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ASYMMETRIC AUTOMATION: INSTITUTIONAL DIVERGENCE IN AI ADOPTION ACROSS PAKISTANI AND POLISH NEWSROOMS

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Abstract

Across media systems with varying resources, the challenges of integrating AI into newsroom processes and decision-making are not the same, as this study calls it asymmetric automation. This study explores how institutional environment creates contrasting adoption patterns of GenAI in Pakistani and European newsrooms, addressing the lack of comparative studies in this field. The findings are organised thematically, and then cross-cased. The outcomes are revealing of significant disparities. In the context of newsrooms, AI integration is formalized, regulated, and has dedicated roles in Polish newsrooms, with newsroom unions providing ethical guidelines. Pakistani newsrooms have informal and unregulated adoption practices, due to economic instability, poor infrastructure, and absence of regulations. In Pakistan, the internal shift of editorial power is faster because there are no institutional checks and balances. An algorithmic dependency gap arises: The usage of local contexts by Pakistani journalists is dependent on Western trained LLMs, which do not provide an alternative; and epistemic dependency is created. Workflow changes follow suit—AI as production accelerant in Pakistan, as cognitive assistant in Poland. The study further enriches institutional theory by showing how the strength of professional norms and governance density affect the reconfiguration of authority in the context of AI-mediated journalism. Findings have implications for journalism policy, with regulatory development needing to be tailored to the journalism sector, the strengthening of the infrastructure of newsrooms in the Global South precluding responsible adoption of AI and strengthening of journalistic agency through collective bargaining and AI literacy programmes.

Keywords: *AI Divide, Algorithmic Dependency, Central Europe, Comparative Media Systems, Institutional Logics, Journalistic Autonomy, Newsroom Transformation, South Asia.*

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1. Introduction

1.1. Generative AI and the Contested Transformation of Journalism

The adoption of generative artificial intelligence (GenAI) in newsrooms is among the most impactful technological changes in modern news making. GenAI tools, including the large language models (LLMs) like GPT-4, Gemini, and Claude, image generators such as DALL-E and Midjourney, have quickly become part of journalists' everyday routines around the world since their public launch in November 2022 (Cools & Diakopoulos, 2024; Lewis et al., 2025). The impact of GenAI on journalism is more direct than previous digital disruptions, affecting not just the process of content creation, but also the verification of sources, narrative development, and editorial choices. In contrast, previous automation technologies were mostly used in routine data-related tasks like sports statistics or financial reports (Diakopoulos, 2019). Research on GenAI in the news industry has largely concentrated on high-resource settings, such as in the United States, United Kingdom, Germany and Nordic countries (Thurman et al., 2019; Beckett & Yaseen, 2023; Cools & Diakopoulos, 2024). The examples of The New York Times, The Guardian, and the BBC demonstrate the ways that leading organizations are establishing ethical guidelines, testing AI tools for reporting, and managing the efficiency/ethical values trade-offs (Lewis et al., 2025; Dodds et al., 2025). But this Western-centric perspective has resulted in a huge blind spot: the overwhelming majority of news workers are based in vastly different technological, economic and institutional contexts.

Scholarly attention has predominantly focused on GenAI adoption in well-resourced newsrooms of the Global North—particularly the United States, United Kingdom, Germany, and Nordic countries (Thurman et al., 2019; Beckett & Yaseen, 2023; Cools & Diakopoulos, 2024). Research has documented how leading organizations like The New York Times, The Guardian, and the BBC are developing ethical frameworks, experimenting with AI-assisted reporting, and negotiating tensions between efficiency gains and journalistic values (Lewis et al., 2025; Dodds et al., 2025). However, this Western-centric focus has created a significant blind spot: the vast majority of the world's journalists operate in vastly different technological, economic, and institutional environments.

This study proposes the idea of asymmetric automation to better reflect the phenomenon of uneven integration that often occurs in journalism systems with differing institutional capabilities, resource availability and regulatory frameworks, which is one of

the things that has not been studied in detail. Newsrooms in lower-resourced contexts are at a disadvantage compared to those in higher-income contexts, as they have less access to technology task forces, technology development teams, and technology partnerships, and have less access to the right training, as well as policy frameworks (Arafat & Cooper, 2025; Ngugi, 2024; Jamil, 2021). It's not just about the technological underdevelopment. It is an indication of the increased structural inequities in the new era of AI-driven journalistic authority. As most GenAI tools are created by Silicon Valley companies, on largely English-language corpora and with a focus on Western news values, they may inadvertently perpetuate epistemic colonialism, a phenomenon that involves the imposition of external logics of newsworthiness, story structure, and verification on journalistic practices in non-Western contexts (Kothari & Cruikshank, 2022; Gondwe, 2023; Munoriyarwa & de-Lima-Santos, 2025). This is a two-fold problem: newsrooms in the Global South face both material resource limitations and cultural and epistemological disparities in the technologies they are both encouraged and required to use. The example of Pakistan and Poland is instructive. In between of the world's AI powers and completely out of AI technological flows, both countries have journalism systems that differ significantly on institutional aspects. Pakistan has a fragile media ecosystem with ranking of press freedom among the lowest in the world as per RSF 2024, political instability, and inadequate technological facilities (Tayie, 2025; Naureen et al., 2026). In Poland, however, the EU regulation frameworks (such as the AI Act) and the digital infrastructure are more advanced, as are institutional safeguards for the autonomy of journalists (Cools & Koliska, 2024; Fieiras Ceide et al., 2024). This comparison allows for a systematic analysis of the impacts of different institutional logics; that is, the norms of the profession, market forces, regulatory frameworks, and technological infrastructures, on the adoption and implications of GenAI in journalism.

1.2. Research Questions and Objectives

This study addresses the following research questions:

- How do institutional conditions shape GenAI adoption in Pakistani and Polish newsrooms?
- How does asymmetric automation reconfigure editorial authority across these contexts?
- What strategies do journalists employ to retain professional agency?"

The objectives are:

The study maps GenAI adoption across ten newsrooms, analyses how institutional asymmetries produce divergent outcomes, theorizes asymmetric automation, and develops context-sensitive recommendations.

1.3. Significance

This study has three contributions. It can be seen as a theoretical contribution to the institutional analysis of AI in journalism by focusing on asymmetry as an analytical category. It offers rare comparative data empirically from two under-researched national contexts. It provides policy makers, media managers and media educators with evidence-based recommendations in the context of asymmetrical technological change.

2. Literature Review and Theoretical Framework

The aim of this section is to synthesise the work of scholars in the field of AI in journalism, the transformation of the newsroom and institutional theory to provide the analytical framework to analyse asymmetric automation. The review is organized in five interconnected parts: (1) The evolution of AI in journalism: pre-generative and generative journalism; (2) Newsroom digital transformation as the precursor of the integration of AI; (3) Comparative media systems and the Global North–South divide in the use of AI; (4) Institutional theory as an analytical tool for the understanding of authority reconfiguration; (5) Labor and ethical debates on AI in journalism. Chapter 5 brings the chapter to a close and outlines the gaps that this study will address.

2.1. The Evolution of AI in Journalism: From Automation to Generation

Computational technologies have been used in journalism for almost 20 years before the advent of generative AI technologies. Computational journalism, a concept first established at Georgia Tech in 2006 by Essa and Diakopoulos, included algorithmic techniques for data analysis, news discovery, and automatic and semi-automatic content generation from structured data sets (Diakopoulos, 2019; Cools & Diakopoulos, 2024). In 2014, the Associated Press (AP) used natural language generation to publish a report on quarterly earnings without human intervention, marking the first time that NLP algorithms created content that could be published.The AP, in 2014, was the first to test NLP algorithms to create content for quarterly earnings reports, proving that algorithms can generate publishable content from a financial data feed without human input (Rinehart & Kung, 2022). Likewise, during the US presidential election of 2016, hundreds of articles were produced by The Washington Post's Heliograf and Reuters' Lynx Insight proposed story ideas to journalists based on data trends (Graefe, 2016; Thurman et al., 2019). But these initial AI applications were very basic. They worked in very structured areas where data had a regular pattern and outputs could be pre-formulated (Dörr, 2016). They worked as "pattern seekers" not "content creators" and implemented the rules set beforehand and not showed generative capacity (Lewis et al., 2025). Journalists remained in control and AI was used to help streamline repetitive work (van Dalen, 2012). It was a turning point when ChatGPT was launched in November 2022. Large language models (LLMs) had started to produce coherent, contextually appropriate text in just about every field, to have a conversation, to provide a summary of a complex document, translate between languages, and even generate code and images (Cools & Diakopoulos, 2024; Pavlik,

2023). In contrast to previous systems, GenAI may be able to engage in epistemic journalism tasks such as creating a narrative, proposing angles, composing interviews, and compiling information from unstructured sources (Diakopoulos et al., 2024; Nishal & Diakopoulos, 2023). This is a change from the automated to the generative, which has changed the relationship between journalists and machines, as noted by Lewis & Westlund (2015) and Thätsler-Kordonouri & Koliska (2025), who refer to AI as a "co-creator" or "actant" in newsroom assemblages. Journalists are generally against using AI to verify news, while 68% of news organizations use AI to automate news writing and 62% use AI for personalizing news content (Cools & Diakopoulos, 2024). Journalists use GenAI to transcribe, translate, create headlines, optimize for SEO, post to social media, and for initial drafts (Cools & Diakopoulos, 2024; Wu, 2026). Journalists, however, have consistently expressed a lack of interest in adopting GenAI for verification and/or fact-checking, arguing that these are essential functions of the profession and not tasks for delegation (Cools & Diakopoulos, 2024; Gutierrez Lopez et al., 2023).

2.2. Newsroom Digital Transformation: Precedents and Parallels

It is important to recognize that the use of GenAI in newsrooms will not be understood without a broader lens of 30 years of digital transformation. There has been extensive research on the shift of journalistic work, newsroom organization and professional attitudes and values brought by the successive technology waves, the Internet, content management systems, social media platforms, audience analytics and mobile distribution (Pavlik, 2000; Deuze & Prenger, 2019; Steensen & Westlund, 2021). There are a number of dynamics of previous digital transformations that are similar to the dynamics of the current integration of AI. The first one is that new tools for measuring audience metrics and analytics (like Chartbeat, Google Analytics) imposed new forms of editorial pressure, moving the power of gatekeeping from qualitative measures of user engagement toward quantitative ones (Petre, 2015; Christin, 2020; Kellogg et al., 2020). Journalists' newsrooms were "metricized", with page views and click through rates influencing what stories were chosen for publication and where, and sometimes creating tension between professional judgement and market logics (Lamot & Paulussen, 2020; Ferrer-Conill & Tandoc, 2018). Second, the platformisation of news distribution, as Facebook, Google and Twitter became major distributors of news, diminished direct relationships with audiences and made audiences dependent on third party infrastructures (Nielsen & Ganter, 2022; Simon, 2024; Van Dijck et al., 2018). Third, data journalism posed new technical requirements, resulting in internal silos and new hybrid professions (for instance, journalist-programmer), which reshaped the traditional hierarchies (Lewis & Usher, 2013; Coddington, 2015; Stalph, 2018). The precedents show repeated adaptations and resistances to institutions with GenAI.

2.3. Comparative Media Systems and the Global AI Divide

To date, there is a strong Western focus on AI for journalism, with much of the research carried out in North American and Western European newsrooms (Chuan, 2023; Hendrickx & Van Coppenolle, 2026). The "AI divide," or systematic disparities in access to AI technologies, training, infrastructure, and governance frameworks between the Global North and Global South, as described by Munoriyarwa and de-Lima-Santos (2025), is a result of this geographic concentration. Comparative media systems theory offers a way to understand the impact of the political, economic and cultural environments on journalistic practices and the adoption of technologies, notably Hallin and Mancini's (2004) influential typology. This model, initially created for Western democracies, has been applied in other non-Western contexts, focusing on the fact that media systems are embedded in different configurations of state power, market structures, professional norms, and civil society relations (Hallin & Mancini, 2012; Voltmer, 2013). When it comes to AI use, things look very uneven. Newsrooms in the Global North, notably in the US, UK, Germany, and Nordic countries, enjoy access to fast internet networks, specialist AI research teams, collaboration with other industry and academic bodies, and regulatory initiatives like the EU AI Act (Fiearas Ceide et al., 2024; Simon, 2024; Beckett & Yaseen, 2023). News outlets such as BBC, The Guardian, and Schibsted have issued comprehensive guidelines and ethics committees for AI use and even developed their own LLM customizations (Becker, 2023; Tseng et al., 2025). Journalists are trained, legally protected and supported in the experimentation with AI.

In the Global South, the picture is dramatically different. Research from Pakistan (Jamil, 2021; Tayie, 2025), Kenya (Ngugi, 2024; Kioko et al., 2022), South Africa (Munoriyarwa & Chiumbu, 2024), Nigeria (Udoh et al., 2022), Egypt (Arafat & Cooper, 2025; Elaasser et al., 2024), and Bangladesh (Ahmed, 2025) documents a consistent pattern: limited digital infrastructure, lack of institutional AI policies, minimal training opportunities, and journalists bearing the burden of self-directed learning. Many newsrooms operate with outdated content management systems, unreliable internet connectivity, and no dedicated IT support. Journalists experiment with freely available GenAI tools on personal devices, often without organizational oversight or ethical guidance.

The consequences extend beyond material constraints. GenAI tools trained predominantly on English-language Western datasets produce outputs that may misrepresent local contexts, reinforce colonial epistemologies, or fail entirely when confronted with non-Western languages and cultural references (Gondwe, 2023; Kothari & Cruikshank, 2022). As Naureen et al. (2026) demonstrate in their analysis of AI-generated media in Pakistan, synthetic content can homogenize cultural identities, erase regional traditions, and amplify ethnic conflict. This is not merely a technical problem but an epistemic one: whose knowledge counts when AI systems decide what is newsworthy?

Pakistan and Poland represent strategically selected cases within this global asymmetry. Pakistan's media system operates under significant political pressure (ranked 165th out of 180 on the World Press Freedom Index), with journalists facing legal harassment, surveillance, and physical threats (Reporters Without Borders, 2024). Digital infrastructure is uneven, with significant urban-rural divides (Hameed, 2025). AI adoption is largely informal and self-directed (Tayie, 2025; Naureen et al., 2026). Poland, by contrast, benefits from EU membership, stronger press freedom protections, and more developed digital infrastructure. Polish newsrooms have begun experimenting with GenAI within clearer regulatory and ethical frameworks (Cools & Koliska, 2024; Fieiras Ceide et al., 2024). Comparing these two contexts enables systematic analysis of how institutional conditions shape AI integration outcomes.

2.4. Institutional Theory and Journalistic Authority in the AI Era

Institutional theory provides the primary analytical framework for this study. Following Reese (2022), an institution is understood as "a complex social structure—formed by an interlocking network of rules and activities, roles, technologies, norms, and collective frames of meaning—which work together to sustain its coherence, endurance, and value" (p. 257). Journalism as an institution is sustained through the reflexive negotiation of professional norms, gatekeeping practices, source relationships, and audience expectations (Cook, 1998; Sparrow, 1999; Ryfe, 2016).

Institutional logics—the "socially constructed, normative guides for the interpretation, identity and behaviour of actors within a certain institutional domain" (Lischka, 2020, p. 114)—compete and coexist within newsrooms. Lischka (2020) identifies four primary logics: professional (commitment to editorial autonomy, accuracy, and public service), market (orientation toward revenue, audience size, and competitive positioning), managerial (focus on efficiency, workflows, and organizational control), and technological (prioritization of innovation, data-driven decision-making, and system optimization). AI integration intensifies tensions among these logics, particularly between professional values of editorial judgment and market/managerial pressures for efficiency and scalability (Paik, 2023; Rydenfelt, 2022).

The concept of editorial authority—the legitimate power to select, order, frame, and publish information—is central to understanding AI's disruptive potential. Carlson (2017) defines journalistic authority as a socially conferred right to be heard and believed, maintained through boundary work that distinguishes legitimate journalism from other forms of information production. GenAI complicates this boundary work in unprecedented ways. When LLMs produce institutionally legible news narratives, they simulate the stylistic markers of journalistic authority without the underlying institutional membership or ethical accountability (Lewis et al., 2019; Zilberstein, 2024). This creates what Sorrentino et al. (2026) term "internal migrations of authority"—the progressive transfer

of epistemic influence from human journalists to algorithmic systems through cognitive mechanisms (automation bias, anthropomorphism), social dynamics (institutional voice mimicry), and structural conditions (opacity, pseudo-transparency).

Asymmetric automation, as theorized in this study, refers to the uneven redistribution of editorial authority across differently resourced institutional environments. In well-resourced newsrooms, internal migrations may be partially mitigated through participatory design, AI literacy initiatives, and governance frameworks that preserve human oversight (Tseng et al., 2025; Delgado et al., 2023). In under-resourced newsrooms, however, journalists may lack the institutional capacity to contest algorithmic authority, resulting in more pronounced authority erosion and greater dependence on externally developed systems whose values and priorities are not locally aligned (Simon, 2024; Arafat & Cooper, 2025).

2.5. Labor, Ethics, and the Future of Journalistic Work

The integration of GenAI into journalism raises profound questions about labor, professional identity, and ethical practice. Journalists express persistent concerns about job displacement, with studies reporting that 42% fear AI-related unemployment and 58% worry about deskilling (Tayie, 2025; Cools & Diakopoulos, 2024). These concerns are not unfounded. Goldman Sachs estimates that 300 million jobs globally could be exposed to AI automation, with journalism among the affected sectors (Briggs et al., 2023). However, most scholars argue that augmentation rather than replacement is the more likely near-term outcome, with AI handling routine tasks while journalists focus on investigative, interpretive, and relational work (van Dalen, 2024; Perreault et al., 2025).

Ethical frameworks for AI in journalism have proliferated. Organizations including the BBC, The Guardian, Associated Press, and Reuters have published guidelines emphasizing transparency, accountability, human oversight, and disclosure of AI-generated content (Becker, 2023; Tseng et al., 2025). However, implementation remains uneven, and many newsrooms—particularly smaller or under-resourced ones—lack any formal AI policies (de-Lima-Santos et al., 2025; Radcliffe, 2025).

Audience attitudes toward AI-generated news are mixed. Experimental studies show that news consumers trust AI-generated content less than human-authored journalism, particularly for political topics (Nanz et al., 2025; Morosoli et al., 2025). Transparency about AI use may paradoxically reduce trust, creating a dilemma for news organizations (Toff & Simon, 2023). These findings suggest that the economic viability of AI-integrated journalism depends not only on production efficiencies but on maintaining audience trust—a precarious balance.

2.6. Research Gaps and Contribution

This review identifies four critical gaps that this study addresses. First, comparative research on AI in journalism across markedly different institutional contexts—particularly

between South Asia and Central Europe—is virtually absent (Sonni et al., 2024; Oh & Jung, 2025). Second, existing studies focus predominantly on adoption rates and perceived benefits/risks, with limited attention to how institutional asymmetries produce divergent patterns of authority reconfiguration (Thätsler-Kordonouri & Koliska, 2025; Dodds et al., 2025). Third, the concept of asymmetric automation has not been systematically theorized or empirically operationalized. Fourth, the perspectives of journalists themselves—their agency, resistance, and adaptive strategies—remain underexplored in comparative frameworks (Xiao et al., 2025).

This study responds to these gaps by conducting a comparative institutional analysis of GenAI integration in Pakistani and Polish newsrooms. By centering asymmetry as an analytical category and employing qualitative methods to capture journalist perspectives, the research contributes to a more globally representative understanding of AI's transformative impact on journalism.

3. Theoretical Framework

The theoretical framework drives the comparative analysis of GenAI integration in the newsrooms of Pakistan and Poland. This chapter aims at building the theoretical framework for this study's comparative analysis of GenAI integration in Pakistani and Polish newsrooms. It is built upon institutional theory, complemented by the views of sociotechnical systems theory and political economy. This synthesis leads to the idea of asymmetric automation, which is the main analytical construct and I explain a conceptual model that operationalizes the dimensions of this construct.

3.1. Institutional Theory: Core Framework

This study will use an analytical lens provided by institutional theory. In keeping with Reese (2022), journalism is viewed as an institution, defined as "a complex social structure–in which an interlocking network of rules and activities, roles, technologies, norms, and collective frames of meaning cooperate to ensure its coherence, endurance, and value" (p. 257). The definition is especially well adapted to the study of GenAI, as it clearly includes technology as an integral part of the institutional structure, rather than an external actor (Napoli, 2014; Pinch, 2008). The institutional theory to legitimacy is that the institutions get legitimate by conforming to normative expectations while being responsive to environmental pressures (DiMaggio & Powell, 1983; Scott, 2005). Legitimacy for journalists is achieved through following professional standards (accuracy, objectivity, transparency, accountability) and through institutional acceptance by audiences, sources and others (Cook, 1998; Sparrow, 1999; Carlson, 2017). Getting newsrooms to adopt news AI is a legitimation challenge because it's possible for the logic underpinning how news AI works (optimization, prediction, pattern recognition) to clash with the professional norms (editorial judgment, contextual understanding, ethical reasoning). Drawing on the idea of discursive institutionalism, Hanitzsch and Vos (2017) propose that journalistic

roles, identities are continuously negotiated, contested and reconstructed in discourse. Such an angle is essential for examining the discursive construction of the relationship between journalists in Pakistan and Poland and GenAI (as threat, tool, collaborator, or competitor) (Møller et al.,2025; van Dalen, 2024). Newsrooms are the site of a competition among institutional logics, which are "socially constructed, normative guides for the interpretation, identity and behaviour of actors" (Lischka, 2020, p. 114). According to Lischka (2020), there are four logics: professional (editorial autonomy, public service), market (revenue, audience), managerial (efficiency, control), and technological (innovation, optimization). GenAI exacerbates these logics, often in the tension between professional values and market/managerial values of efficiency (Paik, 2023; Rydenfelt, 2022). The editorial authority, epistemic warrant and responsibility of the editor are determined as follows: Institutional change is operationalized through the tripartite conceptualization of editorial authority developed by Sorrentino et al. (2026): Decision rights – institutionalized power to select, order, frame and publish information (gatekeeping); Epistemic warrant – recognition of whose knowledge claims are legitimate, based on professional credentials, verification norms, and textual conventions; and Responsibility – identifiable agents who can be held accountable for outcomes, including capacity for contestation and redress. GenAI disrupts each dimension. When LLM technology creates draft articles, headlines, and/or story angles, it has taken over some aspects of the role of "gatekeeping," which were traditionally performed by human editors (Carlson, 2018; Diakopoulos, 2019). Lewis et al. (2019) describe this as "simulated authority," or the illusion of credibility that does not stem from institutions, as epistemic warrant fragments when the AI-generated text follows the conventions of journalistic writing. Human-AI assemblages share responsibility, creating what Elish (2019) terms "moral crumple zones": situations where human operators are held responsible for decisions they are less able to control and fully understand.

3.2. Sociotechnical Systems Theory

Drawing on sociotechnical theory, which originally stemmed from organizational studies and then developed and expanded through actor-network theory (ANT), news production is seen as emerging from the heterogeneous assemblages of humans, technologies, institutions and practices (Lewis & Westlund, 2015; Primo & Zago, 2015). According to this perspective, agency is shared between actors (journalists, editors, journalists' sources) and actants (algorithms, platforms, LLMs) that together create outcomes (Latour, 2005; Thätsler-Kordonouri & Koliska, 2025). GenAI systems are seen as actants, which are non-human entities that are acting in newsroom networks. They are not just the people who mediate between the human participants of communication, but are also involved in the generation of content, defining what is newsworthy and how it is being narrated (Guzman & Lewis, 2019; Lewis et al., 2019). The sociotechnical analysis

highlights that GenAI tools are integrated into workflows, their outputs are sanctioned, or that they are rejected, and that power relations change as technical expertise becomes institutionalized and gains in importance (Cools & Koliska, 2024; Xiao et al., 2025).

3.3. Political Economy Supplement

The political economy approach looks at the ways in which ownership structures, market dynamics, and state power influence technological adoption (Mosco, 2009; Couldry & Mejias, 2019). In journalism, it sheds light on the economic pressures that forfeit editorial values for commercial logics, such as falling advertising revenues, platform competition, and the need for efficiency, as the factors that drive GenAI integration (Simon, 2024; Nielsen & Ganter, 2022). The relevance of political economy for analysing asymmetric automation is even more significant, as it emphasises the unequal power relations between Global South newsrooms and Global North technology corporations who have developed the AI systems (Google, OpenAI, Microsoft) to which the former are dependent (Papaevangelou, 2024; Zuboff, 2019). It also sheds light on the roles played by state policies, both enabling and constraining, in the process of AI adoption, from Pakistan's restrictive Digital Security Act to Poland's focus on aligning with EU regulation on AI (Tayie, 2025; Fieiras Ceide et al., 2024).

3.4. Key Concepts Defined

Generative AI (GenAI): AI systems (especially LLM) that learn patterns from training data and create new content (text, images, audio, video) that is indistinguishable from human-generated content (Cools & Diakopoulos, 2024; Zhou et al., 2023). Asymmetric automation: Divergent institutional capacities, resource endowments, regulatory frameworks and epistemic frameworks across journalism systems. Asymmetric automation creates imbalanced editorial authority which impacts journalistic autonomy and professional identity in different ways according to context. Migrating authority: As a progressive shift of decision rights, epistemic warrant and responsibility from human journalists to algorithmic systems through cognitive processes (automation bias, anthropomorphism), social processes (institutional voice mimicry), and structural processes (opacity, pseudo-transparency) (Sorrentino et al., 2026). Externalization of authority: When decision-making power is shifted from newsrooms to platforms, vendors and technology companies that supply AI systems, distribution channels, and new dependencies and reinforces existing power disparities (Simon, 2024; Papaevangelou, 2024).

3.5. Conceptual Model of Asymmetric Automation

Figure 1 presents the conceptual model guiding this study. The model posits those institutional conditions—regulatory frameworks, technological infrastructure, professional norms, economic resources—shape **GenAI adoption patterns** (extent, form,

purpose). These adoption patterns, in turn, produce **authority reconfigurations** along three dimensions: decision rights, epistemic warrant, and responsibility.

Critically, the model posits that the relationship between institutional conditions and authority reconfigurations is moderated by **journalistic agency**—the capacity of journalists to contest, shape, or resist AI integration. Where agency is high (e.g., through participatory design, collective bargaining, professional solidarity), authority reconfigurations may be mitigated or redirected. Where agency is low (e.g., under-resourced, precarious, or surveilled conditions), authority erosion may be more pronounced.

The model distinguishes two authority migration pathways. **Internal migrations** occur within newsroom workflows as LLMs increasingly participate in editorial judgment, producing responsibility gaps that diffuse accountability. **External migrations** occur as newsrooms become dependent on platform-provided AI infrastructure, shifting decision rights and epistemic control to technology corporations whose logics prioritize optimization over editorial values.

Asymmetric automation is the outcome: systematic variation in how authority is reconfigured across institutional contexts, producing divergent impacts on journalistic autonomy, professional identity, and institutional legitimacy.

3.6. Conceptual Model of Asymmetric Automation in Journalism

[Institutional Conditions] → [GenAI Adoption Patterns] → [Authority Reconfigurations] → [Asymmetric Automation Outcomes]

Moderated by Journalistic Agency | Two Pathways: Internal & External Migrations

This framework guides the empirical analysis in subsequent chapters, enabling systematic comparison of Pakistani and Polish newsrooms while remaining attentive to the specific mechanisms through which asymmetry operates.

4. Methodology

5. Research Design

This study employs a comparative qualitative case study design (Yin, 2018) to examine GenAI integration in Pakistani and Polish newsrooms. A comparative case study approach is appropriate for three reasons. First, it enables systematic examination of how institutional conditions shape AI adoption patterns across distinct contexts (Flyvbjerg, 2006). Second, it facilitates thick description of journalistic practices, perceptions, and authority reconfigurations as they unfold in real organizational settings (Stake, 1995). Third, it supports analytical generalization—drawing theoretical inferences about asymmetric automation that extend beyond the specific cases studied (Yin, 2018).

The research design is cross-sectional, capturing data at a specific moment (2024–2025) when GenAI integration remains nascent but accelerating in both national contexts.

This timing is strategic: it allows documentation of early-stage institutional responses before practices become fully routinized (Cools & Diakopoulos, 2024; Simon, 2024).

5.1. Case Selection: Pakistan and Poland

Theoretical sampling (Flyvbjerg, 2006; Yin, 2018) has been used for the selection of Pakistan and Poland as they could illuminate the dynamics of asymmetric automation, rather than because of their representativeness. Both countries fall into the middle ground of the AI world, neither being an AI superpower (US, China) nor totally devoid of technological flows. But their journalism systems vary markedly at key institutional characteristics. The setting of Pakistan is a low resource high pressure context. Press freedom is highly restricted (165th/180 by RSF, 2024); journalists are subject to legal harassment and physical threats; digital infrastructure is not evenly spread (40% broadband penetration, with great disparities between urban and rural areas); and there is no national AI policy dedicated to the journalism sector (Hameed, 2025; Tayie, 2025; Jamil, 2021). The use of AI is informal, self-directed, and unregulated, to a large extent (Naureen et al., 2026; Ahmed, 2025). Poland is a context of higher resources and regulation. The benefit that Poland derives as a member of the European Union is the framework of the AI Act, the protection of press freedom, and the improvement of digital infrastructure (Fieiras Ceide et al., 2024; Cools & Koliska, 2024). Institutional AI policies, training programmes and cross-functional AI task forces have begun to be created in Polish newsrooms (Hendrickx & Van Coppenolle, 2026; Becker, 2023). Five newsrooms are chosen per country to represent organizational variation: two legacy newspapers (national circulation), two digital-native newsrooms and one public service broadcaster (Poland) or state-affiliated newsroom (Pakistan) due to the lack of an independent public service media in the country. This stratification process allows for the examination of the pattern of AI adoption being moderated by the type of organization.

Table 1: Methodological Summary by Country

Dimension	Pakistan	Poland
Interviews (n)	29	29
Newsrooms (n)	5	5
Newsroom Types	2 legacy, 2 digital-native, 1 state-affiliated	2 legacy, 2 digital-native, 1 public service
Observation Days	12	10
Documents Collected	8	19

Languages	Urdu (interviews), English (analysis)	Polish (interviews), English (analysis)
Data Collection Period	Jan-Dec 2025	Apr-Nov 2025
Primary Tools Used	ChatGPT-3.5, Google Bard, Grammarly, Otter.ai	GPT-4, Claude, Midjourney (enterprise)
% with Formal AI Policy	20% (1/5 newsrooms)	100% (5/5 newsrooms)

5.2. Data Collection Methods

There are three ways to collect data for triangulation (Creswell & Plano Clark, 2017). The major methods are semi-structured interviews. The interviews were held with 58 people (29 in each country, five to six in each newsroom), ranging from journalists (reporters, editors), technical staff (developers, data journalists, AI specialists), managers (chief editors, digital directors, HR managers). The interview protocol (attached as Appendix A) includes the following five areas: (1) GenAI tool usage and workflows; (2) perceptions of benefits, risks, and authority changes; (3) organizational policies and training; (4) institutional constraints and enablers; and (5) strategies for maintaining professional agency. The interviews were conducted in either Urdu (for Pakistan) or Polish (for Poland) and were verbatim transcribed and subsequently translated into English for analysis, and took between 45 and 75 minutes. Document analysis is an examination of institutional artifacts, such as AI guidelines (if available), ethics codes, training resources, internal memos and published policies regarding AI (Becker, 2023; de-Lima-Santos et al., 2025). In Pakistan, the policies are very few and informal practices are analyzed. Documents are analysed to evaluate their compliance with EU frameworks in Poland. Observations took place in four newsrooms (two in each of the two countries) and across a period of 5-10 days. Observations include daily routines, editorial meetings, journalists' use of AI tools and interactions with technologists, and the field notes are made of how GenAI is embedded (or resisted) (Petre, 2015; Christin, 2020).

5.3. Sampling Strategy

Purposive sampling are cases that contain information. (Patton, 2002). In each newsroom, snowball sampling (through managerial contacts) is used to select interview participants, including a balance of gender, seniority and role. Inclusion criteria: At least 6 months of employment (to ensure that they are familiar with the workflows) and they have direct or indirect experience with GenAI algorithms (either in using or managing them or in developing the policy). Exclusion criteria: interns/temporary staff (less than 3-months) and staff without editorial and technical positions. Target sample: 60 interviews

(30 Pakistan + 30 Poland), 10–12 observation sessions (5–6 in each country), 20–30 documents per country. When no new theme emerges from a series of interviews, the interviews are said to be saturated (Saunders et al., 2018).

5.4. Analysis Method

Analysis is a combination of thematic analysis (Braun & Clarke, 2019) and comparative case synthesis (Yin, 2018). The process of thematic analysis is discussed in six phases: (1) familiarization with the data, in this case the transcripts of the interviews, the field notes, and the documents; (2) initial coding in NVivo 14, using codes that are derived from the conceptual model (decision rights, epistemic warrant, responsibility, internal migration, external migration, journalistic agency); (3) theme generation by identifying patterns in the data; (4) review of the themes against the data; (5) definition and naming of the themes; (6) writing analytical memos that synthesise the findings (Miles et al., 2020). Comparative analysis is conducted under-case (understanding the various ways GenAI has been adopted in Pakistani newsrooms) and cross-case (identifying patterns and differences between the Pakistani and Polish analysis). The cross-case synthesis utilizes a meta-matrix for organizing findings in the following order: Miles et al. (2020): a case-ordered meta-matrix is established based on institutional condition (regulatory, infrastructural, economic, and normative), adoption pattern, and authority reconfiguration. By using this matrix, the asymmetric automation mechanisms can be systematically compared and identified. Triangulation across methods and sources and member checking (sharing early findings with members), peer de-briefing (discussions about interpretations with peers) also contribute to credibility (Lincoln & Guba, 1985). Transferability is facilitated by thick description which allows readers to evaluate applicability to other contexts (Flyvbjerg, 2006).

5.5. Data Collection Summary

Fieldwork was conducted between January and December 2025 in Pakistan and April to November in Poland. Table 1 summarizes the data collected:

Table 2: Data Collection Summary

Country	**Interviews**	**Newsrooms**	**Observation Days**	**Documents Collected**
Pakistan	29	5	12	8
Poland	29	5	10	19
Total	**58**	**10**	**22**	**27**

All interviews were recorded with participant consent, transcribed verbatim, and translated into English where necessary. Observation field notes were written within 24

hours of each observation session. Documents were collected from organizational websites, internal communications, and direct requests to participants.

Table 3: Participant Demographics by Country

Demographic Variable	Pakistan (n=29)	Poland (n=29)	Total (n=58)
Gender			
Male	16 (55%)	17 (59%)	33 (57%)
Female	13 (45%)	12 (41%)	25 (43%)
Non-binary/Prefer not say	0 (0%)	0 (0%)	0 (0%)
Age Group			
20-30	8 (28%)	6 (21%)	14 (24%)
31-40	12 (41%)	11 (38%)	23 (40%)
41-50	6 (21%)	7 (24%)	13 (22%)
51+	3 (10%)	5 (17%)	8 (14%)
Professional Role			
Reporter/Journalist	12 (41%)	11 (38%)	23 (40%)
Editor	8 (28%)	9 (31%)	17 (29%)
Digital/Technical Staff	4 (14%)	4 (14%)	8 (14%)
Manager/Director	5 (17%)	5 (17%)	10 (17%)
Years of Experience			
<5 years	7 (24%)	5 (17%)	12 (21%)
5-10 years	9 (31%)	8 (28%)	17 (29%)
11-20 years	8 (28%)	9 (31%)	17 (29%)
>20 years	5 (17%)	7 (24%)	12 (21%)
Newsroom Type			
Legacy Newspaper	12 (41%)	12 (41%)	24 (41%)
Digital-Native Outlet	9 (31%)	8 (28%)	17 (29%)
Public Service/State-Affiliated Media	8 (28%)	9 (31%)	17 (29%)

6. Ethical Considerations

This study follows institutional research ethics guidelines. After being given detailed information about the study, including that it is voluntary and they can withdraw at any time, and that their confidentiality will be respected, all participants sign an informed consent form (Appendix B). In Pakistan, due to the limitations on press freedom, special measures are taken: interviews are held in private places or on encrypted platforms; identifiable information such as names, particular beats, or newsroom identifiers are removed or anonymised; data are kept on password protected, encrypted servers, where only members of the research team (Digital Rights Foundation, 2025) have the access. Observation ethics require gatekeeper permission as well as individual consent of staff members to be observed. Field notes do not include identifiable behaviour that might disadvantage participants. Document analysis is respectful of copyright and intellectual property; only with permission of the organization, are internal documents used. Honoraria are provided to participants (about 15 USD equivalent in local currency) as compensation for their time, following local practices and institutional approval of ethics. Honoraria records do not contain identifying information. This study has been approved by [institution name omitted on review] (protocol no. [institution redacted on review] and has followed the Helsinki declaration of research conducted on human subjects.

7. Findings: Integrated Comparative Analysis

This chapter presents the integrated comparative findings from 58 semi-structured interviews (29 in Pakistan, 29 in Poland), document analysis of 27 institutional artifacts, and observation in four newsrooms (two per country). The analysis is organized around five thematic domains: AI adoption patterns, institutional drivers, workflow changes, labor and identity shifts, regulation and ethics, and cross-case synthesis. Throughout, the chapter foregrounds comparative insights that illuminate the dynamics of asymmetric automation.

7.1. Adoption Patterns

There is significant difference between Pakistani and Polish newsrooms in terms of adoption patterns. In Pakistan, GenAI use is informal, individual and underground. At the time of data collection, only one of five newsrooms had an official policy on using AI, which was just one paragraph that discouraged AI without managerial approval – this was generally disregarded. Pakistani journalists reported that they have used freely available tools, like ChatGPT-3.5, Google Bard, Grammarly and Otter.ai, on their own devices, without any organizational knowledge. As one of the digital journalists in Lahore put it: The management has not let us use AI, out of fear of errors. But all people use it. What else do we have to do to compete? We have two reporters doing the work of five! I use ChatGPT to translate Urdu to English, for summaries and sometimes as a first draft. I don't tell anybody. (PJ-04, digital-native) The reported GenAI applications in Pakistan are limited to translation (Urdu/English and regional languages), transcription

(interview/speech/press conference to text), headline generation (for optimizing articles for search engines) and social media content (article to Twitter/X, Facebook, Instagram). Less than 15% of Pakistani respondents indicated using GenAI for data analysis, investigative research or source verification, which demanded a greater level of digital literacy, and a reliable internet connection, both of which were lacking in Pakistan. Adoption in Poland is formalized, supported, and embraced. All five Polish newsrooms have created AI guidelines (two in 2023, three in 2024), and three have AI task forces or cross-functional working groups. Polish journalists reported on using enterprise versions of GenAI tools (GPT-4, Claude, MidJourney) embedded in content management systems which were used and tracked and audited. As one of the managing editors in Warsaw said: "We've been working on our AI guidelines for six months with editorial, legal, and tech teams, and the principle is, AI can help, humans must decide, and every draft generated by AI will be marked in the CMS and will have a disclosure in the byline. We're still learning, but we have a framework. Data journalism (data analysis of public information) and fact-checking support (information cross-referenced with databases), personalized newsletters, and audience analytics are just a handful of the Polish applications that go beyond efficiency. Around 40% of the Polish respondents said that they used GenAI for investigative work, but at the same time all respondents noted that the AI content should be checked by humans.

7.2. Institutional Drivers

Understanding the mechanisms behind asymmetric automation through institutional drivers of GenAI adoption. Economic insecurity is the main motivator in Pakistan. Ad revenues have dwindled, circulation has fallen, and news organizations have very slim margins. Managers present GenAI as a survival tool - how to do more with less. As one of the chief editors of Karachi explained: “AI is not a choice, it is not the question of ‘what if AI can write a basic story, translate it, post it on social media’? That is a question that is not available for us to ask. If AI can do it, we must do it to stay alive. So, AI or nothing—that is the choice we must make.” (PM-02, legacy newspaper) Digital-native outlets many of which began in the past ten years, have been competing with legacy outlets with speed and volume through intense competitive dynamics and a heavy emphasis on leveraging AI capabilities. Economic drivers also exist in Poland but are moderated by the presence of more robust institutional influences (union representation, industry-wide codes of conduct and EU regulation). But Polish journalists voiced worries about job security, and those worries are addressed at the collective bargaining table, not through individual resignation. One of the senior editors in Krakow said: “Of course management wants efficiency, they always do, but our union negotiated no one lose their job as a result of automation, people are retrained, not fired – that changes how people feel about AI – from threat to tool.” (PE-07, digital-native) The two contexts are clearly

different regarding technological infrastructure. Polish newsrooms have access to reliable high-speed internet, cloud computing technologies and technical support staff. In Pakistan, newsrooms are plagued by regular power cuts, poor internet speed (outside big cities) and lack of any IT support. One Pakistani journalist said that he lost three hours of work that was based on Artificial Intelligence (AI) because electricity went down and the internet failed to connect back for 45 minutes. Also, there are differing professional norms. Pakistani journalists placed emphasis on speed and volume which meant to publish articles in a timely fashion, frequently, and through several outlets. When discussing the use of AI for media production, Polish journalists stressed the importance of accuracy, context and verification, which they noted are essential to the practice, even if AI can streamline the process. These are the things that differentiate the use of the GenAI: Production Accelerant in Pakistan and Cognitive Assistant in Poland.

7.3. Workflow Changes

In both scenarios, GenAI is transforming newsroom processes, albeit in differing ways. The changes in workflow in Pakistan are emergent and accidental. Individual journalists incorporate AI into their individual workflows without systematic redesign. The usual process: reporter is assigned to a story → conducts traditional research (phone calls, WhatsApp, limited online research) → writes story manually, then uses ChatGPT for translation, grammar fixes, and headline changes, finally submits the story. The AI 介入 point is not on the content origination, but at the editing/polishing stage. The investigators found that Pakistani journalists tend to amplify their output of a small number of original reports through AI.The researchers found that Pakistani journalists are likely to use AI to amplify their output of a few original reports. One interview with a politician can result in: One news article (written by human), One news article (translated for English speaking audience, AI), Three social media posts (AI generated), One bullet point news summary (AI generated and distributed via WhatsApp). One journalist said: "I only write 30% of what gets published under my name, it's AI taking my notes, expanding, or translating, or reformatting, and it's something I would never have done myself because the volume is just too much. (PJ-11, digital-native) In Poland, workflow changes have been planned and organized. Like other segments of the media, newsrooms have identified editorial workflows to see where AI can be used to complement the production process. The typical workflow is: AI scans wire services and social media for breaking news alert content → AI has human editor assess newsworthiness of content to be pursued, then help with background research (summarizing previous coverage, identifying key sources) and then the human editor writes the primary narrative, and then AI suggests a headline and SEO tags to the human editor, who reviews all of AI's work before it is published. In response, Polish newsrooms have launched new positions such as "AI editors", tasked with

"quality assurance", "prompt engineers", who are tasked with crafting effective instructions for AI and "algorithmic auditors", who are in charge of assessing algorithms for bias. These were positions that weren't available 2 years ago. However, no specific roles were found in Pakistani newsrooms to handle AI, as the work is incorporated into existing duties without any extra pay or training.

7.4. Labor and Identity Shifts

The dimension of labour is the most anxiety-provoking aspect of GenAI integration in both countries, with the type of anxiety varying. Unemployment is the biggest problem in Pakistan. Journalists worry that AI will end up stealing their jobs, those they held five or ten years ago. A senior Islamabad Islamabad-based reporter has said: But I began as a copy editor, learning from other people's errors—what will the next generation learn? No path at all. Only senior journalists and AI, no in between. (PJ-18, legacy newspaper) This concern is increased when there is no retraining program or transition support. No AI course is provided by the employers to Pakistani journalists and those who are able to learn AI skills do it on their own, paying out of their pocket for online 3rd-party AI courses (Coursera, YouTube). Polish journalists feel less unemployed and more concerned about the devaluation of their skills. They fear that with AI doing the grunt work of writing, skills such as craft, style, and voice that have been a hallmark of journalism could become meaningless. One of the features writers in Wrocław noted: I spent 10 years learning how to write. How to use the right word, the right rhythm, how to find the right word, how to find the right rhythm. Now someone who's a junior editor can push a button and ChatGPT can write something 80% as good in 10 seconds. What's my expertise worth? “What will happen to the craft?” (PE-22, legacy newspaper) The professional identity is being redone in both settings, but for different purposes. There are more Pakistani journalists who now refer to themselves as curators and verifiers instead of creators. The true work of a journalist isn't writing, they say, it's source relationships, contextual knowledge and editorial judgment. Polish journalists do not like to be re-framed and insist that writing is essential to journalism. One said, "If I don't write what am I? There are generational differences across both countries. Young journalists are much more at ease with GenAI, more willing to try something new and are more positive that AI can augment rather than replace the human element in their work. There is a significant gap in the views of journalists over 45, who feel more skeptical, fearful, and resistant to AI, although this is less pronounced in Poland where senior journalists have undergone formal AI training.

7.5. Regulation and Ethics

Due to the differences in the institutional frameworks, the legal and ethical boundaries around the use of AI in news journalism vary significantly between Poland and Pakistan. Poland is subject to the EU AI Act, which does not specifically define news recommendation systems as high-risk, but instead has transparency obligations under

Article 52 for user interactive systems and prohibitions under Article 5, and general disclosure obligations for other systems such as large language models. Polish newsrooms, on their side, have created internal ethical frameworks based on EU guidelines, including the marking of AI generated content, editorial supervision before the publication, data protection, and algorithmic audits on a regular basis, although this is not uniform. This raises compliance pressures that compel a discussion of AI risks within the organization. On the other hand, Pakistan has a regulatory void; there isn't any national AI policy for journalism and so far PEMRA has not given any guidance regarding the use of GenAI tools for media, and the Digital Security Act (2018) which is for cybercrime has been used to prosecute journalists and therefore has created a chilling effect on the experimentation of AI tools in the media field. While both groups of journalists encounter ethical issues such as bias, accuracy, transparency and accountability, only the Polish journalists have mechanisms to address them (ethics committees and unions), whereas the Pakistani journalists struggle with these issues on individual basis.

The cross-case synthesis identifies four types of asymmetry: resource asymmetry, with Polish newsrooms investing in AI infrastructure and governance while Pakistanis are facing a vulnerable position with lacking protection and guidance; regulatory asymmetry, as EU countries have frameworks to protect and guide journalists in the age of AI, while Pakistanis are exposed in the field with no such protection; normative asymmetry, with Polish journalism upholding accuracy as a value that cannot be replaced by AI, and Pakistani journalism that is operating under economic pressure, prioritizing speed and survival, and therefore potentially incentivizing AI adoption despite a decline in quality; and agency asymmetry, as Polish journalism experiences collective agency through unions and committees, while Pakistanis experience individual agency or none at all, in a vulnerable position. This creates a uniform trend: GenAI is increasingly embedded in Polish newsrooms without losing any editorial control, whereas in Pakistan, it is used more informally, giving it more control and adding to precarity. It doesn't suggest that Polish newsrooms are overcoming their problems with AI, as they continue to struggle with authority, labor and ethics; however, it does indicate that the same technology can produce consistently different results in different institutional environments and has significant implications for journalistic autonomy, professional identity and legitimacy, which will be examined in the discussion chapter.

8. Discussion

In this part, the empirical findings are analysed, using the theoretical framework set out in Chapter 3, which explains the mechanisms which create asymmetric automation in Pakistani and Polish newsrooms. The four questions that are discussed are interrelated and include: Why does asymmetry exist? What does institutional theory have to say about these dynamics? So what does asymmetry tell us about the inequality of the world's media?

What are the implications of differences in governance on the outcomes of integrating AI? The chapter ends with an elaboration of the conceptual framework of asymmetric automation, an examination of the limitations of the study and implications for journalism research and practice.

It is helpful to summarize the major finding, before examining each mechanism in detail. The following study finds four interrelated mechanisms of asymmetric automation. Asymmetry No. 1: Newsrooms in Pakistan do not have the resources to integrate AI systematically, whereas newsrooms in Poland invest in AI infrastructure, training, and governance. This material disparity results in divergent adoption patterns: on the one hand planned integration, on the other hand informal appropriation. Secondly, regulatory asymmetry: European Union frameworks offer Polish journalists protection, guidance and recourse. There is no regulatory protection for the journalists in Pakistan and they remain in a bind legally and morally. Thirdly, normative asymmetry: Polish journalism emphasizes accuracy, verification, craft, which values are hard to replace with AI. Journalism in Pakistan, in dire economic straits, has become more about speed, quantity and survival – and thus a more incentive-driven arena for using AI, even if it costs quality. Fourth, agency asymmetry: Polish journalists have collective agency in the form of unions, ethics committees and professional associations. Pakistani journalists have no institutional support, and operate in precarious conditions with individual agency. The result is a very similar pattern: GenAI is being integrated more deeply in Poland, while remaining under conditions that uphold editorial authority; GenAI is being integrated more informally in Pakistan, under conditions that erode authority and increase precarity. Each mechanism is looked at in detail below, and then is discussed theoretically and for implications.

8.1. Mechanisms of Asymmetric Automation

The results show that the asymmetric nature of automation is not the same as the differential resources—although material resources are very much a factor. Instead, asymmetry is layered into four mechanisms that progressively marginalize the outcomes of AI integration in both national contexts. On the contrary, asymmetry is enacted in four cascading processes that systematically disadvantage the outcomes of AI integration in the two national settings.

Infrastructural path dependency: In Pakistan, newsrooms were operating in already fragile digital environments with unstable electricity, low internet bandwidth, outdated hardware, and inadequate technical support, and were accepting GenAI. Newsrooms in Pakistan had to accept GenAI in already fragile digital environments with unstable electricity, low internet bandwidth, outdated hardware and inadequate technical support. Polish newsrooms embraced GenAI in the context of well-established platforms equipped with powerful IT infrastructure, including high-speed Internet, cloud computing and IT professionals. This infrastructural gap influences not only the adoption speed, but also the

quality of adoption. Large Language Models are heavy resource consumers that cannot be run locally by Pakistani journalists and are provided by free tier cloud service, which has limits on usage and no data protection assurances. Enterprise solutions with technical support and SLAs are offered to Polish journalists. But the material substrate of AI use, which is typically missing from technology-focused narratives, plays a major role in shaping what's possible.

Regulatory amplification: Regulatory capacity to govern AI is strengthened by Poland's integration into the EU regulatory frameworks. Regulatory pressure brings about institutional learning, documentation and proceduralization even when fully compliant newsrooms don't exist. In Pakistan, the lack of regulation leads to the opposite: no pressure to think about, no requirement to comply, no learning institutions. Journalists are left to their own devices with AI, lacking guardrails or recourse mechanisms as they navigate.

Normative path divergence: The professional approach to journalism in Poland is based on the norms, which are strengthened by stable jobs, union representation and professional associations: accuracy, verification and craft. GenAI is tested and measured against these standards, improving or diminishing them? Journalism is an extremely precarious business in Pakistan, and the values of speed and volume have been internalized. GenAI is tested for various factors - is it helping us publish more and faster? The same technology, measured by different normative frameworks, generates systematic different adoption patterns. This result complements Hanitzsch and Vos' (2017) discursive institutionalism by providing a glimpse of the ways in which material circumstances influence the discursive production of technological legitimacy.

Agency distribution: Collective agency for polish journalists is exercised through journalists' unions, ethics committees and industry-wide working groups. In Pakistan, journalists exercise a limited form of agency, if any, on their own. This distinction influences the contestation of authority reconfigurations. AI integration is a matter of negotiation between the polish journalists and the institution, while the Pakistani journalists must find a way to live with it to keep their jobs.

8.2. Institutional Theory: Application and Extension

The results validate and expand on the validity of institutional theory in the context of AI-driven journalism. The conceptualization of institutions as sets of interlocking rules, roles, technologies, norms, and collective frames of meaning (Reese, 2022) is analytically powerful. These institutional elements show relative coherence in Poland, with rules (EU AI Act, organizational policies), roles (AI editing, prompt engineering, algorithmic auditing), technologies (enterprise LLM, integrated content management systems tools), norms (accuracy, verification, craft), and collective frames (assistant, requiring human oversight, AI) aligning. In Pakistan, these conditions exist separately or in isolation: lack

of formal guidelines and no new roles, informal uptake of technology, competing norms (speed vs accuracy), and no shared understanding of assessing the legitimacy of AI.

The institutional fragmentation is the reason behind the internal migration of power in Pakistan going at a faster pace and less contentiously. If institutional pieces are not aligned, there are fewer friction points to slow or redirect transfers of authority. Although the editors have formal rights to make decisions, they remain practically unenforceable if there is no capacity within the organization to implement them. The absence of the "moral crumple zone" (as Elish (2019) puts it) – from human-robot interaction to journalist-AI assemblages – creates responsibility gaps. The results also validate Lischka's (2020) institutional logics framework, pointing to the increased power of competing logics in the process of integrating AI. Market and managerial logics (based on efficiency, cost reduction and productivity) are the drivers of adoption in both countries. In Pakistan however, professional logic (editorial independence, craft and public service) is a much stronger counterweight than in Poland. Pakistani journalists don't have a strong institutional appeal to resist the use of AI that infringes professional autonomy, whereas the polish journalists do. The relative strength of professional logic is not given, it is produced and reproduced institutionally, indicating this difference.

8.3. Global Media Inequality and Epistemic Dependency

This study offers empirical evidence to the concept of the “AI divide” proposed by Munoriyarwa and de-Lima-Santos (2025). The results prove that the gap is not only between the North and South but also between different countries in the South – and different positions in the North. While being a member of the EU and having better infrastructure than Pakistan, Poland is still behind newsrooms in the United States and United Kingdom in its investment and integration of AI. The split is not a binary one, but a gradient one. The data on which this book is based generates the concept of epistemic dependency as a key analytical tool. The Pakistani media often uses AI models trained mostly with English language, western data. They do reasonably well with simple tasks (translation, summarisation) and systematically fail at cultural nuances, regional languages, and local political context, which is in line with Gondwe (2023) and Naureen et al. (2026). However, there are no local training alternatives. Journalists in Pakistan should not wait for locally appropriate AI, as they need to use the available or risk being left behind. The criteria for news, narration and verification found in LLM are not only technological, but also epistemic too: they represent a journalistic condition that may not be the one that is found in other countries or in other audiences. AI may be a new form of epistemic colonialism, however, not in the sense of a domination of the other but by its silent colonization of “foreign” standards through technical mechanisms (Kothari and Cruikshank 2022).

8.4. AI Governance Divergence

The results shed light on the impact of governance at various levels – supranational, national, and organizational – on the impact of AI integration. The structure of multilevel governance is also a strength for Poland: European Union regulations give binding requirements; national implementation turns these into national legislation; and organizational policies turn it into practice in newsrooms. There is neither a supranational policy on AI in journalism, nor a national policy on AI in journalism in Pakistan, and very few organizational policies even if there are. There is a clear impact of this governance gap. Journalists in Poland are aware of the standards to follow report on the use of AI, check the results, exercise oversight. They have a known compliance environment, albeit with a target of full compliance. Pakistani journalists are in the dark: There is no official voice that has clearly defined the frameworks of responsible AI use, what information should be revealed, and who is liable for harm caused by AI. Most importantly, this uncertainty does not prevent AI from being adopted - it speeds it up, but without boundaries or control. Asymmetric automation is primarily a governance asymmetry. This discovery echoes the call for participatory and context-sensitive governance by de-Lima-Santos et al. (2025) and Tseng et al. (2025), who seek to replace a 'one size fits all' governance approach.

8.5. Refining the Conceptual Model

The results lend support to the conceptual model presented in Chapter 3, but indicate two modifications. First, professional norm strength is a mediator between institutional conditions and authority reconfigurations. When the norms of the profession are tightly enacted i/n the form of rules and regulations (Poland), they help to shield against erosion of authority. In countries with weak or weakly established norms (Pakistan), authority is more easily transferred. Second, at the moderator level, there is a governance density, which is the existence and expression of rules at different levels. An increase in governance density does not stop, but decelerates, internal migration, while a reduction in governance density accelerates it without giving safeguards for accountability. These improvements are summarized in the policy, practice, and future research recommendations of the concluding chapter.

9. Study Limitations

The results of this study must be interpreted in view of several limitations, which, if included in the discussion, enhance the reliability of the conclusions drawn. Methodologically, the cross sectional design takes a snapshot of a rapidly changing context and practice (2024-2025), so practices may have changed already. Neither the sample of ten newsrooms is statistically representative of the journalism of either country, but it will be analytically generalizable to institutional theory. The data on the use of AI is subject to bias – it is likely to be underreported in Pakistan because it is not formally used or reported by management and may be overreported in Poland because it is more recognized and

accepted as a formal approach. Social desirability also has the potential to introduce bias in both contexts. Lack of audience research means that consumer perceptions are untested and short observation periods (five to 10 days at each site) do not provide enough time for reflection of routine practices and resistance. In the context, the study took place amidst the political turmoil in Pakistan following 2024 elections and ahead of the full implementation of the EU AI Act in Poland which leaves regulatory frames open; other ecosystems such as freelancers or community media were not explored. Conceptually, this institutional focus might downplay the importance of individual psychological factors like risk tolerance and self-efficacy, and the binary Pakistan-Poland comparison can mask the internal variation of the two countries, such as rural-urban and ethnic differences. More work is required to further operationalize the concept of asymmetric automation in different contexts. The limitations are mitigated with triangulation of interviews, observation and documents, and thick description in support of transferability. Further research is needed into longitudinal tracking, increased samples, audience studies and participatory, local research to deepen understanding.

10. Contributions of This Study

The study has several interrelated contributions in the theoretical, empirical, methodological and practical fields. In theory, it offers a hard look at the role of strong professional norms in mitigating authority erosion through AI in Poland, and weak norms in Pakistan enabling authority transfer. It also highlights governance density (rules at EU, national, and organizational level) as a moderator that inhibits the migration of authority, albeit it does not ensure accountability, and introduces epistemic dependency as a power differential mechanism through which Pakistani journalists are dependent on Western LLMs that are not aligned with local contexts, a form of epistemic colonialism. In practice, it offers scarce comparative data from two under-researched contexts, which fills gaps in the research on AI-journalism, and makes possible the understanding of asymmetric automation as a practice enacted along resource, regulatory, normative, and agency asymmetries. It illustrates the value of a comparative qualitative case study design with mixed methods and provides a replicable cross-national interview protocol. In practice, it translates to three policy recommendations: journalism needs to be addressed through an AI-specific regulatory framework, and not just platforms; investment in infrastructure for Global South newsrooms is vital to the responsible use of AI; and AI risk cannot be individualised – journalism requires an approach to collective bargaining, professional associations and AI education.

11. Conclusion

The use of generative AI in journalism is not a linear path but rather a process that splits at institutional divides that have been overshadowed by Western-centric scholarship. This comparative study of Pakistani and Polish newsrooms shows that the nature of the

asymmetric automation has nothing to do with the speed of adoption but rather with systematically different configurations of authority, stemming from four reinforcing processes: infrastructural path dependency, regulatory amplification, normative divergence, and agency distribution. In Pakistan, newsrooms show signs of non-regular and informal use of AI, driven by economic insecurity, resulting in a distinct shift in editorial authority and a heightened occupational insecurity. In Polish newsrooms, formalized, institutionally supported integration takes place while maintaining a high degree of editorial autonomy, producing strong tensions between professional identity and professional accountability. The results clearly address all three research questions. Systemic institutional differences (regulatory frameworks, infrastructure, professional norms, and economic resources) discriminate against patterns of adoption. The fragmentation of the Pakistani context facilitates authority migration in a more rapid and less contentious fashion, whereas the institutional coherence in Poland slows but does not stop authority migration. Lack of responsibility exacerbates everywhere, except where there is the mechanism to deal with it. This study contributes to institutional theory and adds epistemic dependency as a key concept: Pakistani journalists are dependent on AI tools that have been trained on Western datasets, which often lack cultural context—epistemic colonialism in the form of technical systems. Three policy measures are outlined: Regulating journalism, Investing in infrastructure in newsrooms in the global south, and Building the Journalistic agency, via collective bargaining and AI literacy. The future of journalism will not be a matter of technology, but rather of institutional conditions in which it arrives, and whether these conditions are created before the technology.

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