

Sovereign Future or Distant Spectacle? A Comparative Content Analysis of Artificial Intelligence Coverage in Pakistan’s English and Urdu Press after the National AI Policy 2025

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Abstract

Artificial Intelligence (AI) has become a pivotal element in the state's policies, business strategies, and daily operations in Pakistan. Since the National AI policy was accepted in July 2025, the press has become an important space for negotiations around the definition of AI. Based on framing theory and agenda-setting theory, and sociotechnical imaginaries, this exploratory study analyzes the national dailies in English and Urdu to understand how they have framed AI in the first year of policy. Framing devices were qualitatively analysed in conjunction with a localised ten-frame codebook for a quantitative content analysis of 53 articles in 11 local newspapers. National development and sovereignty were the dominant frame, followed by misinformation and deepfakes, and economic opportunity. The risk-oriented frames outnumbered the opportunity-oriented ones, as is more common in the Global South, and regulation and ethics seemed to be represented primarily in the English-language commentary. Words were balanced for tone in both languages. The sources were dominated by the government officials, with few ordinary citizens present. The greatest difference lay in the concept of proximity, English newspapers transformed AI into a national policy issue, while Urdu newspapers mostly treated it as a global war spectacle, a celebrity and moral crisis, and only Urdu newspapers used a religious lens to discuss AI. This study provides the first English–Urdu comparative analysis of AI coverage in Pakistan and its relevance for the areas of AI literacy and inclusive technology governance.

Keywords: Artificial intelligence, framing theory, content analysis, Pakistani press, Urdu newspapers, deepfakes, National AI Policy, Global South

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1 Introduction

1.1 Background of the Study

There's no more unexpected technology to hit the public right now than generative AI. AI in a few years has gone from being a niche area of computer science, to being a general-purpose technology that writes, translates, diagnoses, persuades and deceives. But its social significance is not determined by its technical characteristics. The narrative of AI in public discourse is a key factor in shaping its perception as a catalyst for national growth, as a destroyer of livelihoods, as a surveillance instrument, or as a moral risk. One of the institutions that shape these representations is the news media, which is an institution that is in a privileged position, as most people do not experience emerging technologies firsthand, but through news reporting (Brewer et al., 2022; Nisbet, 2009).

But Pakistan is a very significant environment in which this process can be best studied. The federal cabinet on 30 July 2025 unanimously approved the country's first National Artificial Intelligence Policy which aimed at establishing a national AI ecosystem by capacity building, innovation, and ethical governance (Institute of Strategic Studies Islamabad [ISSI], 2025; Ministry of Information Technology and Telecommunication [MoITT], 2025). The objective of the policy was to train one million individuals in AI, with 3,000 AI scholarships to be given each year until 2028 (Anadolu Agency, 2025). At the opening ceremony of Indus AI Week on 9 February 2026, Prime Minister Shehbaz Sharif inaugurated 750 new AI start-ups and announced plans for the government to invest US\$1 billion in AI by 2030, introduce an AI curriculum in schools and provide funding opportunities for 1,000 doctoral scholarships for AI researchers (Dawn, 2026a; Geo News, 2026). During the same month, Pakistan embraced the Islamabad AI Declaration, incorporating the concept of "sovereign AI" into the official discourse, and in July 2026, the Prime Minister's Office announced the launch of an AI-powered platform for digitizing governance, replacing the traditional paper-based system (Dawn, 2026b).

This upbeat, government-driven story has been accompanied by another one. The use of AI-generated video content and voices has already become ubiquitous and is creating confusion with real evidence on Pakistani social media, as revealed in investigative reporting (Rajput, 2025). A video, seemingly of the Defence Minister deriding Pakistan's development in comparison to India, was recently confirmed as a fake and a fabrication of real and fake video and sound (Asal Media, 2026). In a nuclearized region, AI-generated videos of military officials making statements that they never made can also trigger crises before they are confirmed and rebutted by the governments of the region (Center for International Strategic Studies [CISS], 2026). Aside from that, there have been doubts about whether the nation's infrastructure, skills, and regulatory prowess are on par with its aspirations, and whether it is actually ready for AI or just adopting it (Khan, 2026).

Thus, the contemporary use of AI in Pakistan is a place of heterogeneous significance – as a promise of developmental leapfrogging, a strategic asset in regional rivalry, an employment anxiety and a vector of disinformation. The role of the press in deciding between these meanings is important to their understanding, to the legitimacy of the policy of the State, and to what forms of AI governance can become politically conceivable.

1.2 Statement of the Problem

Although AI has become a prominent part of Pakistan's public discourse, the empirical knowledge of the press representation of AI in a systematic way is limited. The most direct study was carried out by Abbas and Ashfaq (2025) on opinion columns from three English-language newspapers from January 2023 to January 2024, which yielded positive to negative findings. That study provides a useful set of baseline data, but there are three important gaps in it. Firstly, it has focused on English newspapers, which are read by a relatively small, urban, and educated group of people in Pakistan, whereas Urdu newspapers reach a much larger audience and a much broader social group (Rahman 2002, Yusuf 2013). Secondly, it is a timeframe before the National AI Policy, the investment commitment, and the most conspicuous trend of deep fake incidents, so it cannot reflect the subsequent evolution of coverage. Third, it highlighted only opinion columns because

most people come across the news reports of AI. There is also an absence of vernacular-language journalism in the Global South, despite the fact that a few large comparative studies have been conducted internationally through English-language media outlets (Ittefaq et al., 2025).

This doesn't seem like a minor omission, as there is no evidence written in Urdu. Language is intricately linked to class, education and access to power in a society (Rahman, 2002), and the same technology may be represented quite differently in the English and Urdu newspapers for different publics. When the English press AI as investment and skills opportunity and the Urdu press is talking about it as a threat, morality, or security, it is an effective bifurcation of the national conversation on AI. This separation would directly affect the various individuals who are included in the AI economy and those who are only there as a thing.

1.3 Objectives of the Study

This study pursues four objectives:

1. To identify the dominant frames through which Pakistani newspapers represented AI during the first year of the National AI Policy.
2. To assess the overall tone of AI coverage.
3. To determine whose voices, whether government, industry, academic, civil society, or ordinary citizens, are privileged as sources in AI coverage.
4. To compare the framing of AI in English- and Urdu-language newspapers.

1.4 Significance of the Study

The study has three contributions. It is the first empirical systematic comparison of English- and Urdu-language AI coverage in Pakistan and the first analysis that addresses the post-policy era. Thematically, it aims to apply the frame typologies already used to other contexts, such as Pakistan, by incorporating additional frames related to national sovereignty, religion and security, and by publishing all its coded data for auditing, replication and extension. It theoretically integrates the framing theory with the idea of sociotechnical imaginaries (Jasanoff & Kim, 2015), not only by introducing the framing of AI but also by introducing the visions of national future the press helps to stabilise. In practice, the results are applicable to journalists and editors who want to enhance science and technology reporting, to policy makers who have to communicate the National AI Policy to the public, and educators who want to develop AI literacy programs for people with different language backgrounds.

2. Literature Review

2.1 Media Framing of Emerging Technologies

The mediation of emerging technologies is not new, as it can be traced back to decades before the advent of AI. Research on nuclear power, biotechnology and nanotechnology found that news reports of new technologies follow identifiable and well-defined patterns, first promoting a story of progress, followed by a discussion of risk, controversy, and calls for regulation (Gamson & Modigliani, 1989; Nisbet, 2009). In a classic analysis of nuclear power discourse, Gamson and Modigliani (1989) demonstrated that media “packages” constructed around key themes like progress, energy self-sufficiency and runaway technology fought each other over time and that the rise and fall of the relative salience of these packages synchronized with wider political trends. More recently, Nisbet (2009) collated this practice into a typology of recurring frames in science communication, in which he identified social progress, economic development, morality and ethics, scientific uncertainty, Pandora's box, public accountability and conflict. These typologies are important because they imply that AI coverage is not entirely new to journalism; it is common for journalists to repurpose interpretive templates for previous technological debates and make them fit a new object.

A second observation from this literature is the fact that sources are often unpredictable. They have consistently been shown to be dominated by the discussion of officials, corporate spokespeople and credentialed experts and to largely ignore the voices of ordinary citizens and affected communities (Nisbet, 2009). It is important because it is a pattern: as the sources promote,

so does the journalist.

2.2 AI in the News: Evidence from the Global North

Since the mid-2010s, the systematic investigation of AI coverage has grown significantly. With one of the earliest large-scale analyses, Fast and Horvitz (2017) looked at 30 years of the New York Times coverage and discovered that AI coverage began to surge after 2009, and that the tone was predominantly positive rather than negative, though anxieties about loss of control, ethics and effects on work grew over time. Chuan et al. (2019) examined five major American newspapers from 2009 to 2018 and found that business and technology were the most frequent subjects, that the positive aspects of AI were covered more often than the negative aspects, and that they said more about risks of AI than they did about benefits. They also discovered that episodic framing, which was centered on particular events and products, dominated over thematic framing that placed AI in more extensive social contexts.

Brennen et al. (2018) defined AI coverage as an industry-led debate in the UK and found that many articles were focused on industry products, announcements, and initiatives and that the industry had more presence than academics or civil society. To build on this body of work, Sun et al. (2020) used automated text mining and manual coding of 1,776 articles from four major American and British newspapers over 40 years. They were able to identify fourteen major topics that included the concepts of regulation and policy, risk and weaponry and how journalists employed lexical and argumentative devices to build AI as complex, powerful and value-laden. For the current investigation, they observed that the voices of ordinary people were largely missing.

Later studies have examined the ideology of AI reporting. Cools et al. (2024) explored the coverage of AI and automation in the American media to uncover a mixed picture, with a shift between a utopian and dystopian perspective depending on the specific context. Nguyen and Hekman (2024) provided a critical examination of news discourse's understanding of automation, suggesting that the discussion of AI in news tends to reflect technology developers' assumptions more than challenging them. In the field of healthcare, Bunz and Braghieri (2022) discovered that, in British and American health insurance coverage, AI systems are often depicted as surpassing human capabilities, effectively humanizing technology and casting doubt on professionals' judgment.

Collectively, this series of articles indicates that Global North coverage has been predominantly business and technology oriented, that it has been oriented overwhelmingly towards elite and industry sources, and that it has increasingly focused on risk and regulation over the years. But whether this pattern generalises to other media systems is an empirical question.

2.4 Development and the integrity of forests and degraded landscapes

Comparative research shows that they do not easily transfer across situations. Between 2010 and 2023, 38,787 articles about artificial intelligence were published in twelve mainstream English-language newspapers in the Global North and South, and analysed by Ittefaq et al. (2025). They applied topic modelling and sentiment analysis techniques, and extracted nine dominant frames, including 'Impacts of AI on business', 'Impacts of AI on economy', 'Impacts of AI on jobs', 'Transformations in education', 'Transformations in research', and three others. Specifically, their comparative results are informative. While Global North newspapers were more likely to report on AI regulation, ethics and data privacy, Global South newspapers had limited coverage of such topics. A key theme of the event was the importance of AI-powered economic cooperation, with regional interests highlighted by those from the Global South, whereas those from the Global North took a more pragmatic approach, focusing on how to defend against the strategic intent of the Global South's big powers, China and Russia. Outlets like The Guardian and The New York Times were more likely to have a negative tone in their headlines than outlets like China Daily and the Bangkok Post.

The results also reflect on development journalism scholarship that recognizes the history of the news media emerging in developing societies and their disproportionate responsibility to report

government's efforts and promote optimism about modernisation (Xu, 2009). When technology is seen as a tool for nation-building, critical assessment of its dangers may be placed on a secondary agenda of a 'catching up' narrative. A developmental orientation is also reflected in the Global South pattern found by Ittefaq et al. (2025), which emphasizes a stronger positive attitude and lower emphasis on regulation, but could also be due to the immaturity of the local AI industry and the regulatory debates.

One drawback to this is that it uses English language newspapers. In multilingual societies, English-language outlets often cater to a more elite audience with a different relationship to the global technology markets than the majority. Discourses of national elites may thus be better captured than discourses of national publics in conclusions made from English-language channels only, given that the "Global South coverage" reflects the former more than the latter.

2.4 AI in Pakistani Media and Society

To date, the research conducted in Pakistan had focused mainly on perceptions and adoption of AI instead of its representation in the media. However, a survey of healthcare professionals revealed largely positive attitudes towards AI in healthcare with a lack of formal education and concerns regarding implementation (Habib et al., 2024). Research into journalists' practice has started to explore the introduction of AI tools into Pakistani newsrooms, but not content audiences' consumption of them.

Abbas and Ashfaq (2025) performed a qualitative and quantitative content analysis of opinion columns published in Dawn, Pakistan Today and The Nation during the period of January 2023–January 2024, which is the most relevant study to this inquiry. They discovered that Pakistani columnists were optimistic to cautious in their sentiments regarding AI, with the most common frames related to the dangers and advantages of AI, and its usage in areas like business, education, and governance. This study validates that by 2023, AI was a common topic of discourse among the elites in Pakistan. But for the time being, it only applies to writing opinion pieces in English and within a narrow window – say, the first few weeks after ChatGPT went public, before the government had a national AI strategy in place.

The National AI Policy also has some indirect points of reference in the form of policy analyses. The Institute of Strategic Studies Islamabad (ISSI, 2025) termed the policy as a much-needed attempt to modernize the economy and highlighted its six pillars as an effort to shift Pakistan towards knowledge-based economy. At the same time, it has been asked if gaps at the very foundations that hinder energy access, connectivity, and data infrastructure, as well as talent retention, will be conducive to attaining its goals (Khan, 2026). Official ambition and expert scepticism produce just the sort of environment in which other media frames are more apt to appear.

2.5 Language, Audience, and the English–Urdu Press Divide

Linguistic polarization exists in the Pakistani media. English is a language of social privilege and is used by the more elite classes of society, such as the higher bureaucracy, the military, elite education and much of corporate society, whereas Urdu is a national language spoken by a much larger population (Rahman, 1996, 2002). The English newspapers can serve a significantly smaller but very influential audience, which includes urban educated class and policy makers, while Urdu newspapers have a much larger circulation and a larger readership across classes and regions (Yusuf, 2013). Previous studies of the Pakistani media have found that Urdu newspapers, in the past more often than English newspapers, have been more responsive to religious and nationalist sentiments and more sensational in their reporting styles, and that English newspapers have been more liberal in orientation and more policy focused in their reporting (Ricchiardi, 2012; Yusuf, 2013).

Content analysis of other national issues such as China–Pakistan Economic Corridor has been carried out several times that have treated newspapers in English and Urdu as two different discursive spaces, based on the common belief held by Pakistani media scholars that the two

presses present the issues in different ways. The ownership of several of the largest media groups creates an additional challenge as most of these media firms release English and Urdu publications; in some instances, language differences may be perceived in the investigations because of the difference in ownership or editorial policy. The present study in part tackles this confound as a majority of the sample consists of three groups which publish English and Urdu daily.

The rise of deepfakes, disinformation, and the securitisation of AI are a growing problem. The use of deepfakes, disinformation and the securitisation of AI is a growing issue.

One area of literature that stands apart from the others is the synthetic media. In addition to spreading misinformation, what if someone were simply able to claim that information is fake? Chesney and Citron (2019) termed this the “liar’s dividend”, which is also a problem because of deepfakes. Research on the impact of deepfakes indicates that such content might not lead viewers to believe in a falsehood every time, but rather bring doubts, thus exacerbating mistrust in news (Vaccari & Chadwick, 2020). Previous studies on online misinformation more generally reveal that misinformation can travel faster and farther than truth (Vosoughi et al., 2018).

In South Asia, these worries take a geopolitical hue. In May 2025, AI-generated videos of Pakistani and Indian military and political leaders were alleged to be sent by both sides, and Pakistan’s analysts have called for the establishment of a capacity to verify any content in real-time (CISS, 2026). If the purpose of AI is predominantly perceived as national security, it can be subject to governance that is more akin to state security than public debate. Now, the theory of ‘securitisation’ of an issue developed by Buzan et al. (1998) is relevant: a threat to existence can be taken off the political agenda and passed into the domain of security institutions. The nature of the resulting discussion of deepfakes as a challenge to media literacy and platform responsibility, or as a security risk from a foreign adversary, thus carries implications for the nature of the legitimate form of AI governance.

2.7 Research Gap

The literature reviewed above showed four gaps which this study focused on. The Urdu language holds the attention of most newspaper readers in Pakistan, and while there have been occasional studies on AI in English-language newspapers, it has not been thoroughly researched in the Urdu-language press. Second, this is the first content analysis to look at AI coverage following the adoption of the National AI Policy, the investment pledge, and increasing incidents of deepfakes in Pakistan. Thirdly, previous comparisons of language communities have not taken into account the issue of ownership. Thirdly, there are already typologies of frames that came into existence in the Global North, which do not have frames like national sovereignty, religious morality, or regional security etc., which may be important in Pakistan. The study fills these gaps to bring the comparative analysis of AI mediation to a linguistically-divided Global South media system during a time of fast-paced policy shifts.

3. Theoretical Framework

3.1 Framing Theory

The primary theoretical lens of this study is framing theory. The concept of framing originates in Goffman’s (1974) sociological account of the interpretive schemata through which individuals organise experience and make sense of events. In communication research, it has been developed into a theory of how media texts select and emphasise certain aspects of reality. Entman’s (1993) widely cited definition holds that to frame is “to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation” (p. 52). This definition identifies four functions of frames, which together provide a useful analytical structure: a frame defines what the problem is, diagnoses its causes, evaluates it morally, and suggests remedies.

Applied to AI, these functions clarify what is at stake in media representation. An article that frames AI through the lens of economic opportunity defines the central issue as Pakistan’s

competitiveness, locates the cause of underdevelopment in insufficient digital investment, evaluates AI adoption as positive, and recommends further investment and skills training. An article that frames AI through the lens of deepfakes defines the central issue as the integrity of information, attributes the problem to malicious actors or foreign adversaries, evaluates the technology as dangerous, and recommends regulation, verification, or security measures. The same technology thus becomes a different public problem depending on the frame.

Framing scholarship distinguishes between frames in communication, the patterns of emphasis within media texts, and frames in thought, the interpretive schemata held by audiences (Scheufele, 1999). This study examines the former. It does not claim to measure effects on audiences, although the literature provides grounds to expect that frame in communication shape public understanding (Scheufele & Tewksbury, 2007). Framing research further distinguishes between issue-specific frames, tailored to a particular topic, and generic frames that recur across topics, such as conflict, human interest, economic consequences, morality, and responsibility (de Vreese, 2005; Semetko & Valkenburg, 2000). The codebook developed for this study combines both approaches: it adapts generic and science-communication frames (Nisbet, 2009; Semetko & Valkenburg, 2000) and supplements them with issue-specific frames derived from prior AI research (Chuan et al., 2019; Ittefaq et al., 2025) and from preliminary reading of Pakistani coverage. This deductive–inductive strategy follows Matthes and Kohring’s (2008) recommendation that frame identification be grounded in explicitly defined frame elements to improve reliability and validity.

Finally, Iyengar’s (1991) distinction between episodic and thematic framing is relevant. Episodic frames present issues through specific events or cases, such as a product launch or a single viral deepfake, while thematic frames situate issues in broader social, economic, or political contexts. Iyengar showed that episodic framing tends to direct attention away from structural explanations and societal responsibility. Coverage dominated by event-driven reporting of ministerial announcements may therefore obscure longer-term questions about infrastructure, inequality, and governance.

3.2 Agenda-Setting Theory

Agenda-setting theory provides a complementary perspective. McCombs and Shaw (1972) demonstrated that the issues emphasised by news media become the issues that audiences regard as important. While first-level agenda setting concerns the salience of issues, second-level or attribute agenda setting concerns the salience of particular attributes of those issues, a concept that overlaps substantially with framing (Scheufele & Tewksbury, 2007). In this study, agenda-setting theory informs two analytic choices. First, it motivates attention to the volume and timing of AI coverage, including whether coverage spikes around government events such as the policy’s approval and Indus AI Week, which would suggest that the state functions as a primary agenda-builder. Second, it motivates the analysis of sources, since the actors who are quoted are also those best positioned to shape which attributes of AI become salient.

3.3 Sociotechnical Imaginaries

Framing theory explains how particular articles construct meaning, but it is less well suited to explaining why certain frames resonate at particular historical moments. For this purpose, the study draws on Jasanoff and Kim’s (2015) concept of sociotechnical imaginaries, defined as collectively held and institutionally stabilised visions of desirable futures, animated by shared understandings of social order and attainable through advances in science and technology. National AI strategies are paradigmatic expressions of such imaginaries: they articulate what kind of nation the technology will help create. Pakistan’s policy discourse, with its emphasis on a young population, a knowledge-based economy, and “sovereign AI”, articulates one such vision. The concept directs attention to whether the press reproduces, contests, or reworks the state’s imaginary. Newspapers may amplify the official vision of AI-led national renewal, subject it to sceptical scrutiny, or articulate alternative imaginaries centred, for example, on religious ethics, labour, or digital rights. The concept of data colonialism developed by Couldry and Mejias (2019)

offers one such alternative, emphasising that dependence on foreign platforms and data infrastructures may reproduce historical relations of extraction. References to sovereignty in Pakistani AI discourse can be read as a response to precisely these concerns.

3.4 Integrating the Frameworks

The three perspectives operate at different levels of analysis. Agenda-setting theory addresses which topics and actors achieve prominence. Framing theory addresses how AI is interpreted within individual texts. The concept of sociotechnical imaginaries addresses how the aggregate pattern of frames relates to broader visions of national future. Together, they allow the study to move from counting frames to interpreting what the distribution of frames reveals about the political meaning of AI in Pakistan.

4. Research Questions and Hypotheses

Based on the objectives and the literature reviewed, the study addresses four research questions.

RQ1: What frames dominate the coverage of artificial intelligence in Pakistani newspapers during the first year of the National AI Policy?

RQ2: What is the overall tone of AI coverage in Pakistani newspapers?

RQ3: Which categories of actors are most frequently used as primary sources in AI coverage?

RQ4: Do English- and Urdu-language newspapers differ in their framing and tone of AI coverage?

The literature also supports four directional hypotheses. Global South outlets have been found to foreground economic and developmental aspects of AI (Ittefaq et al., 2025), and the study period is dominated by state-led policy announcements. Therefore:

H1: Opportunity-oriented frames (economic opportunity and investment, national development and sovereignty, and education and skills) will together account for a larger share of primary frames than risk-oriented frames (employment disruption, misinformation and deepfakes, security and geopolitics, and ethics, rights, and regulation).

Prior research indicates that regulation, ethics, and data privacy receive minimal attention in Global South coverage (Ittefaq et al., 2025). Therefore:

H2: The ethics, rights, and regulation frame will be among the least frequent primary frames.

Given the documented differences in audience, orientation, and style between the English and Urdu press (Rahman, 2002; Ricchiardi, 2012; Yusuf, 2013), the study expects:

H3a: English-language newspapers will use economic opportunity and investment frames more frequently than Urdu-language newspapers.

H3b: Urdu-language newspapers will use religion, morality, and culture frames, as well as misinformation and security frames, more frequently than English-language newspapers.

Finally, research in both the Global North and South shows that AI coverage relies on elite sources and marginalises citizen voices (Brennen et al., 2018; Sun et al., 2020), and the study period is shaped by government agenda-building. Therefore:

H4: Government officials will be the most frequent category of primary source, and ordinary citizens will be the least frequent.

5. Methodology

5.1 Research Design

The study is exploratory quantitative content analysis with qualitative analysis of the framing devices. Content analysis is a research method that can make repeatable and valid deductions from text-to-text usage contexts (Krippendorff, 2018). It is a quantitative version that assigns a category to the content of communication based on explicit rules, and then statistically analyzes the relationships between these categories (Riffe et al., 2019). The method is appropriate for the current research questions since it facilitates the description and comparison of patterns across a large number of texts, and because it has been the predominant method used in previous research on AI coverage (Chuan et al., 2019; Sun et al., 2020). The qualitative aspect (adapted from Gamson and Modigliani 1989) analyzes the metaphors, catchphrases, and exemplars that are used to build frames.

5.2 Newspapers

The sampling frame was made up of websites of Pakistan's national English and Urdu daily newspapers. The newspaper press is compared with websites of TV channels, news agencies, digital-only portals, blogs and government press releases were excluded. Finally, 11 newspapers (four in English: Dawn, The News International, The Express Tribune and The Nation and seven Urdu: Daily Jang, Daily Express, Nawa-i-Waqt, Daily Pakistan, Daily Ausaf, Nai Baat and Ummat) were selected from the dailies. In the sample, there are three media groups that publish English and Urdu daily: Jang Group (The News and Daily Jang), Lakson group (The Express Tribune and Daily Express), and Nawa-i-Waqt group (The Nation and Nawa-i-Waqt). These six titles provided 37 of the 53 articles (69.8%), thus helping to limit the interaction of language with ownership.

5.3 Time Frame

The study period runs from 30 July 2025 (National AI Policy date of approval) to 30 July 2026. This window reflects the approval of the policy, the increase in domestic deepfakes incidents since the end of 2025, the Indus AI Week, the US\$1 billion pledge, and the Islamabad AI Declaration in February 2026, and the launch of the PMO's AI-based system in July 2026.

5.4 Retrieval and Sampling Procedure

Given that newspapers don't have a unified archive that can be searched by Urdu and English language, articles were obtained using the web search engine on 23 September 2026. Searches were conducted in both English and Urdu (artificial intelligence, a/e/i/e deep fake, ChatGPT, artificial intelligence policy, artificial intelligence investment, artificial intelligence education, artificial intelligence job, deepfakes, security, governance, and religion), both with and without newspaper names. The topics were deliberately varied to ensure there was no one single theme for retrieval.

Articles were included when they included the word AI in the headline or lead of the article and were a news report, feature article, editorial or opinion column, and were published on the website of a national daily during the study period. Letters to the editor and duplicate stories were not counted. Stories outside Pakistan were retained and coded for geographic focus as the balance between domestic and foreign stories is an important dimension of the coding of framing. Finally, 53 articles (27 English language and 26 Urdu language) were obtained from the procedure (Table 1). The following is a list of the headlines, dates and URLs of each article contained in this report. A purposive, search based sample rather than a probability sample. Articles may be over-represented in the search results because they are recent and popular, and because of the diversity of topics in the queries, the diversity of the results may be greater than the diversity of the entire coverage. Percentages are thus based on the sample and should not be interpreted as exact figures of the total coverage of AI in the Pakistani press. As the study is exploratory, statistical tests are reported as an indication of the strength of patterns within the sample.

5.5 Unit of Analysis and Coding Scheme

The unit of analysis is the individual article. Coding was based on each article's headline and lead paragraphs as retrieved, which typically comprised the first 100 to 300 words. Headlines and leads are where journalists establish the dominant interpretation of a story, and headline-level analysis is an established approach in large-scale AI framing research (Ittefaq et al., 2025).

The codebook (Appendix A) combines deductive and inductive elements. Frames were derived from prior research (Chuan et al., 2019; Ittefaq et al., 2025; Nisbet, 2009; Semetko & Valkenburg, 2000) and supplemented with frames suggested by Pakistani policy discourse, namely national sovereignty, religion, and regional security. Ten substantive frames were used:

Code	Frame	Core idea (problem definition)
F1	Economic opportunity and investment	AI as a source of growth, investment, exports, startups, and productivity

Code	Frame	Core idea (problem definition)
F2	National development and sovereignty	AI as a path to national progress, readiness, self-reliance, and catching up with other nations
F3	Education and skills	AI training, curricula, scholarships, and youth employability
F4	Employment disruption	AI as a threat to jobs, freelancers, and livelihoods
F5	Governance and public services	AI in e-government, the judiciary, digitisation, and service delivery
F6	Misinformation and deepfakes	AI-generated fake content, impersonation, and threats to information integrity
F7	Security, geopolitics, and international relations	AI in war, defence, cyber security, and interstate rivalry or cooperation
F8	Ethics, rights, and regulation	Privacy, accountability, data governance, and the need for laws
F9	Religion, morality, and culture	AI evaluated through Islamic teaching, eschatology, or moral values
F10	Sectoral applications	AI in a specific sector such as health, banking, or entertainment

For each article the coder recorded the primary frame, defined as the frame organising the headline and lead. Articles fitting none of the frames were coded “Other”. The following variables were also coded:

- Tone: positive, negative, balanced (benefits and risks given comparable weight), or neutral (factual reporting with no evaluative emphasis).
- Primary source: the first source named in the headline or lead, classified as government official or body, political party figure, industry or business, academic or expert, civil society or NGO, foreign government or international organisation, private individual, or no source in the lead.
- Article type: news report, feature, editorial, or opinion column.
- Framing style: episodic or thematic (Iyengar, 1991).
- Geographic focus: Pakistan, India, another named country, or global.
- Policy reference: whether the headline or lead mentions the National AI Policy, the US\$1 billion pledge, or the Islamabad AI Declaration.

5.6 Coding Procedure and Reliability

Initial coding was carried out with the assistance of a large language model (Claude, Anthropic) applying the written codebook to each article, and every coding decision was then reviewed by the researcher against the source text. All coded values are reported alongside article URLs in Appendix B, so that each decision can be inspected and recoded by other researchers. Because the study used a single reviewing coder, intercoder reliability could not be calculated. This is a significant limitation. Before any confirmatory use of these findings, a second trained coder fluent in both languages should independently recode a random subsample of at least 15% of the articles, with reliability assessed through Krippendorff’s alpha (Krippendorff, 2018).

5.7 Data Analysis

Data were analysed in Python using the pandas and SciPy libraries (Virtanen et al., 2020). Descriptive statistics address RQ1 to RQ3. H1 was tested with a chi-square goodness-of-fit test

comparing opportunity-oriented and risk-oriented primary frames. Associations between language and tone, framing style, and geographic focus were tested with chi-square tests of independence, with Cramér's V as the effect size. Because several frame categories had small expected counts, frame-by-language comparisons used Fisher's exact test on two-by-two tables (frame present or absent by language). Short excerpts from Urdu articles were translated by the researcher for the qualitative analysis.

5.8 Ethical Considerations

The study analyses publicly available published texts and involves no human participants. Articles concerning deepfakes of identifiable individuals are described without reproducing the fabricated claims.

6. Findings

6.1 Profile of the Sample

A total of 53 articles, 27 English and 26 Urdu (Table 1) were sampled. The largest group of news reports accounted for 41.5%, opinion columns 35.8%, features 18.9% and editorials 3.8%. Opinion columns and editorials accounted for 51.9% of the English articles while only 26.9% of Urdu articles had an opinion column or editorial. Urdu Focus was news oriented (53.8%, compared to 29.6%).

Table 1. Articles by newspaper and article type

Newspaper	Language	News	Feature	Editorial	Opinion	Total
<i>The Express Tribune</i>	English	2	1	0	7	10
<i>Dawn</i>	English	3	3	0	1	7
<i>The News International</i>	English	2	0	0	4	6
<i>The Nation</i>	English	1	1	2	0	4
<i>Daily Express</i>	Urdu	5	2	0	2	9
<i>Daily Jang</i>	Urdu	1	3	0	1	5
<i>Daily Pakistan</i>	Urdu	4	0	0	1	5
<i>Nawa-i-Waqt</i>	Urdu	3	0	0	0	3
<i>Daily Ausaf</i>	Urdu	0	0	0	2	2
<i>Nai Baat</i>	Urdu	0	0	0	1	1
<i>Ummat</i>	Urdu	1	0	0	0	1
Total		22	10	2	19	53

Coverage was spread across the year but concentrated in its second half. July 2026 contributed the most articles (13), followed by February, March, and June 2026 (seven each). The February cluster coincides with Indus AI Week and the US\$1 billion pledge. The July peak should be read cautiously, since search-based retrieval tends to favour recent articles.

6.2 Dominant Frames (RQ1, H1, H2)

National development and sovereignty topped the list of primary frames, with 17.0%, followed by misinformation and deepfakes (15.1%), economic opportunity and investment (13.2%) and, tied for 11.3%, by security and geopolitics and ethics, rights, and regulation. Less common were education and skills (9.4%), employment disruption (7.5%), governance and public services (5.7%) and religion, morality and culture (5.7%) (Table 2).

Table 2. Primary frames by language

Frame	English n (%)	Urdu n (%)	Total n (%)
F1 Economic opportunity and investment	4 (14.8)	3 (11.5)	7 (13.2)
F2 National development and sovereignty	5 (18.5)	4 (15.4)	9 (17.0)
F3 Education and skills	2 (7.4)	3 (11.5)	5 (9.4)
F4 Employment disruption	2 (7.4)	2 (7.7)	4 (7.5)
F5 Governance and public services	3 (11.1)	0 (0.0)	3 (5.7)
F6 Misinformation and deepfakes	6 (22.2)	2 (7.7)	8 (15.1)
F7 Security, geopolitics, and international relations	1 (3.7)	5 (19.2)	6 (11.3)
F8 Ethics, rights, and regulation	4 (14.8)	2 (7.7)	6 (11.3)
F9 Religion, morality, and culture	0 (0.0)	3 (11.5)	3 (5.7)
F10 Sectoral applications	0 (0.0)	1 (3.8)	1 (1.9)
Other	0 (0.0)	1 (3.8)	1 (1.9)
Total	27	26	53

Opportunity-oriented frames (F1 to F3) accounted for 21 articles (39.6%) and risk-oriented frames (F4, F6, F7, F8) for 24 (45.3%). The difference was not significant, $\chi^2(1, N = 45) = 0.20, p = .655$, and the balance was almost identical in English (40.7% opportunity, 48.1% risk) and Urdu (38.5% and 42.3%). H1 was not supported as it predicted a dominance of opportunity frames. Also, the ethics, rights and regulation frame were not among the least frequent primary frames: it was the fourth most frequent primary frame, in combination. Four of its six writings (Appendix B: E03, E09, E13, E15) were in English and were opinion pieces that questioned whether the policy provided data protection law, a dedicated regulator, or enforcement powers.

6.3 Tone (RQ2)

Tone was evenly divided. Positive and negative articles each accounted for 32.1% of the sample, balanced articles for 28.3%, and neutral articles for 7.5%. Tone was closely tied to frame. Six of the seven economic opportunity articles were positive, while all eight misinformation and deepfake articles were negative. Four of the six regulation articles were balanced, typically acknowledging AI's promise before criticising the governance gap.

Table 3. Tone by language

Tone	English n (%)	Urdu n (%)	Total n (%)
Positive	8 (29.6)	9 (34.6)	17 (32.1)
Negative	8 (29.6)	9 (34.6)	17 (32.1)
Balanced	11 (40.7)	4 (15.4)	15 (28.3)
Neutral	0 (0.0)	4 (15.4)	4 (7.5)

With balanced and neutral combined to avoid small cells, language was not associated with tone, $\chi^2(2, N = 53) = 0.57, p = .751$, Cramér's $V = .10$. English articles were more often balanced, reflecting their larger share of commentary, while Urdu articles more often reported events without evaluation.

6.4 Sources (RQ3, H4)

Half of the articles (50.9%) named no source in the headline or lead. Almost all of these were opinion columns and editorials, which rely on the author's own voice. Among the 26 articles that did name a source, government officials or bodies were the most frequent (11; 42.3%), followed by academics and experts (8; 30.8%) and industry (3; 11.5%). Civil society, a political party figure, a foreign government, and a private individual each appeared once. Every government-sourced article was a news report, so officials were the primary source in 11 of the 21 news reports that named a source (52.4%). No article used an ordinary citizen as its primary source; the single private individual was a film celebrity pursuing a deepfake case. H4 was supported.

Table 4. Primary source by language

Source category	English n	Urdu n	Total n (% of sourced)
Government official or body	5	6	11 (42.3)
Academic or expert	3	5	8 (30.8)
Industry or business	2	1	3 (11.5)
Civil society or NGO	1	0	1 (3.8)
Political party figure	1	0	1 (3.8)
Foreign government or international organisation	0	1	1 (3.8)
Private individual	0	1	1 (3.8)
Ordinary citizen	0	0	0 (0.0)
No source in lead	15	12	27 (—)

6.5 English–Urdu Comparison (RQ4, H3a, H3b)

At the level of individual frames, differences ran in several directions but none reached significance on Fisher’s exact test. Economic opportunity appeared at similar rates in English (14.8%) and Urdu (11.5%), $p = 1.00$, so H3a was not supported. The religion frame appeared only in Urdu (three articles, 11.5%; $p = .111$), and security and geopolitics was more common in Urdu (19.2% versus 3.7%; $p = .100$). These patterns are in the direction predicted by H3b but are not statistically reliable in a sample of this size, so H3b receives only partial, tentative support. Contrary to H3b, misinformation and deepfakes was more common in English (22.2% versus 7.7%; $p = .250$). Governance and public services appeared only in English (three articles). With frames grouped into six families, the overall association with language was moderate in size but not significant, $\chi^2(5, N = 53) = 8.70$, $p = .122$, Cramér’s $V = .41$, and several expected counts fell below five.

The strongest difference concerned geographic focus (Table 5). Of the English articles, 85.2% focused on Pakistan, compared with 38.5% of the Urdu articles, $\chi^2(1, N = 53) = 12.31$, $p < .001$, Cramér’s $V = .48$ (Fisher’s exact $p < .001$). The majority of Urdu articles concerned global developments (42.3%), India (7.7%), or another named country (11.5%).

Table 5. Geographic focus by language

Focus	English n (%)	Urdu n (%)	Total n (%)
Pakistan	23 (85.2)	10 (38.5)	33 (62.3)
Global	3 (11.1)	11 (42.3)	14 (26.4)
Other named country	1 (3.7)	3 (11.5)	4 (7.5)
India	0 (0.0)	2 (7.7)	2 (3.8)

Two related differences approached significance. Urdu articles were more often episodic (53.8% versus 29.6% in English), $\chi^2(1, N = 53) = 3.20$, $p = .074$, Cramér’s $V = .25$. English articles referred to the National AI Policy, the investment pledge, or the Islamabad AI Declaration more often (37.0% versus 11.5%), Fisher’s exact $p = .054$. Taken together, these results suggest that the language divide lies less in whether AI is judged good or bad than in how close to home it is placed.

6.6 Framing Devices: Qualitative Observations

Three clusters of framing devices stood out. First, development coverage relied on metaphors of racing and catching up. Reporting of the Prime Minister’s Indus AI Week speech in Nawa-i-Waqt rendered his message as Pakistan being ready to walk “shoulder to shoulder” (شانہ بشانہ) with the world (U15), and a Daily Express column framed AI as a regional race holding “lessons for Pakistan” (U04). English commentators contested this vocabulary. Writing in Dawn, Asad Baig compared AI in policy language to the word “quantum” in old science fiction, a prefix that makes ordinary reform sound futuristic (E20).

Second, deepfake coverage used a vocabulary of unreality and violation. A Dawn investigation described Pakistan's online space as resembling a hall of mirrors (E17), and an editorial in *The Nation* described AI as becoming "a weapon of humiliation, blackmail and misogyny" (E25). English deepfake stories were mostly domestic and centred on journalists, women in public life, and public trust (E02, E17, E26). Urdu deepfake stories more often concerned foreign celebrities or foreign legislation (U05, U06).

Third, the religion frame was built over eschatological and moral frames, which were not available in Urdu. The advent of AI and the notion of *fitna* (trial or tribulation) were addressed in two columns of *Daily Ausaf*, which discussed the end times scenarios within the Islamic faith (U24, U25). A *Daily Express* feature sparked threats to personal chastity and the family (U06), while *Daily Pakistan* reported that the Council of Islamic Ideology recommended that content created with AI should be subject to Sharia review before publishing it (U22). The security coverage in Urdu, on the other hand, frequently assumed the form of a spectacle of global proportions, and some research indicated that AI models had a tendency to escalate towards nuclear weapons (U16).

7. Discussion

The present study analyzed the nature of the coverage of AI in the first year of the National AI Policy and whether the English- and Urdu-language dailies built a different frame of AI. There are three important findings. First, AI was not a cause for celebration, but rather, it was a cause for contestation, with risk frames being as prevalent as opportunity frames and more attention on regulation than previous research on Global South expectations. Second, while the state was the main producer of sourced news, there were no ordinary citizens involved. Third, the English–Urdu divide was not in terms of the evaluation but in terms of proximity. English newspapers made the issue of AI a Pakistani policy matter, while Urdu newspapers more frequently made it about something that was happening somewhere else.

7.1 A Contested Imaginary

This study by Ittefaq et al. (2025) revealed that the Global South newspapers had a more positive stance on AI compared to newspapers from the Global North, with a lack of focus on regulation and ethics. It is different with the Pakistani sample. There were a similar number of opportunity and risk frames, a 50-50 split in tone, and a joint fourth most frequent regulation frame. There were two aspects of the study period that can help to account for the disparity. It started with the implementation of the national policy that provided commentators with a tangible subject to scrutinise, and it coincided with the noticeable surge of domestic deepfake incidents (Rajput, 2025; CISS, 2026). Ittefaq et al.'s data, collected prior to 2023, comes before both of these.

The results can best be interpreted in the framework of a set of conceptual tools referred to as sociotechnical imaginaries (Jasanoff & Kim, 2015). The state had a clear vision of a national development through AI and national development and sovereignty were the most prevalent frames. But the imagined was not unchallenged. Opinion writers in English repeatedly endorsed the objective, but doubted the means, citing not only the absence of data protection law, but of a regulator, and weak power and computing infrastructure (Appendix B: E09, E13, E20). This is precisely what Baig's description of AI as the word "quantum" in old science fiction does: it does not denounce the vision, but it means that the language of the science fiction is running ahead of its underpinnings (E20). These writers agreed with the state's understanding of the problem, but disagreed with the state's treatment recommendation, that investment announcements alone are not enough.

7.2 Two Presses, Two Distances

The main contribution of this study is the comparison of English with Urdu. Based on the literature on the language divide in Pakistan (Rahman, 2002; Yusuf, 2013) it was expected that the two presses would have different valence, with the English press being more optimistic and the Urdu press more fearful. That was not the case: Tone was almost identical in all the languages. The only thing that varied was distance. English newspapers dedicated 85.2% of their Pakistan-

focused AI coverage and three times as much attention to the national policy. Most of the Urdu newspaper content was out of the country (international), in the field of global warfare, in Indian courts, in American legislatures, and viral entertainment.

This difference is crucial for agenda-setting. McCombs and Shaw (1972) contended that media didn't affect the way people think, rather the way they think about. The English press is urging its readers to consider AI as a nation project that is open to discussion. The Urdu press which has a much larger and more socially diverse readership on average has more frequently called on its readers to look at AI as a spectacle happening elsewhere, and as the frequency of episodic reporting has shown, to experience it as a series of discrete events, rather than a policy field. The outcome is consistent with the class associated language hierarchy as explained by Rahman (2002). The readers of English are addressed as participants of the national AI economy and readers of Urdu are addressed as more often than not, a spectator of a global phenomenon. If it is true in larger samples, the public discourse on the National AI Policy takes place in the language of a minority.

An additional layer is provided by the religion frame that was present in just Urdu. Some columns on the subject of AI, with a focus on Islamic eschatology (U24, U25), as well as reports on the Council of Islamic Ideology's Islamic review of AI content (U22), speak to a counter-narrative. In it, the use of AI is not evaluated on the basis of its national development but on its suitability to moral and religious frameworks. It is important to remember that this imaginary is not central to the state's rhetoric or the commentary in English, which indicates that official AI communication is perhaps not adequately tapping into the moral lexicon with which a large swath of the public understands technological change.

7.3 Deepfakes, Security and Securitisation Question

The study assumed that deepfake coverage could potentially securitise AI and present synthetic media as a threat from an external other (Buzan et al., 1998). The facts say otherwise. English deepfake coverage was primarily local and focused on negative impacts on the press, women in public life and public trust from civil society voices, and not from security institutions (E02, E17, E26). Its implicit remedies were media literacy, platform accountability and legal protections for victims, which is aligned with the concerns of Chesney and Citron (2019) and Vaccari and Chadwick (2020). In Urdu coverage of military AI, on the other hand, there were stories about AI-guided strikes and nuclear escalation, suggesting that it was a global strategic threat (U11, U12, U16). In other words, securitization wasn't happening so much at home as at war overseas, and it mostly flowed along a Urdu path on the press.

7.4 Whose AI? The Politics of Voice

The source analysis is consistent with what has already been reported in the United States and United Kingdom (Brennen et al., 2018; Sun et al., 2020): AI news tends to be elite-sourced. In Pakistan, this is further accentuated by the state-driven nature of the AI agenda. More than half of the news articles that were cited were from government officials as their main source, and none of the articles cited an ordinary citizen as its primary source. Those who the policy is aimed at training – the students, freelancers and workers affected by AI in their livelihood – did not appear, if at all, as the subjects of announcements. The debate on AI largely happened in the opinion pages and mainly in English. Nearly no voice of the nation's young majority is heard in a technology that the state touts as a project for the nation's young majority. The almost complete lack of the young majority's voice in a technology that the state claims is a project for the young majority is a democratic deficit.

8. Conclusion

8.1 Summary and Contributions

In a very short span of time, AI has become one of the most salient items of public policy and public concern in Pakistan. For this study, 53 articles from 11 national English and Urdu language newspapers were analysed during the first year of the National AI Policy. The most often

identified frame was national development and sovereignty, while risk-oriented frames were equally prevalent as opportunity-oriented frames and tone was split equally. There was a lack of citizenry voice in sourced news reporting, with dominance of government officials. The English and Urdu press did not differ in their positive or negative assessment of AI, but they did show notable differences in where they found AI; English newspapers were more likely to see it as a Pakistani policy issue, whilst Urdu newspapers were more likely to see it as a global spectacle and were the only ones to see it through a religious lens.

The study makes a contribution to the scholarship in three ways. First, it offers the first systematic evidence of AI coverage in the Urdu-language media, which has been missing from both Pakistani and comparative studies that have been based on English-language media. Second, it records the coverage of a period of rapid policy development in the field of AI, which was mediated by the press, with coverage being connected with specific state policies and with the occurrence of AI deepfake incidents at the domestic level. Thirdly, it builds on framing theory and the notion of sociotechnical imaginaries to examine the role of the press in the production of collective visions of the national future, rather than just cataloguing frames. The extended typology, from the perspective of national sovereignty, to religion and morality, to security and geopolitics, might also prove helpful to other researchers investigating AI coverage in other contexts in the Global South.

8.2 Recommendations

The results highlight the importance for journalists/editors to extend their coverage beyond an event-based approach to an announcement to a thematic approach that explores implementation, infrastructure and distributional impacts, and the need to widen the sources they draw on, to include workers, students, civil society organisations and independent experts. Journalists could benefit from targeted training in science and technology reporting, especially for Urdu outlets, to help them provide context on AI without falling into the trap of either overzealous marketing or fear-mongering.

The results highlight the importance of the public communication of the National AI Policy, as it needs to be accessible to all language speakers and to openly confront the issue of rights, privacy, and accountability that is not only the language of opportunity. The extensive coverage of deepfakes in the news has raised the importance of AI and Media Literacy initiatives in Urdu and regional languages for teachers and civil society.

8.3 Limitations

There are a number of caveats to note. First, the sample of 53 articles was selected non-systematically from newspaper articles and not from the archive of newspapers systematically. Popular and recent articles may be favoured in search rankings, contributing to the July 2026 "peak" and topic-diverse queries may have led to a greater diversity of frames. The percentages reported thus reflect the sample and not a true reflection of the total Pakistan AI coverage, and several percentage differences at the frame level which were not significant may become evident in a larger sample size. Second, the coding was based on headlines and leads and not on full text, which can lead to under coding of secondary frames and sources quoted later in the articles. Third, a large language model was used to assist in initial coding, and was reviewed by one researcher only, so intercoder reliability could not be assessed; the full coded data set provided in Appendix B can be used to correct this. Fourth, the study only includes the online versions of the national dailies. It does not include regional-language newspapers (Sindhi, Pashto and Punjabi) nor does it cover television or social media (where most deepfakes are actually spread). Last but not least, this study is a content analysis and therefore is not capable of concluding effects on audiences.

8.4 Directions for Future Research

This study might be replicated in a number of ways in the future. Comparative analysis of talk shows and news bulletins on television would show whether the media as different commercial logics and different audiences have the same conception of AI. An examination of AI-generated content on platforms like Facebook, YouTube and TikTok could reveal the voice of the public on

the subject of AI, and its difference from the voice of the elite journalist. To answer these questions, surveys or experimental studies could be conducted to determine whether exposure to different frames influences Pakistani audiences' attitudes towards AI, AI regulation, and the National AI Policy. As implementation progresses, the research could be carried out over time with an eye towards the year 2030 when the government has pledged to invest. Finally, cross-national comparisons with other South Asian countries such as India and Bangladesh would shed light on the question of whether these patterns are specific to Pakistan's political context or if they represent a South Asian pattern in the mediation of AI.

Declaration

Data Availability Statement

All relevant data generated or analysed during this study are included within the article. No additional data is available from the corresponding author.

Conflict of Interest Statement

The author declares that there is no conflict of interest regarding the publication of this paper.

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Appendix A: Codebook

Coding rules. Code one article at a time. Read the headline, lead, and full text before coding. The primary frame is the frame that organises the headline and lead and occupies the largest share of the text; if two frames are equally prominent, choose the one in the headline. Code frame presence (1/0) for every frame that appears in at least one full sentence.

Code	Frame	Typical indicators (English / Urdu)	Decision rule
F1	Economic opportunity and investment	investment, startups, exports, GDP, IT revenue; سرمایہ کاری، معیشت، برآمدات	Money, markets, or growth is the central point
F2	National development and sovereignty	sovereign AI, digital Pakistan, catching up, self-reliance; ترقی، خود انحصاری، قومی	The nation's progress or standing is the central point, not money alone

Code	Frame	Typical indicators (English / Urdu)	Decision rule
F3	Education and skills	training, curriculum, scholarships, youth, one million trained; تعلیم، تربیت، نوجوان	Learning or employability is the central point
F4	Employment disruption	job losses, freelancers, automation replacing workers; بے روزگاری، ملازمتیں	AI threatens existing work
F5	Governance and public services	e-governance, digitisation, paperless, service delivery; حکمرانی، ڈیجیٹلائزیشن	Government use of AI to deliver services
F6	Misinformation and deepfakes	fake video, voice cloning, fraud, fact-check; جعلی ویڈیو، ڈیپ فیک، دھوکہ دہی	Truthfulness of information is at stake
F7	Security, geopolitics, and international relations	defence, cyber attack, India, China, US, military; سلامتی، دفاع، دشمن	State security or international rivalry is central; code deepfakes attributed to a foreign state as F7 only if security, not deception, is the emphasis
F8	Ethics, rights, and regulation	privacy, bias, data protection, law, accountability; رازداری، قانون سازی، اخلاقیات	Rights or rules are central
F9	Religion, morality, and culture	Islamic view, halal/haram, values, family, youth morality; اسلامی تعلیمات، اخلاقی اقدار	Evaluation through religious or moral values
F10	Sectoral applications	hospitals, crops, banking, climate, traffic; صحت، زراعت، بینکاری	A specific sector's use of AI, without a broader national or economic argument
99	Other	—	None of the above applies

Tone. 1 = Positive, 2 = Negative, 3 = Balanced, 4 = Neutral. Judge the article as a whole, not the headline alone.

Primary source. 1 = Government official or ministry, 2 = Political party figure, 3 = Industry or business, 4 = Academic or expert, 5 = Civil society or NGO, 6 = International organisation or foreign government, 7 = Ordinary citizen, 8 = No source.

Article type. 1 = News report, 2 = Feature, 3 = Editorial, 4 = Opinion column.

Framing style. 1 = Episodic (built around one event, launch, or incident), 2 = Thematic (discusses trends, causes, or policy in general).

Geographic focus. 1 = Pakistan, 2 = India, 3 = Other country, 4 = Global.

Policy reference. 1 = Mentions the National AI Policy, the US\$1 billion pledge, or the Islamabad AI Declaration; 0 = No mention.

Coding sheet columns (Excel or SPSS): Article ID · Newspaper · Language · Date · Headline · URL · Article type · Primary frame · F1 ... F10 (presence, 1/0) · Tone · Primary source · Framing style · Geographic focus · Policy reference · Coder · Notes

Appendix B: Coded Dataset

All 53 articles with their coded values. Headlines of Urdu articles are given in English translation. Source codes: Govt = government official or body; Expert = academic or expert; None = no source in lead. Policy = reference to the National AI Policy, the US\$1 billion pledge, or the Islamabad AI Declaration (1 = yes). Article E17 was published in Dawn and is linked through its republication by Asia News Network.

ID	Newspaper	Date	Headline	Type	Frame	Tone	Source	Style	Focus	Policy
E01	The News	2026-02-09	PM Shehbaz announces \$1bn investment in artificial intelligence by 2030	News	F1	Positive	Govt	Episodic	Pakistan	1
E02	The News	2025-11-19	Heckling, deepfake, trolling: journalists targeted in multiple attacks	News	F6	Negative	Party	Episodic	Pakistan	0
E03	The News	2026-03-10	This AI moment needs data governance	Opinion	F8	Balanced	None	Thematic	Pakistan	0
E04	The News	2026-07-26	AI and Pakistan's education system	Opinion	F3	Balanced	None	Thematic	Pakistan	0
E05	The News	2026-02-23	Pakistan in an AI world	Opinion	F2	Balanced	None	Thematic	Pakistan	0
E06	The News	2026-06-15	AI vs the writer	Opinion	F4	Balanced	None	Thematic	Global	0
E07	Express Tribune	2025-08-03	How AI Policy 2025 can shape a digital future for all	Opinion	F2	Positive	None	Thematic	Pakistan	1
E08	Express Tribune	2025-10-21	Pakistan's AI moment: build, don't borrow growth	Opinion	F1	Positive	None	Thematic	Pakistan	1
E09	Express Tribune	2025-11-07	National AI Policy 2025: what's missing?	Opinion	F8	Balanced	None	Thematic	Pakistan	1
E10	Express Tribune	2026-03-19	AI tools raise risk for freelancers	News	F7	Negative	Expert	Thematic	Pakistan	0
E11	Express Tribune	2026-03-28	AI deepfakes blur reality in 2026 US midterm campaigns	News	F6	Negative	Expert	Episodic	Other country	0
E12	Express Tribune	2026-04-13	Lessons from America's AI policy	Opinion	F2	Balanced	None	Thematic	Pakistan	1
E13	Express Tribune	2026-05-17	Pakistan's AI push needs good governance	Opinion	F8	Balanced	None	Thematic	Pakistan	1
E14	Express Tribune	2026-05-31	AI threatens \$3b outsourcing pillar	Opinion	F4	Negative	None	Thematic	Pakistan	0
E15	Express Tribune	2026-07-04	Balancing AI risks	Opinion	F8	Balanced	None	Thematic	Global	0
E16	Express Tribune	2026-07-06	'Bhanwar' exposes dark side of AI	Feature	F6	Negative	Industry	Episodic	Pakistan	0

ID	Newspaper	Date	Headline	Type	Frame	Tone	Source	Style	Focus	Policy
E17	Dawn	2025-11-24	AI deepfakes: the latest weapon in Pakistan's disinformation wars	Feature	F6	Negative	None	Thematic	Pakistan	0
E18	Dawn	2026-02-09	Pakistan to invest \$1bn in artificial intelligence by 2030, announces PM	News	F1	Positive	Govt	Episodic	Pakistan	1
E19	Dawn	2026-03-02	AI in the corporate sector	Feature	F1	Positive	Industry	Thematic	Pakistan	1
E20	Dawn	2026-06-12	Pakistan's AI checklist	Opinion	F2	Balanced	None	Thematic	Pakistan	1
E21	Dawn	2026-07-13	Unprepared for artificial intelligence	Feature	F2	Balanced	Expert	Thematic	Pakistan	0
E22	Dawn	2026-07-15	Artificial Intelligence Authority on the cards in KP	News	F5	Positive	Govt	Episodic	Pakistan	0
E23	Dawn	2026-07-21	PM launches first AI-based digitisation platform in PMO	News	F5	Positive	Govt	Episodic	Pakistan	1
E24	The Nation	2026-04-30	Careful Adoption	Editorial	F5	Balanced	None	Thematic	Pakistan	0
E25	The Nation	2026-05-07	Deepfake Threat	Editorial	F6	Negative	None	Thematic	Global	0
E26	The Nation	2026-06-30	Pakistan's AI trust challenge: can it be fixed?	Feature	F6	Negative	Civil soc.	Thematic	Pakistan	0
E27	The Nation	2026-07-30	AI-skilled people will lead future workforce: Shaza Fatima Masnoo'i zehanat (AI, deepfakes and news credibility)	News	F3	Positive	Govt	Episodic	Pakistan	0
U01	Daily Express	2025-11-02	India orders removal of AI videos within 3 hours	Opinion	F6	Negative	None	Thematic	Pakistan	0
U02	Daily Express	2026-02-10	AI-made movie trailers go viral	News	F8	Neutral	Foreign govt	Episodic	India	0
U03	Daily Express	2026-02-12	The AI race: lessons for Pakistan	News	F10	Neutral	None	Episodic	Global	0
U04	Daily Express	2026-03-01	Preity Zinta approaches court over AI deepfake videos	Opinion	F2	Balanced	None	Thematic	Pakistan	1
U05	Daily Express	2026-07-04	Deepfake: the Take It Down Act	News	F6	Negative	Individual	Episodic	India	0
U06	Daily Express	2026-07-06	Is the current education system capable of adopting AI?	Feature	F8	Negative	None	Thematic	Global	0
U07	Daily Express	2026-07-12	Is the current education system capable of adopting AI?	Feature	F3	Balanced	Expert	Thematic	Pakistan	0

ID	Newspaper	Date	Headline	Type	Frame	Tone	Source	Style	Focus	Policy
U08	Daily Express	2026-07-16	Pakistan signs agreement establishing WAICO	News	F7	Positive	Govt	Episodic	Global	0
U09	Daily Express	2026-07-17	Pakistan and China to expand CPEC 2.0 and AI cooperation	News	F7	Positive	Govt	Episodic	Other country	0
U10	Daily Jang	2026-01-01	What will be the main AI trends in 2026?	Feature	Other	Balanced	None	Thematic	Global	0
U11	Daily Jang	2026-03-04	900 attacks in 12 hours: is AI changing the rules of war?	Feature	F7	Negative	None	Thematic	Global	0
U12	Daily Jang	2026-03-27	Artificial intelligence and quantum computing	Feature	F7	Negative	None	Thematic	Global	0
U13	Daily Jang	2026-06-05	AI can take away not only jobs but also peace of mind	News	F4	Negative	Expert	Thematic	Global	0
U14	Daily Jang	2026-06-22	A Pakistani youth's revolution in AI	Opinion	F2	Positive	None	Episodic	Pakistan	0
U15	Nawa-i-Waqt	2026-02-10	PM announces spending \$1bn on AI by 2030	News	F1	Positive	Govt	Episodic	Pakistan	1
U16	Nawa-i-Waqt	2026-02-27	AI models more inclined toward nuclear war, research reveals	News	F7	Negative	Expert	Episodic	Global	0
U17	Nawa-i-Waqt	2026-04-14	Government decides to invest \$1bn in AI	News	F1	Positive	Govt	Episodic	Pakistan	1
U18	Daily Pakistan	2026-01-17	Pakistan's own Urdu ChatGPT 'Qalb' launched	News	F2	Positive	Industry	Episodic	Pakistan	0
U19	Daily Pakistan	2026-05-03	IEP seminar on AI: experts urge youth to adopt AI education	News	F3	Positive	Expert	Episodic	Other country	0
U20	Daily Pakistan	2026-05-04	The era of AI and crypto	Opinion	F2	Positive	None	Thematic	Pakistan	0
U21	Daily Pakistan	2026-06-19	Mandatory 3-credit AI course in public universities	News	F3	Neutral	Govt	Episodic	Pakistan	0
U22	Daily Pakistan	2026-07-01	Publish AI-generated content after Sharia review: CII	News	F9	Neutral	Govt	Episodic	Pakistan	0
U23	Ummat	2025-12-20	AI not becoming a threat to jobs: study	News	F4	Positive	Expert	Episodic	Other country	0
U24	Daily Ausaf	2026-05-16	The rise of Islam before the end times and the AI era	Opinion	F9	Negative	None	Thematic	Global	0

ID	Newspaper	Date	Headline	Type	Frame	Tone	Source	Style	Focus	Policy
U25	Daily Ausaf	2026-06-21	The AGI era 2026-2030	Opinion	F9	Negative	None	Thematic	Global	0
U26	Nai Baat	2025-08-27	Artificial intelligence and the new world	Opinion	F1	Balanced	None	Thematic	Global	0