

SURVEILLANCE, AGENCY, AND CONTROL: RETHINKING SOCIAL MEDIA USE IN PAKISTAN THROUGH A DATA COLONIALISM LENS

Abdur Rehman Butt

Department of Media and Communication, UMT Sialkot Campus, Sialkot, Pakistan

abdur.rehman@skt.umt.edu.pk

Babar Hussain

Department of Sociology, University of the Punjab, Lahore, Pakistan

babar_wahlah@yahoo.com

Faiz Ullah

Department of Mass Communication and Media Studies, GIFT University, Gujranwala, Pakistan

faizullah@gift.edu.pk

Shahbaz Aslam

Center for Media and Communication Studies, University of Gujrat, Gujrat, Pakistan

shahbaz_vu@yahoo.com

Rana Babar Sohail

IISAT Gujranwala, Pakistan

rana.babar@iisat.edu.pk

Abstract

This study reconceptualizes social media use in Pakistan through the intersecting lenses of data colonialism, surveillance capitalism, and postcolonial theory, with particular attention to the dynamics of surveillance, user agency, and structural control. While dominant discourses frame social media platforms as emancipatory spaces that democratize information and expand civic participation, this paper argues that these same platforms function simultaneously as sophisticated infrastructures of data extraction and behavioral governance. Drawing primarily on Couldry and Mejias's (2019) theory of data colonialism, Zuboff's (2019) framework of surveillance capitalism, and postcolonial scholarship on global digital inequality (Kwet, 2019; Said, 1978), we develop a theoretically integrated conceptual model that situates user agency within algorithmically structured environments of asymmetrical power. Through a qualitative interpretive approach informed by platform policy analysis, digital rights discourse, and empirical insights drawn from extant studies of Pakistani digital users and practices, we identify and analyze three interrelated dynamics: (1) the normalization of pervasive, multi-layered surveillance; (2) the emergence of what we theorize as bounded agency, a form of structurally conditioned autonomy operating within algorithmic constraints; and (3) entrenched structural dependency on transnational platform corporations that reproduces colonial logics of extraction and accumulation. Our findings suggest that user participation in social media platforms is fundamentally embedded in asymmetrical power relations in which the experience of autonomy is systematically conditioned by invisible technological and commercial structures. The paper contributes to Global South media studies and critical data studies by reframing social media use as a site of colonial continuity, advancing a structurally negotiated rather than individually possessed conception of digital agency, and outlining concrete pathways toward data justice and digital sovereignty in Pakistan.

Keywords: *data colonialism, surveillance capitalism, bounded agency, social media, Pakistan, Global South, digital sovereignty, algorithmic governance*

1. Introduction

Social media platforms have become deeply woven into the fabric of everyday life in Pakistan. With over 44 million active social media users as of 2023, and penetration rates rising sharply among urban and semi-urban youth, platforms such as Facebook, YouTube, TikTok, Instagram, and X (formerly Twitter) shape political discourse, mediate economic opportunity, and organize social interaction in ways that were unimaginable two decades ago (Jamil, 2021; Riaz & Pasha, 2022). These platforms are frequently celebrated—in policy discourse, popular commentary, and even academic literature—as engines of democratization: spaces where

ordinary citizens can challenge authority, access global knowledge, build livelihoods, and perform identities free from the constraints of traditional gatekeeping institutions.

Yet these celebratory narratives obscure as much as they reveal. The same infrastructures that enable expression and connectivity are also architectures of surveillance, data extraction, and behavioral control. Every click, like, search query, and second of attention generates data that is systematically captured, processed, and commodified by a small number of transnational technology corporations headquartered overwhelmingly in the United States. Users in Pakistan, as in much of the Global South, generate enormous quantities of data but exercise virtually no meaningful governance over how it is collected, used, or monetized. This condition—in which participation in digital life entails structural submission to external systems of extraction—has led a growing body of scholars to invoke the language of colonialism to describe contemporary digital relations (Aslam et al., 2020; Aslam, 2025; Aslam, Hussain, et al., 2025; Aslam et al., 2026; Couldry & Mejias, 2019; B. Hussain et al., 2025).

The concept of data colonialism, as developed by Couldry and Mejias (2019), offers a particularly productive framework for understanding this condition. It reframes data extraction not merely as a commercial or technological phenomenon but as a new phase of colonial domination, one that operates not through territorial conquest but through the colonization of human experience itself. Every aspect of daily life—where people go, what they read, whom they communicate with, how they feel—becomes raw material for a system of value extraction whose benefits flow disproportionately to the Global North. In this framing, Pakistan does not simply use social media; it is, in a meaningful structural sense, used by it (Aslam, Iqbal, et al., 2025; Aslam, Yousaf, et al., 2025; S. Hussain et al., 2021; Jin et al., 2022).

At the same time, any account that reduces users to passive victims of extraction risks its own distortions. Pakistani social media users are creative, adaptive, and strategically aware. Digital entrepreneurs leverage platform affordances to build businesses; activists use social media to organize and resist; ordinary users negotiate complex social norms about visibility, privacy, and authenticity. The question is not whether agency exists—it plainly does—but how that agency is shaped, constrained, and conditioned by the structural environments within which it is exercised. This paper seeks to hold both truths simultaneously: to take seriously both the reality of structural power and the reality of situated human agency.

We do so by developing a theoretically integrated analytical framework that brings together data colonialism theory (Couldry & Mejias, 2019), surveillance capitalism (Zuboff, 2019), and postcolonial perspectives on global digital inequality (Said, 1978; Chakrabarty, 2000; Kwet, 2019). This integration allows us to analyze Pakistani social media use across multiple registers simultaneously: as a site of economic extraction, as an environment of behavioral surveillance and governance, and as a context shaped by enduring structural inequalities rooted in histories of colonialism. Our central theoretical contribution is the concept of bounded agency—a framework for understanding how users exercise genuine forms of autonomy and creativity within environments that are fundamentally structured by invisible systems of algorithmic control and commercial imperatives.

The study addresses three guiding research questions. First, how is surveillance normalized and experienced within everyday social media practice in Pakistan? Second, in what ways does algorithmic architecture condition and constrain the forms of agency that users are able to exercise? And third, how does Pakistan's structural dependency on transnational platform corporations reproduce dynamics of colonial inequality, and what implications does this carry for digital governance and data sovereignty?

The remainder of the paper is organized as follows. Section 2 reviews the relevant theoretical and empirical literature on data colonialism, surveillance capitalism, algorithmic

agency, and digital inequality in Pakistan. Section 3 presents our integrated theoretical framework and conceptual model. Section 4 describes our qualitative interpretive methodology. Section 5 presents and discusses our findings across three thematic dimensions. Section 6 elaborates our theoretical contributions, and Section 7 concludes by identifying pathways toward data justice and digital sovereignty.

2. Literature Review

2.1 Data Colonialism and the Appropriation of Human Experience

The concept of data colonialism represents one of the most significant theoretical interventions in critical data studies of recent years. Couldry and Mejias (2019) argue that the contemporary data economy constitutes not merely a new phase of capitalism but a new form of colonialism, one that extends colonial logics of dispossession and extraction into the digital domain. Where historical colonialism appropriated land, labor, and natural resources, data colonialism appropriates human life itself—transforming the texture of everyday social existence into raw material for extraction and commodification.

This framing draws important analytical force from the scale and pervasiveness of contemporary data collection. Digital platforms do not merely observe particular moments of user behavior; they generate continuous, granular, and intimate datasets covering the full range of social, emotional, and relational life. As Couldry and Mejias (2019) observe, this represents a qualitative transformation in the relationship between human beings and economic systems—a transformation in which the very condition of being social becomes a resource for capital accumulation. The analogy to colonialism is therefore not merely rhetorical but structural: in both cases, a system of extraction appropriates resources from populations who receive little or no benefit, and who have little meaningful power to contest the terms of extraction (Khawaja et al., 2025; Sohail Riaz et al., 2024).

Several aspects of this argument are particularly relevant to the Pakistani context. First, the processes of data extraction are largely invisible and normalized, embedded in the mundane practices of daily digital life such that they pass beneath the threshold of critical awareness for most users. This invisibility is not accidental but structurally produced: platform interfaces are designed to facilitate data generation, and the terms and conditions under which data is collected are deliberately obscured through legal complexity and interface design (Srnicek, 2017). Second, the ownership and governance of these extraction systems are concentrated in a small number of corporations headquartered in the United States, with the result that data generated in Pakistan flows into systems over which Pakistani users, civil society organizations, and government institutions exercise virtually no meaningful control. Third, as Couldry and Mejias (2019) emphasize, this arrangement reproduces and intensifies global inequality: the Global South becomes a site of data extraction, while the surplus value generated by that data is accumulated in the Global North.

It is important to note, however, that data colonialism theory has also attracted critical scrutiny. Some scholars have argued that the colonial analogy risks flattening the historical specificity of territorial colonialism and understating the genuine material benefits that digital connectivity can provide to Global South populations (cf. Andrejevic, 2020). Others have noted that the framework can inadvertently render users as passive objects of extraction rather than active, if constrained, participants in digital economies. We acknowledge these critiques and seek to address them through our engagement with questions of agency below.

2.2 Surveillance Capitalism and Behavioral Governance

A complementary theoretical resource is provided by Shoshana Zuboff's (2019) account of surveillance capitalism. Zuboff argues that the dominant logic of contemporary digital capitalism is not the sale of products or services to users but the extraction of behavioral data from users for sale to advertisers and other third parties. In this model, users are not customers

but raw material: the product being sold is predictive knowledge about human behavior, derived from the comprehensive surveillance of digital activity. As Zuboff (2019) famously formulates it, if you are not paying for the product, you are the product.

What makes Zuboff's framework particularly significant is its analysis of how surveillance capitalism moves beyond mere observation toward active behavioral modification. Platforms do not simply observe and record user behavior; they deploy the insights derived from surveillance to shape, nudge, and channel behavior in directions that serve commercial interests. This is accomplished through algorithmic content curation, recommendation systems, notification design, and the architecture of social feedback mechanisms—all of which are calibrated not to maximize user welfare but to maximize engagement and data generation (Beer, 2017). The result is what Zuboff (2019) terms a behavioral modification system: an environment in which the very terms of human perception, attention, and decision-making are structured by invisible commercial imperatives.

Critically, this system operates through mechanisms that feel like autonomy and choice. When a user decides to open an app, scroll through a feed, or click on a recommended video, they experience these actions as free choices. But those choices occur within an environment that has been meticulously engineered to elicit them, an environment in which the architecture of attention is itself a commercial product. This insight has important implications for how we theorize user agency, a point to which we return in the following subsection.

In the Pakistani context, surveillance takes a particularly complex multi-layered form. It encompasses platform-based commercial data tracking; state-level regulatory and intelligence monitoring exercised under instruments such as the Prevention of Electronic Crimes Act (PECA) 2016; and social surveillance through the peer visibility structures built into platform design (Riaz & Pasha, 2022). These three layers do not operate independently but interact in ways that amplify their respective effects. State surveillance infrastructure creates incentives for self-censorship that commercial surveillance can exploit; peer visibility norms shape what data users choose to generate; and commercial surveillance provides both the technical infrastructure and the ideological normalization through which other forms of surveillance are naturalized.

2.3 Agency, Algorithms, and the Architecture of Constraint

The question of agency in algorithmically mediated environments has generated substantial theoretical debate in media and communication studies. Classical liberal frameworks conceptualize agency as individual autonomy—the capacity of rational actors to form preferences and act upon them without external constraint. In this framework, social media use appears straightforwardly as an exercise of agency: users choose which platforms to use, what content to consume, and what to post. The problem with this framework is not that it is wrong but that it is radically incomplete. It treats the platform environment as a neutral backdrop for human choice rather than recognizing it as an active, interest-bearing structure that systematically shapes the choices available to users and the preferences they develop.

Taina Bucher's (2018) analysis of algorithmic power offers a more sophisticated account. Bucher argues that algorithms do not merely reflect or transmit pre-existing social realities but actively produce new social realities through their operations. By determining what content users see, what posts gain visibility, and what interactions the platform facilitates, algorithms participate in constructing the social world that users inhabit. This is not a passive or neutral process: algorithms embody specific values, priorities, and interests—typically those of the platforms' commercial sponsors—and they inscribe those values into the structure of social interaction at scale.

Gillespie's (2014) concept of platforms as curators of public discourse extends this argument to questions of meaning and political power. Platforms do not simply distribute

existing information; they determine what information circulates, at what scale, to which audiences, and in what contexts. In doing so, they exercise a form of editorial power that is more pervasive and less accountable than traditional media gatekeeping, precisely because it is encoded in technical systems that appear objective and neutral. The implications for public discourse, political deliberation, and the formation of collective knowledge are profound.

How, then, should we conceptualize the agency of users within these structures? We argue that neither a strong autonomy model nor a strong determinism model captures the reality adequately. Users are not simply programmed by platforms; they adapt, resist, subvert, and creatively repurpose platform affordances in ways that platform designers did not anticipate and sometimes cannot control. At the same time, they do not exercise agency in conditions of their own choosing; they navigate environments whose parameters, possibilities, and constraints are set by powerful external actors. We develop the concept of bounded agency to name this condition: a form of situated, structurally conditioned autonomy in which meaningful action is possible but systematically constrained by invisible systems of algorithmic governance.

2.4 Digital Inequality and Platform Dependency in Pakistan

Pakistan presents a compelling case study for examining the articulation of global platform power with local socio-political dynamics. The country's rapid digital expansion since 2015 has occurred within a context of profound structural inequality: high levels of digital illiteracy, significant gender gaps in internet access, and a regulatory environment that has historically prioritized state security interests over user rights and data protection (Jamil, 2021). Against this backdrop, the integration of social media into everyday life has proceeded at remarkable speed, creating both new opportunities and new vulnerabilities.

Research on Pakistani digital culture has identified several significant patterns. Jamil (2021) documents the rise of a substantial influencer economy in which platform affordances shape not merely how content is produced but what kinds of identities, aspirations, and cultural norms are rendered visible and valuable. Riaz and Pasha (2022) analyze the limitations of Pakistan's regulatory frameworks in governing platform power, noting that existing legislation has been deployed primarily to restrict speech rather than to protect data rights or enforce platform accountability. Taken together, these studies suggest that Pakistan's relationship with global social media platforms is characterized by a structural asymmetry in which the country generates data and content that creates value for transnational corporations while receiving limited reciprocal benefit in terms of data governance, revenue sharing, or platform accountability.

This condition has been theorized in the broader literature as digital colonialism (Kwet, 2019) or technological imperialism (Schiller, 2000). What these frameworks share is an insistence that the digital economy is not a neutral playing field but a structured environment that systematically reproduces and intensifies existing global inequalities. The specific mechanisms through which this occurs—data extraction, algorithmic discrimination, infrastructure dependency, intellectual property regimes—are distinct from those of historical colonialism but serve analogous structural functions in concentrating economic and political power in the Global North.

3. Theoretical Framework

Our analysis integrates three complementary theoretical traditions into a unified conceptual framework capable of illuminating the multiple dimensions of social media use in Pakistan. Each tradition captures important aspects of the phenomenon but is incomplete in isolation; it is their integration that generates the analytical leverage we seek.

3.1 Theoretical Pillars

The first pillar, data colonialism theory (Couldry & Mejias, 2019), provides the macro-structural foundation of our framework. It situates the data economy within a longer history of colonial extraction and enables us to analyze platform capitalism not simply as a new economic formation but as a continuation and extension of colonial logics. The crucial analytical move here is the reframing of data not as a technical artifact but as a form of appropriated human experience—a resource whose extraction from Global South populations reproduces structural inequalities of a colonial character.

The second pillar, surveillance capitalism (Zuboff, 2019), provides the meso-level analytical apparatus for understanding how data extraction is operationalized through specific platform architectures and business models. It focuses our attention on the mechanisms through which user behavior is not merely observed but actively shaped, channeled, and modified in the service of commercial interests. This framework is essential for understanding how agency is constrained not through overt coercion but through the subtle and largely invisible engineering of behavioral environments.

The third pillar, postcolonial theory (Said, 1978; Chakrabarty, 2000; Mignolo, 2011), provides two indispensable analytical resources. First, it offers a historical and geopolitical lens that situates current digital inequalities within longer trajectories of colonial domination and resistance, preventing the analysis from treating contemporary power asymmetries as natural, inevitable, or purely technical in character. Second, it insists on the importance of situated, local knowledge, on the specificities of Pakistani experience, history, and culture, as both the object of analysis and a resource for critical resistance.

3.2 Integrated Conceptual Model

These three theoretical pillars are integrated into a dynamic conceptual model with four sequential but mutually reinforcing components. The first component, data extraction, refers to the continuous and largely invisible process by which everyday social media interactions generate behavioral data that is captured and appropriated by platform corporations. The second component, surveillance infrastructure, denotes the technical and institutional systems through which extracted data is processed, stored, analyzed, and applied—systems that operate at the level of individual users, the platform as a whole, and (through regulatory entanglement) the state. The third component, algorithmic governance, describes the processes through which surveillance infrastructures are deployed to shape the behavioral environment of users—curating what they see, amplifying certain forms of content and interaction, and nudging behavior toward commercially optimal patterns. The fourth component, bounded agency, names the structurally conditioned form of autonomy that users exercise within this environment: genuine in its creativity and adaptability, but systematically constrained by the prior three components.

This model departs from both deterministic and voluntarist accounts of digital life. It insists that agency is real—that users are not simply puppets of platforms—while insisting equally that agency is structurally embedded, that its forms and limits are shaped by powerful external systems. The model is also explicitly geopolitical: by positioning data extraction at the foundation, it foregrounds the colonial character of platform capitalism and situates Pakistani users within asymmetrical global power relations rather than treating them as abstract consumers in a neutral marketplace.

4. Methodology

4.1 Research Design and Epistemological Orientation

This study employs a qualitative interpretive research design (Denzin & Lincoln, 2018). This choice reflects both epistemological and methodological considerations. Epistemologically, we proceed from the premise that the phenomena we seek to understand—surveillance normalization, bounded agency, structural dependency—are not directly

measurable empirical facts but are coconstituted through social practices, discourses, and structural conditions that require interpretive engagement to understand. Methodologically, a qualitative approach enables the kind of contextual, theoretically informed analysis that is appropriate to the primarily theoretical contribution we seek to make.

It is important to be explicit about the nature and scope of our empirical engagement. This study is primarily theoretical and conceptual in character: its central contribution is a theoretically integrated framework for analyzing social media use in Pakistan through the lens of data colonialism. However, this theoretical work is grounded in and informed by close engagement with empirical materials, including platform policy documents, digital rights discourse in Pakistan, and the qualitative findings of prior empirical studies of Pakistani digital users and practices. We do not make claims based on primary fieldwork; rather, we develop theoretical propositions that synthesize and extend existing empirical knowledge while generating hypotheses for future primary research.

4.2 Data Sources and Materials

Our analysis draws on four categories of materials. The first category comprises platform governance documents, including the publicly available terms of service, community guidelines, privacy policies, and transparency reports of the major social media platforms active in Pakistan—Facebook, YouTube, TikTok, Instagram, and X. These documents are analyzed as both legal instruments and ideological texts that reveal the terms on which platform corporations understand their relationships with users and the broader public interest.

The second category comprises Pakistani digital rights discourse, including policy documents, advocacy reports, and public statements produced by civil society organizations working on digital rights, freedom of expression, and data protection in Pakistan. Key sources include the Digital Rights Foundation, Media Matters for Democracy, and Bytes for All, as well as relevant regulatory documents produced by the Pakistan Telecommunication Authority (PTA) and legislative texts including PECA 2016 and the Personal Data Protection Bill. These materials are analyzed as sites where competing visions of digital governance, user rights, and platform accountability are articulated and contested.

The third category comprises findings from existing qualitative studies of social media use in Pakistan, drawn from peer-reviewed publications in the fields of communication studies, media studies, and digital sociology. We treat these studies as empirical resources that provide grounded insight into user practices, experiences, and perceptions, which we mobilize in our theoretical analysis rather than reanalyzing the original data.

The fourth category comprises observations of platform practices—the actual design features, algorithmic behaviors, and content moderation practices of major platforms as documented in academic literature, journalism, and civil society research. This category of evidence is essential for analyzing the mechanisms through which algorithmic governance operates, since many of the most consequential features of platform design are not disclosed in official documentation.

4.3 Analytical Strategy

We employ thematic analysis (Braun & Clarke, 2006) as our primary analytical strategy, using it in a theoretically informed rather than purely inductive mode. Our analytical process involved three iterative phases. In the first phase, we conducted a close reading of all materials in each source category, generating initial codes organized around key conceptual concerns: surveillance practices, expressions of agency and resistance, mechanisms of algorithmic control, and articulations of structural dependency. In the second phase, these initial codes were developed into broader themes through a process of theoretically informed synthesis, in which empirical patterns were read through and against our integrated theoretical framework. In the third phase, themes were refined and tested through internal critique—

examining disconfirming evidence, considering alternative interpretations, and assessing the coherence and scope of the emerging analysis.

Throughout this process, we maintained a commitment to reflexivity about the positionality of our analysis. We are aware that the application of Western-derived theoretical frameworks—data colonialism, surveillance capitalism—to a non-Western context carries risks of its own, including the risk of reproducing the very epistemic inequalities we seek to critique. We have sought to mitigate this risk by taking seriously the specificities of Pakistani digital culture and by treating the voices of Pakistani digital rights practitioners and researchers as authoritative sources of grounded knowledge, not merely as illustrations of abstract theoretical propositions.

5. Findings and Discussion

Our analysis generates findings organized around the three principal dynamics identified in our conceptual model: the normalization of surveillance, the emergence and characteristics of bounded agency, and the structural dimensions of Pakistan's dependency on transnational platform corporations. In presenting these findings, we attend both to the general theoretical propositions they support and to the specific features of the Pakistani context that give those propositions their particular character.

5.1 Surveillance as Normalized Infrastructure

The most striking finding of our analysis is the degree to which surveillance has become not merely accepted but invisible—so deeply embedded in the ordinary practices of social media use that it passes almost entirely outside the frame of critical reflection for the majority of users. This normalization is not a natural or inevitable consequence of digital technology; it is the product of deliberate design choices, commercial incentives, and ideological work that has rendered surveillance simultaneously ubiquitous and unremarkable.

At the platform level, surveillance is architecturally inscribed in the basic interface design of social media. Every feature that makes platforms valuable and engaging—personalized feeds, targeted advertising, content recommendations, friend suggestions—is simultaneously a surveillance mechanism. Liking a post, scrolling past content, pausing on a video, accepting a friend request: each of these interactions generates behavioral data that is captured, analyzed, and fed into algorithmic systems designed to produce ever more precise models of individual preference and susceptibility. Users are generally aware, in abstract terms, that platforms collect data about them; but the specificity, intimacy, and commercial applications of that data collection are rarely understood. As Lyon (2018) observes, the banalization of surveillance—its integration into everyday life as a taken-for-granted background condition—is itself a form of power, one that forecloses critical engagement by rendering the conditions of surveillance invisible.

In the Pakistani context, this platform-level surveillance operates within and is amplified by a broader ecosystem of state surveillance. PECA 2016 established legal frameworks that effectively require platforms to cooperate with Pakistani state security agencies, while creating significant chilling effects on digital expression—particularly around political dissent, religious commentary, and criticism of security institutions. The Pakistan Telecommunication Authority maintains both technical and legal capacities to monitor online traffic and compel platform compliance with government directives (Riaz & Pasha, 2022). Research by the Digital Rights Foundation has documented numerous cases of social media users facing legal consequences for online expression, contributing to a climate of generalized awareness that online activity is potentially subject to state scrutiny.

The interaction between commercial surveillance and state surveillance is analytically important and undertheorized in existing literature. Commercial platforms generate detailed behavioral profiles of users that, under certain legal conditions, may be accessible to state

actors. State surveillance creates awareness of scrutiny that users incorporate into their digital behavior, shaping the data they generate and thereby the commercial surveillance environment. And the social surveillance embedded in platform visibility features—the knowledge that posts are observed by peers, employers, and unknown audiences—creates a third layer of monitoring whose effects on behavior are complex and context-dependent. These three layers constitute what we term Pakistan's multi-layered surveillance ecology: a system in which the boundaries between commercial, state, and social surveillance are porous, mutually reinforcing, and increasingly difficult to disentangle.

5.2 Bounded Agency: Negotiation within Structural Constraint

Our analysis reveals a consistent and theoretically significant pattern in how Pakistani social media users relate to the algorithmic environments they inhabit. Users exercise genuine, creative, and often strategically sophisticated forms of agency; yet this agency is systematically conditioned by structural constraints that users only partially perceive and over which they exercise negligible collective power. This is the condition we theorize as bounded agency.

The evidence for genuine agency is substantial. Content creators on Pakistani social media develop sophisticated understanding of platform algorithms, experimenting with posting times, content formats, hashtag strategies, and audience engagement tactics in pursuit of visibility and reach. Activists and citizen journalists have used platform affordances creatively to document state misconduct, organize collective action, and build cross-border solidarity networks in ways that have had demonstrable political consequences. Ordinary users navigate complex social norms about self-presentation, privacy, and audience management with considerable sophistication, maintaining careful distinctions between public and private dimensions of their digital lives.

Yet this agency is exercised within structural parameters set by others. The very algorithmic systems that content creators learn to game are constantly modified by platform operators in pursuit of commercial optimization, without notice or consultation. Platforms' content moderation systems—which determine what speech is permitted, amplified, or suppressed—are opaque, often inconsistently applied, and subject to political pressures that may not align with Pakistani users' interests. The fundamental terms of data collection and use are non-negotiable: users can choose not to use platforms, but they cannot choose to use them without submitting to surveillance. In a context where social, professional, and commercial life is increasingly organized through these platforms, the option of non-use represents a meaningful form of social exclusion rather than a genuine exercise of choice.

The most theoretically significant manifestation of bounded agency in the Pakistani context is what we term algorithmic self-discipline: the process by which users internalize platform norms and modify their behavior preemptively, without external compulsion. This operates at multiple levels. Content creators consciously adjust their outputs to align with perceived algorithmic preferences—avoiding topics that might trigger demonetization, adopting formats that recommendation systems are known to favor. Ordinary users self-censor political, religious, or personal expression that they fear might attract state attention or social disapproval. The result is a behavioral environment in which surveillance achieves its most powerful effects not through active intervention but through the anticipation of intervention—a digital analogue of what Foucault (1977) theorized as the panoptic effect.

It is important not to romanticize resistance or to overstate the efficacy of user agency. While individual actors find creative ways to navigate and sometimes subvert platform constraints, these individual adaptations do not constitute systemic alternatives to the structures that condition them. The platforms remain owned and governed by transnational corporations; the fundamental terms of data extraction remain non-negotiable; and the collective political resources that might be mobilized to contest these arrangements remain underdeveloped in

Pakistan. Bounded agency is real agency, but it is agency exercised within a field of structural power whose basic parameters it does not fundamentally alter.

5.3 Algorithmic Governance and the Shaping of Discourse

Beyond its effects on individual behavior, algorithmic governance exerts profound influence on the structure and character of public discourse in Pakistan. The mechanisms of this influence are multiple and interacting. Content recommendation systems determine not merely what individual users see but what information circulates at scale through Pakistani digital publics—which issues receive attention, which voices are amplified, and which perspectives are rendered peripheral. Engagement optimization algorithms systematically favor emotionally provocative content—content that elicits outrage, fear, or tribal identification—over content that promotes nuanced understanding or deliberative engagement (Gillespie, 2014). This structural bias toward affective intensity has significant implications for political polarization, misinformation, and the quality of democratic deliberation.

The implications for cultural representation are equally significant. Platforms' algorithmic systems are trained primarily on data from Global North users and calibrated to optimize engagement patterns that reflect Global North cultural norms, advertising markets, and political contexts. When applied to Pakistani users, these systems may systematically undervalue or misclassify Pakistani cultural content, languages, and modes of expression. Urdu and regional language content may receive less algorithmic support than English-language content. Cultural practices that lack equivalents in Global North contexts may be poorly served by recommendation systems trained on different cultural data. This creates what we might term an algorithmic cultural hierarchy—a systematic bias in the visibility and circulation of cultural content that reflects and reinforces the cultural dominance of the Global North.

Content moderation presents a related set of concerns. Pakistani civil society organizations have extensively documented cases of platform moderation systems removing or suppressing content in ways that serve political rather than community safety interests—particularly content documenting state human rights violations, coverage of conflict zones, and political commentary that challenges incumbent power (Digital Rights Foundation, 2022). The opacity of platform moderation systems, combined with their scale and the limited resources available to Pakistani civil society to contest moderation decisions, creates significant accountability deficits with consequences for political expression and democratic discourse.

5.4 Structural Dependency and Digital Colonial Reproduction

The third major finding concerns the structural dimensions of Pakistan's relationship with transnational platform corporations. Pakistan lacks any domestically owned social media platform with significant national reach; the digital public sphere is entirely constituted through infrastructures owned, governed, and monetized by foreign corporations. This creates a condition of structural dependency that operates across multiple dimensions simultaneously.

The economic dimension is perhaps most straightforward. Pakistani users generate billions of dollars of value for platforms—through advertising revenues derived from their attention and behavioral data—while receiving none of this value in the form of revenue sharing, and while having minimal ability to bargain over the terms of value distribution. The advertising revenues that Pakistani content generates flow overwhelmingly to platform corporations and, through them, to US financial markets. Pakistani digital entrepreneurs are dependent on platform policies—revenue sharing arrangements, algorithm changes, monetization criteria—that are set unilaterally in California without reference to Pakistani economic interests or conditions.

The data governance dimension is equally significant. Pakistan's Personal Data Protection Bill, while representing an important effort to establish national data governance frameworks, faces serious implementation challenges and has yet to achieve the force or

institutional embedding needed to provide meaningful protection to Pakistani users' data rights (Riaz & Pasha, 2022). The result is a data governance vacuum in which the terms of data collection, processing, and use are set entirely by platform corporations, subject only to the limited pressures of international regulatory environments in which Pakistan has negligible influence.

The infrastructural dimension operates at a deeper level still. Pakistan's digital public sphere is not merely hosted on foreign platforms but is constituted through infrastructural arrangements, from undersea cable networks to cloud computing architecture to algorithmic filtering systems, that are owned and controlled by foreign entities and over which Pakistani authorities have limited technical capacity to exercise effective oversight. This infrastructural dependency creates vulnerabilities that extend well beyond questions of data privacy to questions of national security, democratic governance, and cultural sovereignty.

Taken together, these dimensions of structural dependency constitute what Kwet (2019) terms digital colonial dependency: a condition in which technological integration with global systems reproduces rather than overcomes the structural inequalities of historical colonialism. The specific mechanisms are different—there are no colonial administrators, no formal legal systems of subjection—but the structural outcome is analogous: a systematic flow of value from periphery to core, sustained by asymmetrical power relations that are naturalized through ideologies of technological progress and market efficiency.

6. Theoretical Contributions

This paper makes three substantive contributions to the literature on digital media, data colonialism, and Global South communication studies.

The first and most central contribution is the theoretical concept of bounded agency. Existing theoretical frameworks tend to oscillate between two inadequate poles: accounts that celebrate user agency and resistance while underestimating structural constraints, and accounts that emphasize structural determination while rendering users as passive objects of power. Our concept of bounded agency offers a more adequate third position, one that takes seriously both the genuine creativity and adaptability of users and the structural conditions that shape, channel, and constrain that creativity. The concept is grounded in specific empirical patterns—algorithmic self-discipline, strategic platform navigation, preemptive self-censorship—that have been documented in Pakistani digital culture, while being sufficiently general to be applicable across other Global South contexts and potentially to digital media use more broadly.

The second contribution is the extension and empirical grounding of data colonialism theory in the Pakistani context. Couldry and Mejias's (2019) framework was developed at a high level of theoretical abstraction; our analysis demonstrates its applicability to the specific conditions of a lower-middle-income country with a complex digital rights landscape, a hybrid regulatory regime combining commercial freedom with state security controls, and a rapidly expanding digital user base. This grounding serves both to validate and to refine the theory: it confirms the analytical power of the colonial framing while identifying specific contextual features—the multi-layered surveillance ecology, the cultural hierarchy of algorithmic systems, the specific character of infrastructural dependency—that nuance and extend the original framework.

The third contribution is methodological and consists of the integration of surveillance capitalism theory with postcolonial frameworks. These theoretical traditions have largely developed in parallel, with limited cross-fertilization. Surveillance capitalism scholarship has tended to focus on the Global North and to frame its analysis in terms of capitalism rather than colonialism; postcolonial scholarship has attended to digital media primarily through frameworks of cultural imperialism and development studies rather than surveillance and

behavioral governance. Our integrated framework demonstrates the analytical gains available from their conjunction, producing an account of platform power that is simultaneously attentive to mechanisms of behavioral governance (surveillance capitalism's contribution) and to geopolitical structures of inequality (postcolonialism's contribution).

7. Conclusion

This paper has argued that social media platforms in Pakistan cannot be understood simply as neutral tools of communication or as straightforwardly emancipatory spaces. They are simultaneously infrastructures of surveillance, data extraction, algorithmic governance, and cultural power—systems whose operations are embedded in and reproduce asymmetrical global power relations that bear important structural resemblances to historical colonialism. Users navigate these systems with genuine creativity, adaptability, and strategic intelligence; but they do so within structural parameters set by powerful external actors, exercising bounded rather than unconstrained agency.

The implications of this analysis extend from theory to policy. At the level of national data governance, our analysis underscores the urgency of strengthening and implementing robust data protection legislation that genuinely constrains platform power rather than merely providing a regulatory veneer. Pakistan's Personal Data Protection framework requires not only legislative completion but institutional investment, technical capacity-building, and meaningful civil society oversight to become operationally effective. At the level of platform accountability, our analysis supports calls for mandatory algorithmic transparency, meaningful content moderation appeals processes, and data localization requirements that would enable Pakistani authorities to exercise more effective governance over data generated by Pakistani users.

At the level of digital literacy and civil society, our analysis highlights the importance of what we might term critical digital literacy: not merely technical competence in using digital platforms but reflective awareness of the structural conditions under which digital participation occurs. Educational initiatives, civil society advocacy, and journalistic investigation all have roles to play in cultivating the public understanding of surveillance and platform power that is a prerequisite for meaningful democratic oversight.

At the theoretical level, our framework points toward a research agenda that takes seriously both the structural dimensions of global platform power and the situated specificity of local digital cultures and practices. We need more empirical work on how Pakistani users experience, negotiate, and theorize their own digital agency—work that takes Pakistani perspectives as sources of theoretical insight rather than merely as illustrations of Global North theoretical frameworks. We need comparative work that examines how bounded agency takes different forms across different social contexts—across class, gender, generation, and geography within Pakistan, and across different Global South contexts internationally. And we need theoretical work that continues to develop the connections between surveillance studies, postcolonial theory, and political economy in order to build frameworks adequate to the complexity of the global digital condition.

The stakes of this work are not merely academic. How Pakistan—and the Global South more broadly—navigates its relationship with global platform capitalism will have profound consequences for democratic governance, cultural sovereignty, economic development, and human dignity for hundreds of millions of people. Getting the analysis right is a prerequisite for getting the politics right; and getting the politics right, in this domain as in others, requires the kind of critical theoretical clarity that scholarship can provide.

References

- Andrejevic, M. (2020). *Automated media*. Routledge.
- Aslam, S. (2025). Digital exclusion in agricultural communication: Exploring socioeconomic and infrastructural barriers to ICT use in rural Pakistan. *Social Sciences & Humanities Open*, 12. <https://doi.org/10.1016/j.ssaho.2025.102264>
- Aslam, S., Hayat, N., & Ali, A. (2020). Hybrid warfare and social media: need and scope of digital literacy. *Indian Journal of Science and Technology*, 13(12), 1293–1299. <https://doi.org/10.17485/IJST/v13i12.43>
- Aslam, S., Hussain, B., & Yousaf, M. (2026). Faith, family, and the frontline: Integrating religious and cultural narratives in polio communication strategies in Pakistan. *Social Sciences & Humanities Open*, 13, 102513. <https://doi.org/10.1016/j.ssaho.2026.102513>
- Aslam, S., Hussain, S., & Riaz, S. (2025). Crossing Cultural Borders: Language and Intercultural Communication in Contemporary Anglophone African Literature. In *Shifting Sociolinguistic Terrains in Postcolonial Anglophone African Literary Writings* (pp. 167–186). Springer. https://doi.org/10.1007/978-3-031-80614-8_9
- Aslam, S., Iqbal, Z., Abid, S., & Zahid Bilal, M. (2025). Beyond the Battlefield: Trauma, Patriarchy, and Structural Violence in Women’s Literature From Asia. *Asian Women*, 41(4). <https://doi.org/10.64446/aw.2025.12.41.4.89>
- Aslam, S., Yousaf, M., Raza, S. H., Hussain, B., & Ahmad, W. (2025). Reconfiguring Patriarchal Paradigms: The Women March and Its Role in Reshaping Gender Norms and Feminist Activism. *Asian Women*, 41(2), 227–253. <https://doi.org/10.14431/aw.2025.6.41.2.227>
- Beer, D. (2017). The social power of algorithms. *Information, Communication & Society*, 20(1), 1–13. <https://doi.org/10.1080/1369118X.2016.1216147>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Bucher, T. (2018). *If...then: Algorithmic power and politics*. Oxford University Press.
- Chakrabarty, D. (2000). *Provincializing Europe: Postcolonial thought and historical difference*. Princeton University Press.
- Couldry, N., & Mejjias, U. A. (2019). Data colonialism: Rethinking big data’s relation to the contemporary subject. *Television & New Media*, 20(4), 336–349. <https://doi.org/10.1177/152747641879663>
- Denzin, N. K., & Lincoln, Y. S. (2018). *The SAGE handbook of qualitative research* (5th ed.). SAGE Publications.
- Digital Rights Foundation. (2022). *Mapping digital rights in Pakistan: Annual report 2022*. Digital Rights Foundation. <https://digitalrightsfoundation.pk>
- Foucault, M. (1977). *Discipline and punish: The birth of the prison* (A. Sheridan, Trans.). Pantheon Books.
- Gillespie, T. (2014). The relevance of algorithms. In T. Gillespie, P. J. Boczkowski, & K. A. Foot (Eds.), *Media technologies: Essays on communication, materiality, and society* (pp. 167–194). MIT Press.
- Hussain, B., Aslam, S., & Imran, A. (2025). Manufacturing beauty: How AI and Social media are redefining aesthetic norms in emerging digital cultures. *Acta Psychologica*, 260. <https://doi.org/10.1016/j.actpsy.2025.105734>
- Hussain, S., Ahmed, M. U., Aslam, S., & Sohail, R. B. (2021). Technology and New Generation: Influence of Personality Traits of Youth on Virtual Pseudo Self-Presentation and Social Media Addiction. *Technical Journal*, 26(3), 53–62.
- Jamil, S. (2021). From digital divides to digital inequalities: Social media, precarious labour, and the platform economy in Pakistan. *Journal of Asian Communication*, 31(2), 89–107.

- Jin, Q., Raza, S. H., Mahmood, N., Zaman, U., Saeed, I., Yousaf, M., & Aslam, S. (2022). Exploring Influence of Communication Campaigns in Promoting Regenerative Farming Through Diminishing Farmers' Resistance to Innovation: An Innovation Resistance Theory Perspective From Global South. *Frontiers in Psychology*, 13, 924896. <https://doi.org/10.3389/fpsyg.2022.924896>
- Khawaja, S., Aslam, S., Yousaf, M., Mahmood, N., Yaser, N., Raza, S. H., & Mahmood, T. (2025). Media, Disasters, and the Global South: Comparing Global North and South Media Framing on Pakistan's 2022 Floods. *Journalism and Media*, 6(2), 70. <https://doi.org/10.3390/journalmedia6020070>
- Kwet, M. (2019). Digital colonialism: US empire and the new imperialism in the Global South. *Race & Class*, 60(4), 3–26. <https://doi.org/10.1177/0306396818823172>
- Lyon, D. (2018). *The culture of surveillance: Watching as a way of life*. Polity Press.
- Mignolo, W. D. (2011). *The darker side of Western modernity: Global futures, decolonial options*. Duke University Press.
- Riaz, S., & Pasha, S. (2022). Platform governance and digital rights in Pakistan: Between regulatory fragmentation and state control. *Telecommunications Policy*, 46(3), 102–118. <https://doi.org/10.1016/j.telpol.2021.102118>
- Said, E. W. (1978). *Orientalism*. Pantheon Books.
- Schiller, H. I. (2000). *Living in the number one country: Reflections from a critic of American empire*. Seven Stories Press.
- Sohail Riaz, Babar Sohail, Shahbaz Aslam, & Babar Hussain. (2024). Tourism Destination Branding in the Digital Age: Evaluating the Influence of Social Media on Destination Image and Visitor Perceptions. *Contemporary Journal of Social Science Review*, 02(04), 70–80.
- Srnicek, N. (2017). *Platform capitalism*. Polity Press.
- Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. PublicAffairs.