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Analysis of Social Multimedia Communication and Privacy Usage in Sri Lankan and South Asian Communities

L. K. Pulasthi Dhananjaya Gunawardhana¹

¹ Department of Information & Communication Technology, University of Sri Jayewardenepura, Pitipana, Sri Lanka. ORCID ID: 0000-0003-3486-7844

Abstract

This research paper examines the role of social data, multimedia communication, and privacy usage within the Sri Lankan and South Asian communities. With increasing internet penetration and widespread smartphone adoption, social media has become a cornerstone of communication, information sharing, and social interaction across the region. However, this digital transformation has raised significant privacy concerns due to government surveillance, data collection practices, and the absence of robust data protection laws. This paper explores and synthesises data from reputable sources to analyse usage patterns, the role of multimedia, privacy challenges, and their societal impacts. Apart from that paper further discusses the trends and usage of social data, the role of multimedia communication, and the evolving privacy landscape within Sri Lankan and South Asian communities, highlighting their cultural, social, and regulatory implications.

Keywords: Social Media, Data, Data Analysis, Digital Journalism, Big Data, Multimedia Communication

1. Introduction

The modern technologies have reshaped communication methods within the Sri Lankan community in this era. Most of the youth nowadays in Sri Lanka are equipped with Mobile devices, and therefore they engage with more social media platforms. This social media is central to personal, professional, and societal interactions. Social data, generated through user activities on platforms such as Facebook, YouTube, and WhatsApp, provides valuable insights for businesses, governments, and researchers. Multimedia communication, encompassing text, images, videos, and audio, facilitates rich and dynamic exchanges but also amplifies the volume and sensitivity of data collected. 23 million people live in Sri Lanka, and there are more than 8 million active social media accounts, making social media a significant part of daily life (Kirindigoda, M. 2020). In this study, we will examine six South Asian countries, including Sri Lanka, India, Pakistan, Bangladesh, Nepal, Bhutan, and the Maldives. These countries are experiencing a profound digital transformation. With a population of nearly 2 billion, over 60% of

whom are under 35 years old, the region is a hub of digital activity, particularly in social media and multimedia communication (Atlantic Council, 2023). It is a colossal problem that hate speech and disinformation are circulating through social media platforms. Policy makers around the world are still finding a proper solution to address this issue. Many countries, including Asian countries, have introduced strict rules and regulations to address social media misbehaviours and harassment. Including controlling hate speech and disinformation. According to the Annual Activity Report, issued by CERT in 2020, most of the internet and digital violations reported belonged to the social media category. As to the report, there are 15895 incidents in 2020 (CERT|CC, S. L., 2020). AI and machine learning (ML) are transforming data analytics by automating data processing, enhancing predictive capabilities, and uncovering deeper insights. ML models now monitor data in real time, detecting anomalies and generating insights without human intervention. Approximately 65% of organisations are adopting or exploring AI for analytics, with applications in analytical maintenance, variance detection, and tailored customer experiences. For example, Amazon leverages AI-driven analytics to optimise inventory and predict customer preferences, boosting efficiency.

2. Overview of Social Media Usage

Facebook and WhatsApp dominate across South Asia due to their versatility for messaging, networking, and business. Short video platforms such as YouTube Shorts, Instagram Reels, and TikTok are gaining a grip, reflecting a global trend toward quick, engaging content. Emerging technologies, such as artificial intelligence (AI) for personalised ads and augmented reality (AR) filters, are enhancing user experiences, particularly in India. Social commerce is also rising, with platforms integrating shopping features like Instagram Shopping and Facebook Marketplace. For instance, Pakistan and Bangladesh face strict content regulations, raising concerns about free speech. Despite these hurdles, the region's digital landscape offers vast potential for innovation and economic growth.

When looking at the social media usage in Sri Lanka, 8.20 million use Facebook, there are 8.13 million use YouTube, 1.95 million use Instagram in Sri Lanka, 5.79 million use TikTok, 2.6 million use LinkedIn, 3.9 million use Messenger, and 308 thousand use X. there 29.3 Million registered mobile connections uses in Sri Lanka with the penetration of online use 53.6% (DataReportal, 2025). In the region of South Asia, especially India, Pakistan, and Bangladesh, user-generated content such as posts, videos, and comments is the basis of South Asia's digital landscape. The region's social media penetration is substantial, with South Asia hosting over 961 million social media users as of January (2023 Statista. 2023). Here we have listed six South Asian Countries.

- **India:** With 751.5 million internet users (52.4% penetration), India leads the region in digital adoption. YouTube and Facebook each reach 462 million and 366.9 million users, respectively, while Instagram has 362.9 million users. The gender distribution shows a male bias, with 68.6% of social media users being male (DataReportal, 2024).
- **Pakistan:** In Pakistan, they have 111 million internet users (45.7% penetration) and 71.7 million social media users. YouTube matches the total social media user base at 71.7 million, followed by Facebook (44.5 million) and TikTok (54.38 million for users aged 18+). The gender gap is pronounced, with 74.1% male users (DataReportal, 2024). (Digital 2024: Pakistan).
- **Bangladesh:** While specific data is less comprehensive, estimates suggest around 30% social media penetration, with platforms like Facebook and YouTube being popular, driven by 200 million mobile subscribers (Atlantic Council, 2023).
- **Nepal:** Nepal has 14.3 million social media users, with Facebook (14.3 million) being the most used platform, followed by Instagram (3.90 million), Messenger (10.9 million), and LinkedIn (2.00 million). User growth was 5.6% from 2024 to 2025. Social media is increasingly used for education, with institutions sharing content on platforms like Facebook and YouTube. The gender split (55.7% male vs. 44.3% female) indicates improving access for women. (Statista. 2025), (World Economic Forum, 2022)
- **Bhutan:** Bhutan has 470,000 social media users, with Facebook (470,000) dominating, followed by Instagram (140,000), Messenger (371,000), and LinkedIn (130,000). User growth was 2.8% from 2024 to 2025. Social media is relatively new, with the government promoting its use for education and business while regulating

content to preserve cultural values. The gender split is nearly balanced (52.1% male vs. 47.9% female). (Statista. 2025), (World Economic Forum, 2022)

- **Maldives:** The Maldives has 376,000 social media users, with Facebook (376,000) leading, followed by Instagram (275,000), Messenger (257,000), and LinkedIn (190,000). User growth was 3.5% from 2024 to 2025. Social media is primarily used for tourism promotion, reflecting the country's economic reliance on tourism. The gender split (64.1% male vs. 35.9% female) shows a male-dominated user base. (Statista. 2025) (World Economic Forum, 2022)

The increase of short video platforms such as YouTube Shorts, Instagram Reels and TikTok replicates a global trend adapted to local contexts. In India, YouTube's 462 million users underscore the popularity of video content, ranging from entertainment to education. In Pakistan, TikTok's rapid growth (229% user increase from 2023 to 2024) highlights the appeal of short-form videos among younger demographics (DataReportal, 2024). (Digital 2024: Pakistan).

As of January 2025, South Asia boasts a significant social media user base, reflecting its growing digital connectivity. The following table summarises key statistics (DataReportal, 2025):

Table 1: Summary Of Social Media Usage

Country	Social Media Users (Millions)	Penetration (% of Population)	Growth (2024-2025)
India	491.0	33.7%	+6.3%
Pakistan	66.9	26.4%	+13.3%
Bangladesh	60.0	34.3%	+13.3%
Sri Lanka	8.2	35.4%	+9.3%
Nepal	14.3	48.1%	+5.6%
Bhutan	0.47	59.2%	+2.8%
Maldives	0.376	71.1%	+3.5%

3. Understanding Social Data and Big Data

Social Data refers to information generated from social interactions, primarily on platforms like social media, while Big Data involves large, complex datasets analysed to uncover patterns and trends. In South Asia, these technologies are vital for understanding public sentiment, shaping political campaigns, and informing policy decisions. However, their use is complex, with benefits like improved governance balanced against risks like misinformation and privacy concerns.

Big Data is transforming governance in South Asia, particularly in India, which hosts one of the world's largest data repositories through initiatives like Aadhaar. Most of the current Computer/Mobile Apps comprise reducing power sector losses, improving security through delinquency estimation, and improving disaster management. India's National Data & Analytics Platform aims to centralise sectoral data for better policymaking. Nevertheless, challenges such as data breaches and infrastructure limitations hinder development. It seems likely that AI and big data analytics are already used to boost governance and social security. In practice, robotic process automation (RPA) in Fiji has streamlined social security processes, and similar technologies could be applied in South Asia. These tools help spot scams, enhance services, and support policy decisions, though their adoption is still evolving in the region.

These Social Data and Big Data are altering South Asia's political and policy landscapes. As we go through the records in Aadhaar, in India, the authorities are probing social media's role in political deployment. Modern technologies offer opportunities for better governance and public engagement. Though many challenges raise privacy concerns, misinformation, and the digital divide require careful management. When investing in infrastructure, fostering regional collaboration, and developing ethical frameworks, South Asian countries can connect modern technologies for comprehensive and effective governance.

4. Social Media Violations and Remedies

4.1. In Sri Lanka

Universally, these social media platforms are identified as collecting much user data, frequently leading to privacy fissures when the data is misrepresented. In Sri Lanka, privacy issues are mostly serious due to cultural and societal aspects. A study by Gunawardhana (Gunawardana et al., 2023) highlights online harassment as a noteworthy matter, as females are the primary victims. The study classifies purposes such as vengeance, humiliation, and exaction, with offenders often sharing private images or videos without consent. Victims' involvement has severe psychological impacts, including anxiety, depression, and suicidal thoughts, as well as social consequences such as broken relationships and humiliation (Gunawardana, S. et al., 2023). The non-consensual distribution of multimedia content, such as intimate images, is a critical privacy violation. For example, cases of "revenge porn" and hacked social media accounts have been reported, where personal data is used for blackmail or public humiliation (Kirindigoda, M. 2020). Moreover, the digital divide—differences in access between urban and rural areas, genders, and socioeconomic groups—limits the ability of some users to protect their privacy effectively (Ryder, C., 2022).

Sri Lanka has enacted numerous laws to address privacy and cybercrime that happens through social media platforms. The Computer Crime Act No. 24, which was introduced in 2007, interdicts illegal access to computer systems, data interference, and disclosure of sensitive information, with penalties including fines up to 300,000 rupees and imprisonment up to 5 years (Sri Lanka Law, 2007). But its pertinence to precise matters such as online harassment is inadequate. Privacy is a persistent concern in Sri Lanka, as the data protection context is often immature or poorly enforced. Digital journalism and social media count on user data to tailor content, but this raises risks of surveillance, data breaches, and misuse. In Sri Lanka, the Personal Data Protection Act of 2022 aims to regulate data collection, but implementation remains inconsistent. The Online Safety Act was introduced on January 24, 2024. The Online Safety Act is a debatable law intended to regulate online content, including digital journalism. This law establishes an Online Safety Commission, appointed by the President of Sri Lanka, with comprehensive authorities to assess and remove "prohibited" content, such as false statements published in the media in Sri Lanka.

The findings disclose a multifaceted landscape where social data and multimedia communication drive connectivity. There is a risk that these social media platforms may expose users to privacy risks. Online harassment, which could happen due to the ease of sharing multimedia content, underlines the need for targeted legal protections. The PDPA allies with global standards like the EU's GDPR, highlighting consent and data subject rights, but its application to social media-precise matters requires further assessment. The Online Safety Act's comprehensive possibility may help control harmful content, but risks free expression, a concern echoed by global human rights organisations (BBC, 2024). The digital divide, as noted by Ryder, 2022, exacerbates privacy challenges, with rural and marginalised groups less equipped to navigate privacy settings (Ryder, C., 2022). Low awareness among youth, as suggested by the 2017 dataset, further compounds vulnerabilities. Comparing Sri Lanka to global contexts, countries with stronger enforcement mechanisms and public education campaigns offer models for improvement. For instance, the EU's proactive approach to data protection could inform Sri Lanka's implementation strategies.

Table 3: Acts In Sri Lanka

Key Legislation	Date	Detail
Online Safety Act (OSA) of 2024	January 24, 2024	It establishes an Online Safety Commission, appointed by the President, with broad powers to assess and remove "prohibited" content, such as false statements, content deemed to hurt religious feelings, or misuse of bots.
Personal Data Protection Act	March 19, 2022	PDPA regulates the processing of personal data in Sri Lanka. It applies to data processed within Sri Lanka and extraterritorially

(PDPA) No. 9 of 2022		to entities targeting Sri Lankan individuals. The Data Protection Authority, established in August 2023, oversees compliance, issues guidelines, and imposes fines for non-compliance.
Electronic Transactions Act No. 19 of 2006	May 19, 2006	This Act provides legal recognition for electronic signatures and digital transactions, facilitating e-commerce and digital communications. It establishes a framework for secure electronic transactions and supports the use of digital certificates to prevent fraud.

4.2. In South Asia

The rapid growth of social data and multimedia communication has heightened privacy concerns across South Asia. A significant issue is the vulnerability of women, who face unique risks due to cultural practices like device sharing. The study “Toward Gender-Equitable Privacy and Security in South Asia” found that women employ performative practices—such as managing phone locks, deleting content, and using private modes—to protect their privacy (Sambasivan et al., 2019). High-profile incidents, such as the murder of Qandeel Baloch in Pakistan and a suicide in Tamil Nadu, India, due to online harassment, underscore the severity of these risks (Sambasivan et al., 2019). The ethical implications of social data and multimedia communication centre on consent, transparency, and accountability. Many platforms operate under vague privacy policies, leaving users uninformed about data practices.

Women in South Asia face unique privacy and security challenges due to cultural norms and socioeconomic factors. A 2019 study in *IEEE Security & Privacy* found that women in India, Pakistan, and Bangladesh often share devices with family members, increasing risks of unauthorised access to personal data (IEEE Security & Privacy, 2019). The GSMA Mobile Gender Gap Report (2019) highlights that females are 28% less likely to have their own mobile device and 58% less likely to use the internet, with safety and security concerns being significant barriers (GSMA, 2019). In Pakistan, 31% of women cite family disapproval as a barrier to mobile ownership, reflecting cultural constraints.

The proliferation of social data through multimedia communication raises significant privacy concerns. South Asia’s regulatory landscape is evolving, but gaps remain, leading to vulnerabilities in data protection.

Table 4: Acts In South Asia

Country	Key Legislation	Status	Key Issues
India	Digital Personal Data Protection Act (DPDP Act, 2023)	Enacted	Shift from data localisation to trusted geography data flows; Pegasus spyware concerns.
Pakistan	Personal Data Protection Bill (2023)	Draft	Data localisation, government access to sensitive data
Bangladesh	Draft Data Protection Act (2022, updated 2024)	Draft	Data localisation, unclear cross-border data transfer rules

5. Current Trends in Data Analytics for 2025

The field of data analytics is rapidly evolving, driven by advancements in technology and the increasing importance of data-driven decision-making. Below are the key trends shaping data analytics in 2025, based on recent industry insights.

5.1. Incorporation of Artificial Intelligence and Machine Learning

AI and machine learning (ML) are transforming data analytics by automating data processing, enhancing predictive capabilities, and uncovering deeper insights. ML models now monitor data in real time, detecting anomalies and generating insights without human intervention. Approximately 65% of organisations are adopting or exploring AI for analytics, with applications in predictive maintenance, anomaly detection, and personalised customer experiences. For example, Amazon leverages AI-driven analytics to optimise inventory and predict customer preferences, boosting efficiency (Gartner, Inc. 2025).

5.2. Edge Analytics and IoT Integration

The growth of supercomputing is driven by the need for real-time data processing, particularly with the proliferation of IoT devices. Gartner forecasts that by 2025, 75% of enterprise data will be administered at the edge, up from 10% in 2021. This trend reduces latency and enhances decision-making in applications like autonomous vehicles and predictive maintenance. The edge analytics market is expected to grow to \$41.75 billion by 2029, with a CAGR of 24.64% (Marr, 2024).

5.3. Data Democratisation and Self-Service Analytics

Self-service analytics platforms, such as Tableau and Power BI, empower non-technical users to analyse data and generate insights independently. By 2025, 80% of technology products are expected to be created by non-technical professionals, fostering a collaborative and agile organisational culture. This democratisation reduces reliance on IT teams and speeds up decision-making. McKinsey notes that personalised marketing powered by self-service analytics can increase revenue by up to 15% (Sloan Management Review, 2025).

5.4. Data Lakehouses

Data lakehouses are consolidating as the dominant architecture for big data analytics, combining the flexibility of data storage with the consistency of data warehouses. This approach reduces data redundancy, supports diverse data types, and is ideal for AI, predictive analytics, and real-time analysis. The single-copy architecture streamlines workflows and lowers storage costs, making it a preferred choice for enterprises in 2025.

5.5. Data Privacy and Governance

With increasing regulatory pressures, such as GDPR and CCPA, organisations are prioritising robust data governance and privacy measures. Zero-trust security models, which verify user identities continuously, are gaining traction, with 63% of organisations adopting or partially deploying them. Blockchain is also being used to ensure data integrity, particularly in financial services. These practices foster trust and compliance while enabling innovation (DataArt, 2025).

5.6. Natural Language Processing (NLP) and Conversational Analytics

NLP is enhancing data analytics by enabling sentiment analysis and conversational data queries. Businesses use NLP to analyse customer feedback, social media, and market trends, improving campaign efficiency and brand positioning. Conversational interfaces allow users to query data using natural language, making analytics accessible to non-technical staff. For instance, users can ask, "What were the top-selling products last month?" and receive instant visualisations.

5.7. Generative AI and Unstructured Data

Generative AI is driving a renewed focus on unstructured data, such as text, images, and videos, which constitute up to 97% of some organisations' data. Procedures such as retrieval-augmented generation (RAG) assistance manage and investigate unstructured data, enabling apps like document summarisation and chatbots. This trend is

serious as industries pursue financial cost through generative AI, which remains experimental for many (Quantic Blog, 2025).

5.8. Data Monetisation

Data monetisation is evolving as a substantial movement, with industries such as retail, finance, and telecom exploiting customer data to create new revenue streams. In 2025, it is expected that over 20% of the income for leading companies will be received through social media platforms. It is projected that the data-as-a-service (DaaS) models will be used for tailored promotion and product endorsements. This trend underlines the strategic use of data to improve offerings and initiate growth (Yellowfin BI, 2023).

5.9. AI

The AI encompasses autonomous AI mediators that investigate complex datasets and make autonomous decisions. These systems are tested for tasks such as IT and HR computerisation and the rationalisation of the systems. Google Cloud demonstrates how these AI platforms are enhancing analytics procedures; however, extensive acceptance for customer-facing apps is likely to be limited in 2025 due to the need for human oversight.

5.10. Augmented Analytics

Augmented analytics syndicates AI, ML, and NLP to automate data training, visualisation, and perception discovery. This trend enables faster and more accurate analysis, reducing the burden on data scientists. Gartner forecasts that by 2025, 75% of companies will use augmented analytics, enhancing accessibility and efficiency for business users across industries (DataArt, 2025).

6. Trends in Social Data Usage

The evidence leans toward AI and machine learning being central to data analytics in South Asia, particularly for urban development and sustainable development goals (SDGs). Technologies like differential privacy and data lakehouses are gaining traction to protect sensitive data and manage large datasets efficiently. In South Asia, India is focusing on AI and blockchain, while Pakistan emphasises digital services, and Bangladesh boosts e-commerce through high mobile connectivity.

Social media has reshaped digital journalism in Sri Lanka, emerging as a powerful news medium. Platforms have surpassed traditional online outlets due to their accessibility and interactivity, allowing real-time engagement with audiences. The social media's integration into daily life has made it a primary source for news, with users valuing its immediacy and diversity of perspectives. This trend is evident across South Asia, where social media platforms enable rapid dissemination of information, often outpacing traditional journalism. In the commercial sphere, social media influences consumer behaviour, particularly in industries like fashion. In Sri Lanka, both firm-created and user-generated content on social media significantly impact purchase intentions, with young consumers favouring online platforms for convenience. This replicates wider South Asian trends, which are visible in social media marketing, especially among the young crowd who make the brand's reputation and quality.

When looking at Sri Lanka, usage of social media data is particularly noticeable among the youth, who influence these platforms for the use of entertainment (46.36%) and for education (27.97%). The partiality of these social media networks (74% of users) over other categories, such as microblogging (9%) or blogs (2%), underlines the governance of platforms comparable to Facebook, which is the most widespread social media platform in Sri Lanka. This trend is reflected across South Asia as well. (Chambers and Partners, 2025). This trend is mirrored across South Asia, where countries such as India and Bangladesh, likewise, report high social media engagement, driven by reasonable mobile data and widespread smartphone possession.

In most parts of South Asia, social media platforms have similarly transformed communication and the dissemination of information. Looking at India as an example, the digital population is enormous, with millions

engaging daily on platforms such as WhatsApp and Instagram, motivated by inexpensive smartphones and data plans. The region's youth, especially those aged 16–64, are foremost in this trend, using social media for entertainment, education, and social interaction. As to the report produced in 2023, it indicates that platforms such as Instagram have experienced substantial development in South Asia. This movement can be seen in many South Asian countries. This prevalent enactment has turned social data into a valued source for businesses, governments, and researchers, who use analytics to recognise consumer behaviour, political views, and societal trends.

Multimedia communication, which can be categorised as the use of various formats such as video, audio, and images, controls South Asia's digital interactions. The growth of short video platforms like TikTok and Instagram replicates the global trend adapted to local contexts. In India, 462 million YouTube users are underlining the popularity of video content, ranging from entertainment to education. When looking at Pakistan, TikTok's rapid growth (229% user increase from 2023 to 2024) highlights the appeal of short videos among the young crowd (DataReportal, 2024). (Digital 2024: Pakistan).

Several global trends in Social Data and Big Data are shaping South Asia's digital landscape:

- **AI-Powered Analytics:** AI automates data preparation and enhances decision-making through neural networks and large language models (LLMs). Challenges include managing data governance and reducing bias.
- **Privacy-Preserving Analytics:** Technologies like differential privacy and federated learning protect sensitive data, crucial for sectors like healthcare and finance.
- **Cloud Repatriation and Hybrid Cloud Architectures:** Organisations are moving data workloads to on-premises or private clouds for cost and compliance reasons.
- **Data Mesh:** Decentralising data ownership to business domains reduces bottlenecks and improves governance.
- **Data Lakehouses:** Combining data lakes and warehouses, these support diverse data types and are ideal for AI and predictive analytics.
- **Open Table Formats:** Tools like Apache Iceberg and Delta Lake manage large-scale data, reducing vendor lock-in.
- **Quantum Computing Preparations:** Early-stage developments are shaping long-term strategies in industries like pharmaceuticals.

Technologies such as WebRTC, 5G networks, and advanced compression algorithms have enabled seamless real-time communication, as demonstrated by platforms such as Zoom, TikTok, and Instagram. These systems rely on social data to optimise content delivery and boost user engagement. For example, short-form video platforms use machine learning to analyse user interactions and recommend content, often processing multimedia data in real time. Multimedia content should reflect South Asia's diversity. In Sri Lanka, platforms such as TikTok can promote creators who showcase traditional dance forms such as Kandyan or Bharatanatyam, fostering cultural pride. Regional platforms such as ShareChat have succeeded in India by prioritising vernacular content (The Legal School, 2025). Similar initiatives in Sri Lanka could involve collaborations with local influencers to produce content in Sinhala and Tamil, amplifying underrepresented voices.

7. Conclusion

Social media has altered the methods of communication in Sri Lanka, such as platforms like Facebook, YouTube, and Instagram. These platforms are already empowering multimedia engagement, especially between the youth. However, privacy issues, determined by government surveillance, resistance to data practices, and a weak legal framework, pose a significant challenge. Although social media has empowered civic engagement and creative expression, it also contributes to misinformation and cyberbullying, imposing a balanced approach to regulation and education. On the other hand, South Asia's digital landscape is vibrant, obsessed with social data and multimedia communication. Nonetheless, it is anxious about privacy challenges. The region's young, tech-savvy crowd energises the platforms like YouTube and TikTok, engendering vast social data that powers economic and social interactions. Yet, developing the privacy laws, in many Asian countries, such as India, they have introduced regulations like the DPDP Act and Pakistan's draft bill, which must address enforcement gaps and high-profile breaches to build trust. Gender-specific challenges, mainly for females, highlight the need for comprehensive technology design. Moving forward, South Asian governments and tech companies should prioritise strong guidelines, digital literacy, and end-user engagement to safeguard a secure and reasonable digital future.

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