resides at the point of technical capabilities and judgment by humans. By utilizing the potential of AI and adhering to key ideals, the journalism company may thrive in the rapidly evolving digital landscape. (Porlezza C. , 2023).

Theoretical framework

The information integration theory was later developed further when psychologists Martin Fishbein and Icek Ajzen introduced the Theory of Reasoned Action in 1975. In the framework of the Theory of Reasoned Action (TRA), behavioral intentions predict individual's conduct, which is a function of their attitude toward behavior and subjective norms (Matthew, 2020). When it involves AI in journalism, this model renders it clear how news organizations and journalists deal with the challenges that come with AI and determine the most efficient methods of incorporating it into their everyday activities. (Emran Aljarrah, 2023).The three phases of technology acceptance are as follows, based on TAM: Use behavior is affected by external factors (system features) that trigger cognitive reactions (perceived usefulness and ease of use), which in turn form a successful reaction (a mindset toward using technology/intention). Which then in turn form an effective response (attitude toward using technology/intention), impacting use actions. (Salonurmi, 2022).

Based on trial-ability, observability, compatibility with current methodologies, and expected proportional advantage, the theory assists in determining journalists' readiness to adopt AI. Innovators, early adopters, early majority, late majority, and laggards are just a few of the categories into which Rogers divides adopters. It is simpler to examine the various perspectives, driving forces, and integration schedules that news organizations have regarding AI in journalism when one is aware of these adopter groups. The strategy

places a strong emphasis on communication channels as a way to disseminate information about advancements.

METHODOLOGY

Each research study's research design provides its structural framework. Furthermore, an efficient research design makes explicit the goals, methodology, and analytical instruments needed to achieve the investigation's primary objectives. (Creswell & Creswell, 2022). A questionnaire was distributed via Google form online surveys to media journalists in order to collect general trends, experiences, and perceptions regarding the impact of artificial intelligence on journalistic opportunities and necessary skills.A survey aimed at gathering general trends, experiences, and perceptions regarding the impact of artificial intelligence on journalistic opportunities, and necessary skills carried out among media journalists by the distribution of a questionnaire via email, hand delivery, or other online surveys. The study's target population would include professionals employed journalist by Pakistani news networks, including PTV, Geo News, ARY News Sama News, Educationist (Media & communication department) and professionals of media Houses. The sample of this study will include the journalists, Media experts of twin cities (Rawalpindi, Islamabad) and Lahore.

Survey:

A sample of **358** media professionals from Islamabad, Rawalpindi and Lahore are selected. This survey technique provides the component of a study that intends to investigate the challenges associated with adopting AI in journalism and assess methods for its effective application.

The conventional way to get the required categorical sample size is to use Cochran's formula for estimating a proportion as it gives the minimum sample size needed to estimate a categorical proportion with a chosen confidence level and margin of error.

Formula

$n = [z^2 * p * (1 - p) / e^2] / [1 + (z^2 * p * (1 - p) / (e^2 * N))]$

Where: z = 1.96 for a confidence level (α) of 95%, p = proportion (expressed as a decimal), N = population size, e = margin of error.
z = 1.96, p = 0.5, N = 2790, e = 0.05
$n = [1.96^2 * 0.5 * (1 - 0.5) / 0.05^2] / [1 + (1.96^2 * 0.5 * (1 - 0.5) / (0.05^2 * 5298))]$
$n = [1.96^2 * 0.5 * 0.5 / 0.05^2] / [1 + (1.96^2 * 0.5 * 0.5 / (0.0025* 5298))]$
n = [3.8416 * 0.5 * 0.5 / 0.0025] / [1 + (3.8416 * 0.5 * 0.5 / 13.245)]

n = [3.8416 * 0.5 * 200] / [1 + (3.8416 * 0.5 * 0.03775)]
n = 384.16 / [1 + (3.8416 * 0.5 * 0.03775)]
n = 384.16 / [1 + 0.0725]
n = 384.16 / 1.0725

n ≈ 358 (Lahore, Islamabad and Rawalpindi registered journalists)

To determine the relationships between internal and external factors and the adoption rates of AI, perform inferential statistics, such as correlation regression analysis.

RESULTS AND DISCUSSION

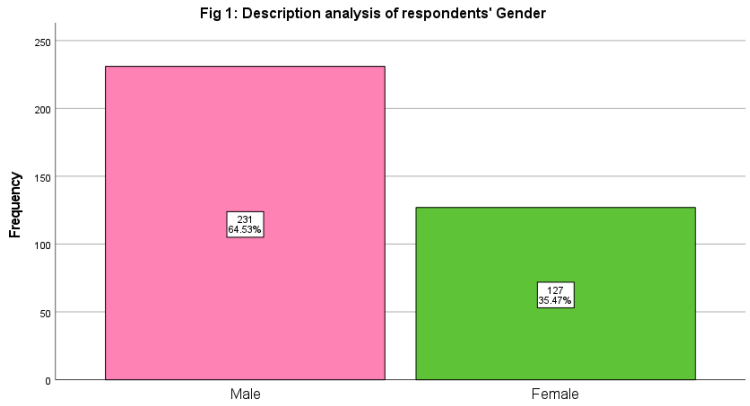


Figure 1 shows the descriptive analysis of respondents' gender, there are (231, 64.53%) Males and (127, 35.47%) females

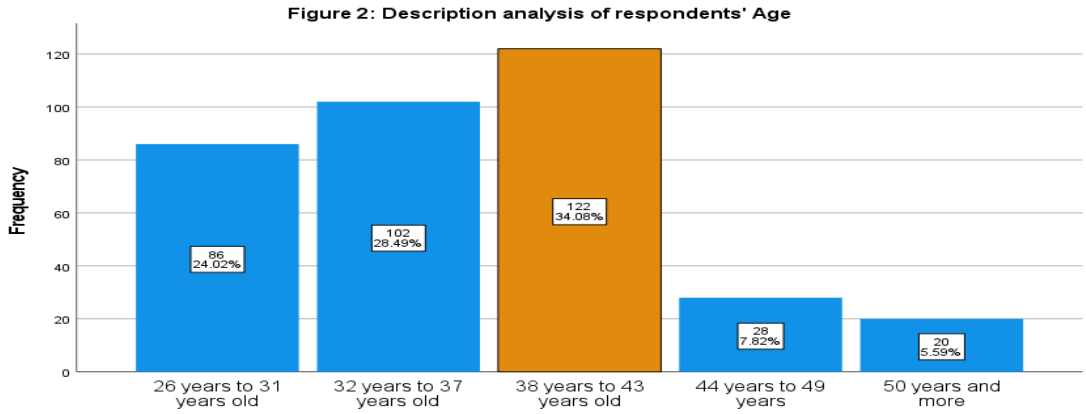


Figure 2 shows the age distribution of respondents. Most respondents (34.08%) are aged 38–43 years, followed by 28.49% aged 32–37 years, 24.02% aged 26–31 years, 7.82% aged 44–49 years, and 5.59% aged 50 years or above.

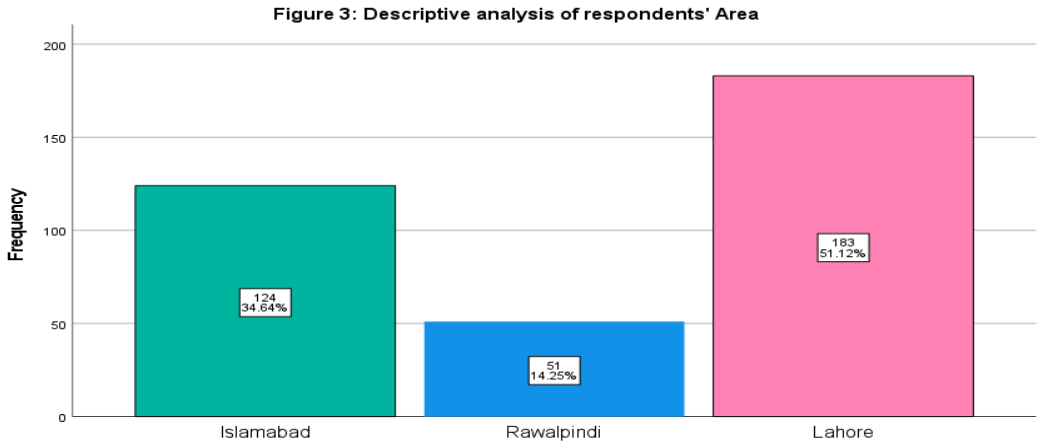


Figure 3 shows the respondents' area of residence. Most participants were from Lahore (51.12%), followed by Islamabad (34.64%), and the fewest were from Rawalpindi (14.25%). This indicates that Lahore had the highest participation in the survey.

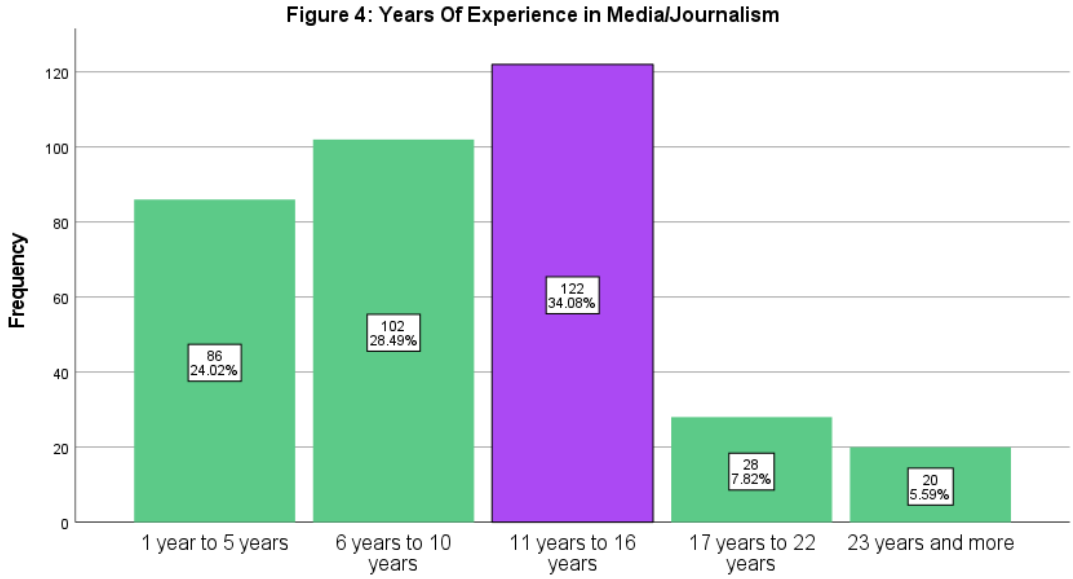


Figure 4 shows the respondents' years of experience in media or journalism. Most had 11 to 16 years of experience (34.06%), followed by 6 to 10 years (28.49%) and 1 to 5 years (24.02%). A smaller number had 17 to 22 years (7.82%) and 23 years and more (5.55%) of experience.

Table 1

Demographics of respondents

Gender	Male	231	64.53%
	Female	127	35.47%
Age	26 years to 31 years old	86	24.02%
	32 years to 37 years old	102	28.49%
	38 years to 43 years old	122	34.08%
	44 years to 49 years old	29	7.82%
	50 years old and more	20	5.59%
Area	Islamabad	124	34.64%
	Rawalpindi	51	14.25%
	Lahore	183	51.12%
Experience	1 to 5 years	86	24.02%
	6 to 10 years	102	28.49%
	11 to 16 years	122	34.08%
	17 to 22 years	28	7.82%
	23 years and more	20	5.59%

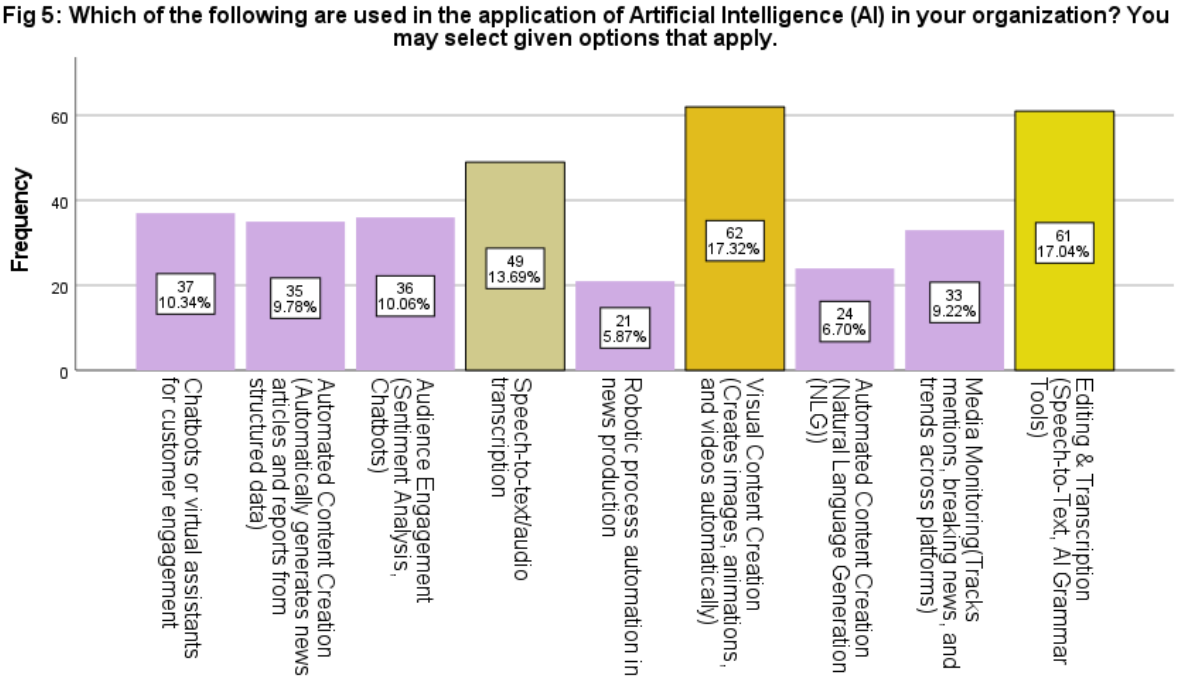


Figure 5 illustrates how organizations are adopting Artificial Intelligence (AI) applications for different tasks. The most frequent uses are visual content creation (17.32%) and editing or transcription tools (17.04%), showing that AI is primarily being used to enhance media production and communication processes

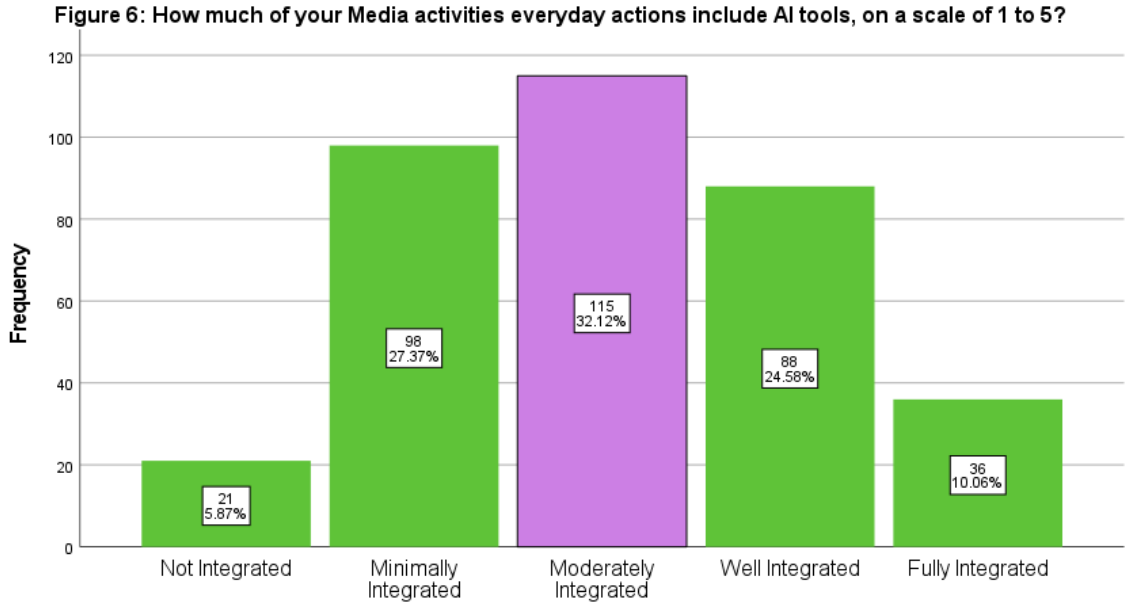


Figure 6 shows the majority of respondents report that AI tools are only minimally integrated into their everyday media activities. The most common response, by a significant margin (32.12%), is "Moderately Integrated." The levels of integration then decrease sharply as the scale increases, with very few respondents (10%) reporting that AI is "Fully Integrated" into their daily work.

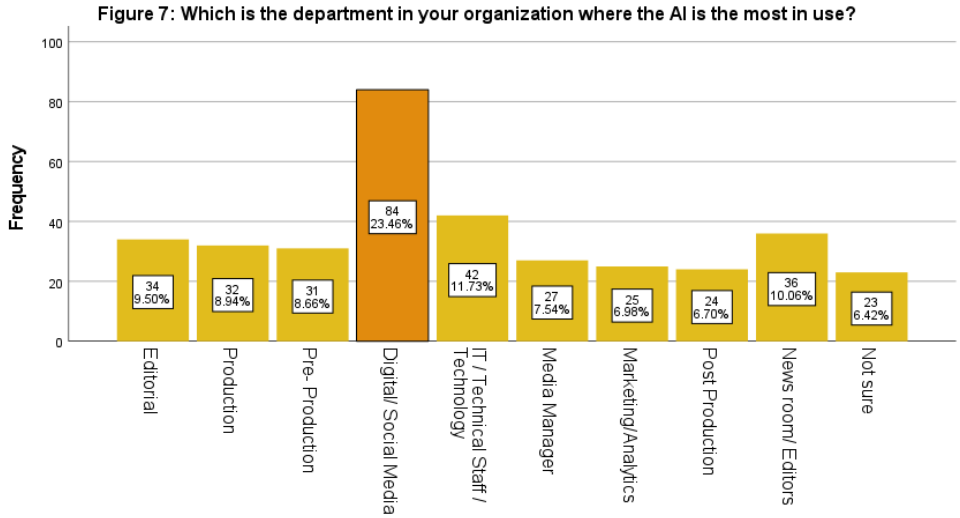


Figure 7 illustrates the departments within organizations where Artificial Intelligence (AI) is most actively used. The Digital and Social Media department leads significantly, accounting for 23.46% of reported AI use. This finding reflects the growing role of AI in managing digital communication, audience engagement, and content personalization. According to Kaplan and Haenlein (2020), social media platforms are among the earliest adopters of AI, employing algorithms for trend analysis, targeted advertising, and content optimization to enhance user interaction.

External Factors

RQ1: What technical and ethical challenges journalists face while applying AI tools for journalism?

Table 2

Correlations between technical and ethical challenges journalists face while applying AI tools for journalism

		Technical Challenges	Ethical Challenges
Technical Challenges	Pearson Correlation	1	.539**
	Sig. (2-tailed)		.000
	N	358	358

Ethical Challenges	Pearson Correlation	.539**	1
	Sig. (2-tailed)	.000	
	N	358	358
**. Correlation is significant at the 0.01 level (2-tailed).			

The answer to RQ can be better understood with the help of the findings from the correlation analysis: Based on the findings of the analysis, it was shown that there is a somewhat positive association between technical obstacles and ethical challenges ($r = 0.539$, $p < 0.01$, $N = 358$). This suggests that journalists who meet more technical difficulties with AI tools also tend to suffer greater ethical worries. This suggests that the technological and ethical concerns that are associated with AI-assisted journalism are not separate from one another; rather, they are interconnected, and difficulties in one area may compound problems in the other (Carlson & Usher, 2016; Tandoc et al., 2019).

External Factors

RQ2: What is the connection between organizational support, education for journalists, and policies on the one hand, and the appropriate use of AI techniques in journalism on the other?

Table 3

Reliability test between external and internal factors which effect on local news journalists while they use of AI	
Cronbach's Alpha	N of Items
0.833	2

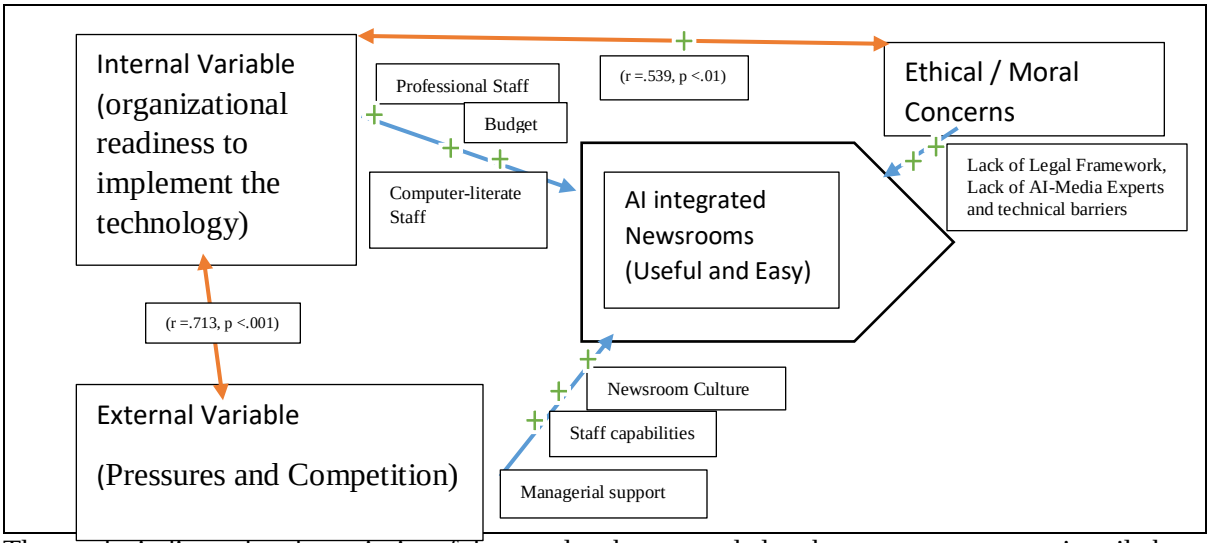
Table 3 shows that these two factors internal reliability test is valid and integrated with each other.

Table 4

Correlation between external and internal factors which effect on local news journalists while they use of AI			
		Internal Factors	External Factors
Internal Factors	Pearson Correlation	1	.713**
	Sig. (2-tailed)		.000
	N	358	358
External Factors	Pearson Correlation	.713**	1
	Sig. (2-tailed)	.000	

	N	358	358
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 4 shows that the Pearson correlation study demonstrated a robust and statistically significant association between the internal and external elements that influence the adoption of artificial intelligence (AI) by local news journalists (r =.713, p <.001). Overall, this relationship was found to be highly favorable and significant. Based on this conclusion, it appears that changes in internal organizational conditions, such as managerial support, staff training, and the availability of financial and technological resources, are directly associated with the responsiveness of journalists to the dynamics of the external market. In previous research (Beier, 2020; Oyetade, 2024),



The results indicate that the majority of the people who responded to the survey are men, primarily between the ages of thirty-two and forty-three, and predominantly reside in either Lahore or Islamabad. In addition, these individuals have an average of between six and sixteen years of professional experience. Artificial intelligence is predominantly utilized for the development of visual content, editing, and transcription, indicating a greater emphasis on enhancing media production as opposed to substituting for human labor. The adoption of artificial intelligence is being led by departments such as digital and social media, whilst other sectors, including pre-production and post-production, are falling behind because they have a lesser level of digital readiness.

The responses received from individuals across organizations suggest that the implementation of artificial intelligence (AI) is not strongly supported, and the majority of employees do not have adequate training. However, they do not see time as a significant obstacle to learning and generally feel confident in their ability to use AI on their own. A considerable number of people feel that the resources provided by the organization are insufficient to ensure that artificial

Technical and ethical issues are linked. A moderate positive correlation (r =.539, p <.01) suggests that journalists facing technical barriers, such as limited AI training, system errors, biased data, or opaque algorithmic processes, are more likely to experience ethical concerns about accuracy, transparency, and accountability (Carlson & Usher, 2016; Tandoc et al., 2019; Diakopoulos, 2019). Technical factors account for 29% of ethical variation ($r^2 \approx 0.29$), indicating that technical fixes alone cannot address ethical risks. Other challenges include organizational norms, editorial oversight, and professional expertise (Napoli,

2020).The results for RQ1 and RQ2 show that responsible AI integration in journalism needs increasing internal capacities and tackling technological and ethical weaknesses. AI must be used in conjunction with staff training, ethical frameworks, human oversight, and organizational policy creation to improve journalism without compromising trust, transparency, or public accountability (Lewis et al., 2021; Tandoc et al., 2019). AI is integrated in an efficient manner. Furthermore, support from coworkers does not have a significant impact on their motivation. In addition, the impact of competitive pressure and workplace culture on the adoption of artificial intelligence is rather minimal. In addition, the respondents do not believe that the demand of the audience is a significant factor in the usage of artificial intelligence, and they are of the opinion that newsrooms do not depend substantially on artificial intelligence for their social media strategies. However, a large number of people continue to acknowledge that technical advancements at the industrial level have a certain degree of impact on artificial intelligence tactics in newsrooms.

In general, the findings suggest that although artificial intelligence (AI) technologies are present and beneficial in the field of media, the level of support, training, and resource investment provided by organizations is still inadequate, which is impeding the meaningful integration of these tools across departments. On the other hand, audience expectations, competitiveness, and broader digital transformations emphasize the need for artificial intelligence adoption. In addition, the correlation analysis demonstrates that there is a connection between the ethical difficulties that in the light TAM model the attitude toward AI use changed when the journalists face different technical problems that they encounter.

CONCLUSION

For instance, journalists who have trouble with technical issues, which can include things like errors in the system, biases in the data, or a lack of training, are also more likely to experience ethical concerns, which can include issues with accuracy, transparency, and accountability. This dynamic is corroborated by the data provided in the interviews in the light of TAM model, the behavioral intension of Pakistani journalists' regard AI is that, it is a helpful tool for speeding up processes, increasing efficiency, and doing mundane duties. However, they remain wary of becoming overly dependent on AI, making mistakes, and jeopardizing the integrity of their editorial content. In combination, these findings indicate that the successful and responsible adoption of artificial intelligence in the field of journalism necessitates the reinforcement of internal capacity, the provision of ethical safeguards, and the preservation of human oversight in order to ensure that technological advancements bolster, rather than jeopardize, the credibility of journalists and the trust of the public. Thorough analysis of the implications of artificial intelligence for journalism that maintains its implementation represents, not just a change in technology, but also an overhaul of the epistemic and moral underpinnings of news. By drawing on a mixed-methods approach that combines technical analysis, industrial case studies and normative ethical critique, our research has revealed the web of complex interrelations between what AI tools can do technically and the deep-lying ethical challenges they provoke. As AI development proceeds at pace, the tools or platforms we examined specifically will change but the underlying technical-requirements tensions are likely to remain. The central contribution of this dissertation is the understanding that the primary obstacle to responsible AI journalism adoption is not a paucity of advanced technology, but an absence of adequate, enforceable governance mechanisms that can help translate technical possibility into ethical imperative.This chapter gives the recommendations based on the analysis of AI shift in the field of journalism and a specific focus on the impact of the AI shift on the journalistic practices, the moral and ethical issues it brings up and how the media organizations and professionals respond to the changes. The recommendations are structured in a manner that is categorized under four stakeholder groups.1. News Media and news administrators. 2. Newsroom employees and reporters. 3. Regulators and policy makers.4. Associations of journalists and teacher educators. Finally, most of the research so far has concentrated on institutional journalism in

Western countries: a more granular understanding around the challenges facing local news, non-profit media or journalists working outside of Western contexts is an important direction for future work

REFERENCES

Ademola, O. E. (2024). Detailing the Stakeholder Theory of Management Ai & Media. *Information Technology*, 27.

Amna Khurshid, Ali Bhadur. (24th April 2023). Artificial Intelligence and Journalism in Pakistan: An Investigation of. *Journal of Peace, Development and Communication (JPDC)*, 11.

Angelica Lermann Henestrosa, H. G. (2023). Automated journalism: The effects of AI authorship and evaluative information on the perception of a science journalism article. *Computers in Human Behavior*, 28.

Calvo-Rubio, L. R.-T. (2004). Criteria for journalistic quality in the use of artificial intelligence. Communication &Amp. *Society, 247-259. https://doi.org/10.15581/003.37.2.247-259*, 121.

Carlson, M. (2023). Automating the News: How Algorithms Are Rewriting the Media. Columbia University Press. 13.

Emran Aljarrah, H. E. (2023). E-voting in Jordan: Assessing readiness and developing a system. *Scinedo*, 41.

Estel Huh and Emily Kubin, E. K. (2025). Can AI-generated news reduce hostile media perceptions? Findings from two experiments. *Media Governance and the Public Sphere*, 9.

Estel Huh Emily Kubin, E. K. (2025). Can AI-generated news reduce hostile media perceptions? Findings from two experiments. *Research integrity at Frontiers*, 6.

Jamil, S. (2019, December 19). Increasing Accountability Using Data Journalism: Challenges for the Pakistani Journalists. *Journalism Practice, 15*(1), 19-40. doi:10.1080/17512786.2019.1697956

Jamil, S. (2021). Automated Journalism and the Freedom of Media: Understanding Legal and Ethical Implications in Competitive Authoritarian Regime. *Journalism Practice*, 25.

Jammy Seigha Guanah, a. V. (2024). ARTIFICIAL INTELLIGENCE AND JOURNALISM PRACTICE IN NIGERIA: PERCEPTION OF JOURNALISTS IN BENIN CITY, EDO. *https://doi.org/10.7454/irhs.v0i0.268*, 19.

Lecompte, C. (2015). Automation in the newsroom. (J. Geary, Ed.) *Nieman Reports*, *69*(3), 41. Retrieved from https://niemanreports.org/wp-content/uploads/2015/08/NRsummer2015.pdf

Matthew, S. A. (2020). Theory of Reasoned Action. *Progress in Brain Research*, 25.

McElroy, O. (2023). Examining AI and the Fourth Estate. *Bytes, Bias, and Bylines*, 48.

Nandini, P. I. (2024). Artificial Intelligence in Journalism: An Overview of its Applications and Uses. *Journal of Communication and Management*, 25.

Ogola, P. G. (2023). AI, Journalism,. *International Media Support*, 16.

Olmsted, S. M. (2024). A Review of Artificial Intelligence Adoptions in the Media Industry. *International Journal on Media Management*, 215.

Porlezza, C. &. (2024). AI ethics in journalism (studies): An evolving field between research and practice. *Emerging Media*, 8.

Porlezza, C. (2023). A European perspective on the governance of artificial intelligence in media and journalism. *Communications*, 25.

Sachita Nishal, C. L. (2024). . Domain-specific evaluation strategies for AI in journalism. *Computers and Society*, 8.

Salonurmi. (2022). Local Journalists' Adoption of Artificial Intelligence in Two . *Communication Science*, 78.

Schjøtt, A. (2025). Advancing a Material and Epistemological Turn in the Study of AI: A Review and New Directions for Journalism Research. *Digital Journalism*, 26.

Shi, Y. &. (2024). How generative AI is transforming journalism: Development, application and ethics. Journalism and Media. *Journalism and Media*, 18.

Siomn. (2023). Artificial Intelligence in the News. *Journalism and the Public Arena*, 18.

Tejedor, S. a. (2021). Exo journalism: a conceptual approach to a hybrid formula between journalism and artificial intelligence. Journalism and Media. *https://doi.org/10.3390/journalmedia2040048*, 20.

Zaki, A. (2018). The AI Revolution in Journalism: Balancing Innovation, Ethics, and Truth in News. *Crafting engaging content*, 5.