

FROM AGENDA BUILDERS TO DIGITAL FRAMES: ANALYZING THE EVOLUTION OF MEDIA NARRATIVES IN PAKISTAN USING COMPUTATIONAL TEXT ANALYSIS

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Abstract

This study investigates the evolution of media narratives in Pakistan from traditional agenda-setting to contemporary digital framing, utilizing a computational text analysis approach. Drawing upon agenda-setting and framing theories, the research explores how political, social, and cultural issues are represented in both traditional print media and social media platforms from 2008 to 2024. By employing Structural Topic Modeling, sentiment analysis, and network analysis on over 100,000 digital posts and 2,500 traditional news articles, the study reveals distinct shifts in narrative formation, tone, and thematic focus. Traditional media adhered to institutional stability and elite-driven discourse, while digital media exhibited emotionally charged, diverse, and user-generated frames. Hashtags functioned as connective action mechanisms, allowing decentralized discourse to emerge in real-time. The findings underscore a democratization of media framing, marked by increased audience agency and the influence of algorithms. The study offers significant theoretical contributions to communication research and practical implications for journalism, policymaking, and digital activism in Pakistan.

INTRODUCTION

1.1 Study background

The media's place in determining the course of a social discourse has fundamentally changed from what it was in the earlier years, moving on to algorithm-driven, dynamic digital forms of framing. This change has had great effects on the flow of information and opinions within the Pakistani society as well as its political involvement. In recent years, the media have been known as an agenda builder; they gave priority to national discourse (McCombs, 2004). Yet the emergence of digital media, including Twitter, Facebook, and YouTube means that narrative power has moved to the edges of institutionalized forms of

power, to users and networks (Bennett & Segerberg, 2012).

It is not only technological, but also ideological and sociopolitical evolution. Decades of state control, censorship, and press-military relations have built the current media environment of Pakistan since independence (Niazi, 2010), so recently, social media has come along with its chaos and liberty. These striving of the state to regulate narratives has become competitive with the grassroots of framing through the efforts of activists, influencers, and citizens. Any such battle of narratives, conventional vs. electronic, institutional vs. populist, deserves the attention of

scholars, and one tool that is currently gaining more consideration in the field of large-scale media analysis is that of computational text analysis, which has proven to be more precise and scalable than most other methods (Grimmer & Stewart, 2013).

1.2 Statement of Problem

Although there is an increase in the number of studies on media framing and agenda-setting in Pakistan, the majority of studies are qualitative or focused on the traditional media sources (Zafar & Safdar, 2020; Riaz, 2008). It is a gap in computational, data-driven innovations, which explore the re-framing of narratives and agenda-building challenges through digital media.

Specifically, there is a lack of systematic research that can study the dynamics of agenda-building and constitutive digital framing with the help of a combination of unfolding methods of computational text analysis and topic modeling, sentiment analysis, and network mapping.

1.3 Research Questions

1. How have media narratives evolved in Pakistan from traditional agenda-setting models to digital frames?
2. What are the dominant frames present in Pakistani digital media discourse?
3. What are the best ways to rely on the computational text analysis tools to reveal the structure and evolution of these frames?

1.4 Significance of the Study

The study has academic, methodological, and sociopolitical value. On an academic platform, it also supports framing theory, putting it in perspective in the digitized Pakistani media system. In terms of methodology, it has shown the usefulness of computational text analysis, including structural topic modeling, word embeddings, and hashtag network analysis, to studies of the media (Roberts et al., 2014; Boumans et al., 2022). It opens up new avenues of negotiation in digital spaces between power, ideology, and the discourse that the digital space promotes and that, in many cases, ignores the checkpoints (Rumi, 2022).

1.5 Theoretical Framework

The article is based on the body of knowledge of the Agenda-Setting Theory (McCombs & Shaw, 1972), the Framing Theory (Entman, 1993), and Connective Action Theory (Bennett & Segerberg, 2012). Agenda setting suggests that the media shapes what people discuss in their minds, while framing influences how they think. Conversely, Connective Action Theory describes the role of digital media in fostering personalized, decentralized, and emotionally driven modes of activism and participation. As a result, collective discourse is shaped in this way.

1.6 Gap in Research

The existing studies usually focus on the Pakistani context and approach the traditional and digital media as separate phenomena, disregarding the emerging relationship between them (Ashraf & Chaudhry, 2020; Jamil, 2021). Moreover, we are not getting the entire sense of media narration evolution due to the low usage of computational approaches. The article follows by extending this discussion and filling this gap by bringing together thousands of pieces of text-based media production- news articles, tweets, and editorials- in a computational analysis that enables access to latent frames and changing narratives.

1.7 Objectives of the Study

- To trace the evolution of media narratives in Pakistan from traditional to digital platforms.
- To identify dominant frames within both traditional and digital media using computational text analysis.
- To examine the interplay between institutional agenda-building and digital framing.

Literature Review

2.1 Introduction

Agenda setting, especially as it relates to user-generated content, is a tangled interplay of institutional and algorithmic processes of framing in the Pakistani media, but particularly in the digital media age. The chapter critically lays out the agenda-setting and framing theories that became the bedrock of subsequent media and text research, gives them ground in the Pakistani media environment, as well as provides an overview of the recent development of computational text analysis in communication

research. This chapter illustrates gaps in the literature reviewed nationally and internationally and indicates why a data-based exploration of changing narratives was required.

2.2 Agenda-Setting Theory: The Elite Control of the Digital Diffusion

Agenda-setting theory assumes that the media does not make people think a certain way, but makes them ponder a certain thing (McCombs & Shaw, 1972). Initially used about conventional media like newspapers and television, this notion has massively changed with the emergence of internet-based media. Historically, in Pakistan, the traditional media organizations have been functioning under degrees of state influence, and their editorial policy has been influenced by political, military, and corporate pressure (Niazi, 2010).

As noted by McCombs (2004), media institutions have become strong agenda builders by emphasizing given issues at the expense of others. In the case of Pakistan, Riaz (2008) and Zafar & Safdar (2020) revealed that the mainstream media tends to cover elite-driven political discourses, omitting the issues of the grassroots. This top-down arrangement has been challenged, however, through the democratization of content creation through social media. According to the most recent literature, institutional agenda-setting has become algorithmic or participatory agenda-building. More and more media priorities are now determined by digital users in terms of trends, hashtags, and viral content (Bennett & Segerberg, 2012). This has brought a new challenge of polarizing the discourse in the public and creating individualized media realities.

2.3 Power of interpretation in light of the Framing Theory

The Framing theory expounds the fact that media not only focus on which issues remain prominent but also on how issues are construed (Entman, 1993). Frames are core ideas of an organization that add meaning to events and issues. Protest can be described as civil disobedience or as democratic speech, according to the media source. The Pakistan research published some papers that consider the framing of topics like terrorism (Zafar & Safdar, 2020), civil-military

relations (Raza & Bukhari, 2020), and gender-based violence (Naz & Ahmad, 2022).

The ideological nature of framing, which is not consistent over language, ownership, and editorial policy, is emphasized in these works. Even though such insights are important, the majority of Pakistan framing studies use manual content analysis that is restricted in scope and magnitude. The emergence of computational approaches has provided researchers with an opportunity to scrutinize thousands of texts longitudinally to reveal the latent frames otherwise overlooked by manual procedures (Boydston et al., 2014; Roberts et al., 2014).

2.4 Pakistan: Evolution of Media between the Traditional and Digital Platforms

Since the liberalization at the beginning of the 2000s, the media environment in Pakistan has changed a great deal. Although print media and television are still powerful, digital media has emerged as another powerful medium, especially amongst the young people (Jamil, 2021).

Social media networks Twitter and Facebook have become some of the largest venues of narrative wars, where the usual gatekeepers are now cut out of the process.

Similar research (Ashraf & Chaudhry, 2020; Bashir, 2019) points out that the use of such hashtags as #JusticeForZainab or #ImranKhan shifted the paradigm of discourse in Pakistan. Mainstream media most of the time have to respond to these digital movements, hence inverting the normal agenda-setting pattern.

However, the existence of algorithms, which have affected visibility, interest, and virality, presents a whole new complex of issues. Such digital logics can enable the amplification of some frames and marginalization of others, frequently without transparency (Rumi, 2022).

2.5 Computational text Analytics in communication study

Within the parameters of media and communication studies, computational text analysis (CTA) has recently emerged as an effective research tool in topic modeling, sentiment analysis, and network mapping (Grimmer & Stewart, 2013; Boumans et al., 2022).

These tools enable researchers to examine enormous corpora of media forms, track discourses through time, and determine what intervals and patterns of narrative are appearing or banishing themselves with statistical precision.

In the Pakistani context, CTA has been underutilized. Some pioneer studies (e.g., Ashraf & Chaudhry, 2020) have started analyzing social media trends using Python- and R-based tools. Nevertheless, CTA as a comprehensive application in both digital and traditional media is not much.

CTA has been used by scholars worldwide to investigate the coverage of elections by the press (Roberts et al., 2014); the framing of the pandemic (Boydston et al., 2014); and hate speech recognition (Silge & Robinson, 2017). Wrapping up in Pakistan, such approaches could turn everything upside down, as in making what previously were anecdotal observations, diverging to empirical generalizations.

2.6 Gap in the Literature

• **Theoretical gap:** Pakistani research on agenda-setting or framing is mostly limited, whereas the interaction between the two in the digital arena is not discussed.

• **Methodological gap:** This is because large-scale, computational research of media content across time and platforms is lacking.

• **Contextual gap:** There are not many studies that incorporate political, algorithmic, and cultural aspects of studying media evolution in Pakistan.

These gaps point to the existence of a gap between a theoretically motivated, framing and agenda-setting theories, and a methodologically motivated, using computational tools to chart the process of media narratives in Pakistan.

2.7 Conceptual framework

This study, according to the literature, suggests the following integrated framework comprising the combination of:

- Agenda-Setting Theory (McCombs, & Shaw, 1972)
- Framing Theory (Entman, 1993)
- Connective Action Theory (Bennett & Segerberg, 2012)

➤ Computational Text Analysis (Grimmer & Stewart, 2013)

The framework also enables this researcher to trace the pattern of agenda setting by conventional media, reframing by the digital actors, as well as how such shifts can be detected by computational tools over time.

Methodology

3.1 Introduction

This chapter presents the study design, sample, method of analysis and data tools used in examining the media narrative development in Pakistan. Since the research has both a classical and digital agenda in focus, the mixed-methods design with computational text analysis and qualitative interpretations is implemented. Through this practice, one can not only process many data but also interpret the meaning of the data at a deeper level, which fully reflects the richness of the changing media account.

3.2 Design of research

The research assumes an exploratory and longitudinal research design, which will analyze the content of the media between 2008 to 2024. The timeframe includes the most crucial political, social, and technological changes in Pakistan, such as democratic transitions, civil-military relations, terrorism, feminist movements, and the emergence of digital activism.

This research methodology is a mixture of three dimensions of analysis:

1. Agenda-Setting Analysis - the review of the traditional media in the form of the headlines and editorials based on their frequency of appearance and prominence.
2. Framing Analysis- finding out linguistic and ideological formulations of issues.
3. Computational Text Analysis (CTA) - processing textual corpora (large volumes of texts) via statistical and machine-learning devices.

3.3 Data gathering

3.3.1 Conventional Media Source

The sample of articles was purposively picked with the use of mainstream newspapers, e.g.:

- > Dawn
- > The News International
- > Daily Jang
- > Express Tribune

The information was obtained using newspaper archives, digital websites, and web scraping (e.g., newspaper3k in Python). There was a focus on editorial, front page headline, and political columns that indicated the agenda-setting role.

3.3.2 The online sources of the media

The conveyance of digital discourse was covered by:

- Twitter API v2: #JusticeForZainab, #ImranKhanArrest, #AuratMarch

- YouTube dialogues: Among the main Pakistani news talk shows and videos.

Facebook posts: The posts were gathered manually on political influencers public pages. There was data of 100,000 tweets to more than 3000 news articles and blog posts.

The considerations of ethics were met because only publicly available data was used.

3.4 Pre-processing of Data

With tepee (Python), preprocessing was performed on NLTK (spaCy, gensim), and in R (tidytext, quanteda): The tokenization and the stop-word removal Lemmatization and stemming

- Language standardization (translation to Urdu-English when there was a need)
- URLs, emojis, and hashtags (except topic models retained) scraped.

3.5 Methods of Analysis

3.5.1 STM structural topic modelling

Topic modelling was used to find out underlying themes and clusters of issues that appeared in the data. This is due to the fact that STM was selected instead of LDA to include metadata (including the source, year of the publication, or platform) to see how topics change across media types, or over time (Roberts et al., 2014).

- Name of R package: stm
- The number of subjects chosen through the semantic coherence and exclusivity indexes the manual labeling of Topics was on the top terms and exemplar files.

3.5.2 Sentiment and Polarity Every data set and collection on the Internet is characterized by the sentiment and polarity of the vocabulary.

In order to find out emotional framing, VADER (Valence Aware Dictionary for sentiment Reasoning) was utilized with social media information and LIWC 2015 categories with traditional texts. This enabled a comparison of the trend of sentiment between the traditional media and digital media frames.

3.5.3 Hashtag and Network Analysis

Through the following ways with Gephi and Python network:

Discourse coalitions were studied based on generating hashtag co-occurrence networks (Boyd et al., 2014).

The centrality measures found influential hashtags and themes. The theme convergence/divergence was plotted as visual mapping.

3.5.4 The Framing Matrix Construction

To subdivide the frames, a manual and semi-mechanised method was used in line with the Entman (1993) typology:

- > Definition of problem

Causal interpretation Etymology The word is derived via etymology from the Latin causal literal meaning, and the Greek t is attested in English from the late fifteenth century.

- > Moral judgment

Referring to the treatment suggestion

This was accompanied by keyword-in-context (KWIC) search and frequency concordance software such as Voyant.

3.6 Reliability and validity

Triangulation: comparing results of sources (e.g, tweets vis-a-vis editorials).

Inter-coder reliability: In the case of manual frame labeling, a second coder was engaged; Cohen's Kappa = 0.81.

Model stability: To check consistency, STM models were run several times.

Test, pilot testing: Processed 10 percent of the data for cleaning, preprocessing, and model parameters.

3.7 Moral Choices

- Publicly available data were only used.
- No identifiable particularities were gathered.
- All the data were utilized following the usage policy of **Twitter** and the **newspaper**.
- The results will be indicated in aggregate.

3.8 Limitations of Methodology

The Urdu content had to be translated, which can lead to a loss of meaning. Data from Twitter or Facebook may be biased toward the younger urban population. Sentiment analysis tools might be misled by local sarcasm or political jargon. However, the triangulated design and the size of the corpus make the overall results more generalizable and reliable.

3.9 Summary

The chapter proposed a critical and mixed methodology of qualitative theory and quantitative, computational tools to follow the transformations of media narratives in Pakistan. With STM, sentiment analysis, and network mapping, one can gain a complete way of viewing both traditional and digital media. This theoretical approach is highly placed to reify the dynamic, hybrid, and contentious media landscape in modern-day Pakistan.

Chapter 4: Data Analysis and Findings

4.1 Introduction

The chapter reveals the findings of both computational and interpretative analyses through analysis of the traditional and digital media texts in Pakistan during the period between 2008 and 2024. It brings to focus the development pattern of media narratives based on the use of agenda-setting, framing, and how such media narratives vary based on platforms used, time, and sociopolitical events. Results are presented by the major analytical methods: topic modeling, sentiment analysis, network analysis of hashtags, and frame mapping.

4.2 Output of Structural Topic Modeling (STM)

4.2.1 An Overview of Topics in the Traditional Media (2008-2018)

- With an analysis of more than 2,500 opinion articles and features published in Dawn, the News, and Daily Jang using STM, the following themes came out clearly:

- Civil-Military Relations: ISPR, coups, and democracy have been mentioned (Topic 1).
- Judicial Activism or Rule of Law (topic 2): Reference to cases made by the Supreme Court, Section 62/63.
- Terrorism and Security Discourse (Topic 3): The concept of military, militancy, or national security is used.
- Political Corruption (Topic 4): mention of Panama Papers, NAB, accountability over and over again.
- These were more durable in the sense of over time, acknowledging the gatekeeping role by the media in the institutions (McCombs, 2004).

4.2.2 Distribution of Topics in the Digital Media (2018- 2024)

A parallel STM analysis of more than 100,000 tweets and 3,000 blog posts disclosed:

- Digital Protest & Hashtag Movements (Topic A): #AuratMarch, #FreeBalochistan, #JusticeForZainab.
- Populist Political Discourse (Topic B): #ImportedHakoomat, #VoteKoIzzatDo, #ImranKhan.
- Religious Sensitivities and Blasphemy Discourses (Topic C): Employment of such terms as Gustakh, Namoos-e-Risalat.
- Economic Despair and Inflation (Topic D): Petrol Prices, Dollar Rate, memes, and satire.

These themes were also less stable and more event-sensitive and moving, and thereby signaled the change towards audience-based framing (Bennett & Segerberg, 2012).

4.3 Sentiment Analysis findings

4.3.1 The Promises in Opinions of Traditional Media

The LIWC piecemeal of attitude showed that the traditional media had mostly a neutral or negative tone:

Civil-military and corruption stories contained quite high moral assessments.

Positive feelings would be mostly limited and usually pegged on achievements at the national level (e.g., victory in a game of cricket).

4.3.2 Rules of the Social Media Sentiment

The achievement of the tweet analysis carried out via VADER sentiment analysis indicated:

Major demonstrations of polarities on the matter of feelings, particularly during the moments of unsteadiness, i.e., at the time of utmost emergency (e.g., Zainab Murder).

Polarized sentiment groups (supportive and hostile) were symbolized with such hashtags as #AuratMarch. There were sentimental highs, by political unrest and decisions made in the judicial system.

4.4 Hashtag and Network Analysis

The co-occurrence of the hashtags was calculated with the help of Gephi and NetworkX, and it revealed that clusters are dependent on the themes:

Progressive (Cluster 1): #AuratMarch, #MeToo, and #StudentSolidarity. Cluster 2 (Nationalist): #ISPR, #PakistanZindabad, and #DefendPakistan. Cluster 3 (Populist): #ImranKhan, #Tabdeeli, #ImportedHakoomat).

The betweenness centrality scores highlighted the notion that populist hashtags were inter-clustered as a bridging discourse much more than the anonymous ones.

4.5 Analysis of the frame

Through the typology of Entman (1993), the study was able to identify:

In traditional media, presentation of events was done using such factors as the security, morality as well and authority of the nation. Victimhood, identity politics, and action have been continuously packaged in events as an interloper of the digital world and written about. You can take the example of #AuratMarch, which was being framed as the controversial march or the frame of elite activism in the newspapers, but on Twitter, it was being framed as the march of liberation or grassroots resistance.

4.6 Summary of Findings

- Media narratives in Pakistan have shifted from institutional agenda-building to emotionally charged digital frames.
- Computational tools uncovered hidden topic patterns, affective dimensions, and discourse networks.
- Traditional media reflects elite perspectives, while digital media amplifies pluralistic and polarized voices.

These findings substantiate the argument that media framing in Pakistan is no longer unidirectional; it is now multidimensional, contested, and algorithmically shaped.

Visual Model: Research Design Diagram

Discussion and Implications

5.1 Introduction

In this chapter, the findings elaborated in Chapter 4 are interpreted within the wider scope of the theoretical and contextual framework of the research. It narrates the effects of transitioning to the modern agenda-setting (digital framing) in the Pakistani media system with a focus on the contribution of technology, political culture, and audience role. The debate identifies the area of convergence and divergence between conventional and online media, and the potential that computational approaches have on communication studies.

5.2 Making Sense of Shift: The Change in Gatekeepers to Digital Crowds

Their findings affirm the great transformation that has occurred in the use of narratives that were once controlled by the traditional gatekeepers of the media: the editors, the journalists, and the state organs.

Networked publics in digital platforms are also posing a challenge to the media gatekeepers. Mainstream media kept reinforcing the elite-centric versions and helping to enforce nationalistic, institutional, and moral images. Conversely, the digital media encouraged bottom-up communication, which was emotional, activist, as well as identity-based.

Our evolution here is consistent with that described by Bennett and Segerberg (2012) as the connective action; individuals can organize themselves in narratives and mobilizations without a formal leadership element. The work demonstrates that the hashtags can be viewed as a mechanism of organizing logic, which establishes dynamic discourse spaces and defines a real-time constitution of the sense of the masses.

5.3 Repackaging the Pakistani Public Sphere

Habermas' vision of the rational-critical public sphere is radically changing in the light of the hybridization of the Pakistani media system. Whereas traditional media is institutionalized in terms of its public discourse, digital media democratized the way

of expression, and at the same time, it promoted refraction and polarization.

The division that is observed within hashtags like #AuratMarch or #ImranKhan is a demonstration of how, in many instances, digital media facilitates echo chambers instead of reaching a consensus. These places, however, also give room to hear other voices that had always been outside- namely, women, students, and ethnic minorities to have input on the national discourse.

5.4 Implications of Media Power and Political Communication

The abatement of unidirectional agenda-setting media power in the conventional media is an indication of the distribution of communicative power. The new framing wars are fought in real-time by politicians, activists, and political influencers, and it is now more important to go viral, to be sentimental and nimble in narrative content than to have editorial support.

Democratization of framing does not happen without perils. Such phenomena as algorithmic amplification, misinformation, and performative outrage have the potential to mislead the general population. It, however, offers a chance of inclusion in the conversation, participation in civic action, and increased visibility of an issue.

5.5 Contributions of Theorizing

The research on the theory of media and communication is the follows:

To achieve this goal, it empirically proves that the process of agenda-setting and framing theories converges on digital media.

- It contributes to the theory of connective actions by showing how hashtags act as elements of framing.
- It confirms the fact that the computational turn in communications scholarship could make the results increasingly interpretively deep, vindicating Structural Topic Modeling and sentiment analysis.

In addition, the results support the idea that the digital age necessitates a reconsideration of framing beyond viewing it as a media operation, but rather such an operation happens and occurs in a participatory, algorithmic context.

5.6 Practical and Policy Implications

5.6.1 To the Journalists and media organizations

The media practitioners should also embrace the role of the digital dialogue in changing the traditional editorial agendas. The computational tools, which can sense the mood of the audience and how the stories are changing, will be welcome in the newsroom so that the optimal way to satisfy the needs of an audience can be determined.

5.6.2 To the Policymakers and Regulators

Rather than censoring digital speech, there should be a move to build media literacy, algorithmic transparency, and a fact-checking infrastructure that would provide a successful information ecosystem.

5.6.3 As to the Civil Society and Activists

The success of the use of digital framing introduces the possibilities of mobilization, which would, in its turn, necessitate strategic literacy in terms of hashtag campaigns, digital ethics, narrative framing, and organizing an effective mobilization that, notwithstanding, did not lead to the backlash.

5.7 Limitations and Future Research

In as much as this study falls to be the first in its scope and methodology, it is constrained in: Usage of the language may be biased due to the translation of the content of the Urdu.

The information that Twitter mentions means a particular group of individuals (urban, educated).

- The sentiment option may not work out as a cultural reference or sarcasm. Future studies of this composition can take the shape of:
- The discourse of TikTok, YouTube Shorts, or WhatsApp.

The cross-border frames are those narratives (for example, India-Pakistan ones).

- Detection of fine-grained emotion and frame detection by using deep learning models (e.g., BERT).

5.8 Summary

The chapter tackled what could be the course of things in the case of media narrative change in Pakistan by covering the warfare that took place between the traditional editor and the group of digital distributed framing. The study can offer an idea of a change in the dynamics of the communication, power, and public discourse in a digital society based on the semi-nationalization of agendas, framing

theory, and data scientific evaluation. Such are some of the observations that would be of interest to the general population of media practitioners, academics, and policymakers who want to operate alone in the more mature and more controversial media environment.

Chapter 6: Conclusion

6.1 Overview

In this study, the researcher aimed to explore how media narratives in Pakistan have evolved, replacing the traditional agenda-setting method based on the use of computational text analysis with digital framing. Based on the agenda-setting and framing perspective, along with a credible approach supported by computational methodologies, the research provided an inclusive examination of the construction, dissemination, and contestation of narratives in the mass media of 2008-2024.

6.2. Major Results

The key outcomes in the study were:

- A sharp transition in the traditional media, where narrative is controlled by the elites to a more free-flowing, user-generated framing in digital media.
- The old media stayed stable and formal and focused on national security, political corruption, and institutional power.
- Digital media allowed the introduction of an emotionally charged, diverse, and fast-changing discourse, and this discourse focused most of the time on protests, identity, and political populism.
- Such computational tools as Structural Topic Modeling, sentiment analysis, and network mapping were able to reveal hidden patterns, developing frames, and inter-platform contrasts.
- These results demonstrate how the interaction between technological change, audience agency, and political contestation has led to the development of the new public sphere in Pakistan.

6.3 Theoretical and Methodological Contributions

This research of mine added to the theory of communication in the sense that:

- Showing how the agenda-setting and framing theories interact in a hybrid media world.

- The further development of the understanding of digital connective action under the influence of the role of hashtags and decentralized discourse.

- Confirmation of the effectiveness of the computational method in sociopolitical communication studies, at least of the Global South. Methodologically, the paper demonstrated the power of the mixed-method that juxtaposes the traditional textual analysis with the tools and methods of data analytics.

6.4 Implications

For Researchers

In the research, there is a way of interdisciplinary inquiry that uses a media studies approach in combination with both computational linguistics and sociology. And it leaves a desire to know more about non-Western digital ecologies and narrative politics.

For Journalists and Media Institutions

The results would necessitate an adaptive journalism that acknowledges the fact of user-generated narratives and the use of digital analytics in maintaining responsiveness to the social mood and discourses.

For Policymakers

The study emphasizes the necessity of policies that would be conducive to media pluralism, algorithmic transparency, and digital literacy, and ensure safe democratic communication in the digital era.

6.5 Limitations

Several limitations were experienced by the study:

- Urdu content might not have been translated well because of translation loss in the language or cultural implications.
- The targeting of Twitter and non-obscure media left behind close chatting apps and local-vernacular social media.

Sentiment analysis tools failed to pick up the irony, sarcasm, and the meaning of the context.

These areas notwithstanding, the paper gives a thorough basis on which a follow-up computational study on media framing and agenda-setting can be developed.

6.6 Direction of Future

In the future, the research might:

- Rethink the main focus on analyzing TikTok, YouTube, and WhatsApp discourse.
- Understand cross-cultural media discourse in South Asia.
- Include deep learning models such as BERT in the detection of a frame and classifications of emotions with a finer grain.

6.7 Final Reflections

A process of narrative pluralism has entered the Pakistani media, where more hierarchies of communication are being undermined by the participatory digital process. This work not only describes that shift but also highlights the strengths of calculative instruments in the process of shedding light on the constantly changing topography of mass communication. This is why media has been and will continue to be evolving, and so must our ways and our theories, so as not to be left behind by the possibilities and the dangers of the digital narrative revolution.

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