

Inclusion or Exclusion? A Review on Social Media and Digital Realities of Tribal Youth

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Abstract

In the expanding digital ecosystem, social media has emerged as both a site of empowerment and exclusion for tribal youth in India. The objective of this review paper is to analyze in depth how social media frames the digital realities faced by tribal youth across Jharkhand. It also places these experiences within wider national trends of digital inequality across India. This showcases the empowering potentials of digital platforms along with deep-rooted structural inequalities that consistently shape uneven digital engagement. Using an interdisciplinary lens, this paper investigates how portrayals, online presence and algorithmic biases create asymmetrical forms of participation. The paper employs a systematic critical review approach. It synthesizes peer-reviewed multidisciplinary research along with policy reports, institutional documents and selected contextual grey literature. On one side, social media offers indigenous youth novel pathways for expression, network accessibility and digital literacy. On the other side, it reinforces structural marginalization through language-based exclusion, infrastructural deficits and representational invisibility. This paper locates such tensions within the broad discourse of the digital empowerment initiative of India, thereby arguing for culturally rooted, community-oriented perspectives of empowerment. By envisioning the debate on inclusion or exclusion, this paper extends a critical understanding of how digital tools both connect and limit the socially excluded youth in the digital era.

Keywords: Digital empowerment, Social media, Tribal youth, Jharkhand, Digital divide, Algorithmic exclusion

1 Introduction

Social media emerged as a dominant sphere for information, self-presentation and influence in today's digital India. For tribal youth across Jharkhand, an eastern state of India, it opens channels of expression but also reflects enduring patterns of exclusion. Despite the wider digital revolution that has created greater possibilities for technology worldwide as well as in India (Sindakis & Showkat, 2024), access issues still affect marginalized populations' engagement (Liu, 2024). These broader nationwide transformations acquire distinct significance across Jharkhand. Here, rural conditions, infrastructural disparities, irregular electricity supply, and linguistic barriers shape the digital realities of tribal youth differently from broader national patterns.

Within this framework, Jharkhand consists of significant tribal groups, many of whom reside in resource-rich but traditionally underdeveloped areas. Behera et al. (2022) state that as per the 2011 census, Scheduled Tribes made up 26.2% of the state's population, a total of 8.6 million. The tribal groups of Jharkhand include the Santhal, Mundas, and Kharia along with the Ho, Gond, Bhumij and Oraon among others. Most of their communities are in rural areas across Jharkhand, for example Ranchi and West Singhbhum. Their cultural legacy is diverse, but they all face the challenges of harnessing digital opportunities across expanding digital society.

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In this context, the paper examines how marginalized populations, specifically tribal youth of Jharkhand, find their way into the virtual world. Social media is a gateway by which young people watch, interact, and periodically engage in global narratives which were previously distant from their immediate lives. For indigenous youth, this window of opportunity can bring remarkable empowerment. It is a way to express themselves, engage with wider communities, gain access to information, and organize for societal transformation. As a window of autonomy, it offers individuals better control over their affairs. It enables them to have their independent choices, express their identities, and engage with online environments with self-defined boundaries; but it can also reveal the contrasts between digital access and structural disadvantages and at the same time create forms of digital divide or exclusion. Mukherjee et al. (2016) define the digital divide as a gap between individuals who use and people who are not able to use computers as well as the lack of internet access to the online medium. The intersection of inclusion and exclusion has created a demand for digital equity across India.

Digital divide among tribal youth not only encompasses internet connectivity. It also encompasses issues related to inequitable access to participate, represent, and develop digital literacy skills. Figure 1 shows the association amid digital exclusion and inclusion through digital equity approaches. The figure highlights that meaningful inclusion demands multiple interventions like internet connectivity expansion, fostering digital literacy and advocacy for multicultural online content. It also requires improved visibility of tribal youth within digital environments. This stresses that digital empowerment is a multifaceted process that should address infrastructural along with sociocultural barriers.

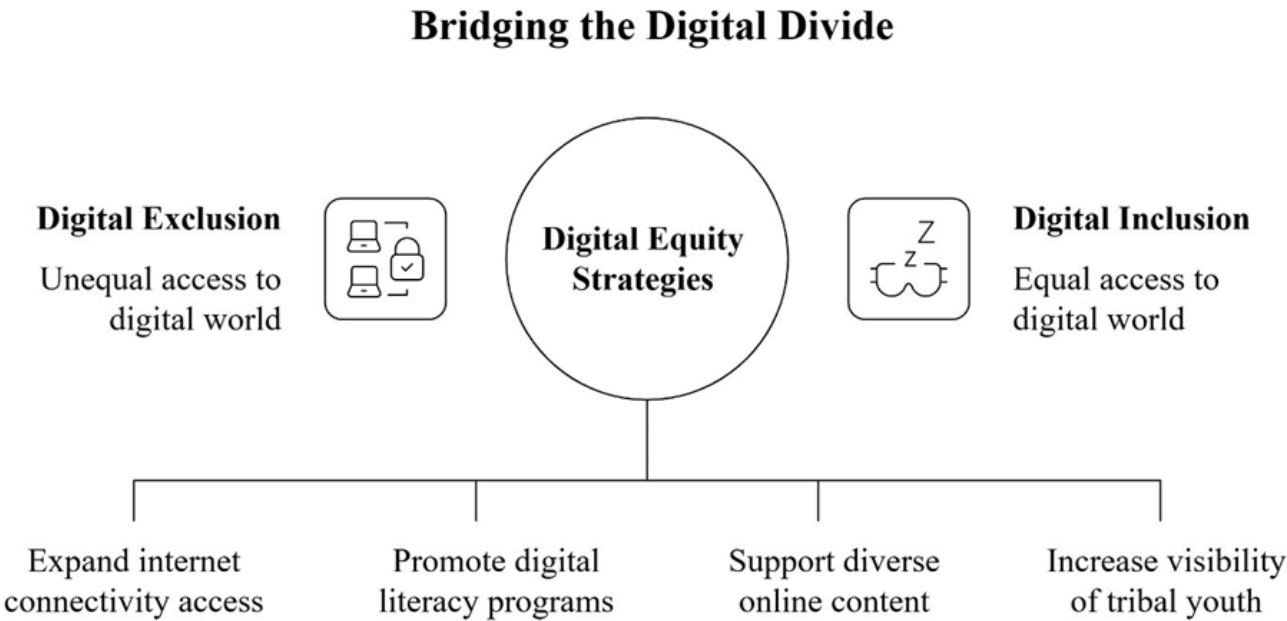


Figure 1: Bridging the digital divide

Figure 1 conceptually illustrates digital equity as a balancing framework amid exclusion and inclusion. The left segment of the figure depicts unequal accessibility and structural disadvantages encountered by socially excluded communities. Whereas the right segment represents their equal participation in digital spaces. The core element asserts that strategies like digital literacy initiatives, network enhancement, and culturally inclusive online representation are all significant to bridge this divide. Within Jharkhand's tribal youth, the figure shows how empowerment relies not solely on internet availability. It also depends on meaningful engagement as well as representation in digital platforms.

In this broader context of digital inclusion, India's comprehensive Digital India initiative aimed to develop a digitally enabled society and knowledge-based economy (Ministry of Electronics and Information Technology [MeitY], Government of India, 2024). It is a Central Government of India project that aims to revitalize India's ailing digital industry with the aid of better digital connection (Sharma & Mir, 2022). However, as per Melgandi (2024), Jharkhand's tribal-concentrated districts, infrastructure gaps, socioeconomic

disparities, and community-specific constraints often produce unequal outcomes. The nationwide policy framework here does not consistently translate into meaningful digital capability. In response to this, Digital India seeks to enhance digital transition in India through use of various interlinked layers of infrastructure, governance, digital competence, and internet access. Figure 2 presents the key dimensions of this digital transformation framework. It illustrates how broadband infrastructure, digital capabilities, Aadhaar-supported authentication mechanisms, and smartphone internet usage collectively support wider digital outcomes. The figure also shows the hierarchical nature of the digital transition. It depicts that foundational infrastructure development supports elevated levels of digital participation as well as governance.

India's Digitalization Pyramid

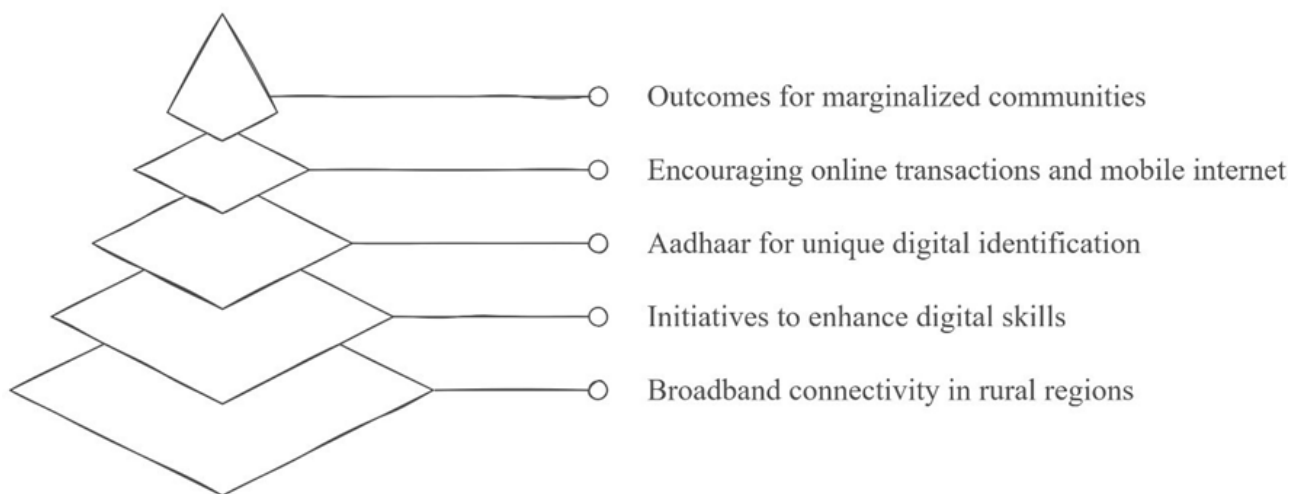


Figure 2: India's digitalization pyramid

The figure illustrates how India's digitalization journey is built layer upon layer. The bottom layers of the pyramid are the foundational requirements, including rural broadband connectivity and digital skill enhancement. The upper layers represent online involvement, digital governance, and outcomes for marginalized communities. The figure signifies that effective digital inclusion depends upon the robustness of these foundational layers. Across tribal settings of Jharkhand, however, infrastructure limitations, low connectivity, irregular electricity supply, and poor digital literacy constrain this progression. This leads to unequal digital outcomes despite national policy measures. Though Digital India aims for inclusivity, its execution often overlooks:

1. *Infrastructural disparities in tribal and isolated locations*
2. *Linguistic and cultural dissonance in digital media*
3. *Low digital proficiency among tribal youth*
4. *Technocratic top-down solutions that seldom engage or co-design with indigenous populations.*

Although digital initiatives give promise of empowerment and inclusivity, variations in the implementation process can inadvertently perpetuate and exacerbate persisting socio-economic disparities (Chakraborty, 2023). Irregular electricity supply and weak network connectivity continue to be problems that disproportionately affect rural and tribal regions. State-level disparities remain prominent. The lowest internet density in the country is found in two states, Bihar and Jharkhand, with 43% and 10% respectively (Parsheera, 2022). This identifies Jharkhand as India's state with the least digital penetration. It highlights persistent structural gaps which are particularly acute across rural tribal districts.

Disparities in digital literacy and under-use of digital technologies among Scheduled Tribe (ST) youth have further contributed to the second-level digital divide, restricting the benefits of nominal internet connectivity. Researchers Fuchs (2024) and Ranchordás (2022) contend that if digital governance is delivered through technocratic, top-down frameworks that lack participatory elements, it may inadvertently further consolidate the advantage of already privileged groups, thus intensifying the rich-poor divide. Digital divide doesn't merely reflect disparity; it can actively perpetuate it if structural, vernacular, educational and participatory deficits remain unaddressed.

Researching tribal youth across Jharkhand is essential to understand how technological innovations, especially social media, are transforming their daily lives. The rise of New Media, often referred to as Web 2.0, characterized by web technologies like social media, wikis, interactive multimedia platforms and online spaces, has profoundly reshaped modern life (Das & Rai, 2025). However, such transitions are uneven. Digital participation remains limited. Levels of accessibility and utilization differ according to socio-economic group, educational level, geographical area and generation. In tribal regions, inequalities in connectivity, affordability, knowledge level and infrastructural support overlap with age-related differences in technological uptake, generating layered forms of technological exclusion.

This paper examines the twofold character of digital engagement within tribal youth. The central conflict this paper will interrogate is not just the discussion of whether digital engagement is available, but rather whether it is meaningful and empowering in this context. The paper analyzes how India's digital programs aim to empower indigenous youth and their groups. Digital India for New India is a vision to create a new India where all citizens have access to the benefits of digital technology (Kumar, 2024). The study findings have major implications for policy, community growth, and understanding the wider trends in digital transformation in underrepresented settings.

Prior literature is extensive on issues such as digital divide, internet access, digital literacy, and marginalized tribal communities in India, but there has been little focus on the relationship between social media and inclusion as well as exclusion amongst tribal youth in Jharkhand. This review contributes by providing an analysis of digital accessibility, cultural representation, linguistic marginality, algorithmic representation, and digital agency under one umbrella. It shows that digital inclusion not only revolves around internet access but involves the interplay of infrastructure, language, culture, representation, and platforms. Through this approach, the present study advances a context-specific, culturally grounded understanding of digital empowerment amongst tribal youth in Jharkhand.

1.1 Conceptual clarifications

For definitional clarity, we need to explain some terms: Digital empowerment is a process by which individuals and social groups acquire the ability, resources, digital skills, and agency to engage effectively in digital spaces for communication, representation, knowledge, and socio-economic opportunities (Ammari & Schoenebeck, 2015; Kumar, 2024). In this framework, according to Ranchordás (2022), meaningful participation denotes not merely physical internet accessibility. It also includes the capability of indigenous youth to participate actively, create content, articulate identity, access opportunities, and shape digital interactions in culturally appropriate and equitable ways. As per the studies of Gillespie (2014) and Panigrahi (2021), algorithmic exclusion refers to systematic marginalization of specific users, languages, or culturally rooted content by platform algorithms. These algorithms commonly favour dominant languages, urban-focused visibility, and high-traffic mainstream content. As a result, indigenous narratives and localized representation receive limited visibility. These concepts frame the analysis of inclusion and exclusion throughout the study.

1.2 Theoretical framework

The analysis in this paper employs a multidisciplinary theoretical framework. It integrates concepts of digital divide theory, digital capitalism, cultural reproduction, and critiques of digital inequality to make sense of the online experiences of tribal youth in Jharkhand. The framework does not view digital exclusion simply as

an issue of technological accessibility. Instead, it positions digital participation within broader dynamics of class, caste, tradition, language, geography, and platform power.

The study primarily relies on digital divide theory, which describes inequalities in accessibility, skills, and meaningful engagement within digital environments. The earlier conceptualization of digital divide was based on physical access to internet technologies and devices. However, recent scholarship stresses that digital disparity also includes inequalities in digital literacy, online engagement, visibility, and the capability to benefit from digital systems. Tewathia et al. (2020) have proposed that the digital divide within India is fundamentally associated with social inequalities. These are rooted in class relations, caste inequalities, and uneven socioeconomic development. Their research is inspired by Marxist and Weberian frameworks. It is emphasized that the technological systems often reproduce existing social inequalities instead of eliminating them. This perspective is especially significant for comprehending the online realities of tribal youth across Jharkhand. Here, infrastructural constraints intersect with historical exclusion and socio-economic disadvantage.

Moreover, the theory of digital capitalism provides the context of how digital platforms and algorithms create conditions of visibility, participation, and digital data circulation. According to Fuchs (2024), digital capitalism is defined by the commercialization of user interactions, algorithmic prioritizations, and inequality of platform infrastructures. They tend to prioritize dominant languages, urban populations, and revenue-generating content. Within this context, in tribal society, algorithmic invisibility occurs in the form of neglecting indigenous languages, knowledge frameworks, and cultural stories.

Furthermore, the research takes up the idea of cultural reproduction in order to comprehend how inequalities are sustained through education, languages, and symbolic structures. Digital engagement is not socially neutral. Existing inequalities of literacy, language, education, and cultural capital determine the degree to which marginalized individuals will be able to participate online. Alongside cultural reproduction, this research takes inspiration from anthropological approaches that deal with indigeneity, agency and structure. Indigeneity is understood not only as a legal or a demographic category. It also includes everyday cultural realities shaped by collective memory, language, traditional practices, and past experiences of marginalization. Within such a framework, tribal youth should not be regarded as mere consumers of technological innovations. Rather, they employ agency judiciously to adopt, adapt and reinterpret digital media. This is performed within the constraints imposed by infrastructure, education, linguistic hierarchies, and platform architectures. The tension between agency and structure illustrates how tribal youth concurrently negotiate opportunities of self-expression while contending with enduring social inequalities. Social media thus leads to a space where tribal identities are regularly reproduced, negotiated, and transformed. Rajam et al. (2021) demonstrate that caste-related digital disparities within India are shaped by infrastructure and structural inequities embedded within wider socio-economic systems. Similarly, Asrani (2022) emphasizes that costs, literacy levels, and social positioning play significant roles in the use of ICT across India. Further analysis by Chakradhar and Choudhary (2024) and Chakradhar and Choudhary (2025) shows existing inequities in computer literacy and online engagement across genders and socially marginalized groups.

With the help of such theories, this paper understands social media as not just a digital tool but a contradictory digital space that is empowering yet exclusionary at the same time. This approach allows the study to link the tribal studies to media and communication theories. It helps understand the role of structural inequalities in shaping digital participation, visibility, and agency of tribal youth within Jharkhand.

2 Literature review

The digital turn within India has spawned a variegated body of scholarship on access, involvement, inequalities and cultural effects for marginalized groups, including indigenous communities. A review of the existing literature uncovers four dominant themes pertinent to the grasp of social media and online experiences of indigenous youth in Jharkhand. They are digital divide, cultural exclusion, media-based empowerment, and structural or tech constraints.

Notably, the current literature regarding digital exclusion of tribals suggests that such exclusion cannot merely be perceived as an exclusively technological issue. Rather, it reflects wider structural disparities

shaped by caste, class, education, region, language, and imbalanced distribution of cultural and digital capital. Existing scholarship progressively links tribal digital exclusion with broader debates within digital divide theory. It also connects with discourses on digital capitalism and cultural reproduction in India's digital transformation.

2.1 *Digital divide and uneven access*

Inequality of access has been defined as the first-level digital divide (Nayak & Alam, 2022; Pandey & Pandey, 2018). Weak connectivity, poor infrastructure, and limited affordability causing unequal access to devices continue to make the first level of the digital divide a recurring theme of many studies (Asrani, 2022; Kumar, 2024). Temporarily exacerbated by COVID-19, this digital divide is worsening the existing social and economic inequalities in the country (A et al., 2021; Nayak & Alam, 2022). Research specific to tribal communities indicates that Scheduled Tribe households often face compounded disadvantages due to low literacy and economic marginalization (Ramakrishnappa, 2022).

Recent literature defines the second-level digital divide as differences in skills, education, and meaningful use. This second aspect of the digital divide refers to the 'skill gap' which covers a wide range of operational skills required to navigate and evaluate online information and share content using desktop or mobile devices (Nayak & Alam, 2022). This divide is particularly evident in states like Jharkhand, where district-specific geographic remoteness, infrastructural deficits, and socioeconomic inequalities have limited the penetration of digital technologies among tribal youth (Government of Jharkhand, Finance Department (2024); (Melgandi, 2024; Nayak & Alam, 2022); Office of the Registrar General & Census Commissioner, India (2011); (N. Singh et al., 2024; Tewathia et al., 2020)). Collectively, these studies show that digital exclusion among tribal youth is not restricted to lack of connectivity. Rather, infrastructural, educational and socio-economic disadvantages interact to form multiple levels of exclusion that restrict meaningful digital engagement.

There is widespread consensus that infrastructural deficits persist as a leading cause of digital exclusion. Literature remains divided regarding the extent to which connectivity alone can reduce inequality. Studies emphasizing the first-level digital divide mainly ascribe exclusion to low internet accessibility, devices, and affordability (Asrani, 2022; Pandey & Pandey, 2018). In contrast, Nayak and Alam (2022) and Ranchordás (2022) claim that connectivity without digital competencies paired with meaningful engagement creates nothing but superficial inclusion. This contrast shows that digital inequality amid tribal youth across Jharkhand cannot be understood as an infrastructure-centric issue. Rather, exclusion operates parallel through material deprivation along with capability deficits. This suggests that policy interventions concentrated exclusively on network development may fail to achieve substantial digital empowerment.

2.2 *Cultural exclusion, language barriers and portrayal*

There is a growing body of literature that looks at how cultural layers are reproduced within digital spaces through dominance of language, misrepresentation, and invisibility. Many e-governance platforms are not fully available in local languages, making their use difficult for non-Hindi or non-English speakers (Melgandi, 2024). Panigrahi (2021) and Nayak and Alam (2022) have argued that marginalized linguistic groups across India often cannot make use of their online rights due to language-based inequalities in technology. Algorithmic systems frequently lead to algorithmic exclusion. This technology usually favors dominant languages, city-based trends, and highly engaging content. Consequently, indigenous narratives receive reduced visibility. The representation of local culture through digital technologies also becomes less visible.

Scholarship on identity politics highlights how online spaces become contested arenas where indigenous youth negotiate visibility, authenticity, and cultural pride amid dominant narratives (Christensen, 2024). Across Jharkhand's landscape, this exclusion is highly significant for youth speaking Santhali, Mundari, Ho, and other indigenous languages. Digital participation often requires adjustment towards Hindi or English sustaining platforms, thus downgrading local language representation (Mahto & Mahawar, 2025b; Nayak & Alam, 2022). According to anthropological research, language is not just a means of communication but serves as a vehicle for carrying cultural memory, native knowledge, and identity

(Mahapatra & Sarangi, 2020). In this regard, the underrepresentation of tribal languages in online spaces can have consequences on how cultures are passed down from one generation to another. Digital exclusion thus does not only have technical implications, but cultural ones as well. While the literature broadly agrees that language persists as a major obstacle to digital participation, it highlights varied dimensions of this exclusion. Panigrahi (2021) along with Nayak and Alam (2022) concentrated on how language inequities restrict accessibility to digital services, rights, and meaningful participation. In contrast, Mahapatra and Sarangi (2020) stressed wider cultural consequences of language exclusion. They contend that tribal languages serve as preservers of collective memory, social identity, and indigenous knowledge. Thus, language exclusion does not only hinder people's access to technology; but leads to cultural exclusion by limiting their visibility and representation in the digital landscape. Therefore, for tribal youth throughout Jharkhand language-based barriers operate concurrently at functional as well as symbolic levels, affecting digital involvement and cultural recognition. Taken together, the studies suggests that digital inequity is also cultural in nature. Language dominance and algorithm preferences influence whose identity, knowledge, and experiences become visible across online spaces.

2.3 Social media coupled with networked empowerment

Another strand of scholarly work analyses how social media serve as a powerful tool for expression, preserving culture and enabling community mobilization. Participatory media is a form of media in which users actively participate to contribute and manage content, such as on blogs, wikis, and social media (Seth et al., 2020). A new model of networked empowerment has been proposed that highlights how social media facilitates the process of empowerment through access (Ammari & Schoenebeck, 2015). Empirical studies show tribal youth using YouTube, Facebook and Instagram to document their culture, promote their language, and raise awareness about rights, land issues and displacement (Singhmar, 2023). Across Jharkhand, these online practices are meaningful because social media steadily operates beyond the national participatory arena, as a locally grounded space for identity representation, cultural visibility, and communal articulation (Nayak & Alam, 2022; Singhmar, 2023). Digital media adoption among indigenous communities is also linked to growing use of social platforms for information-sharing, especially among younger populations (Mahto & Mahawar, 2025a). Together, these studies show that social media platforms act as a space for empowerment by enabling identity expression as well as community networking.

However, empowerment claims need to be carefully qualified. While Ammari and Schoenebeck (2015) highlight the empowering function of networked participation, Singhmar (2023) observed that unequal accessibility continues to influence the gain from such opportunities. Indeed, empowerment via social media platform does not seem to be a universally achieved goal. It rather is an uneven process. Digital tools do provide young tribals across Jharkhand with the chance to express themselves and to connect, but such empowerment tends to be conditional on infrastructure, educational attainment, and economic means. This indicates that social media must be seen as a contested sphere where empowerment and exclusion exist simultaneously rather than an intrinsically democratizing technology.

2.4 Structural constraints, digital platform capitalism and surveillance

Several scholars have explored how wider political and economic structures frame digital inclusion. Fuchs (2024), in addition to Hallström (2022), critically explored digital capitalism and also technological determinism, showing how digital systems very often repeat earlier social inequalities. Studies of tribal digitalization suggest that top-down policies like Digital India may sideline local contexts and thus produce disparate outcomes. Tribal communities, women, and economically disadvantaged groups in rural Jharkhand are often digitally excluded due to limited access to mobile devices or the internet (Melgandi, 2024). Survey data from Jharkhand reveals that 13 percent of the state's rural households still lack access to electricity (Blankenship, 2020). Media articles have also highlighted how students in rural India suffered from a lack of internet connectivity, laptop, and mobile phones (Nayak & Alam, 2022). These constraints foster a setting wherein tribal youth are linked but yet excluded, a pattern Ranchordás (2022) referred to as "connected but still excluded".

Apart from infrastructural and economic limitations, recent studies also emphasize the increasing role of digital surveillance in platform capitalism and governance regimes. Ramakrishnappa (2022) suggests that Scheduled Tribes are often more vulnerable to digital governance regimes because of their lack of awareness about data rights and less leverage in consent-driven regimes. Whereas Nayak and Alam (2022) underscores the structural digital precarity experienced by tribal youth across Jharkhand districts. Rao and Nair (2019) show that Aadhaar enabled the incorporation of biometric governance in the centralized database for benefit distribution systems. From a political economy approach as studied by Fuchs (2024), digital capitalism functions through commercialization of data, where user interactions become monetizable assets. Therefore, apart from material exclusion, the role of surveillance creates a complex form of inequality, where tribal youth are both digitally included and data-vulnerable. The findings shift attention from accessibility alone to broader questions of power. Governance along with platform structures continue to influence unequal digital experiences.

Though the studies being discussed here cover diverse aspects of digital inequity, they together interrogate the notion that digital expansion inevitably leads to inclusion. While Nayak and Alam (2022) discuss structural inequities faced by tribal youth, Rao and Nair (2019) discuss issues related to surveillance in digital governance initiatives. Similarly, Fuchs (2024) contends that platform frameworks can reproduce disparities through differential visibility and data control. This indicates that digital inclusion amongst tribal youth in Jharkhand incorporates accessibility to technology along with questions of power, representation, and data vulnerability.

2.5 *Education, disparity and social factors of digital participation*

Education is one of the strongest predictors of digital participation. Research indicates that tribal youth experience structural barriers in educational accessibility, resulting in lower digital literacy. Nayak and Kumar (2022) state that gender disparities further restrict digital access for tribal girls, especially in crisis situations such as the COVID-19 pandemic. Socioeconomic inequalities continue to determine access to both non-agricultural employment and digital opportunities (P. Singh & Pattanaik, 2025). This factor greatly influences how tribal youths interact with social media, typically with limited capacity to use the platforms in either a critical or creative way. The reviewed literature shows that digital participation amongst tribal youth is influenced by interconnected infrastructure, education, and socio-economic factors.

Social media works as a double-edged environment. It opens avenues to empowerment, identity and recognition, but reinforces digital, infrastructural and structural socio-economic gaps at the same time. In the case of tribal youth of Jharkhand, digital participation is to be looked at in terms of access, cultural portrayal, algorithmic structures, learning, and historical marginalization. Evidence points to both scenarios: Some tribal youth utilize digital media as a means to express and maintain cultural identity, while the same youth use digital media instrumentally for educational, employment, and integration purposes and integration into larger consumer and metropolitan cultures. Nayak and Alam (2022) on tribal youth in the Jharkhand region reveals that digital engagement is a reflection of pragmatic aspirations (education, employment, information) mediated by structural imperatives, rather than a singular cultural objective. Melgandi (2024) reveals that e-platforms are utilized for livelihood, education and mobility, even though representational visibility is restricted. Other recent studies such as Mahto and Mahawar (2025a) reveal a rising trend of digital adoption among tribal youth. This is incorporated using blended practices that combine heritage expression with harboring aspirations for socio-economic mobility. Digital engagement amidst indigenous youth must be understood as locus of negotiation between conservation and adaptation with mobility, rather than a singular commitment towards preservation or abandoning tribal roots. Together, the collection of literature calls for movement beyond narrow, access-oriented definitions of inclusion to more culturally grounded, community-driven and context-sensitive approaches for digital empowerment.

3 Research gaps

Existing literature points to the prevailing digital divide, cultural sidelining, infrastructural gaps and low digital literacy among tribal youth. There is no holistic understanding of how these factors interact to shape the daily social-media experiences of tribal youth. Most prior studies have focused primarily on internet accessibility. Comparatively limited attention is given to meaningful participation, such as creation of content, cultural showcasing, digital agency, representation, and algorithmic visibility. Few studies have focused on the way tribal language, identity politics and algorithmic bias come together to impact online inclusion. Although national research on tribal digital disparities is increasing, empirical studies focusing particularly on Jharkhand's district-level tribal youth experiences are still limited. In particular, studies concerning their social media engagement, linguistic representation, and digital visibility remain scarce. There is limited understanding of how indigenous youth negotiate agency, tech literacy and cultural articulation in digitally unequal ecologies. These gaps point to the requirement for context-sensitive, community-led research that links access, skills, traditions and platform frameworks to the actual digital environments of tribal youth. Accordingly, this study addresses these gaps by analysing existing evidence within an interdisciplinary framework that links digital accessibility, cultural representation, algorithm-driven visibility, and social media engagement of tribal youth within Jharkhand.

Research objectives

1. To assess the key barriers to digital connectivity among the tribal youth within Jharkhand.
2. To examine how dialect, culture, and recommendation systems influence their social media participation.
3. To determine strategies that can assist meaningful digital inclusion of tribal youth.

Research questions

1. What are the digital inclusion barriers to social media use for tribal youths?
2. How do dialects and culture along with recommendation systems impact their visibility and involvement on the internet?
3. What measures will help to improve genuine digital inclusion for indigenous youth in Jharkhand?

4 Research methods

The study uses a systematic critical review method to examine the patterns of digital inclusion and exclusion that have an impact on the experiences of tribal youth on social media in Jharkhand. It systematically identifies, filters, and synthesizes interdisciplinary literature while also including critical analysis of structural, cultural, and technical dimensions of digital disparity. The study builds upon sources from Google Scholar, government and policy documents, institutional reports, and credible media sources. This permits a broad and analytically nuanced synthesis of the current evidence for mapping structural, cultural and tech-related factors affecting the digital lives of tribal youths. The methodology, hence, undergirds an interdisciplinary understanding of how social media engagement becomes configured in marginalized contexts. It integrates communication studies, development studies, anthropological orientation, media literacy and indigenous studies.

4.1 Search terms

Search terms focused on tribal youth, the state of Jharkhand, as well as digital inclusion. Publications appearing in English between 2011 and 2025 were considered. This was done to document contemporary developments related to online access, social-media participation and tribal youth throughout Jharkhand.

The literature review was mainly carried out on Google Scholar because the database offers multidisciplinary search capabilities. It covers the fields of communication, digital media, anthropology, development and tribal studies. Peer-reviewed research and scholarly studies were the core analytical sources. Some other sources used for literature were institution-based repositories, Government of India documents, and Ministry of Electronics and Information Technology (MeitY) documents. Also included are Digital India policy, Census of India, Economic Survey and SSRN-indexed documents, conference proceedings, and trustworthy media articles of digital inclusion and tribes. The reviewed materials have been classified into three broad categories in order to ensure analytical clarity and transparency of sources:

- (1) Peer-reviewed studies found in academic journals and edited academic volumes.*
- (2) Government and institutional policy-oriented reports including population census records, Digital India documents, and economic assessment reports.*
- (3) Grey literature and context-specific sources including NGO reports, conference papers, working papers, and credible news reports.*

Peer-reviewed research formed the core analytical framework of this review, while other sources were utilized for infrastructural, policy-focused, and contemporary contextual insight of digital inclusion among tribal youth.

Search Strategy: The search involved keyword combinations of tribal youth, digital participation, social media, exclusion, and Jharkhand. The main search strings were:

- *“tribal youth” AND “digital divide” AND “Jharkhand”*
- *“Adivasi youth” AND “social media” AND “India”*
- *“digital inclusion” AND “Scheduled Tribes”*
- *“tribal communities” AND “digital literacy”*
- *“social media participation” AND “indigenous youth”*
- *“algorithmic exclusion” AND “marginalized communities”*
- *“Digital India” AND “tribal development”*
- *“tribal language” AND “digital participation”*
- *“Jharkhand” AND “internet accessibility”*
- *“digital inequality” AND “tribal communities within India”*

Boolean operator AND was used in combining concepts and enhancing search precision. Manual reference tracking of chosen studies was also conducted to identify supporting academic literature.

4.2 Inclusion criteria

Studies and reports are direct relevance to digital accessibility, social-media usage and the lived realities of tribal youth in Jharkhand.

- **Topical relevance:** Publications centered around digital inclusion-exclusion, youth participation, media practices or socio-cultural influences affecting tribal communities.
- **Time frame:** Materials published from 2011 to 2025, to ensure inclusion of recent technological, regulation and digital developments.
- **Language:** English

Media sources and grey literature were used with caution. They were included in the paper primarily to set the context for current infrastructural developments, public discourse, and challenges faced in policy implementation. Such materials were not used as core empirical evidence.

4.3 *Exclusion criteria*

1. Non-analytical opinion pieces without any empirical basis or clear conceptual understanding or methodological robustness.
2. Commercial or promotional content negotiating scholarly, policy-based or community-focused insights.
3. Redundant reports ignoring new conceptual, contextual or interpretive value beyond what already exists.

4.4 *Quality appraisal*

Quality appraisal was conducted on the basis of conceptual relevancy, methodological clarity, and trustworthiness of the source of publication. It also relied on the contribution to the knowledge base on digital inclusion and exclusion amongst tribes. Peer-reviewed journal articles were the main analytical framework of this review because of their scholarly rigor. Government reports and institution documents were assessed for policy significance and statistical credibility. Grey literature was carefully included only when they contributed to contextual insights concerning infrastructure, digital governance, or evolving digital realities. Studies were evaluated according to:

- I. Applicability to tribal youth, online participation, or inequality.*
- II. Conceptual or methodological rigor.*
- III. Source credibility.*
- IV. Contribution to the understanding of socio-cultural, infrastructure or technological aspects of exclusion.*
- V. Applicability to the context of Jharkhand or other marginalized areas in India.*

Studies without adequate analysis, empirical evidence or contextuality were not considered in the analysis of full-text studies.

The PRISMA flowchart in Figure 3 outlines the identification and evaluation of studies. A total of 10,100 studies were found in the preliminary search. Removal of 4250 duplicates left 5850 for screening. Out of these, 4720 records were excluded due to irrelevant topic, studies outside the scope and those which did not meet the inclusion criteria. This left 1130 articles. Of these, 420 were not retrieved. Full-text evaluation was conducted for 710 articles, after which 177 were excluded. Articles were excluded due to methodological limitations, full-text unavailability, or contextual irrelevance. This left 533 articles. Out of these, 515 were excluded during data extraction due to limited relevance to the present study and insufficient data. This left 18 studies which formed the fundamental basis of this review. The chosen studies are summarized in Table 1.

The chosen studies were prioritized on the basis of conceptual relevance, methodological clarity, and contextual relevance to the online experiences of tribal youth. When reviewing the research articles, emphasis was placed on studies that dealt with issues related to digital inclusion and social media

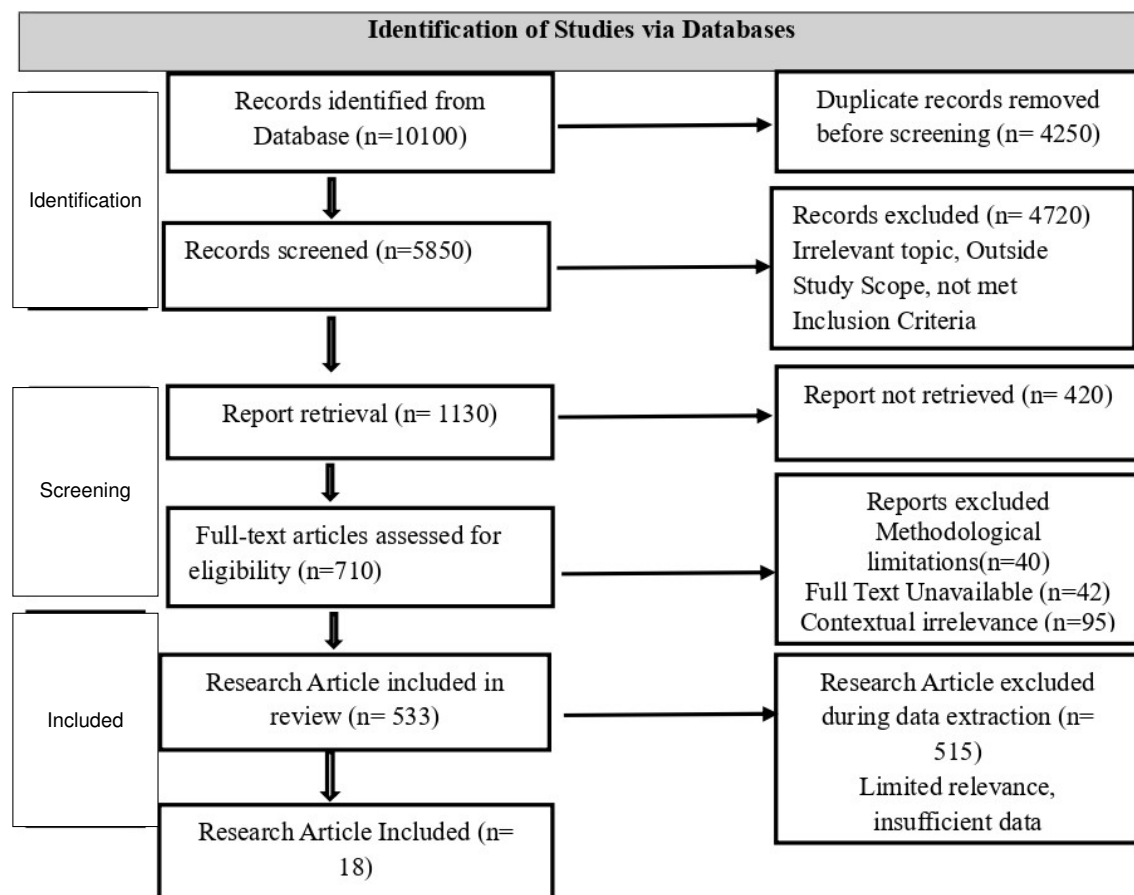


Figure 3: PRISMA flow diagram for study identification and inclusion

engagement. The focus was also on structural inequality, language exclusions, digital literacy, and online representation of tribal or marginalized communities. The final 18 research studies were retained as they were most directly associated with the analytical objectives of this paper. Supporting sources, included in Table 2, were taken for contextual strengthening.

The distribution shown in Table 3 indicates that research on indigenous youth and online engagement in Jharkhand is predominantly engaged with structural and resource-based exclusion. Most of the research work has highlighted the issues of connectivity and digital skills. This suggests that the concern of the first- and second-level digital divide remains at the forefront of research work. Comparatively fewer studies examine algorithmic discrimination, surveillance regimes, or longitudinal cultural change. This imbalance shows that while accessibility along with skill-based barriers are considered as immediate policy priorities, questions regarding platform power, hierarchies of visibility and processes of assimilation remain under-researched.

Recurring themes related to exclusion in the context of digital technologies were categorized under broad categories for analysis. These themes were infrastructure disparity, digital literacy divide, linguistic discrimination, invisibility by algorithms, identity expression, networked power, surveillance, and socio-economic constraints. Such categorization facilitated comparative analysis of how both structural as well as cultural dimensions affect the digital participation of tribals in Jharkhand.

Table 1: Peer-reviewed research studies included in systematic review

Author(s)	Main findings/conclusions
Ammari & Schoenebeck (2015)	Digital platforms can strengthen empowerment of marginalized users.
Rao & Nair (2019)	Aadhaar centralizes biometric information, enhance governance efficiency and alongside expands surveillance and possibility of exclusion.
Seth et al. (2020)	Digital platforms can inadvertently exclude low literacy users.
Tewathia et al. (2020)	Digital divide across India shows class, caste along with socioeconomic inequalities.
Asrani (2022)	Affordability, literacy as well as socioeconomic barriers shape unequitable digital participation.
Nayak & Kumar (2022)	Economic and cultural obstacles restrict indigenous girls' education.
Ranchordas (2022)	Connectivity alone does not stop digital exclusion.
Hallstrom (2022)	Tech education frequently ignores unequal access.
Nayak & Alam (2022)	Online learning deepened online exclusion for indigenous youth.
Ramakrishnappa (2022)	Digital gaps worsened for tribal youth in the pandemic driven digital shifts.
Singhmar (2023)	Social media gives visibility, but access is inequitable.
Kumar (2024)	Digital transformation widened access, but disparities continue to persist.
Fuchs (2024)	Many tribal youths remain digitally integrated but not substantively empowered.
Singh et al. (2024)	Rural Jharkhand's schools experience ICT infrastructure deficiencies, limiting fair digital access.
Christensen (2024)	Digital inclusion demands more than access.
Melgandi (2024)	Digital gaps continue for tribal communities.
Singh & Pattanaik (2025)	Digital shifts solely don't guarantee inclusion but meaningful access and capability is important.
Mahto & Mahawar (2025b)	Digital learning is growing, but accessibility and literacy gaps endure among tribal students.

5 Results and discussion

5.1 Jharkhand-specific realities amid national digital transformation

India's wider digital transformation agenda stresses inclusion through nationwide programs, for example, Digital India (Kumar, 2024; Ministry of Electronics and Information Technology, 2024). However, Jharkhand's tribal-populated regions show how these larger frameworks are experienced unevenly at the local level (Melgandi, 2024). Regional infrastructural deficits, rural predominance, erratic power accessibility, language exclusion, and socio-economic inequities amplify nationwide trends of online disparities across Jharkhand's tribes (Government of Jharkhand, Finance Department, 2024; Nayak & Alam, 2022). These patterns indicate that digital exclusion among tribal youth is influenced not only by infrastructural constraints but also by wider socio-economic and cultural disparities. For tribal youth throughout Jharkhand, the digital transition is thus shaped not solely by national policy structures. It is also influenced by intersection of wider structural reforms with district-level disparities that affect meaningful accessibility, representation, and online participation.

5.2 Tribal youth of Jharkhand

Studies showed that despite projects like Digital India, technological infrastructure in Jharkhand's indigenous areas remains unequal and limited. As per a report by the Telecom Regulatory Authority of India (TRAI),

Table 2: Government, institutional, policy, and grey literature sources utilized for contextual framing

Author(s)/Institution	Type of source	Purpose in review
Office of the Registrar General & Census Commissioner, India (2011)	Census report	Tribal demographic context
Mukherjee et al. (2016), Digital Empowerment Foundation	Institutional report	Digital exclusion and digital infrastructure accessibility context
Pandey & Pandey (2018)	Conference paper	Digital inequality context
Blankenship (2020)	Media article	Rural electrification context
Panigrahi (2021)	Conference discussion	Language inequality discussion
Shruthi et al. (2021)	arXiv preprint	Rural internet connectivity
Sharma & Mir (2022), Tribal Research Institute, Jammu & Kashmir; Ministry of Tribal Affairs, Government of India	Government/Institutional report	Digitalization impacts on tribal society and their culture
Government of Jharkhand, Finance Department (2024)	Economic survey	Infrastructure and socioeconomic context
Ministry of Electronics and Information Technology (MeitY), Government of India (2024)	Policy report/document	Nationwide digital inclusion as well as digital empowerment policy framework
Chhapia (2025)	Media report	Rural network access and digital exclusion context
Mahto & Mahawar (2025a)	SSRN	Digital adoption context

Table 3: Distribution of scholarly attention to dimensions of 'digital exclusion'

Dimensions of exclusion/ primary scholarly focus	No. of studies	What this focus shows about the field
Connectivity & infrastructural gaps (limited internet access, electricity, and affordability)	5	Dominant concern is first level digital divide; resource exclusion
Digital skills gap/ learning constraints (second level divide)	4	Strong attention to ability, literacy and meaningful utilization
Linguistic exclusion and representational exclusion	3	Growing but limited attention to visibility and cultural expression
Algorithmic discrimination and platform visibility	2	Limited attention to platform power and content hierarchies
Surveillance and biometric regulation systems/ data profiling	1	Emerging but underexplored concern about systemic digital vulnerability
Identity expression and networked empowerment	3	Moderate attention to intercultural dialogue and blended digital practices

Note. Number of research papers considered (n) = 18. Several studies address multiple dimensions of exclusion.

broadband penetration is 93% in urban India versus a mere 29.3% in rural India (A et al., 2021), suggesting that tribal-majority rural districts face uneven connectivity constraints. Parsheera (2022) mentions the state-specific data showing Jharkhand as one of the states with lowest internet density in India. The study inferred that connectivity levels within rural and tribal-majority districts remain comparatively constrained. In remote tribal regions of Jharkhand, digital connectivity is irregular and the cost is prohibitive for many residents. Due to illiteracy or low level of education, certain sections of society, particularly STs, are affected more than others (Ramakrishnappa, 2022). National data reinforces this concern. Rajam et al. (2021) stated that only 14.1% of ST community members in India have internet access.

Across Jharkhand, the inequalities which have been identified in India as a whole are even more pronounced due to district-based infrastructural weaknesses (N. Singh et al., 2024). Limited connectivity, educational inequalities, and financial problems exacerbate the persistent divide (Mukherjee et al., 2016). As per the Office of the Registrar General & Census Commissioner, India (2011) and Government of Jharkhand, Finance Department (2024), these challenges are particularly evident within tribal-populated rural areas including West Singhbhum, Gumla, Khunti, and others. In these areas, dense tribal presence intersects with infrastructural deficits. This intersection determines the patterns of differential digital accessibility. Thus, Pandey and Pandey (2018) and Nayak and Alam (2022) state that exclusion occurs at multiple levels: infrastructure gaps and socio-economic constraints along with the second-level digital divide (literacy and digital competencies). Infrastructure forms the principal obstacle, while education and ICT literacy determine active participation.

Apart from infrastructural issues, the reviewed literature suggests that digital exclusion amongst tribal youth in Jharkhand is also perpetuated by educational and linguistic differences. As per Mahapatra and Sarangi (2020), Nayak and Alam (2022), and Panigrahi (2021), access constraints posed by language issues continue to be an impediment to the accessibility of digital information and services by native language speakers. The marginalization of indigenous languages leads to their invisibility and under-representation across the online sphere. Educational disparity similarly affects the growth of online skills necessary for meaningful involvement, fostering skill-oriented exclusion (Nayak & Kumar, 2022; P. Singh & Pattanaik, 2025). Instead of operating autonomously, infrastructure, varied linguistic mediums and education interact to generate layered forms of digital inequity. Consequently, online participation of tribal youth tends to remain unequal even when basic connectivity exists (Nayak & Alam, 2022; Ramakrishnappa, 2022).

5.3 *Social media acting as sphere of empowerment*

Digital platforms have created new opportunities for indigenous youth within Jharkhand to express their views and connect with broader networks. Social media is a site where tribal youth regain their ethnic and historical cultures, pushing against homogenizing discourses of the mainstream. They are claiming and reasserting their identity, which was eroding due to conflict with modern institutions (Singhmar, 2023). Tribal YouTubers such as *Santal Vloggers* and *Mundari Vlogs* use online platforms to display their culture and daily life, safeguarding heritage and affirming identity. From an anthropological perspective, these activities may be viewed as acts of cultural reproduction in a digital setting. In doing so, tribal youth are not only consumers of information found online, but are engaging in the process of capturing the rituals, songs, stories, and other cultural aspects that make tribal life. The use of such media allows cultural meanings to be sustained, conveyed, and even transformed to fit the context of today's society. Hence, digital platforms are sites where indigenous identity is continually created and not just portrayed (Singhmar, 2023). This has a multiplier effect in consolidating the collective pride of tribal youth, including those who are spatially scattered or urban migrated.

While such digital representation remains emergent in place of universal, trends within tribal youth throughout Jharkhand imply that social media participation frequently goes beyond cultural self-expression to include practical aspirations for education, work, and civic awareness (Melgandi, 2024; Nayak & Alam, 2022). In addition to representation, studies showed that social media is used by tribal youth as an instrument of networked empowerment. Melgandi (2024), Nayak and Alam (2022), and Singhmar (2023) gave an insight of Adivasi youth across Jharkhand increasingly employing platforms of Facebook and Instagram in order to share local information and connect with the socio-political concerns. They encompass problems of governance, entitlements, and welfare, showing online engagement within structurally limited settings. In this context, social media serves as a visible arena of identity reinforcement along with political articulation. However, visible expression of identity is only one aspect of online engagement. The study of online participation across tribal youth indicates that online activities often are influenced by pragmatic aspirations: access to education, job opportunities, and social advancement (Melgandi, 2024; Nayak & Alam, 2022). According to Nayak and Alam (2022) and Mahto and Mahawar (2025a), digital adoption, therefore, is not only preservation-driven but is often linked with aspirations for incorporation into larger socio-economic and

consumer ecosystem.

However, the existing literature fails to provide conclusive evidence on whether the overall cultural impact of online participation is more towards the conservation of indigenous identity or integration into dominant digital culture. Instead, the evidence points towards a hybrid form of negotiation, where cultural articulation is balanced with adaptation to mainstream linguistic, aesthetic, and algorithmic norms (Christensen, 2024; Panigrahi, 2021). This aspect is unexplored in empirical studies, especially because more of such type of engagement happens with mainstream platforms, where the conservation of tribal identity is not always at the forefront. Thus, while social media clearly facilitates identity reclamation, its long-term consequences for cultural continuity in contrast to integration requires further comprehensive investigation.

Beyond identity affirmation and socio-political articulation, online engagement among indigenous youth throughout Jharkhand also expands into domains of technological literacy, access to information, and daily governance participation. In Jharkhand, schemes like PMGDISHA involve social media to encourage digital literacy among tribal youth. Social media is the most widely used method (41.4%) for staying informed, indicating a continuing trend of digital adoption, particularly among younger users (Mahto & Mahawar, 2025a). During the pandemic-triggered lockdown, platforms like WhatsApp and Telegram groups became essential components for sharing of government announcements, job information, and digital learning materials among Jharkhand's tribal youth. For them, digital engagement frequently represents defiance and the quest for recognition. The notion of voice comes into prominence. For tribal youth, digital empowerment is not just about expression, but about recognition and legitimacy. They shape their realities through both formal and informal platforms, though unequal access, algorithmic biases and digital surveillance such as Aadhar based monitoring and digital platform profiling continue to produce uneven outcomes. Social media functions as an unequal space, empowering some indigenous youth while excluding others.

5.4 Social media as an interface of exclusion and conflict

Amidst Jharkhand's indigenous youth, social media shows complex realities rather than ensuring equal accessibility. A key paradox resides in the exclusion by language and the disempowerment of tribal traditions. Adivasis and many other minority-language speakers have long been discriminated against in India (Nayak & Alam, 2022; Panigrahi, 2021). The dominance of major languages online excludes and marginalizes indigenous languages. It forces young people to accept the prevailing linguistic standards to be seen and heard. This has resulted in the erosion of tribal languages and true cultural depiction. Algorithmic biases further make tribal content unseen.

Socio-economic as well as infrastructural issues continue to perform critical roles in determining digital engagement amongst tribal youths. Notably, literature shows that the framework of exclusion should not just be regarded as an effect of inadequate connectivity or resources (Agrawalla et al., 2025; Akter et al., 2023; Blankenship, 2020; Chhapia, 2025; Ramakrishnappa, 2022). Instead, poor infrastructure, cost-based constraints, education gap, and differences in technological proficiency interplay to influence the opportunities of online activity (Nayak & Alam, 2022; Ramakrishnappa, 2022). Findings revealed that exclusion occurs even in the presence of accessibility and highlights the complicated nature of digital disparity among indigenous youth.

Digital abuse, offensive stereotypes, and surveillance further create a hostile environment, challenging the safety and welfare of tribal youth online. Such surveillance happens both through state-driven digital governance structures such as biometric authentication monitoring (Rao & Nair, 2019), as well as through platform-driven data tracking and automated data profiling inherent in digital capitalism (Fuchs, 2024). Across Jharkhand, where many tribal youths experience pre-existing educational and infrastructure disadvantages, these online exclusions commonly mirror and amplify wider regional disparities (Nayak & Alam, 2022; Ramakrishnappa, 2022). These structural, socio-economic and symbolic exclusions work together to ensure exclusion even when access is granted.

Subjectively, the bulk of tribal youth perceive a sense of exclusion and tokenism in online spaces. Social media might provide temporary instances of acknowledgement or solidarity, but tends to leave them struggling with the reality of incomplete integration, both in their home worlds that regard digital involvement

with suspicion, and in the digital landscapes that expect conformity to norms foreign to their lived experience. Digital inequality undermines social equality, for it is the socially disadvantaged groups that are most affected by digital exclusion (Chitra & Thanuskodi, 2024). Social media among tribal youth is therefore not a linear path to empowerment. It is an arena of exclusions, conflicts, and struggles.

5.5 *Reframing digital empowerment*

Analyzing digital empowerment for tribal youth of Jharkhand goes beyond the basic access to digital tools or improved infrastructure. While connectivity is the foundation of integration, it does not instantly ensure participation or equity. Meaningful digital empowerment requires attention to operational dimensions. These include digital agency, representation, visibility, digital literacy, equal access, and culturally grounded participation. It is about how the tribal youth are represented, how their perspectives are acknowledged and if the digital spaces showcase their lived experiences. Unless these are addressed, digital inclusion will remain partial, continuing to reproduce existing class structures rather than breaking them down (Fuchs, 2024; Ranchordás, 2022).

From the context of existing literature, it does not appear that the mitigation of structural inequalities necessarily entails the loss of cultural distinctiveness. Rather, several studies suggest that digital participation of tribal youth frequently functions as a negotiation between preservation and adaptation, in which cultural articulation co-exists with aspirations for learning, mobility and integration (Mahto & Mahawar, 2025a; Singhmar, 2023). In the absence of inclusivity and representation, there is a looming risk that technological tools will further marginalize rather than empower. Even as tribal voices surge into digital spaces, they meet with algorithmic bias. The mainstream platforms often privilege high-engagement, urban-centric and mainstream language content while pushing the indigenous narratives, local languages and indigenous knowledge to the edge of digital presence (Christensen, 2024; Panigrahi, 2021). This strengthens the argument developed previously that access by itself is insufficient. Visibility, recognition and fair digital platform architectures are similarly central to substantive digital empowerment.

Relentless and unplanned development has pushed many tribal communities to the peripheries, struggling for survival (Satapathy, 2023; Sharma & Mir, 2022). For the tribal youth of Jharkhand, digital spaces to some extent have turned into important sites to express life, aspirations, and identity. However, effective online involvement cannot be confined to abstract calls for “culturally grounded technology policies”. Rather, it requires specific and context-sensitive perspectives. These include improving rural connectivity under the Digital India program, increasing accessibility to reliable electricity, incorporation of digital literacy into the school curriculum within tribal areas, and encouraging the development of linguistically inclusive interfaces across local and Adivasi languages (Nayak & Alam, 2022; Parsheera, 2022; Ramakrishnappa, 2022). These interventions do not impinge upon individual choice; they rather increase the number of choices available to indigenous youth. Simultaneously, internet access coupled with rural economic growth is essential to guarantee that digital participation is unable to become synonymous with mobility or assimilation into metropolitan digital cultures.

The studies of Panigrahi (2021) and Christensen (2024) show that without equitable infrastructure, formal education, and financial assistance, social media frequently reproduces dominant, city-based trends, fostering adaptation to mainstream languages and aesthetic standards for visibility and affirmation. Inclusion of the tribes, thus, means not authoritarian but participatory execution of digital schemes, with the involvement of the tribal communities in community-level consultation, content production initiatives, and community-based ICT literacy programs. Recognition of the ST youth as active participants does not mean presuming common aspirations, some of which may be the preservation of their culture, while others may be socio-economic mobility. Empowerment, therefore, is not in their culturally informed decisions but in ensuring that they have equal access, visibility, and ability to exercise these choices.

In this context, the encouragement of language diversity and of user-generated content, along with community-oriented online platforms, is essential to create an inclusive virtual space. Tribals have the right to articulate themselves using their own dialects and cultural idioms. When online content reflects local contexts, the process of empowerment is advanced, traditional knowledge gets protected, and the

dominant mainstream discourses are contested. However, the correlation between digital engagement and cultural sustainability is not linear. The existing literature on the topic, reviewed in this research, indicates that digital media amidst tribal youth do not merely function as a means of cultural continuity or merely as a means of assimilation into dominant mainstream society. Rather, empirical evidence indicates hybrid forms of engagement. This trend can be viewed from the perspectives of anthropological concepts such as modernity and hybridity. Instead of simply conserving tradition or integrating into dominant culture, tribal youth merge indigenous traditions with current digital involvement. This actively reinterprets identity in changing social and digital environments.

Singhmar (2023) records how tribal youth engage with social networking platforms to reclaim their identity, their festivals, language, and activities, thereby fostering cultural pride. Likewise, Mahto and Mahawar (2025a) suggest that digital media serve as a means for the continuation of oral traditions despite modern communication practices. However, research like Nayak and Alam (2022) along with Melgandi (2024) also shows that a large part of the tribal youth's engagement with the internet is a result of practical aspirations of education, employment, and inclusion in the larger socio-economic frameworks. In such cases, engagement with the dominant culture, language, and aesthetics of the mainstream becomes a pragmatic act rather than mere imitation. Thus, the literature reviewed above does not indicate that the tribal youth merely "copy" the mainstream discourses in India; rather, the digital platforms become a space where preservation and accommodation coexist. Cultural articulation frequently appears alongside efforts to acquire digital capabilities, access opportunities, and engage in national or international discourse.

Through the 18 studies that have been synthesized within this review, the preponderant concern is still on access, infrastructure, educational attainment, and structural issues. Few studies have focused on long-term cultural change and assimilation patterns. While there is evidence of identity affirmation through digital media, there is still a lack of systematic research on comparisons between preservation and assimilation. What is more apparent in prior research is not cultural erosion but selective and planned adaptation, wherein tribal youth are caught between cultural differentiation and socio-economic mobility. Digital empowerment, therefore, does not create an incompatibility between sustaining cultural multiplicity and mainstream assimilation. Its aim should be to ensure that young indigenous individuals have the agency as well as visibility to position themselves in the digital landscape as they see fit.

This analysis ultimately culminates in a vision for inclusive digital spaces, those that welcome collaboration, adaptation and local leadership. However, as indicated in Table 3, the thematic distribution of existing scholarship indicates an imbalance in their preoccupation. Of the 18 studies reviewed, 5 mainly address connectivity and infrastructure deficits, and 4 highlight the digital competence divide. This demonstrates that studies have largely focused on resource access and skill-based exclusion. Only 3 studies each are concerned with language-based marginalization and symbolic cultural expression, whereas only 2 studies are more concerned with algorithmic discrimination and 1 with surveillance structures. This pattern suggests that the dominant research focus was the first- and second-level digital divide, whereas structured investigation of platform authority and long-term cultural impacts remains comparatively limited. A one-size-fits-all digital strategy risks overlooking Jharkhand's cultural plurality and may further broaden existing digital divides amid tribal communities.

The digital divide, as evident in the preponderance of research, is essentially an issue of accessibility, affordability, and the ability to utilize technology effectively. Whether digital engagement will ultimately result in cultural preservation, adaptation, or incorporation of tribal youth into the mainstream socio-economic order is a separate empirical question. The existing literature does not answer it definitively. Some research, for example Singhmar (2023) in addition to Mahto and Mahawar (2025a), indicates identity formation and hybridity. Nayak and Alam (2022) indicate educational and mobility desires. The evidence therefore shows diverse and negotiated pathways rather than a consistent cultural direction.

Digital empowerment, consequently, should not prescribe cultural impacts but examine the most frequently identified structural barriers. Enhancing rural connectivity, reliable electricity supply, increasing device affordability and internet services, incorporating digital literacy within school curricula, promoting language-inclusive online interfaces and using participatory implementation mechanisms is necessary. Empowerment ultimately lies across expanding substantive choices, which enables tribal youth to define

their own cultural and socio-economic pathways within conditions of equality, representation, and capability instead of structural constraints.

5.6 *Limitations of the review*

The present review has its own set of limitations. This paper was based mainly on studies written in the English language and a small number of empirical studies conducted in relation to the issue at hand in Jharkhand. To strengthen contextual comprehension, broader Indian studies, policy-based documents, and chosen grey literature were also included. Another point to consider is that the present review is of an interpretive nature, without any primary fieldwork or ethnographic investigation. Future empirical as well as community-based studies are thus needed to further expand on these findings.

6 Conclusion

This review reveals how for indigenous youth of Jharkhand that social media is a space of opportunity and exclusion simultaneously. On one hand, it can provide recognition, voice and fresh approaches to connection. On the other hand, it also reproduces infrastructure gaps, language marginalization, algorithmic exclusion and surveillance-based damages, thereby limiting meaningful engagement. The central conclusion is that digital inclusion should go beyond basic access. It should emphasize digital empowerment. This empowerment should be grounded in agency, meaningful participation, and cultural recognition. It should also encourage equitable representation and meaningful digital capability. This involves policies and platform structures that are co-created along tribal communities, foreground linguistic as well as community-generated content, and confront systemic factors such as infrastructure, affordability and education that shape technological inequities. Key to this will be efforts to improve digital literacy among indigenous communities, so they can do it themselves.

The consolidation of literature illustrates that digital inclusion of tribal youth in Jharkhand is a multifaceted process. It is shaped not only by accessibility to technology, but also by language, cultural representation, technological literacy, and online visibility under the constraints of wider socio-economic conditions. Social media platforms can both empower and exclude. They create avenues for self-expression and participation but also reproduce persistent inequities through infrastructure, linguistic, and algorithm-driven barriers. These insights stress the meaningful digital inclusion cannot be accomplished by connectivity alone. It requires culturally sensitive, participatory, and equitable frameworks which addresses the wider structural and social conditions influencing digital engagement.

The literature reviewed across this paper indicates that tribal youth are using the internet for the same purposes as other youth groups, including but not limited to accessing educational information, job opportunities, social media communication, personal experience sharing, and other social and information networks. On the other hand, some studies also indicate the utilization of online platforms to share cultural festivals, language, oral heritage and community life, suggesting that online engagement can be used for identity formation. However, the current literature does not provide conclusive evidence on whether digital engagement is used to enhance cultural continuity or to facilitate absorption into mainstream socio-economic and consumer-oriented culture. Instead, the existing evidence indicates hybrid and negotiated modes of engagement determined by both cultural affiliation and aspirations for mobility. From an anthropological perspective, digital inclusion is not just about connectivity. It is also about enabling tribal youth to express their culture, negotiate their identities, and exert their agency within the digital environment.

The findings indicate that policies to foster digital inclusion of tribal youth need to go beyond increasing accessibility to the internet. What is needed is a greater focus on enhanced quality of digital infrastructure as well as digital competence. Further, supporting native-language content development and promoting community participation in designing and implementation of digital initiatives is necessary. Addressing the low visibility of tribal voices within online spaces is equally crucial for fostering equal representation and meaningful participation. Such measures may facilitate a more inclusive and culture-responsive digital environment for tribal youth across Jharkhand.

Future research should investigate more closely how tribal young people actually use digital spaces in their day-to-day lives. These includes the forms of content they make, the reasons behind their involvement, and the long-standing cultural and socio-economic effects of online engagement. Ethnographic and community-level studies focusing on indigenous villages and youth behaviors would help explain whether social media operates more as a means of cultural conservation, socio-economic advancement, or incorporation into the mainstream digital environment. Policymakers, technologists and scholars have to reimagine online inclusion as a bottom-up, socio-culturally located and justice-oriented process instead of a one-size-fits-all technological fix.

References

- A, S. K., G, I., & Chaudhari, S. (2021). A survey on rural internet connectivity in India. <https://doi.org/10.48550/arXiv.2111.10219>
- Agrawalla, H., Swain, M., & Parhi, S. (2025). An assessment of the impact of new media on youths: A study on Santal community of Angul district, Odisha. *International Journal For Multidisciplinary Research*, 7(2), 1–13. <https://doi.org/10.36948/ijfmr.2025.v07i02.38888>
- Akter, S., Mathew, N. M., & Fila, M. E. (2023). The impact of an improvement in the quality and reliability of rural residential electricity supply on clean cooking fuel adoption: Evidence from six energy poor Indian states. *World Development*, 172, 106366. <https://doi.org/10.1016/j.worlddev.2023.106366>
- Ammari, T., & Schoenebeck, S. (2015). Networked empowerment on facebook groups for parents of children with special needs. *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*, 2805–2814. <https://doi.org/10.1145/2702123.2702324>
- Asrani, C. (2022). Spanning the digital divide in India: Barriers to ICT adoption and usage. *Journal of Public Affairs*, 22(4). <https://doi.org/10.1002/pa.2598>
- Behera, H. C., Sinha, A. A., Sahoo, A. K., & Jha, G. (2022). Participatory livelihood vulnerability assessment of the forest dwellers: A study of fifteen tribes and particularly vulnerable tribal groups in the eastern Indian region. *Journal of Asian and African Studies*, 59(2), 578–602. <https://doi.org/10.1177/00219096221117074>
- Blankenship, B. (2020). Rural electrification in Jharkhand: Progress and gaps [April 8]. <https://energy.economictimes.indiatimes.com/energy-speak/rural-electrification-in-jharkhand-progress-and-gaps/4146>.
- Chakraborty, S. (2023). Contemporary amelioration of educational parlance towards exclusion and disparity: "Digital village". *Praxis. International Journal of Social Science and Literature*, 6(5), 118–124. <https://doi.org/10.51879/PIJSSL/060513>
- Chakradhar, J., & Choudhary, K. (2024). Inequalities in computer literacy in India: Do caste and gender matter? *Economic and Political Weekly*, 59(31), 53–60. <https://www.epw.in/journal/2024/31/special-articles/inequalities-computer-literacy-india.html>.
- Chakradhar, J., & Choudhary, P. K. (2025). Digital inclusion and women development: Evidence from Indian states. In E. Revathi, I. C. Awasthi, B. S. Reddy, & A. Madan (Eds.), *Intersecting Paths of Sustainable Development, Urbanization, and Women's Empowerment* (pp. 221–240). Springer Nature. https://doi.org/10.1007/978-981-97-9218-4_10
- Chhapia, H. (2025, 23 May). Halt fyjc e-admissions in poor-network rural areas. Times of India. <https://timesofindia.indiatimes.com/city/mumbai/halt-fyjc-e-admissions-in-poor-network-rural-areas/articleshow/121347066.cms>.
- Chitra, S., & Thanuskodi, S. (2024). Identification of key indicators for measuring the digital divide of tribes: A content analysis approach. *Journal of Library and Information Studies*, 22(2), 1–19. [https://doi.org/10.6182/jlis.202412_22\(2\).001](https://doi.org/10.6182/jlis.202412_22(2).001)
- Christensen, G. (2024). Three concepts of power: Foucault, Bourdieu, and Habermas. *Power and Education*, 16(2), 182–195. <https://doi.org/10.1177/17577438231187129>

- Das, A., & Rai, D. R. (2025). From canvas to screen: The impact of digital literary and new media on indigenous women artisans of eastern India. *International Journal of Research Publication and Reviews*, 6(3), 9516–9520. <https://doi.org/10.55248/gengpi.6.0325.1306>
- Fuchs, C. (2024). Critical theory foundations of digital capitalism: A critical political economy perspective. *Triple C: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society*, 22(1), 148–196. <https://doi.org/10.31269/triplec.v22i1.1454>
- Gillespie, T. (2014). The relevance of algorithms. In *Media Technologies* (pp. 167–194). MIT Press. <https://doi.org/10.7551/mitpress/9780262525374.003.0009>
- Government of Jharkhand, Finance Department (2024). Jharkhand Economic Survey 2023-24 [Government of Jharkhand]. https://finance.jharkhand.gov.in/pdf/Budget_2024_25/Jharkhand_Economic_Survey_2023_24.pdf.
- Hallström, J. (2022). Embodying the past, designing the future: Technological determinism reconsidered in technology education. *International Journal of Technology and Design Education*, 32(1), 17–31. <https://doi.org/10.1007/s10798-020-09600-2>
- Kumar, V. (2024). Digital impact on Indian society. *Journal of Linguistics and Communication Studies*, 3(1), 1–9. <https://www.pioneerpublisher.com/JLCS/article/view/629/566>.
- Liu, Y. (2024). Analyzing the impact of the digital divide on individuals, families, and society: A technological perspective. *Journal of Applied Economics and Policy Studies*, 14(1), 44–51. <https://doi.org/10.54254/2977-5701/2024.18281>
- Mahapatra, S., & Sarangi, I. (2020). Santhali language in the digital media space. *Journal of Critical Reviews*, 7(15), 2288–2295. https://www.researchgate.net/publication/343126166_JOURNAL_OF_CRITICAL_REVIEWS_Santhali_Language_in_the_Digital_Media_Space.
- Mahto, P. K., & Mahawar, K. L. (2025a). Digital media and oral traditions as information channels among tribal communities: A study [Working paper]. *SSRN*. <https://doi.org/10.2139/ssrn.5311641>
- Mahto, P. K., & Mahawar, K. L. (2025b). Digital transformation in learning among the tribal students of affiliated colleges of Ranchi University, Jharkhand (India): A study. *Alexandria: The Journal of National and International Library and Information Issues*, 1–12. <https://doi.org/10.1177/09557490251378733>
- Melgandi, A. K. (2024). Digital transformation in rural Jharkhand: Impact of e-governance initiatives. *International Journal of Research Culture Society*, 8(9), 89–94. <https://ijrcs.org/wp-content/uploads/IJRCS202409016-min.pdf>.
- Ministry of Electronics and Information Technology (2024). Digital India [Government of India]. <https://www.digitalindia.gov.in/>.
- Mukherjee, E., Mazar, O., Aggarwal, R., & Kumar, R. (2016). Exclusion from digital infrastructure and access [Digital Empowerment Foundation]. https://defindia.org/wp-content/uploads/2017/09/India-Exclusion-Report_DEF-Chapter.pdf.
- Nayak, K. V., & Alam, S. (2022). The digital divide, gender and education: Challenges for tribal youth in rural Jharkhand during Covid-19. *Decision*, 49(2), 223–237. <https://doi.org/10.1007/s40622-022-00315-y>

- Nayak, K. V., & Kumar, R. (2022). In pursuit of education: Why some tribal girls continue and others drop out of schools in rural India? *Journal of Human Values*, 28(2), 129–142. <https://doi.org/10.1177/09716858211064251>
- Office of the Registrar General & Census Commissioner, India (2011). Population census 2011: Table A-11 appendix – District wise scheduled tribe population (appendix), Jharkhand.
- Pandey, A., & Pandey, A. (2018). Youth and inequality: A sociological study of digital inequality among youth in India. *Development Conference*. <https://ic-sd.org/wp-content/uploads/2020/11/Avinash-Pandey.pdf>.
- Panigrahi, S. (2021). No digital rights if you are marginalized in India [Conference session]. *re:publica 21*. <https://www.youtube.com/watch?v=5gzcH1tljqw>.
- Parsheera, S. (2022). Understanding state-level variations in India's digital transformation. *African Journal of Information and Communication*, 30, 1–9. <https://doi.org/10.23962/ajic.i30.15082>
- Rajam, V., Reddy, A. B., & Banerjee, S. (2021). Explaining caste-based digital divide in India. *Telematics and Informatics*, 65, 1–23. <https://doi.org/10.1016/j.tele.2021.101719>
- Ramakrishnappa, D. V. (2022). Exclusion of scheduled tribes in access to digital services in India: Bottlenecks and the way forward. *East African Scholars Journal of Economics, Business and Management*, 5(9), 251–255. <https://doi.org/10.36349/easjebm.2022.v05i09.001>
- Ranchordás, S. (2022). Connected but still excluded? digital exclusion beyond internet access. In M. Ienca, O. Pollicino, P. Andorno, R. Ladher, & S. Wangmo (Eds.), *The Cambridge Handbook of Life Sciences, Information Technology and Human Rights* (pp. 244–258). Cambridge University Press. <https://doi.org/10.1017/9781108775038.020>
- Rao, U., & Nair, V. (2019). Aadhaar: Governing with biometrics. *South Asia: Journal of South Asian Studies*, 42(3), 469–481. <https://doi.org/10.1080/00856401.2019.1595343>
- Satapathy, S. S. (2023). Digital mainstreaming of tribals in India: Gap identification and suggestive measures. In S. Chakraborty (Ed.), *Dynamics of Dialogue, Cultural Development, and Peace in the Metaverse* (pp. 148–159). IGI Global. <https://doi.org/10.4018/978-1-6684-5907-2.ch013>
- Seth, A., Gupta, A., Moitra, A., Kumar, D., Chakraborty, D., Enoch, L., Ruthven, O., Panjal, P., Siddiqi, R. A., Singh, R., Chatterjee, S., Saini, S., Ahmad, S., & Pratap, V. S. (2020). Reflections from practical experiences of managing participatory media platforms for development. *Proceedings of the 2020 International Conference on Information and Communication Technologies and Development*, 1–15. <https://doi.org/10.1145/3392561.3394632>
- Sharma, A., & Mir, A. Q. (2022). Identifying the impact of digitalization on the society and culture of tribal people of J&K [TRIJK/2022/007, Tribal Research Institute, Jammu & Kashmir; Ministry of Tribal Affairs, Government of India].
- Sindakis, S., & Showkat, G. (2024). The digital revolution in India: Bridging the gap in rural technology adoption. *Journal of Innovation and Entrepreneurship*, 13(1), 29. <https://doi.org/10.1186/s13731-024-00380-w>

- Singh, N., Singh, D. S., Goswami, D. B., Kumar, D. S., & Kumar, B. (2024). Bridging the digital divide: A comprehensive analysis of ICT infrastructure in rural schools of Jharkhand, India. *Educational Administration: Theory and Practice*, 30(6), 4456–4460. <https://doi.org/10.53555/kuey.v30i6.7279>
- Singh, P., & Pattanaik, F. (2025). Beyond the fields: Tracing India's labour transition from agriculture to non-agricultural sectors. *International Journal of Social Economics*, 52(4), 608–627. <https://doi.org/10.1108/ijse-11-2023-0904>
- Singhmar, N. K. (2023). Role of social media in empowering tribal community. *International Journal of Political Science and Governance*, 5(1), 340–343. <https://doi.org/10.33545/26646021.2023.v5.i1e.240>
- Tewathia, N., Kamath, A., & Ilavarasan, P. V. (2020). Social inequalities, fundamental inequities, and recurring of the digital divide: Insights from India. *Technology in Society*, 61, 101251. <https://doi.org/10.1016/j.techsoc.2020.101251>