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Negotiating Authority at the Margins: Tribal Women's Political Empowerment, Capacity Deficits, and AI-Enabled Governance in Jharkhand's Panchayati Raj Institutions

Aboobacker Siddique P[1], Dr. Prabhat Kumar Singh[2]

[1]IAS, Research Scholar, University Department of Sociology, Ranchi University (Secretary, Department of Forest, Environment & Climate Change; and Agriculture, Animal Husbandry & Co-operative, Government of Jharkhand),
[2]Associate Professor (Retd.), University Department of Sociology, Ranchi University, Ranchi

ABSTRACT
The Constitution of India (73rd Constitutional Amendment) requires that women be reserved a place in Panchayati Raj Institutions (PRIs), but there is a huge disparity between women representation and political power, especially for the women of STs who are marginalised on two fronts – gender and ethnic. This paper records the major fieldwork done from June to November 2025 in Mandar Block, Ranchi district, Jharkhand. The study focuses on the quality of political participation of the elected tribal women leaders of Oraon tribe (Mukhya, Up-Mukhya and Panchayat Samiti Members), constraints faced by them in exercising political role, role of information and communication technologies (ICTs) in their political functioning and how their political role has changed over time. These women are afforded the ability to exercise substantive agency (to do their own development work, to campaign for their administrative rights and to challenge the implicit assumption of proxy leadership) but their power is invariably constrained, both because they enjoy limited formal education and because of time poverty, mobility barriers, bureaucratic gender bias and the rising digital divide. The study also shows that the traditional governance system – parallel, which is perceived as non-conflictual, allows the community to work together. Given the results of this study, this paper recommends that AI tools built with a genuinely co-participatory, vernacular-based approach can have some real value as a capacity development tool that can lessen the literacy barrier to access to digital governance; and can provide low-stakes, confidence-building spaces. The implications or ethics of using AI in this case are discussed.

Keywords: tribal women's empowerment; Panchayati Raj Institutions; artificial intelligence; digital governance; intersectionality; Oraon community; Jharkhand; capacity building

1. INTRODUCTION

The 73rd Constitutional Amendment Act, 1992 of the Indian constitution is one of the most ambitious experiments in democratic inclusion by any postcolonial state, where at least one third reservation in PRIs and women's reservation in all levels of PRIs. The State of Jharkhand also increased this minimum quota to 50% in the Jharkhand Panchayati Raj (Amendment) Act, 2010, and came along later. Consequently, it

has been included in several election surveys, and even higher representation of women has been achieved in the actual elections in all three held in the years 2012, 2017 and 2022 (Jharkhand State Election Commission, 2022; Ministry of Panchayati Raj, 2023), thus ensuring the presence of women in dominating numbers in local bodies in all three elections. Nationally, there are around 14.5 lakh women representatives elected to the Panchayats, accounting for 46 per cent of all the Panchayat representatives, which is not paralleled in any other country in the world (Ministry of Women and Child Development, 2025) . The total number of women elected in the state of Jharkhand in 2022, under the 50% reservation, was 32014, which was 56808 more than the required 50%. But the numbers, though significant, are not sufficiently researched, and this has been the way comparative literature on women's political participation has been discovering more and more. What is not given automatically upon election to a formal position is the preconditions for making this formal position into substantive political power that is able to be exercised. The evidence of Chattopadhyay and Duflo (2004) was supportive of the idea that women leaders do actually change policy outcomes. In the two Indian states they studied – West Bengal and Rajasthan – panchayats had a bigger impact on the direction of public expenditure toward goods that were more relevant to women's preferences. They did, however, find that the size and nature of that effect was reliant on the enabling conditions that were not a part of the reservation mechanism – as later research has extensively described. Much has been nuanced since initial descriptions by Buch (2000) and Datta (1998) with evidence indicating that autonomous agency is more common than initially reported, and that increased time in office and experience leads to greater agency (Bhavnani, 2009; Brulé, 2020) . Yet, there is still a sharp divide between the description and substance of representation to be addressed as a policy issue, especially in tribal areas, where the intersection of gender, ethnicity and economic vulnerability exacerbates generic limitations on representation. For the women from the Oraon (ST) communities elected as representatives, this is further complicated by the duality of institutional structure, where the institutional framework of the PRI is co-existing with the traditional system of tribal self-organisation namely Parha (tribal system) that has not received much attention in the mainstream literature on women in local governance in India. In this already-complicated domain, a third disruptive force has entered the stage: the speeding up of digitalisation of governance. They are transforming the functioning of a panchayat by using e-governance portals and mobile friendly scheme portals in addition to AI assisted administrative tools that make participation gaps created by reservation systemic and can be enlarged or narrowed. The paper reflects on three streams of literature: women's substantive empowerment in Indian PRIs, governance in tribal/ hybrid institutional context and the current debate on the equitable use of AI in public administration. It does so through field work carried out in the Mandar Block of Jharkhand during June to November, 2025 with eight elected mostly Oraon tribal women in four Gram Panchayats and one Panchayat Samiti. The study's main thesis is that capacity deficits that limit the authority of these leaders are not inextricable aspects of their social identities but are 'produced' conditions and that AI-powered tools, created using co-participatory, vernacular-first values and principles, can have tangible and under-explored impact for addressing such conditions as a scalable infrastructure of capacity-building. The remainder of the paper is organised as follows. The theoretical framework is discussed in Section 2. Research design is explained and research methodology is explained in section 3. The results are presented in section 4 as regards six thematic areas. Section 5 builds a discussion on connections between the findings and the argument for AI capacity building. Policy and design implications are given in Section 6.

2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Empowerment Beyond Numerical Representation

Kabeer's (1999) tripartite framework, which classifies resources (preconditions for women's meaningful choice), agency (process of deliberate choice making) and achievements (outcomes of exercised agency), is one of the most analytically productive tools to study women's political empowerment in institutional settings. Using it with elected tribal women in Indian PRIs is an interesting activity to explore what it can conceal. A woman who won a reserved seat has a formal resource; if she has more of these, or if there are certain enabling conditions to which she lacks, then she may or may not be able to exercise meaningful agency, and she may or may not achieve more as a result. As in many other contexts, the facilitating impact of orientation, training and support is not less important than the formal institutional entry provided by quota policies, as revealed by the World Bank synthesis of evidence on participatory development conducted by Mansuri and Rao (2013). The timeliness of empowerment is also applicable, as Brulé (2020) indicates that women's empowerment in reserved PRI seats is different over time, and that new women in PRI seats at the first election have some level of substantive decision-making, although not as high as for women elected at previous elections. The quality of training provision is a good moderator of this trajectory, as pointed out by Pande and Ford (2011) . The general results suggest that the idea that there is a particular kind of empowerment is a false dichotomy—there is empowerment, but only in time and in experience.

2.2 Intersectionality and Compounding of Disadvantage

The term intersectionality and compounding disadvantage are used to describe this. In the US, theorisation of intersectionality by Crenshaw (1989) can be extended to view the intersection of caste, tribal identity, class and gender in the post-colonial governance systems as seen by South Asian scholars (Sundar, 2014). When it comes to the women who are elected to the local bodies of Jharkhand, it cautions against putting them in the same basket as non-tribal women, who have an extra burden. In addition to learning gaps in formal education (which are always found in the tribal area from the ASER data), Oraon women have a greater burden on their daily agricultural work (which leaves less time for administrative work) and a higher risk of being subjected to bureaucratic condescension and also to the gender inequality embedded in the tradition of community governance. It is the concept of 'dual patriarchy', which formal-institutional patriarchy in the Indian PRI system is based on paternalism and bureaucratic indifference and traditional patriarchy is based on the power of male elders in customary governance system, that the Indian PRI literature has mentioned (Siddique, 2026) but not discussed in detail in the same analytical framework. In this paper, it is considered as a single phenomenon of constraint compounded from two, instead of two distinct phenomena.

2.3 Hybrid Governance and the Parha system

Cleaver (2001, 2012) theory of institutional bricolage focuses on the fact that communities do not create governance structures from scratch, and instead, they "pick and choose" from those that are available to them – both culturally and institutionally. The traditional system of land use, dispute resolution and social organisation of the community in the form of Parha system has not been replaced by a system of Constitutional PRI but has been coexisting and functioning in a fairly different domain. In a mutually advantageous and effective division, it has been observed that the governance performance is improved for both men and women in tribal panchayats in Jharkhand and its neighbouring states of Odisha (Kapila, 2008) . However, the Parha is a mainly male dominated institution and while it works with Women-led

PRI institutions it does not necessarily mean that the gender parity of power in the customary aspect of authority is changed.

2.4 The Inclusion Paradox in Digital and AI Governance

This paper investigates the "Inclusion Paradox" in Digital and AI Governance. In this paper, the "Inclusion Paradox" in Digital and AI Governance is explored. The concept of the inclusion paradox, similar to Eubanks (2018), that is the creation of new, technologically mediated exclusions in digital systems designed for 'universal access' is relevant to the story of digitalisation in Indian governance. Though Bhatnagar (2014) states that e-governance in the Global South has achieved efficiency and transparency, Gurumurthy and Bhatt (2012) report that digital literacy inequalities and the inequality of connectivity continue to perpetuate themselves and are systemically harmful for less educated and less connected users. In relation to women and the practice of PRI, UNICEF India (2021) finds that while mobile-phone use is high for governance communication, the skills pertaining to formal e-governance platforms are limited, particularly among women with less than secondary school education. The AI governance literature introduces a layer of complexity. However, AI systems can also reinforce or extend profiling biases found in the data they use for training (Noble, 2018) or, under certain design conditions, become adaptive, multilingual, voice-driven interfaces that decreases the barriers that text-based digital government presents to those who are less literate (Singh and Sharma, 2020) . These are key variables which are not incidental to empowerment but rather are those factors that will either expand or contract the inclusion paradox for a specific user population when a specific AI deployment is introduced.

3. RESEARCH CONTEXT AND METHODOLOGY

3.1 Study Setting

Mandar Block, Ranchi District, Jharkhand was the study area. The block is home to majority Oraon and Munda scheduled tribe population with smallholder agriculture economy with the cultivation of paddy, wheat and horticulture crops. The situation of roads and communication facilities was moderate in the block during the fieldwork and there were a few panchayat areas with intermittent network coverage. More than half of the requirement for women in Mandar block PRI structure was achieved in study period in several gram panchayats of the block.

3.2 Research Design and Sampling

The research in this study is a kind of qualitative research that is a type of case study in a mixed method research (Yin, 2018) . For the representation of variations in PRI and as per different governance profile, 8 women were purposively selected, which included 5 Mukhiyas, 1 Up Mukhiya (Deputy Mukhiya) and 2 Panchayat Samiti Members. 7 out of which majority were identified as tribal were Oraon (ST) and one was OBC. The age of the participants ranged from 27 to 42 years and the occupation/principal occupation of all participants in their households was agricultural farming. The size of the land holdings varied from 1.5 to 10 acres. Only basic literacy to Matriculation (Class 10) and no one had any qualifications higher than secondary level. Five respondents had not served before as a representative; one of these (MM-1) had indirect previous experience, via a spouse's previous political participation. The participant profile is given in table 1.

Table 1. Participant Profile — Elected Tribal Women, Mandar Block, Jharkhand (2025)

Pseudonym	Position	Age	Education	Key Initiative
MM-1	Mukhiya	40	Literate	Universal household toilet coverage; autonomous pension-case follow-up at Block Office
MM-2	Up-Mukhiya	27	Class 7	Gram Sabha conducted online via self-created WhatsApp group; village pond restoration
MM-3	Mukhiya	38	Literate	Community campaign eliminating alcohol and gambling through coalition-building with educated residents
MM-4	PS Member	29	Class 8	Road and drainage construction approved through Gram Sabha consensus
MM-5	PS Member	39	Class 10	Village achieved ODF status under her tenure; active scheme awareness campaigns
MM-6	Ex Mukhiya, JSLPS	28	Class 10	Road and drainage infrastructure advanced via formal Gram Sabha process
MM-7	Mukhiya	42	Matriculation	Secured electrification for the entire Panchayat
MM-8	Mukhiya	28	Class 10	Pension entitlements and ration distribution extended to elderly residents

Note. GP = Gram Panchayat; PS = Panchayat Samiti; JSLPS = Jharkhand State Livelihoods Promotion Society. Pseudonyms (MM-1 to MM-8) are used throughout to protect participant identity.

3.3 Data Collection

All participants were interviewed using a structured interview schedule, which was organized based on the eleven thematic sections, from June to November 2025. Sections covered: entering politics; decision making practice; authority; proxy-leadership assumptions; relationship with the Parha traditional

governance; interaction with PRI officials; ICT and mobile-phone usage; gender and tribal identity in governance; successes and missed opportunities; future aspirations for young women, and agricultural context. The programme comprised open-ended qualitative questions and structured questions with pre-coded answers. Interviews were conducted and audio recorded with informed consent of participants by the trained members of the research team and in both Hindi and Sadri. All of the transcripts were translated within 48 hours of each session.

3.4 Analysis and Limitations

The interview transcripts were analyzed using thematic analysis (Braun and Clarke 2006) as a reflexive approach. Themes were inductively developed from the data and then mapped to the theoretical framework outlined in Section 2. There are a number of limitations in the study that constrain the extent of the conclusions drawn. The purposive sample of eight PRI leaders in the tribal community is not representative of all women leaders at the PRI level of the tribal community in the entire block or community and generalisation needs to be done in a cautious manner. Likely also an inflection in the accounts of decision-making authority is social-desirability bias, which typically leads respondents to present more confident and autonomous self-presentations in institutional research settings, and which is recognized here and throughout the findings below. These are not methodological flaws, but a characteristic of case-study methodology and can be overcome with interpretive caution, triangulation across respondents, and explicit recognition of counterevidence in data.

4. FINDINGS

4.1 Entry Narratives and Community Legitimation

One theme that emerged in the entry narratives was that of community legitimation, and not community politics coming first. Six of the eight participants reported that they entered the contest either on the basis of encouragement from family members or from community members, or through both sources, but did not have their own aspirations for the contest. Women's reservation as a structural fact was universally accepted as the enabling condition for women to contest, and without which none identified themselves as likely to contest. This is the typical finding of Chattopadhyay and Duflo for the latter (2004) that reservation opens the door for women who would otherwise be outside formal politics, especially in first-generation-representative settings. All of the above accounts featured the language of community trust. MM-1 said that she was elected because “my village, society was supporting me” and MM-2 said “people in the community were encouraging me… they were trusting me”. Here, by the way, the accumulation of trust was not a product of a track record of governance, but rather a precondition — meaning social capital gained from informal roles in the community (agricultural labour, involvement in a self-help group, household networks) can be thought of as a form of pre-political legitimacy that becomes the basis for electoral viability. MM-8 added a development rationale to this dynamic, stating that “the community wanted a woman leader who could work for development” (an assertion that suggests that a new community-level expectation to “real” leadership was developing as opposed to “symbolic”).

4.2 Decision-Making Practice and Developmental Outcomes

Students in this course will engage in a variety of decision-making activities and develop a wide range of outcomes. The accounts of decision making obtained for this study do not reflect the previous identification of the leadership of women in PRI; these accounts show meaningful autonomous agency, if not in all aspects of decision making, at the very least in the realm of development infrastructure and community social intervention. Roadbuilding and drainage, sanitation, pursuit of social welfare

entitlement (pension), and electrification are recurrent policy options among eight participants. The Gram Sabha – the village assembly mandated by the Constitution – was always cited as the forum through which ideas were proposed, debated and eventually ratified. A case of administrators' persistence in cases of welfare entitlement is instructive here:

I personally made many trips to the Block Office regarding the widow pension and old-age pension, and I pushed the cases forward myself and never encountered with any opposition; everyone was helping me. The story of unmediated administrative interaction challenges notions of administrative dependency of low-literacy women leaders. Given the general contours of community behaviour change, MM-3's account of how it is achieved and of how a campaign starts by persuading educated community members and then grows wider into a coalition of them, is a process that can be recognised as political in the sense of being coalitional. The use of a statutory Gram Sabha but adapting it to a digital space through WhatsApp communication is a casual improvisation of informal digital governance, before any formal training in e-governance. In the sample, indicators of development outcomes documented are: Universal toilet coverage in one panchayat (MM-1); Restoration of village ponds (MM-2); Community social reform project related to alcohol and gambling (MM-3); Construction of roads and drains based on Gram Sabha consensus (MM-4, MM-6); Open Defecation Free status (MM-5); Electrification (MM-7); and Pension entitlements and Ration distribution for elderly residents (MM-8). These outputs are concrete public goods that are provided as a result of the manifestation of formal elected authority.

4.3 The Proxy-Leadership Assumption Revisited

Perhaps one of the most theoretically significant results is the rejection of the characterization, in the respondents' own words, of women leader's function mainly under male influence, which is almost unanimously rejected. Seven of eight participants said that their husbands or male relatives did not make the decisions for them in their governance. Several of the participants emphatically said no. MM-1 said, "I don't think so, I take my own decisions without depending on my husband, a woman Mukhiya." MM-2: "It is not good to think that way...I make decisions without my husband's input." MM-8: "I don't agree, women leaders can make decisions independently and work alone. One participant (MM-7) took the liberty of using the word helped in regard to the husband's role in decision making, which is not necessarily a rejection of the clean proxy-leadership story, but at the same time, it does not invalidate the pattern of mostly autonomous functioning among the seven others. The results of these analyses must be interpreted with caution for several reasons. As in other institutional settings, self-reported autonomy in institutional research poses the social-desirability risk mentioned in Section 3.4; and research using observation or administrative records has indicated that some reserved-seat panchayats have proxy leadership (Bhavnani, 2009) though it is less common than reported in earlier literature. These data should be read as meaning that across most of this sample, there is meaningful decision-making autonomy around the governance process, and there was a sense that this autonomy is becoming greater as they go about their governance, and that the proxy-leadership framing is too broad to describe the nature of the PRI leadership of tribal women in this context.

4.4 Relationship with the Parha Traditional Governance System

The overall results showed that the formal PRI structure and the Parha system were functional and cooperative among all the eight participants. None of the respondents indicated that there was any authority conflict with the village headmen, elders or the members of the Parha council. The modal answer to the questions about inter-institutional conflicts was a direct negative, which was sometimes followed by the comment that "if any problems occur, it is solved by discussion and understanding" (MM-8), a

sentiment that squares with Cleaver's (2001) bricolage model, which proposed that formal and traditional structures cooperate in a pragmatic and situational manner regarding conflict. This joint undertaking should be interpreted with care. Functional differentiation each system taking primary responsibility for distinct governance domains, formal development planning versus customary dispute resolution and social regulation appears to be the operative mechanism. The absence of reported conflict describes inter-institutional relations, not intra-institutional gender power.

4.5 Mobile Technology and Informal Digital Governance

The sample included a 100% of smart phone usage during fieldwork. The phone use around governance remained the same for respondents: all used their phone to communicate with Block Development Officers and with the junior engineers, to get updates about the scheme, and to share information with community members. WhatsApp and voice calls were the key tools that operated as the dominant ones, echoing trends observed in women PRI member studies in other states of India (UNICEF India, 2021). Online Gram Sabha, an adaptation of digital governance through self-created WhatsApp groups, is a qualitatively different approach to digital governance that deserves attention. The constitutionally mandated statutory meeting done digitally, on a tool not used for governance, and without institutional support or training, is indicative of a capacity to improvise governance beyond what other respondents reported in relation to the informal use of ICTs. It also highlights a key imbalance in the sample; the informal digital fluency had a high mean score for all eight participants but the formal digital government infrastructure competencies, such as e-governance portals, government mobile applications, and digital payment systems, were far lower and in some instances zero. Participants repeatedly mentioned government apps and digital payment systems (MM-4, MM-5, MM-6, MM-8) as the technology training they would find most useful, and also mentioned land-related digital tools (MM-2). Importantly, this is a stated demand signal: it is not a lack of motivation to use digital governance technologies, but a lack of availability of structured training in formal government platforms. These platforms are structured in ways that exclude informal fluency in a smartphone, such as assuming that the content will be formal Hindi or English, complex and multi-step, and that it will be text-based.

4.6 Intersectional Constraints and Emergent Confidence

Five of eight respondents identified lack of education and awareness as the key disadvantage of tribal women compared to non-tribal women leaders when questioned directly on the area of challenges faced by the tribal women in their PRI leadership. In this regard, the Group presented its common opinion through MM-5, “Tribal women leaders face more challenges due to lack of education and awareness compared to non-tribal women leaders.” The foregrounded cultural dimension was 'In the Adivasi community, women's words are not heard or respected', brought up by MM-2. One of the most telling of these findings was in the reports of official contact. The women Mukhyas shared that they experienced a journey from being initially underestimated by officials to being recognised and listened to by them over time: “I feel officials sometimes underestimate women Mukhayas, but with my work they are getting recognised and listening to me.” This account maps a causal model (developmental achievement as a means of achieving official respect) that has direct ramifications for the design of capacity building programs. It indicates that the early, visible development outcomes are not simply a by-product of good governance, but that they may be a variable that contributes to the confidence and official responsiveness that is required for later, more advanced governance. Matriculation-educated MM-8 delivered a statement that could be the essence of a capacity-building curriculum; She should get an education, she should know government schemes, and she should do good work for the society without any discrimination.

5. DISCUSSION

5.1 Empowerment as Processual and Context-Dependent

The results from Mandar Block simultaneously question two mainstream perceptions of women's political underrepresentation in tribal India: the negative conception (or misconception) of reserved seat leaders as predominantly male representatives, and the positive one (or misconception) of reservation as having brought about real empowerment on a mass scale. Instead, the data from the eight cases shows that empowerment is more a process, the result of which is to be found not in a single event, like an election day, but in the accumulation of experiences of governance, developmental successes, administrative challenges overcome, and social legitimacy gained in a process. Development results across the sample – sanitation, electrification, reform of communities, follow-up of pension entitlements etc. – are not only governance products as such. They are also, as Kabeer (1999) would argue, inputs for future agency: each piece of evidence alters the community's perception of the leader; the officials' perception of her or the community's perception of her; and the leader's own perception of herself. This process of official underestimation to earned recognition is captured in the trajectory, as described by one participant (Section 4.6). Capacity-building interventions designed to achieve early developmental gains are not just training programmes but interventions in the empowerment process.

5.2 The Inclusion Paradox in Jharkhand's Governance Digitalisation

Highlighting the co-existence, across all eight participants of high informal fluency with low formal competence in the e-governance platform, is a specific, structured version of the inclusion paradox Eubanks (2018) theorised. WhatsApp and voice calls exploit existing literacy in spoken language, don't need formal institutional training, while government e-governance portals require reading literacy in a prestige language; multi-step navigation skills acquired through sustained use; and connectivity infrastructure, in the case of Mandar Block, remains intermittent. The gap is not likely to get narrower in the absence of any conscious efforts to narrow the gap as Jharkhand's governance digitalisation initiatives are gathering pace — and will continue to do so in the future, thanks to the national E-governance mandates. The danger is not just that women leaders will find it difficult to access certain government services on digital platforms, but that the dependency structures that come with proxy-leadership critiques will reshape themselves in the digital domain. If the Mukhiya is not able to navigate the scheme application portal, then he is dependent upon a village level entrepreneur, a lower-level officer or a male family member who can navigate the portal. Even though the mediation is now technological instead of social, the outcome remains the same: a woman in the formal position whose job is to keep the other actors informed and document their rights.

5.3 Artificial Intelligence as Capacity-Building Infrastructure

Against this diagnostic backdrop, the specific affordances of AI-enabled tools offer a set of targeted possibilities for the population under study — not as a substitute for structural investments in education, connectivity, and bureaucratic culture reform, but as a rapidly deployable complementary instrument. Three affordances are of particular relevance to the Mandar Block context.

Voice-based AI assistants capable of operating in Sadri, Kurukh, and Hindi can address the literacy filter directly. Rather than requiring navigation of a text-based portal to retrieve scheme eligibility criteria, a voice assistant can respond to a spoken query in a participant's own language and deliver an intelligible audible answer. This is not a hypothetical technology; multilingual voice AI exists and has been piloted

in adjacent South Asian contexts (Singh and Sharma, 2020)[1]. For participants like MM-1, who currently obtains scheme information only through repeated Block Office visits, a voice AI capable of answering "What documents do I need for the widow pension?" reduces both the informational transaction cost and the time poverty that limits her administrative capacity.

A second affordance — private rehearsal — is perhaps the least commonly discussed in the AI governance literature but may be among the most practically valuable for this population. The confidence deficit documented across the sample is not merely informational; it is social, felt acutely in the public governance spaces — Gram Sabhas, Block Office meetings, interactions with officials — where women leaders' authority is most visibly tested. An AI tool permitting a leader to rehearse a Gram Sabha presentation, simulate a negotiation with a BDO, or practise articulating a welfare entitlement claim, in her own language and at her own pace, provides a judgment-free preparation environment with no social cost attached to error. Research on the role of simulated environments in leadership skill-building among marginalised women in adjacent domains suggests that private rehearsal is particularly valuable where real-world stakes carry social-identity risks (Banerjee et al., 2016)[2].

Third, AI-supported scheme navigation — potentially integrated with existing platforms such as UMANG or state-level e-NRLM portals — can serve as a persistent, accurate, and conversationally accessible repository of entitlement information that currently requires repeated official visits to obtain. MM-1's persistence in pursuing pension claims is admirable; it is also, from a governance efficiency perspective, a high-transaction-cost process that consumes time and energy that low-income agricultural women do not have to spare. Well-designed AI tools can reduce the informational cost of administrative navigation without eliminating the human relationships and political visibility that in-person official interactions also generate.

5.4 Ethical and Design Conditions for Inclusive AI Deployment

It is also important to examines the ethical and design criteria for the deployment of inclusive AI. Any of these AI affordances are not standalone, but dependent on the context of the design and use of tools. The results of this study emphasize four ethical demands that in this context form part of the good design of AI, rather than additional components of it. First, co-design with intended users is a mechanism, not a procedural nicety: It is a process in which language, dialect, trust and governance use-context issues are identified and addressed before deployment, not after. Without women such as those featured in this study being a direct part of the design process, generic AI governance tools will be designed by a team of individuals, usually in the urban context, with access to higher literacy levels and more likely to be male. If women are not directly involved in the design of these governance tools, then they will carry the assumptions of the design team – typically a group of higher-educated, male-dominated, urbanised individuals – and replicate the exclusions those assumptions embody. Second, algorithmic transparency – the ability of a user to explain to herself why a tool does what it does – is particularly significant in tribal communities where people's trust in formal institutions is fragile because of bad past experiences with government programmes that promised inclusion and delivered surveillance or control. Third, AI voice tools must be built on top of connectivity infrastructure investments – not alongside –: AI voice tools that

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don't work in low-bandwidth scenarios are tools that will be left unused by just the people who need them. For any AI governance tool to be practically deployable, as opposed to just hypothetically available, Budhadih, Turi Toli and Patratoli, the village areas of Brambay panchayat covered in the sample, need connectivity investment. Fourth, the convergence with the existing cadre of community institution network members like DAY-NRLP federations, Community Resource Persons and Bank Mitra networks can create a human bridge of trust, helping first-time digital users to access AI tools with the right level of confidence without sacrificing their own governance agency.

6. CONCLUSION

This study reviewed the quality of political empowerment of tribal women in PRIs of Jharkhand and the intersectional constraints that hinder their political empowerment and how AI tools can serve as infrastructure for their capacity building. The collective eight cases from Mandar Block problematize the negative proxy-leadership narrative and the positive narrative of reservation as having affected a uniform substantive empowerment. Instead, they show a gradual deepening of the agency that is real, meaningful, and fragile in specific ways that happens as they make developmental gains and/or face administrative challenges and as they slowly earn community and official recognition. This leadership is not simply awaiting a constitutional right but is indeed existing, often independent, political actors operating in a governance system that is systemically unprepared to work for them. The policy response isn't optimism or pessimism, it's a more focused and stronger dedication to intervention on three fronts at once that supports the process. Women's education and bureaucratic sensitisation at Block and District levels, investment in connectivity infrastructure. Institutionally: Language appropriate PRI orientation programmes, peer mentorship network of experienced and first term women representatives and linkages with the existing SHG infrastructure of DAY-NRLM. Technically: voice-based, vernacular first and co-designed AI tools that eliminate the literacy barrier to accessing digital governance, create private speaking spaces for public-speaking confidence and automate repetitive information transactions which are time and energy intensive in the work of governance for low-literacy rural women leaders. What the 73rd Amendment had sought to bring about was not only the inclusion of more women's names on Panchayat rolls, but also more women's judgments would influence the development of India's villages.

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