The AI Revolution in Media, Redefining Journalism Education and Professional Practice from Classroom to Newsroom in Pakistan

Sara Anwar[1], Saman Rukh Khan[2], Tanveer Nasir[3], Nusrat Azeema[4]

[1] Lecturer, Department of Communication & Media Studies, Minhaj University Lahore, Email: Sarasaljook@yahoo.com

[2] MS Scholar, Department of Mass Communication, School of Social Sciences and Humanities (S3H), NUST Islamabad, Email: srk147@gmail.com

[3] PhD Scholar, Department of Media Studies, Bahria University Islamabad, Email: tanveernasirkhattak@gmail.com

[4] Visiting Lecturer, Department of Communication & Media Studies, Fatima Jinnah Women University Rawalpindi, Email: jamshedazeema22@gmail.com

Abstract

Artificial Intelligence (AI) has transformed almost every field including journalism reshaping both journalism education and its professional practices. Classroom and Newsroom both is undergoing through the revolutionary phase transforming from classical practices to the modern approaches driven by artificial intelligence. AI has redefined journalistic practices and academic culture in various aspects across the globe. This study's Population is precisely focused on mass communication, journalism, media students and practitioners. Six research questions and five research hypotheses directed the study. Technological Determinism Theory of Marshall MacLuhan is utilized in this deductive study which argues that technology is the key driver of societal change including media practices and education. To undertake this, Quantitative and descriptive survey research design is applied. The quota sampling technique is utilized to select a sample of 100 respondents including 50 media practitioners and 50 media students in Islamabad. Likert type rating scale questionnaire is utilized to assemble data from the students and practationers. Descriptive statistics of male and female counts and percentage is employed to scrutinize the demographic statistics and are presented in bar graphs. Findings of this study revealed that AI is beneficial for journalism students in preparing their assignments, notes, presentations, and quizzes. AI is also beneficial for journalism practitioners while taking its assistance for news script writing, researching for talkshows, morning shows, attention grabbing and attractive visuals, precisely in pre-production, production, and post-production.

Keywords: AI Revolution, Journalism Education, Newsroom, Media.

Introduction

This study explores the revolution of media occurred via artificial intelligence from universities to new channels, from classrooms to newsrooms and from journalistic academia to journalistic practices redefining the classical journalism by modern approaches contributing significantly in both academia and practice based journalism. Tech competition worldwide among developed countries like China and America in the emerging artificial intelligence platforms i.e., DeepSeeks and ChatGPT has given autonomy to the users worldwide to generate content of their own choice through these platforms. It not only helps in content creation but also in image creation and video creation on the given topic.

Journalism students can use this for multi academic purposes while on the other hand media practitioners also takes full assistance of AI tools.

AI and Hum News
According to Shiraz Hasnat (Bureau Chief HUM News, Award winner Multimedia Journalist on Migration, Climate,Media entrepreneur) on February 9th, 2025 HUM Television Channel has professionally accepted and allowed their employs to use artificial intelligence tools for journalistic practices. Following quoted in inverted commas is the email sent by Human Resource Department of HUM TV Network to their employees.

"Dear All, As we continue to embrace the latest technological trends, Artificial Intelligence (AI) plays a crucial role in enhancing workplace efficiency. Al offers numerous benefits, including better communication, creative thinking, staying ahead of industry trends, efficient decision- making, and effective problem-solving. To leverage these benefits, employees are encouraged to download ChatGPT/DeepSeek app on all devices to enhance productivity and a more efficient and innovative workflows.

IT Department is requested to assist in installing the app on all office systems.

All supervisors are kindly requested to ensure that their respective team members have installed the app on devices (mobile/ systems) and share the update with HR.

Your cooperation in ensuring timely implementation of this initiative is greatly appreciated. Let us all move forward.

Remember, Al is the future

Regards:

Human Resource Department

HUM TV Network, Pakistan".

Background Terms Definitions:
Artificial Intelligence: Artificial intelligence (AI) is a set of technologies that enable computers to perform a variety of advanced functions, including the ability to see, understand and translate spoken and written language, analyse data, make recommendations, and more. (Google Cloud)

Journalism: The work of collecting, writing, and publishing news stories and articles in newspapers and magazines or broadcasting them on the radio and television. (Cambridge Dictionary)

Newsroom: A place (such as an office) where news is prepared for publication or broadcast. (Mariam Webster)

Problem Statement:
Despite of the growing influence of AI in media academia and media industry it's adoption is still not common among media practitioners and journalism students across Pakistan. Both Journalism Practice and academia is followed by conventional models which are no longer aligned with this homeostatic or survival to fittest culture of AI adaptation to compete and go parallel with this modern day challenges.

Research Gap:
Gap exists between journalistic academia and journalism practice, similarly gap exists among what is conveyed by teachers to their journalism students and technological competencies. A space to use the artificial intelligence tools by humans in Pakistan is still vacuumed and is not filled with updated and accurate evident literature. This study is conducted with aim to fill this gap in Pakistani local context. What journalists need to understand is evolving as AI plays a larger role in journalism. Today's journalism schools must figure out how to impart valuable character traits in addition to new technical skills. Among these technical abilities are data comprehension and proficient use of digital technologies. Two of the most crucial human traits are creativity and sound ethical judgment. Future journalists will be able to

employ AI tools efficiently while still providing truthful and human-feeling news reporting by mastering these two skills, which are critical components of being a good journalist. Jamil (2021)

Objectives:
1) To assess the degree of AI integration in Pakistani journalism academic programs.
2) To investigate how Pakistani newsrooms' professional journalistic methods are changing as a result of AI technologies.
3) To evaluate journalism department' and teachers' awareness for implementing AI-driven curriculum development and teaching.
4) To determine what knowledge and abilities journalism professionals and students need in an AI-enhanced media environment.
5) To look at the difficulties and moral issues related to AI's application in journalism practice and education.
6) To make recommendations on how to adapt journalism education to Pakistan's changing needs as AI-powered newsrooms grow.

Research Questions:
1) To what degree is artificial intelligence included into Pakistani journalism education programs?
2) What changes are AI technologies bringing about in Pakistani newsrooms regarding professional journalism practices?
3) To what extent are Pakistani journalism departments in universities and teachers equipped to integrate AI into their curricula?
4) Which AI-related proficiencies and abilities are critical for professionals and students studying journalism in the modern media environment?
5) Which ethical issues and main obstacles surround the application of AI in Pakistani journalism education and professional practice?
6) How can the changing AI-driven newsroom environment be integrated with journalism education?

Significance:
In light of Pakistan's quickly changing media and educational scene, this study is extremely valuable. Countries like Pakistan must comprehend and adjust to these developments as Artificial Intelligence (AI) continues to transform international media in order to be competitive and relevant. By providing a thorough examination of how AI is changing journalism education and newsroom procedures, this study benefits both the academic and professional domains. In order to fulfill the needs of an AI-driven media environment, the study emphasizes the necessity for academic institutions to update their journalism curricula, teaching strategies, and institutional infrastructure. It will educate policymakers and journalism educators about the shortcomings of present teaching methods and offer suggestions for preparing upcoming journalists with the digital and analytical abilities they will need. This study clarifies how AI is changing newsroom operations, content creation, and decision- making procedures for the media sector. It will assist businesses, editors, and media professionals in comprehending the ethical dilemmas and opportunities presented by AI, empowering them to make well-informed choices regarding its adoption and application. The paper also discusses the significant gap that exists in Pakistan between journalism education and professional practice. It opens the door for a more integrated, future-ready approach to journalism education and practice by suggesting alignment options. The results can be used by media outlets, academic institutions, and policymakers to create well- informed plans and regulations that support innovation while maintaining journalistic ethics and integrity. A move toward a more technologically advanced curriculum is suggested by AI's ability to handle enormous data sets and create material quickly (Seldon et al., 2020).

Diverse storytelling techniques and wider story coverage are made possible by this skill. AI's capacity to find patterns in vast amounts of data may also transform investigative journalism education and encourage the development of more robust data journalism abilities (Stray, 2021). Furthermore, future journalists will need to have a thorough understanding of and engagement with audience analytics in order to customize material to individual interests and maintain reader interest, as evidenced by the personalization of news through AI techniques. The ultimate goal of this study is to help Pakistan create a journalism ecosystem that is more resilient, technologically advanced, and morally sound so that it may prosper in the age of artificial intelligence.

Hypothesis:
H1: Students studying journalism gain tremendously from the incorporation of AI into journalism education.
H2: The quality and productivity of producing journalistic content are greatly impacted by the use of AI in newsroom.
H3: Pakistani journalism schools are not yet ready to include AI into their teaching methods and curricula.
H4: Professional newsrooms require AI-related abilities that differ greatly from those taught in journalism colleges.
H5: The ethical issues surrounding AI's application pose a significant obstacle to its successful integration into journalism practice and education.

Delimitations:
1) The results of this study may not be generalizable to other nations or areas because it is restricted to journalism education and professional media practice in Pakistan.
2) The study excludes other types of digital transformation or media technologies and instead concentrates on the effects of artificial intelligence technology.
3) Students, media professionals, and journalism educators will participate in the study; public audiences and media consumers will not be included.
4) Without taking a long-term view of the effects of AI, the study will examine existing trends and practices through 2025.
5) Informal training programs and freelance journalism sectors will not be included; only accredited journalism schools and registered media firms will be.

Literature Review
While AI can support some aspects of the news production process, journalistic skill gives the finished result more nuance, understanding, and legitimacy. A more advanced and effective news ecosystem where technology enhances human knowledge to provide fast, accurate, and contextually rich news material is promised by the symbiotic interaction between AI and journalists (Graefe, 2016). Journalists are still vital despite all of this new technology. Reporting the news requires a variety of skills, including critical thinking, emotional intelligence, and moral awareness. Machines are unable to provide tales with the nuances, context, and deeper meaning that journalists can (Fleming, 2006). Additionally, they ensure that the news is impartial, factual, and presents the issue from a variety of angles. Scholars generally agree that automation and artificial intelligence (AI) are becoming more and more significant in newsrooms. These technologies are acknowledged for their ability to increase productivity and speed, save time and resources, and help journalists manage the constantly growing volume of international news content (Lewis et al., 2019). The creation of computer systems that can carry out cognitive functions like learning, reasoning, and self- correction that are similar to human abilities is the main focus of artificial intelligence (AI). AI essentially aims to build machines that can mimic and carry out actions involving intellect similar to that of humans (Dobrev, 2012). Examining how artificial intelligence (AI) is affecting journalism is crucial given the wider trend of

digitization encroaching on the media and public domains. The journalism industry has seen significant changes as a result of the move towards applications, algorithms, and social media, which have an impact on everyday workflows, organizational structures, and the availability of a variety of information sources. This change demonstrates how journalism is changing to meet the many opportunities and difficulties of the digital age. (Broussard et al.2019) state that but these modifications also raise some significant issues. Some people, for instance, are concerned that AI may completely replace journalists (Yu & Huang, 2021). Some worry that news produced by AI may not be truthful or accurate (Henestrosa et al., 2023). Whether it's OK for machines to write the news is another issue. When artificial intelligence (AI) begins to perform more and more of the tasks that journalists once performed, such as writing articles and identifying patterns in data, it forces us to consider the relative value of human creativity in journalism vs the efficiency of machines. In addition to enabling more engagement, this convergence of AI and news media brings revolutionary components that could lead to a general rise in news consumption (Diakopoulos, 2020). Since the future of journalism and its economic models seem to be strongly related to the acceptance of technological breakthroughs, the news industry is not an exception to the rule that data and technology play a vital role in guiding decisions in our modern world. (Mesquita and de-Lima-Santos, 2021). The journalism industry is moving quickly these days. New technologies like artificial intelligence (AI) are mostly to blame for this (Rouhiainen, 2018). Journalism is changing significantly as a result of AI (Stray, 2021). It assists journalists in a number of ways, including automating tedious work, finding stories through data, and presenting news in fresh and engaging ways. AI is even capable of producing news articles, podcasts, and images with the use of intelligent computer programs. This implies that news can be presented more quickly and in a manner that piques your attention (Broussard et al., 2019a). For journalism, artificial intelligence is a whole new field with great opportunities to save time and do things differently. But it also calls into question morality and the future of journalism (Picard, 2015). Accordingly, we must exercise caution while utilizing AI in journalism. In addition to utilizing AI's potential, we must ensure that news reports remain impartial, truthful, and present all relevant viewpoints (Davenport, 2018).

Methodology
The AI Revolution in Media, Redefining Journalism Education and Professional Practice from Classroom to Newsroom in Pakistan.

Research design:
This study is based on survey. The researcher design a set of questionnaire related to the research study. The cross-sectional study was conducted as per the requirement of this research.

Population of the study:
Islamabad based Media Students and Islamabad based journalists are the population of this study.

Sample:
From this research population of 50 Media Students and 50 media industry practitioners is the sample of this research study.

Data Collection:
The Likert Scale is used to create a carefully considered questionnaire that maximizes the validity and reliability of the data. The survey was given to field journalists and media students at Islamabad Universities.

Data Analysis

After data collection the data is analysed through simple statistical method. The data is operated through simple statistical method and male/female count and percentages is made on the basis of data inserted. Data is analysed through SPSS 22 and then it was changed into below column graphs for easy understanding of the readers, scholars and policy makers.
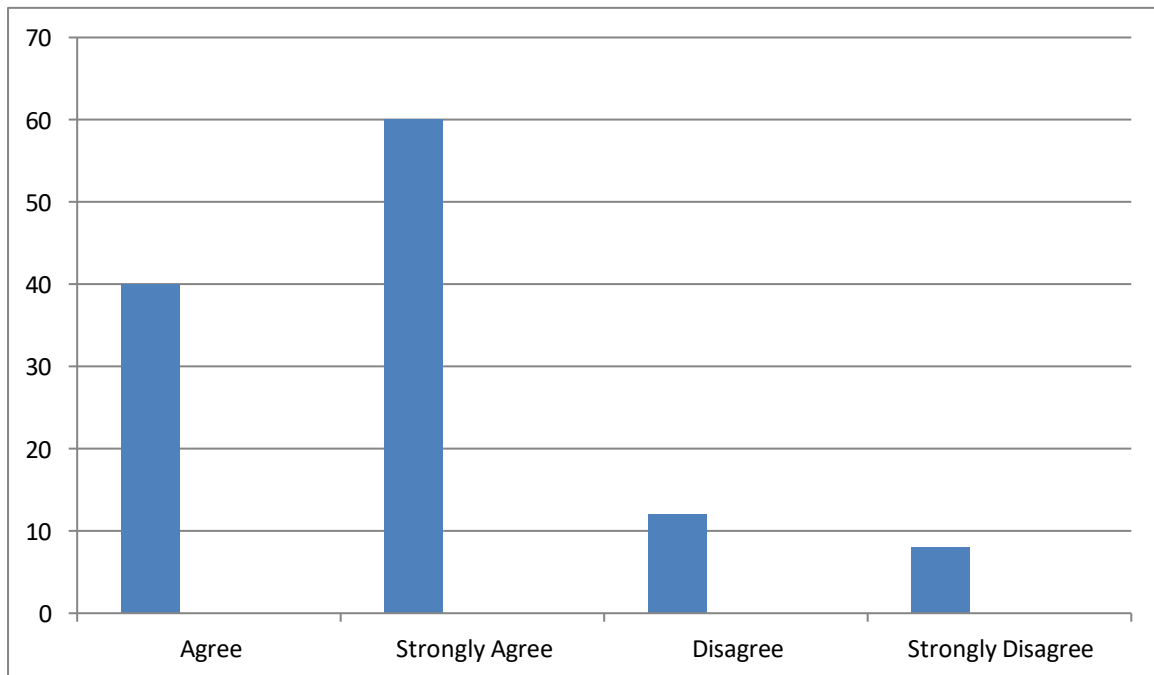
1. Newsroom journalistic practices are being profoundly altered by AI technologies.

Discussion: Majority respondents of the study are strongly agreed upon Journalistic practices that are transformed by Artificial Intelligence tech advancement in Islamabad, Pakistan.
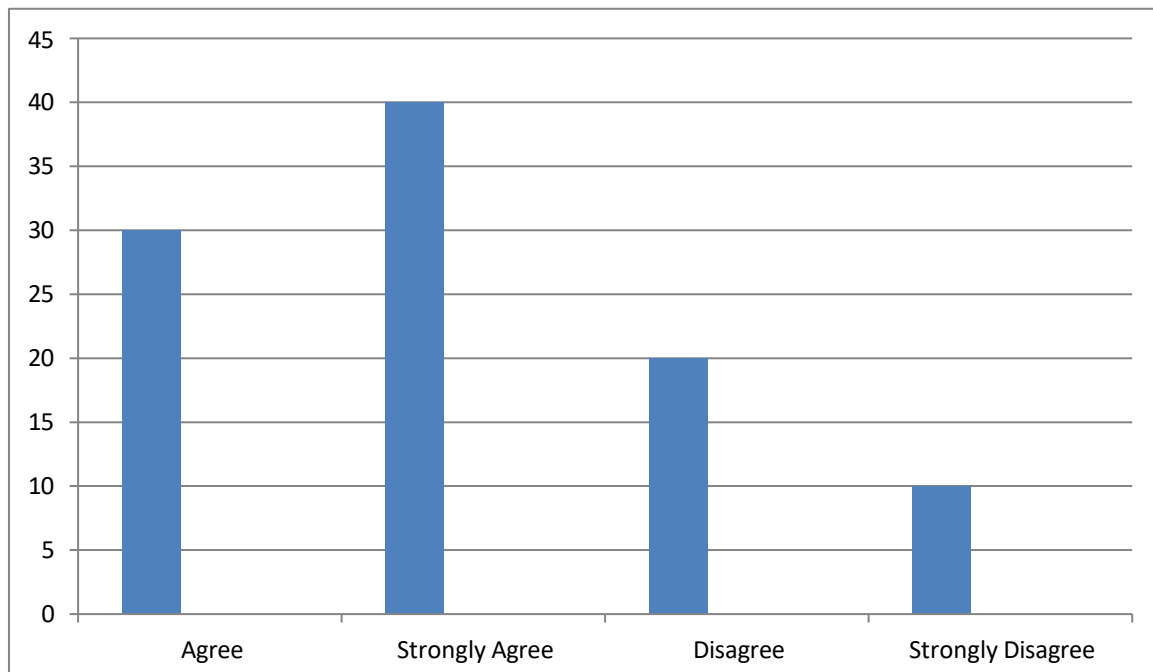
2. Pakistani journalism education is keeping up with the latest developments in technology, such as artificial intelligence.

Discussion: Media practitioners and media students widely accepted the reality that Pakistani journalism education is keeping up day by day with the latest development in technology

especially as artificial intelligence.
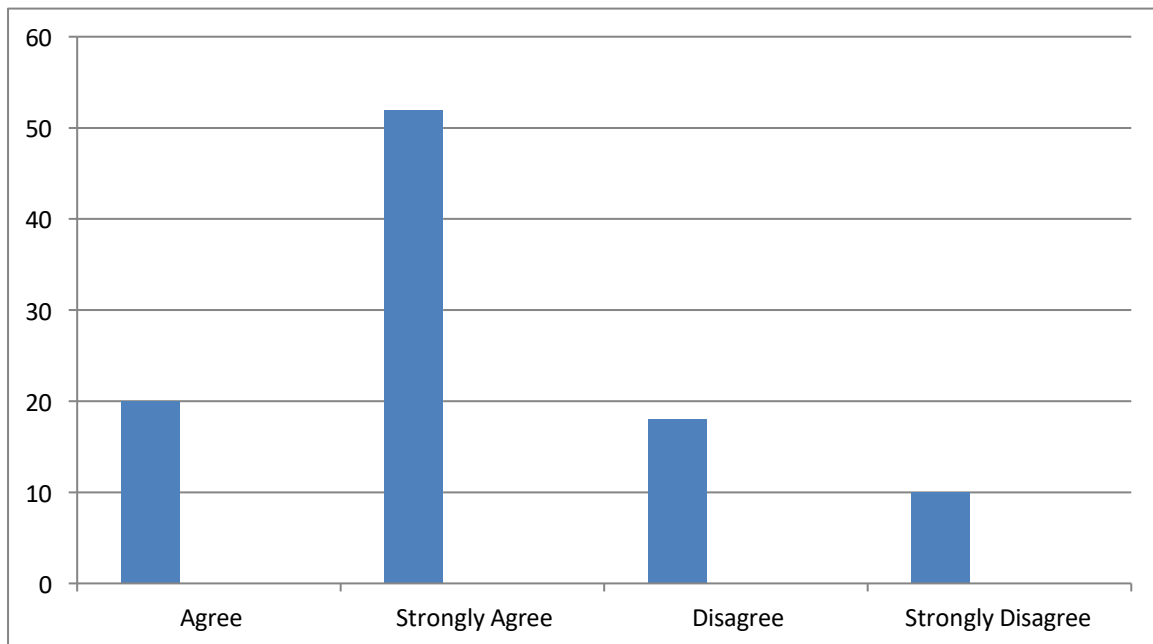
3. I'm comfortable using AI technologies for journalistic activities including data analysis, editing, and article development.

Discussion: Journalists serving the society being the voice of voice less, more than 50% of them are comfortable using AI technologies for journalistic activities comprising of editing, article development, and anaylsis.
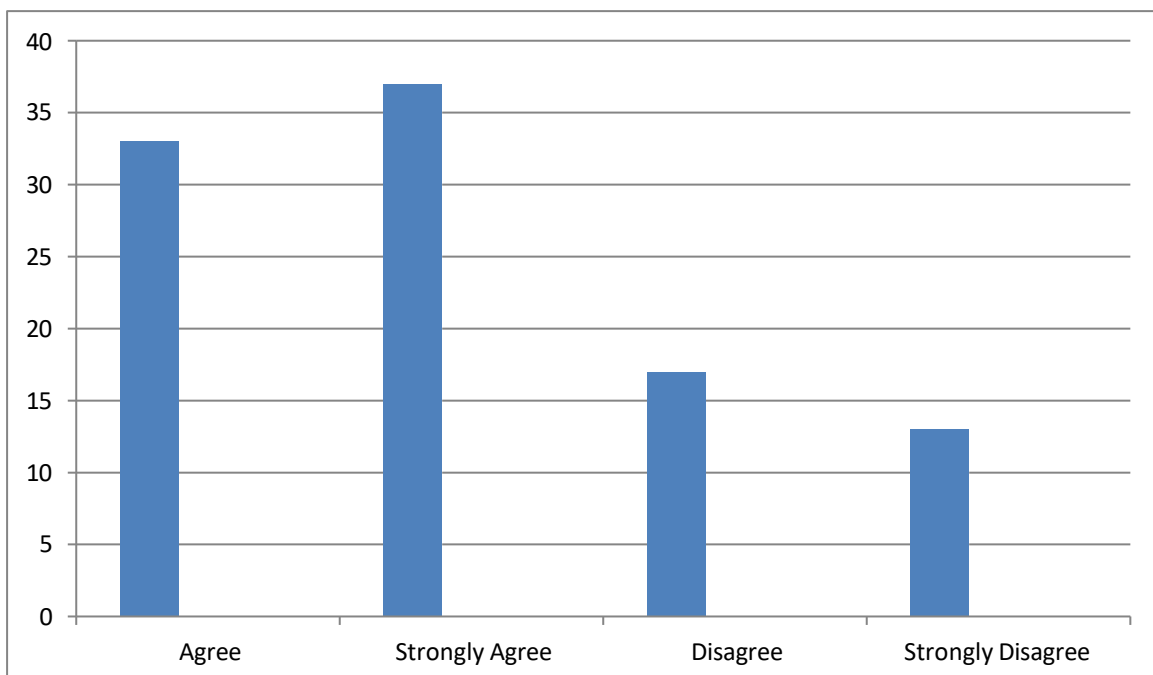

4. By incorporating AI into journalism education, students become more prepared for the modern newsroom.

Discussion: Majority of the practitioners and students are agreed and strongly agreed over the statement that the students become more prepared for the modern newsroom by incorporating AI into journalism education.
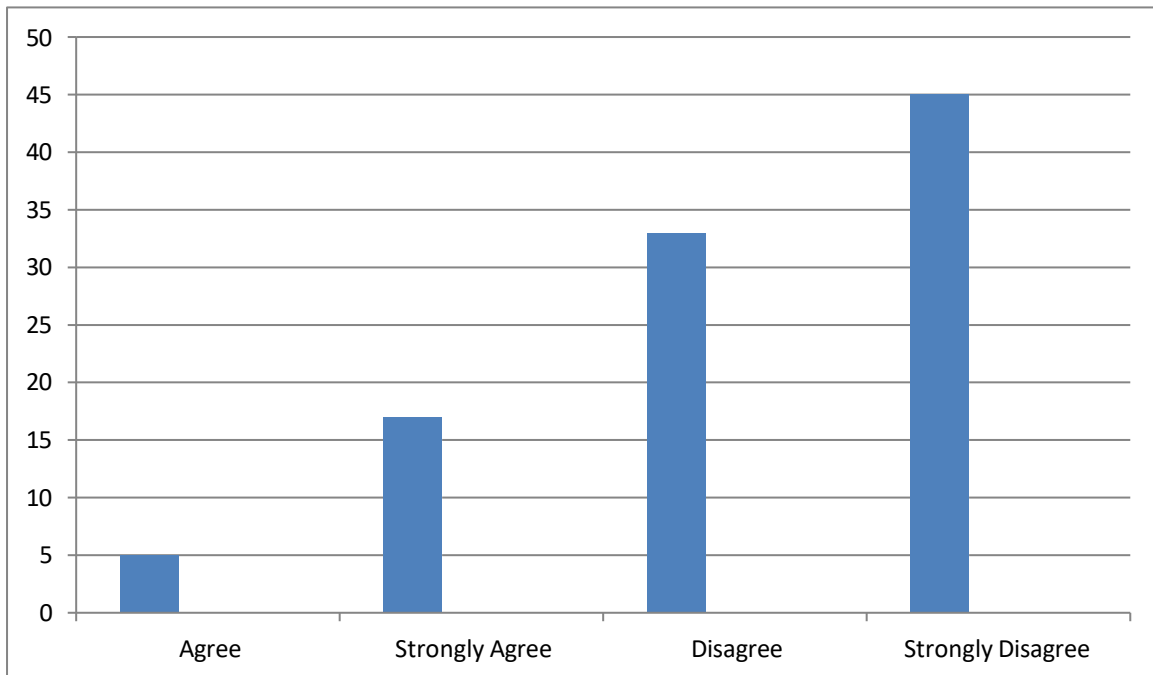
5. Pakistani journalism teachers have received sufficient training to instruct students on AI-related technologies and techniques.

Discussion: Pakistan is still a developing country where every positive change takes time based on finances, technology and awareness, similarly respondents disagree that Pakistani mass communication teachers have received sufficient training to teach pupils on artificial intelligence related technologies and techniques.
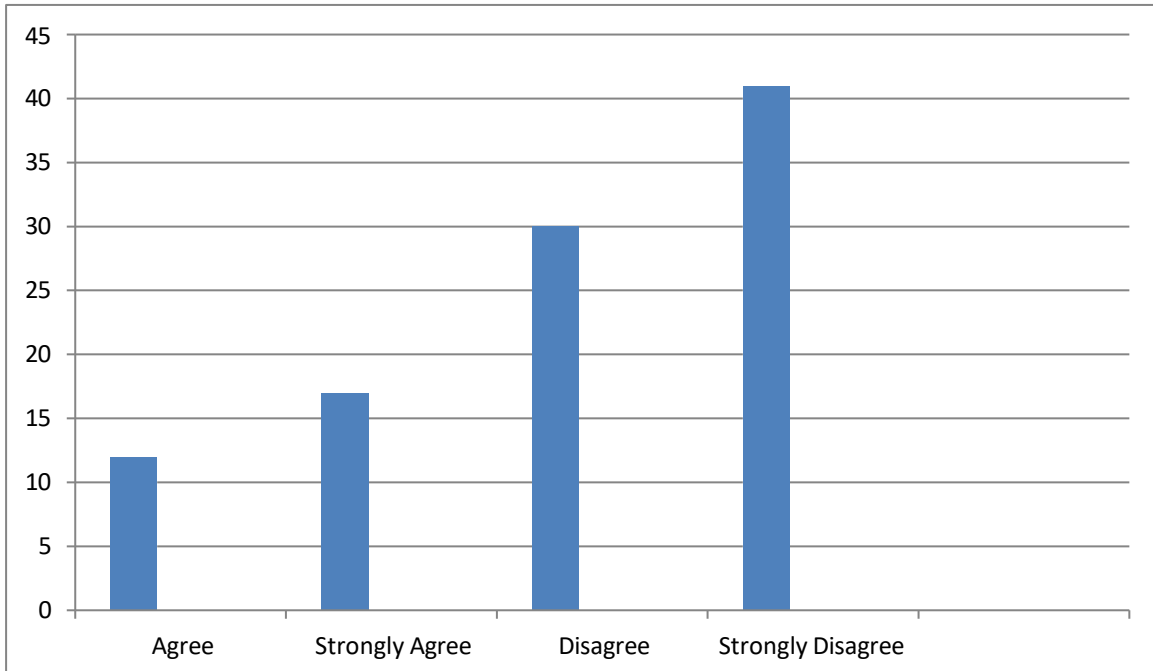
6. The curriculum taught at journalism schools and the demands of AI-powered newsrooms differ noticeably.

Discussion: This study population reject the stance that course content are aligned with industry needs. There is a huge gap between media academia and media practical field.

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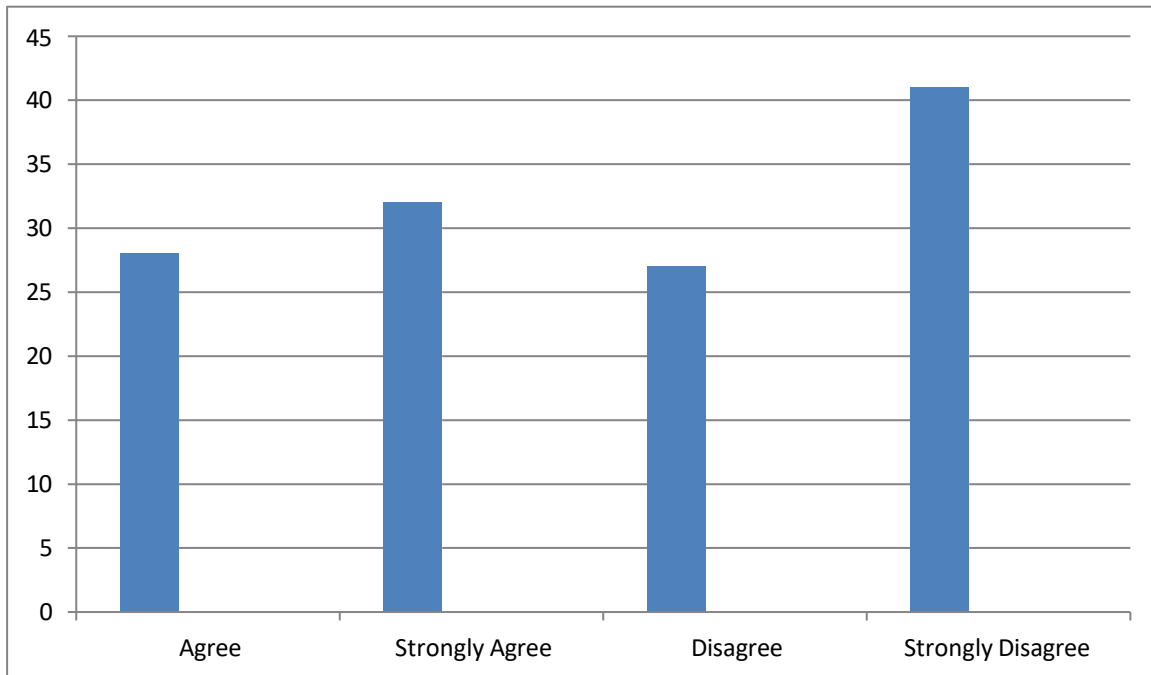
7. The effective application of AI in journalism is constrained by ethical issues (such as prejudice, disinformation, and job displacement).

Discussion: There is somehow balanced response of this study population regarding effective use of artificial intelligence in journalism that is constrained by ethical issues like disinformation, prejudice, and disinformation.
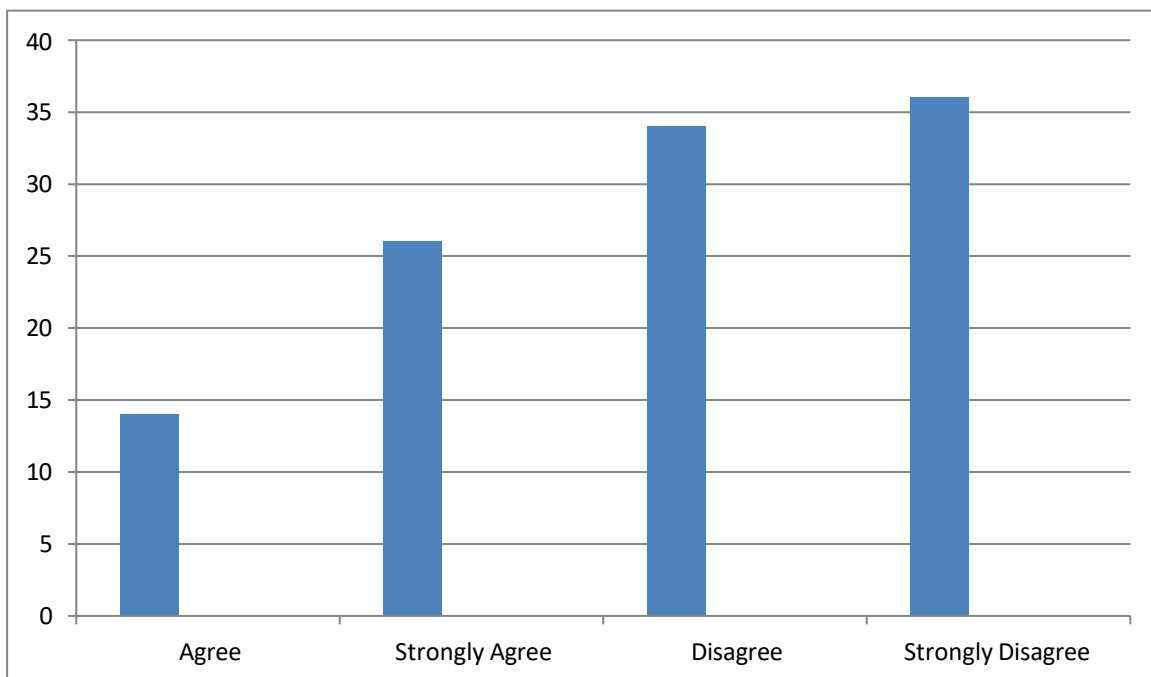

8. My organization/institution promotes the use of AI tools in journalism practice or instruction.

Discussion: Majority of the respondents disagree and strongly disagree that their organization promotes the use of artificial intelligence tools in journalism practice or teaching in universities.
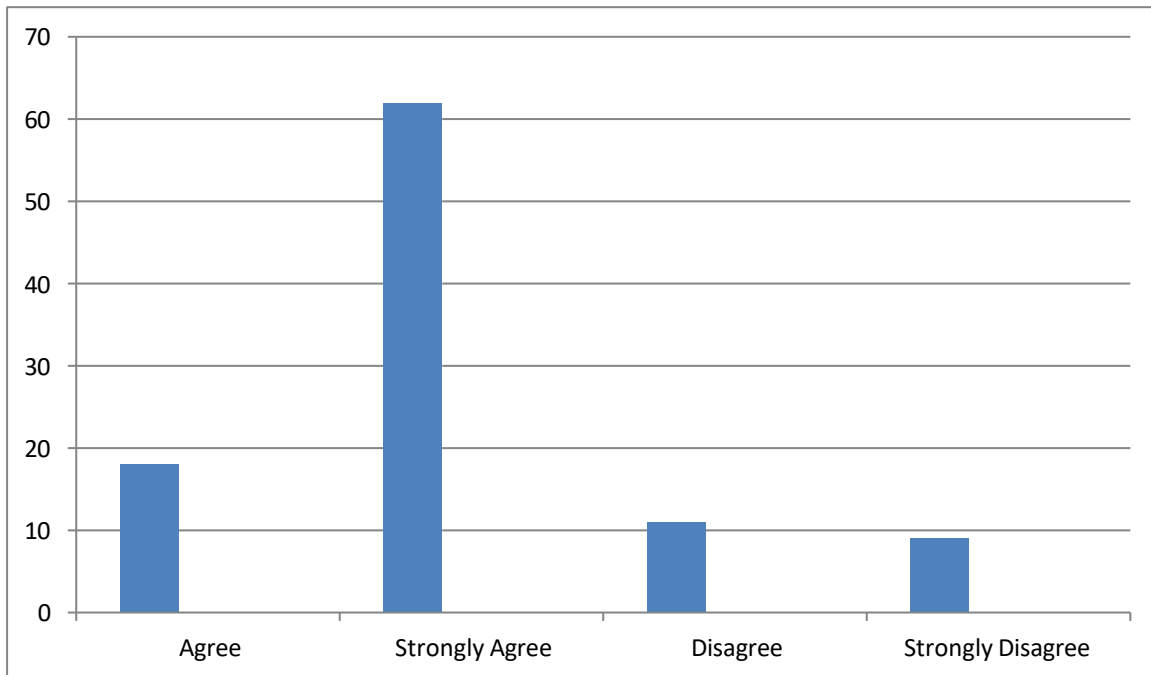
9. News production can be done more quickly and efficiently with AI technologies without sacrificing quality.

Discussion: This study concludes that news production can be efficiently done more quickly with artificial intelligence technologies without sacrificing quality.
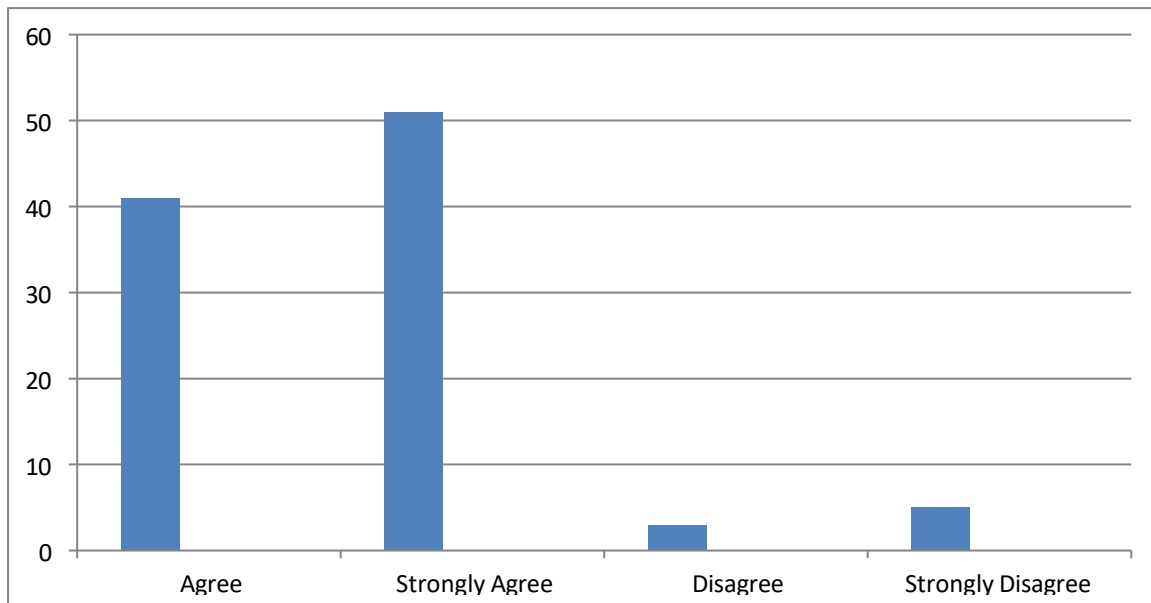
10. Curriculums for journalism need to be revised to incorporate digital media literacy and AI training.

Discussion: This study population majority is agree and strongly agree upon the statement that course content for journalism need to be revised through advance board of studies to incorporate digital media literacy.

Findings and Conclusion:

The results of this study demonstrate how the quick adoption of artificial intelligence (AI) technologies is causing a dynamic change in journalism practices and education in Pakistan. According to the respondents, AI is drastically changing newsroom operations, especially in fields like editing, data analysis, and content development. The comments also highlight the obvious need for journalism education in Pakistan to more proactively adjust to these

technological advancements, even as people are becoming more comfortable utilizing AI technologies for journalistic work. There is still a clear disconnect between the skills taught in journalism classes and those needed in contemporary, AI-powered newsrooms, despite the fact that several institutions are starting to promote the deployment of AI. This disparity points to a lapse in journalism educators' training and curriculum development, which may make students less equipped to deal with the changing media environment. The successful application of AI in journalism is also still hampered by ethical issues like disinformation, algorithmic prejudice, and possible job displacement. While acknowledging AI's potential to improve news production speed and efficiency without necessarily sacrificing quality, the general sentiment nevertheless shows this. All of the comments recommend that journalism courses be urgently revised to include AI training, digital media literacy, and ethical issues. This will guarantee that upcoming journalists are prepared to succeed in a technologically sophisticated newsroom setting.

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