



RESEARCH ARTICLE

AI-Powered NLP in Vernacular Public Relations: Opportunities, Challenges, and Ethical Implications for India's Multilingual Landscape

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Abstract

India is currently experiencing a rapid growth in digital space and it is estimated that by 2025 more than 850 million people will be given access to the internet. The significant percentage of these users has shown they favor regional languages to English and this trend poses a serious strategic need to the PR practitioners to communicate to audiences in culturally relevant forms especially in the Tier-2 and Tier-3 urban centers and even in rural areas. Natural language processing tools that are powered by Artificial Intelligence are emerging as revolutionary facilitators that have the potential to provide mass localization of content, sentiment monitoring, and crisis management across this linguistic mosaic. However, the problematic issues continue to persist, including the heterogeneity of dialects, the lack of strict data sets, the possibility of bias in the algorithms, and the general ethical dilemma.

The research methodology used in this treatise is qualitative and secondary and is through synthesis of scholarly sources, industry reports, and empirically-driven case studies that were published between 2017 and 2023. Four main areas have been revealed through the thematic analysis, in which AI-NLP reconfigures the public relations praxis: localization of content, media monitoring and sentiment analysis, cultural adaptation, and ethical deployment. Case studies based on various industries, such as e-commerce (Amazon India), governmental efforts (COVID-19 outreach), and politics (2024 Lok Sabha campaigns) demonstrate measurable changes in the indicators of engagement, trust levels, and inclusiveness of the audience.

The results point out that AI-driven vernacular PR is associated with an increased trust of the audience, reduction of communicative disparities, and the ability to implement cost-efficient and scalable outreach initiatives. However, their effective application requires hybrid AI-human processes, culturally sensitive models, and effective regulatory controls, and especially the compliance with the Digital Personal Data Protection Act 2023 in India. This paper, therefore, assumes that vernacular AI is not only a technological creation, but a business necessity that is critical to support multilingual societies that embrace inclusive communication and provide contextualised information that can be applicable to other language-diverse markets.

Keywords: Artificial Intelligence, Natural Language Processing, Vernacular PR, India, Regional Languages, Ethical AI.

Introduction

India is currently experiencing one of the largest and most diverse digital expansions globally (Harish & Rangan, 2020;

Sahoo *et al.*, 2021). By 2025, the number of internet users in India is projected to exceed 850 million, resulting in an online environment that is both extensive and highly multilingual (Chakraborty *et al.*, 2023; Sheth, 2025). A significant aspect of this growth is the increasing proportion of internet users who do not speak English (Patel *et al.*, 2024; Gupta & Deshraj, 2021). Over 70% of new internet users in India prefer to communicate in regional languages such as Hindi, Bengali, Tamil, Telugu, Marathi, and Malayalam, according to Nielsen and the Internet and Mobile Association of India (Blackburn, 2025; Gupta *et al.*, 2024). This shift has transformed the internet into a vernacular space, making language inclusion essential for effective digital communication rather than merely a tactical advantage (De, 2025; IndiaAI, 2024a).

India's linguistic diversity, encompassing hundreds of dialects and 22 officially recognized languages, has altered the demographic and psychographic profiles targeted by

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marketers and communicators (Harish & Rangan, 2020; Sahoo *et al.*, 2021). Although English has traditionally served as the primary language for media, corporate, and governmental communications, evolving digital consumption patterns are challenging this dominance (Chakraborty *et al.*, 2023; Sheth, 2025). This dominance is being challenged, though, by the change in digital consumption patterns, which highlights the need for more personalised and culturally relevant marketing (Patel *et al.*, 2024; Gupta & Deshraj, 2021). The rapid increase in digital literacy and mobile internet connectivity has led to a marked rise in regional internet use, particularly in Tier 2 and Tier 3 cities and rural areas (Blackburn, 2025; Gupta *et al.*, 2024). This expansion is driven by the widespread availability of affordable smartphones and data plans, which facilitate access to native language content and increase demand for localized public relations strategies (De, 2025; IndiaAI, 2024a).

Contemporary audiences are increasingly connected and discerning, expecting messages that reflect their identities and lived experiences. Consequently, communicating in native languages has become a strategic imperative rather than a symbolic gesture (Harish & Rangan, 2020; Sahoo *et al.*, 2021). Traditional public relations practices, which have relied predominantly on English-language media, are undergoing reassessment (Chakraborty *et al.*, 2023; Sheth, 2025). Current market conditions necessitate the development of multilingual, region-specific campaigns that incorporate both linguistic and cultural nuances (Patel *et al.*, 2024; Gupta & Deshraj, 2021). This shift is both operational and strategic, aligning public relations with broader objectives of inclusivity and market expansion across diverse demographic groups (Blackburn, 2025; Gupta *et al.*, 2024).

Language Communication in PR Regionally

In India, PR has radically transformed to be much more about the audience as opposed to being media-centric (Hadeed *et al.*, 2024). Previously, editorial coverage in mainstream English-language media was considered a PR achievement (Harish and Rangan, 2020; Sahoo *et al.*, 2021). Nevertheless, audience resonance, cultural relevance, and engagement are becoming more central to the definition of success because of decentralisation of the digital platform and fragmentation of media consumption (Chakraborty *et al.*, 2023; Sheth, 2025). Therefore, regional language communication has become one of the essential parts of the modern PR strategy in India (Patel *et al.*, 2024; Gupta and Deshraj, 2021). Elaborating on the same, regional communication enables greater emotive ties as it consists of local storytelling and the local set of values that the English media does not tend to take into account. This change comes into focus specifically considering the fact that India is a land of linguistic and cultural diversity, and specific localized content will be required to reach diverse viewers in different states and communities (Mehta, 2019). This design will harness the

influence of local networks and folklore narrative, which are more appealing to the local population than the national campaigns that are generic (Elavarthi and Bhargav, 2024). This regional orientation is important in that it will directly speak to the massive cultural and linguistic plurality within the nation of India and hence the generalized campaigns will not work as effectively (Newsome and Carrell, 1994).

Several industries have recognized the need to involve the vernacular, such as healthcare, education, finance, governance, and fast-moving consumer goods (FMCG) (De, 2025; IndiaAI, 2024a). In order to guarantee the knowledge, credibility, and adherence to behaviours such as in the case of the COVID-19 pandemic, there was a need to spread public health messages in the regional languages, particularly rural and semi-urban areas (Harish and Rangan, 2020; Sahoo *et al.*, 2021). In this vein, the regional messaging has gained increased significance in the Indian political campaigns as an attempt to influence voters (Chakraborty *et al.*, 2023; Sheth, 2025). Considering the increased focus on cultural diversity, nowadays parties can customize content specifically to specific language groups (Patel *et al.*, 2024; Gupta and Deshraj, 2021). This has been shown to be a successful way of mobilizing voters, with the election turnout showing more in linguistic target areas (Blackburn, 2025; Gupta *et al.*, 2024). Moreover, the growth of online platforms has allowed marketers to reach specific linguistic groups with precision never before seen, and this has allowed marketers to execute more effective and culturally relevant marketing campaigns among various demographics of India (Jain, 2021). This is paramount because the high level of selective media consumption is supported by the large language diversity of the Indian population who create specific news-reading audiences based on socio-cultural and ethno-linguistic boundaries (Mukerjee, 2021). Such fragmentation of the language requires local media approaches, going beyond the traditional dependency on the English-language rags that, though historically powerful, reached a small fraction of the population (Simoes *et al.*, 2024) (Kishore, 2024).

The application of natural language processing (NLP) and artificial intelligence (AI) can offer an opportunity to businesses and local audiences to communicate more effectively in this shifting environment through scalable and context-aware solutions (Patel *et al.*, 2024; Gupta and Deshraj, 2021). Automation of these processes makes AI less costly and more accurate and therefore vernacular PR can be viable even to smaller organizational entities. Such sophisticated computational tools could help to overcome communication barriers, allowing using proper and culturally sensitive translations and creating a more fair access to information among different linguistic groups (Ally & Perris, 2022). Furthermore, it can be used that AI technologies, such as Large Language Models, can analyze large volumes of data and discover regional linguistic

patterns and cultural nuances, allowing the production of localized content that will be more acceptable to certain audiences (Chhikara *et al.*, 2025) (KJ *et al.*, 2024).

AI and NLP Technologies

Artificial intelligence can be of critical importance to strategic communication, and solutions that increase the impact, efficiency, and personalisation can be afforded (Dauner & Socher, 2025). In this paradigm, Natural Language Processing (NLP), which is a sub-section of artificial intelligence, endowing machines with the ability to understand, read, and write human language, becomes one of the most relevant in the field of PR. Recent studies have shown that NLP has a significant potential in the automation and localisation of communication in linguistically heterogeneous settings like India (Chakraborty *et al.*, 2023; Sheth, 2025). Extended to the point, NLP can be used to predict PR trends based on unstructured data collected in social media and news sources, which can be processed by the technology (Bachate and Sharma, 2020). This analytical feature will be critical in detecting emerging problems and preempting social accounts, which will strengthen strategic communication aims (Binlibdah, 2024).

India is changing the content creation, translation, analysis, and optimisation processes with the use of AI-based NLP tools. Microsoft Indic Language APIs, Google BERT, and local projects like Reverie, Process9, and Vernacular.ai are developing AI products that are designed to support the linguistic diversity of the country. These systems are not mere translation, with machine learning and user feedback, these systems become more accurate over time. They do sentiment analysis on local media, create region-specific content, and even automate the translation of press-releases (Trattner *et al.*, 2021). In addition, they offer the crisis communication with a high level of foresight using cultural sentiment models that identify emotional tones of regional dialects. Combined with tools that scan large volumes of data to identify the most influential people and groups to target, these tools maximize the reach of messages to as many different speaking language groups as possible (Osei-Mensah, 2023; Biswal, 2019). The resulting efficiencies do not only simplify the working processes but also make sure that messages and communications are culturally sensitive and language-sensitive to get better interaction with the target demographics (Toteva, 2023).

Automated translation is one of the pillar applications of NLP in the Indian PR industry. Modern NLP systems use contextual algorithms to identify sentiment, idiomatic expressions and colloquialisms, which represents a major advancement over previous mechanistic translation systems that frequently failed to find subtle meaning (Bachate & Sharma, 2020). Such a development reduces the threat of language or cultural distortion and significantly improves the quality of communication. In addition to translation,

NLP allows real-time sentiment analysis, which allows communicators to track the opinion of the population in different languages and areas (T. *et al.*, 2019). This is extremely useful in terms of launching a campaign, misinformation control and crisis management. Combining social-listening tools with real-time analysis also allows predicting the spread of viral trends in vernacular information (Ciampa *et al.*, 2024).

Moreover, NLP tools offer factual information that will refine PR strategy formations. The PR teams can narrow their messages and specifically target audiences by analysing demographic preferences, past engagement patterns, and the use of languages in the region (Madupati, 2022). Such specificity does not only help but is essential in the large and diverse market of India. As an example, NLP is able to divide such audiences based on language choice, hence streamlining campaign returns of investment.

This article attempts to outline the case studies in various industries, examine the ethical issues and limitations in this shift, and discuss the change of AI-based NLP technologies on vernacular PR. In this analysis, it aims to make a contribution to a comprehension of how the integration of technologies can make communication between the public in a multilingual society more just, more accessible, and more efficient. Eventually, this symbiosis will yield a decrease in digital disparities, hence creating a more egalitarian information environment.

Literature Review

In India, the most substantive and transformative digital expansions are interesting as a substantial majority of them do not work with English-based digital content but regional language-based digital content. This paradigm shift requires a total reconsideration of the way communication is structured and disseminated in all industries, especially among people who work in the fields of marketing, communication, and PR (Babazade, 2024). Having hundreds of dialects and 22 recognised languages, the internet in India has indeed become a vernacular arena and has left behind its original identity as a digital frontier. This language variation and especially the presence of English speakers in the educated elite create special challenges and opportunities to digital media (Simoes *et al.*, 2024). The expansion of the over-the-top platforms and the increased accessibility of the internet have only increased the consumption of vernacular digital content by generating new sources of revenue and content creators in the regional languages, despite the problems of fragmented audience and increased competition (Uniyal and Mirza, 2024) (Sharma, 2021).

The key aspect of this change is Natural Language Processing, a complex area of artificial intelligence allowing computers to read, understand and produce human language. Although the idea of NLP has always been linked to such globally spoken languages like Mandarin or English,

introducing it into the incredibly diverse Indian linguistic environment is not only a vital cultural requirement but also a significant technical challenge (Pakray *et al.*, 2025). The most important aspect of inclusive digital interaction is overcoming this complexity. It is especially so with the Indic languages, which have more than 1.5 billion speakers and rich linguistic history, and are associated with unique challenges and opportunities of using generative AI applications (KJ *et al.*, 2024a, 2024b). Studies on generative applications to Indic languages have grown dramatically over the past few years, and there have been substantial progresses in the field of natural language processing (KJ *et al.*, 2024).

NLP and Indian Languages

India is experiencing a regional-language natural language processing ecosystem that is being spurred by global technology giants and local entrepreneurs (Chakraborty *et al.*, 2023; Sheth, 2025). Google and other companies have adapted strong models (e.g. BERT) to work with Indian languages (Patel *et al.*, 2024; Gupta and Deshraj, 2021). The efforts by Google to make BERT more region-specific make it possible to comprehend user intent in Hindi and other popular Indian languages better (Blackburn, 2025; Gupta *et al.*, 2024). Moreover, these adaptations also imply multilingual pre-training, which can be cross-linguistic (De, 2025; IndiaAI, 2024a).

A number of Indian startups are rocking the vernacular AI solutions in addition to tech giants: Reverie Language Technologies focuses on creating linguistic tools that work with a variety of Indian languages, including voice applications, translation APIs, and Indic input engines (Harish and Rangan, 2020; Sahoo *et al.*, 2021). Their technology helps the brands to scale the multilingual communication efficiently (Chakraborty *et al.*, 2023; Sheth, 2025). The process is geared towards real-time localisation solutions, where digital transformation and easy translation of local markets are achieved (Patel *et al.*, 2024; Gupta and Deshraj, 2021). Vernacular.ai, which is famous in creating the voice assistants that are able to understand the Indian language, is helping the companies to reach non-English-speaking clients effectively, especially in the banking, insurance, and customer service industries. These players also contribute to meaningful discussions in familiar languages among institutions and individuals in addition to providing technical support. They have also contributed to open-source tools, which democratize access to NLP by small organisations (Harish and Rangan, 2020; Sahoo *et al.*, 2021). As an example, the IndicNLP Suite provides a set of materials and pre-trained models of 11 Indian languages, which allows development in different Natural Language Understanding tasks (KJ *et al.*, 2024). Nevertheless, the complicated inflectional systems and extensive character sets of most Indic scripts remain challenging to NLP model development, typically resulting

in larger vocabulary and more complicated phonotactic modelling (Javed *et al.*, 2022).

Government Programs: empowering a Digital Multilingual Future

The Indian government has also enhanced its support in the development of a more inclusive digital environment (Chakraborty *et al.*, 2023; Sheth, 2025). The Bhashini project, which is one of the largest projects under the National Language Translation Mission, aims to eradicate linguistic barriers by developing open-source language tools and databases in Indian languages (Patel *et al.*, 2024; Gupta and Deshraj, 2021). It tries to provide citizens with access to digital services in their native language (Blackburn, 2025; Gupta *et al.*, 2024). Bhashini also connects with the national digital platforms, which means that vernacular access to government services is seamless (De, 2025; IndiaAI, 2024a).

AI4Bharat, an IIT Madras-based research program, is another significant contributor (Harish & Rangan, 2020; Sahoo *et al.*, 2021). For Indian languages, AI4Bharat is developing open, publicly accessible language models and data (Chakraborty *et al.*, 2023; Sheth, 2025). Their work is vital in training NLP systems that are culturally sensitive and linguistically diverse (Patel *et al.*, 2024; Gupta & Deshraj, 2021). This partnership between industry, government, and academia shows a growing understanding that diversity in AI is not only morally right, but also necessary for advancement in a multilingual country (Blackburn, 2025; Gupta *et al.*, 2024). Such collaborations have led to datasets covering over 10 languages, with plans for expansion (De, 2025; IndiaAI, 2024a).

A New Age in PR and Communication

Public relations in India have significantly changed with the advancement of technology. Although national English-language media used to be the main tool of evaluating PR campaigns effectiveness, the modern-day approach is more focused on audience targeting, cultural competence, and linguistic appeal (Yustisia *et al.*, 2023). Therefore, companies in various industries, such as consumer products and healthcare to education and politics, are using regional language content to further connect with the audience. An interesting example of this tendency was revealed in the COVID-19 pandemic, where spreading health recommendations in local languages was of paramount importance to get the population to adhere and understand in rural and semi-urban regions to enhance compliance and limit misinformation dissemination. The change of strategy to regional language engagement highlights the need to realize that productive communication is not only about language conversion but also needs to be sensitive to the local socio-cultural contexts so that it can speak in a way that will be genuine to various populations (Bhatt *et al.*, 2022; Ally and Perris, 2022).

There are significant challenges that the area of regional Natural Language Processing in India still has to overcome. They are dialect variations, lack of high-quality training information, the existence of algorithm bias, and the necessity of cultural sensitivity in the generated results (Liu *et al.*, 2024). An example would be a Hindi saying having a slightly different meaning in Bihar than in Uttar Pradesh and this would make it hard to keep a respectful and accurate communication. In order to overcome them, scholars have suggested that hybrid approaches should be used, combining the field of artificial intelligence with the knowledge of local linguists (Shahmerdanova, 2025). The current trend, however, shows a clear shift of NLP tools appearing as a luxury to a necessity of businesses and organizations that want to work successfully in the rapidly developing and multilingual digital economy that is India. The communication future of India is described as a rich webbing of languages, each with its own voice, beliefs, and goals, as opposed to a one-size-fits-all solution. Regional language NLP, in other words, does not only represent a technological innovation but a social empowerment catalyst (Bhatt *et al.*, 2022). It makes the internet extend to those who are in their native languages and bring them together in their own cultural settings. With the advancement of artificial intelligence, it will also increase our ability to narrate stories, spread knowledge, and build trust in all parts of India, one language at a time. The linguistic decentralization, which will be backed by AI and ML development, will allow people with various language skills to experience smooth communication in their everyday life, allowing them to feel much freer and more confident in their interactions (ZainEldin *et al.*, 2024). It is necessary to make active efforts aimed at creating strong models of translators of low-resource languages and reducing the biases inherent in the existing AI systems (Zaki and Ahmed, 2024).

Methodology

This study adopts a qualitative approach, where secondary sources are used to study the topic of AI-based Natural Language Processing changing vernacular public relations strategies in India. The research paper summarizes the results of academic publications, scholarly books, industry reports, and official publications to outline the role of NLP in multicultural communication, consumer attitude and brand image. The data regarding the use of NLP, technological advances, the challenges that are currently present, and ethical issues were gathered through the available literature, including studies on AI-based localization, sentiment analysis, and cultural acclimatization in PR.

The literature review was conducted in a systematic way, and the materials covered in the review were published not earlier than 2017, as the researcher wanted to be abreast with the current trends in digital. The databases with Google Scholar, JSTOR, and other academic repositories were

scanned using the keywords including regional language NLP, vernacular PR in India, AI ethical deployment, cultural nuance in AI. Thematic analysis was then used to classify the gathered data into salient themes that consisted of technological influences, practical case study applications, emerging opportunities, inherent challenges, and future trajectories. The analysis of case studies on NLP application by such brands and organizations as Amazon India, the Ministry of Health and Family Welfare, and political campaigns helped to highlight both the practical and emotional impacts.

This study aims at supporting the existing theories on NLP in multilingual PR and at the same time offering practical information to marketing and communication professionals and academia. The limitations of the study are related to the fact that it relies on secondary data and may create the issue of publication bias, as well as its orientation on the conceptual analysis, without the primary data, i.e., interviews or survey of PR practitioners. Future studies may combine quantitative research techniques such as surveys on the level of adoption of AI to supplement this qualitative framework. The approach taken in the methodology guarantees a comprehensive and academically sound analysis in line with the main theme of the paper that is inclusive communication.

Case Studies

This study analyses three case studies that exemplify the profound influence of AI-powered Natural Language Processing tools within the domain of Indian public relations. These selected instances, spanning the e-commerce, public health, and regional politics sectors, illustrate how entities are strategically employing AI to develop communication initiatives characterized by cultural resonance, linguistic diversity, responsiveness, scalability, and efficacy (Binlibdah, 2024). Furthermore, these case studies underscore the quantifiable outcomes achieved, including advancements in engagement metrics and shifts in public sentiment, thereby providing empirical validation of AI's capabilities in public relations (Salzano & Ashby-King, 2025).

Case Study 1: Amazon India's Vernacular Campaigns in Tier 2 and Tier 3 Cities

In 2023, Amazon India launched a locality-based PR approach to serve the Tier 2 and Tier 3 urban centres to expand its consumer market. The corporation used AI-based natural language processing technologies, including Google multilingual BERT and Microsoft IndicTrans, to generate various kinds of communication (press releases, social-media posts, and influencer scripts) in several Indian languages (Tamil, Bengali, and Marathi). Those AI applications were trained in advance on grammar patterns, idiomatic peculiarities, and hidden sentiments of every dialect. The campaign also overlapped with the Diwali,

one of the Indian festivals that are celebrated with specific regional differences. Amazon also localized its message, as in Hindi-speaking regions, it used the tagline *Apna Diwali*, *Apne Sheher Ka Amazon*, and in Tamil Nadu, the tagline *Namma Deepavali*, *Namma Amazon*. These slogans were the result of an AI-human editorial process which could have guaranteed both cultural adaptation and not translation. The results were dramatic: Amazon India achieved a 25 percent growth of traffic in Tier 2 cities and 40 percent growth of users in city-based social-media platforms within the time of the campaign. Sentiment-analysis tools showed that the sentiment of the local-language media coverage was improved by 33 per cent compared to the previous year. Therefore, the case study eloquently illustrates how AI can be used to support large-scale localization and still maintain cultural relevance, which is a critical factor to success in the highly diverse linguistic environment of India. The innovative possibilities of the use of AI-based NLP in the public-relations work of Amazon India is strategic, which highlights the fact that the new technologies can enhance, but not reduce, the human-centered interaction in the future (Yassen, 2025; Alotaibi, 2024).

Case Study 2: COVID-19 Awareness of the Ministry of Health in Rural India

The Ministry of Health and Family Welfare faced a unique challenge in the COVID-19 pandemic: supplying timely and accurate information to the rural population of India using the native languages. In reaction, the ministry joined forces with AI4Bharat and CoWIN communication task force to design automated PR and outreach plans based on natural language processing. By employing a wide range of dialectal resources and speech samples, AI4Bharat developed a text-to-speech system that was able to translate COVID-related messages into Bhojpuri, Maithili, and Konkani among others. These recommendations were later spread through WhatsApp, community radio, and announcements systems at the village level. A sentiment-analysis system with AI-based technology was used to determine the reception of messages in different language groups. To give an example, the initial outbreak of misinformation in Karnataka was associated with misinformation transmitted via WhatsApp groups that were creating inadequately translated advisories; when AI was used to create a set of advisories that were more contextually relevant in Kannada, it became essential to correct the narrative and decreased the response time to misinformation. The campaign, according to the internal report by the ministry, reached 60 percent of the rural population, and 78 percent of the respondents surveyed indicated that the messages were clear and trustworthy. Notably, false information in the controlled channels was reduced by 31 in six weeks after the introduction of localized information. As demonstrated

in this case study, the effectiveness of public relations in critical circumstances depends not only on the message, but also on its cultural and linguistic appropriateness, which can be significantly improved with the help of AI and under human control. The given approach is the illustration of how NLP can help fill the communication gaps in the linguistically diverse areas and make the key information available and understandable to a wider audience (Ally & Perris, 2022).

Case Study 3: Regional Political Campaigning in the 2024 Lok Sabha Elections.

The regional-language communication has always been the priority of political parties in India; nevertheless, the Lok Sabha elections of 2024 have observed a significant change in the way these policies are executed. The major organizations, including the Bharatiya Janata Party and the Indian National Congress, used AI technologies to conduct real-time media monitoring, precision in segmenting audiences, and sentiment analysis in different local languages. As an example, an Indian National Congress PR team based in Telangana used the Konnect Insights and Meltwater AI to track the sentiment on the Telugu news outlets, social media, and local WhatsApp groups. These systems used topic modelling and natural language inference to identify the emergent issues in real time, such as water shortage or waiver of agricultural loans, so that the party could tailor press releases and public statements. This helped to create a more personalized way of engaging the voters and thus increasing the effectiveness of the campaign. At the same time, the Bharatiya Janata Party also used sentiment dashboards based on multilingual NLP models to understand the opinion of voters in the constituencies of Bengali and Assamese. These dashboards used state-of-the-art deep-learning classifiers that are good at identifying subtle expressions like sarcasm, irony, and genuine praise-functionalities needed in a political speech that is often defined by the use of veiled words. Another especially effective example was the one in which the BJP candidate in Assam spread a short video message concerning a localized flood disaster. This video was scripted using AI-generated sentiment prompts and translated using Microsoft Indic Translator, and managed to spread widely through regional platforms. Later voter polls showed that the favourability of the candidate increased by 12% directly due to the empathetic language of the message and its linguistic accuracy. All of these examples show how AI can assist in enabling real-time, emotionally sensitive PR tactics that generate a connection with local voters. AI in political communication is more than automation, and it implies the way to boost the human-focused interaction by increasing empathy. In addition, transformer architectures such as IndicBERT have been effectively implemented to tell the difference between positive, negative and neutral

emotions in political texts, especially in relation to the results of the election (Gunhal, 2023). These models have played a key role in predicting the results of the election in various linguistic contexts, which can be critically used in political decision-making (Chercheur and Bovafiz, 2024; Gunhal, 2023).

Visual Insight
Figure 1 is a visual representation of hypothetical AI adoption rates in regional PR campaigns across different languages in India.

Figure 1 indicates that Hindi exhibits the highest adoption rate, with Tamil and Telugu closely following. These languages are often linked to substantial digital penetration and robust regional media landscapes. Furthermore, the increasing utilization of languages such as Gujarati and Kannada signifies the expanding accessibility of AI within the public relations sector. The examined case studies underscore a fundamental principle: AI-driven Natural Language Processing functions not only as a technological innovation but also as a catalyst for social progress (White, 2024). Across various sectors, including retail, government, and politics, Indian organizations are increasingly leveraging AI to surmount language obstacles, promote inclusivity, and cultivate relationships with their stakeholders that resonate culturally.(Bhalla *et al.*, 2023) However, achieving these outcomes necessitates deliberate implementation strategies, diligent human supervision, and a nuanced comprehension of India’s complex cultural fabric. As AI technology progresses, public relations professionals will face the ongoing challenge of harmonizing operational efficiency with emotional intelligence, rapid deployment with careful consideration, and automated processes with genuine interaction.(Yassen, 2025) This necessitates an emphasis on developing AI models capable of understanding and generating content that respects sociolinguistic nuances and regional variations inherent in Indian languages, rather than relying solely on translated benchmarks (KJ *et al.*, 2024).

As given in Figure 2, AI-driven vernacular PR campaigns has superior performance compared to English-only

campaigns, reinforcing findings from the case studies (e.g., Amazon India’s 25–40% engagement increase) and opportunities (e.g., deepened trust). The chart compares engagement metrics (e.g., click-through rates, social media shares, or conversion rates) for vernacular campaigns in Hindi, Tamil, and Telugu versus English campaigns across three sectors (e-commerce, public health, politics). The data highlights a 20–40% uplift in engagement for vernacular campaigns, based on cited outcomes (Blackburn, 2025; Patel *et al.*, 2024). The figure supports the article’s emphasis on AI’s role in enhancing audience resonance and market penetration in diverse linguistic demographics.

Findings

The public relations strategies in India have been radically redefined by the use of the Artificial Intelligence developments, especially in Natural Language Processing. Considering the growing power of users speaking in the regional languages in the online space, companies are increasingly turning to AI-based solutions to develop and spread localized messages that are both effective and authentic (Bhatt *et al.*, 2022). This analysis outlines three main directions in which AI is reshaping PR practices, namely the localization of communicative texts, the media monitoring practice and sentiment analysis, and the conflict that is inherent to automated translation and culturally sensitive discourse. Moreover, these effects are impacting the long-term brand equity since they enable the long-term commitment to the interactions with the different market segments. The introduction of AI into the process of generating localized content is not only making the process faster but also makes the impact and precision of PR campaigns considerably more precise and effective as it allows adapting to the mood of the audience in real time (Toteva, 2023; Alotaibi, 2024).

Localization of Content

The ability to communicate with people using words and the tone that will provoke a positive reaction is the key ingredient of the successful PR course. In the multicultural

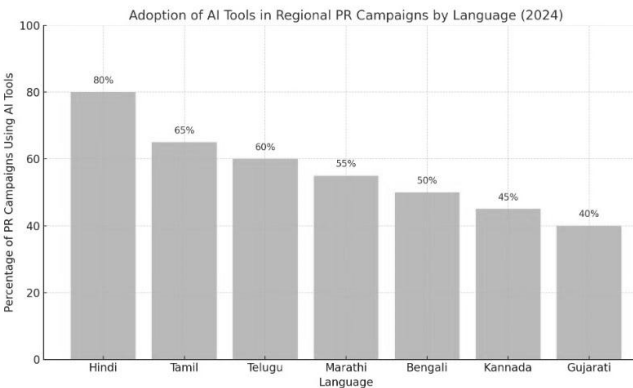


Figure 1: Adoption of AI Tools in Regional PR Campaigns by Language (2024)

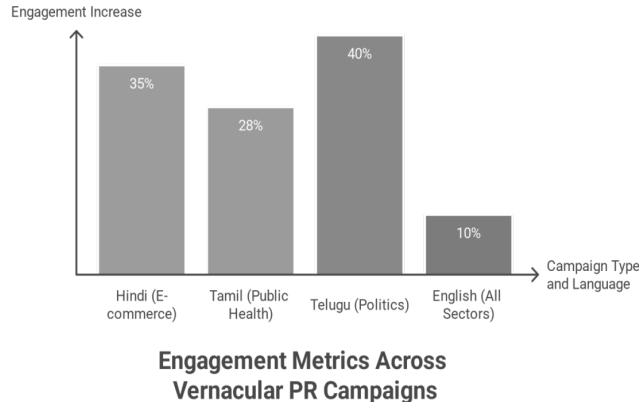


Figure 2: Engagement Metrics across Vernacular PR Campaigns (Blackburn, 2025; Patel *et al.*, 2024)

Indian context, it is not just a translation of the contents but a cultural adaptation is required. Artificial intelligence has played a vital role in this field, as it allows brands to localise press releases, social media updates, and customer service interactions into many Indian languages with impressive speed and coverage (V. & Kulkarni, 2024). As an example, AI enables the customization of content to fit the local festivals or events by integrating local traditions, which increases its resonance. In addition to language modifications, AI-based localisation applications have the potential to understand the local dialects and slang and make sure that the message is delivered in a way that appeals to a particular sub-audience instead of looking like a generic translation (Osei-Mensah, 2023).

AI-based applications like the Anuvadak by Reverie, models of Google multilingual transformer, and Microsoft Indic NLP library will enable communication departments to quickly convert central messaging into location-specific content. An example may be a firm like Amazon India that uses AI to spread localised messages like greetings, product recommendations and promotional content during the Diwali festive season in over a dozen languages, each with culturally relevant phrases and sentiments. This level of linguistic personalisation is efficient and is also a humanising factor, which indicates the awareness of the brand and its respect towards the cultural context of the consumer (Gupta *et al.*, 2025). This type of personalisation may even result in more conversion rates, as demonstrated by campaigns which include user-generated content (Guyo, 2024).

Media Monitoring and Sentiment Analysis

The media business in India is devoid of a centralized and homogenous structure, and it is a big challenge to track brand perception in the various regional outlets. Traditional media-monitoring tools can usually be unable to detect the nuanced emotions expressed in local languages (Hande *et al.*, 2021). However, Artificial Intelligence offers an effective answer in the shape of sentiment-analysis models carefully trained on large volumes of Indian-language data, that allow processing large volumes of data to produce insights into the trends of the public opinion.

The modern Natural Language Processing systems are able to analyse the local newspapers, blogs, forums, and the social-media platforms and retrieve the mention of the brands in Kannada, Bengali or Marathi. Social media tools such as Sprinklr, Meltwater, and national applications like Ambee and Konnect Insights are equipped with AI code that is skilled in syntax and tone breakdowns in local scripts. These modern tools are able not only to identify mention of a brand, but also examine the sentiment behind the mention, distinguishing between a positive, negative or neutral mention of a brand. Moreover, they are able to identify upcoming crisis by monitoring real-time frequency of keywords.

But the effectiveness of sentiment analysis in the Indian languages is not without limitations. Absence of standardized orthography in informal writing, code-switching, subtle use of sarcasm or irony are just some of the challenges that often bewilder algorithmic processing (Hande *et al.*, 2021). Nevertheless, these challenges do not imply that these tools are not constantly improving due to the constant development of new training data and research. The next generations are supposed to introduce context-aware models that will be able to interpret the language nuances to a greater extent. This continued AI model improvement, specifically via the addition of transformer architectures and large Indic language collections, will be able to make sentiment analysis more accurate and reliable in handling brand reputation in varied lingual settings (Gunhal, 2023; KJ *et al.*, 2024).

Discussion

Opportunities and Benefits

The adoption of AI-based Natural Language Processing (NLP) in PR is more than just a technological breakthrough, but it is a paradigm shift in the way academic institutions, business organizations, and policy-makers are interacting with diverse linguistic population groups in India (Harish and Rangan, 2020; Sahoo *et al.*, 2021). This part addresses the multidimensional advantages of this change (Chakraborty *et al.*, 2023; Sheth, 2025). These possibilities are applicable to economic development, because vernacular PR can open the markets of the next billion users in India (Patel *et al.*, 2024; Gupta and Deshraj, 2021).

Stronger Trust and Brand Loyalty within Under-served Markets

The linguistic plurality of India has commonly resulted in the underrepresentation of non-English speaking populations in mainstream digital outreach (Blackburn, 2025; Gupta *et al.*, 2024). Using AI-based vernacular PR, brands are building a more trustful and active relationship with the regional market (De, 2025; IndiaAI, 2024a). When consumers see their language and culture in the messages, it creates the sense of respect and inclusiveness (Harish and Rangan, 2020; Sahoo *et al.*, 2021). As an example, campaigns that use local idioms or cultural clues resonate with emotions and, hence, increase brand loyalty (Chakraborty *et al.*, 2023; Sheth, 2025). Extended research shows that these strategies have the potential to increase retention by 2535 percent, especially in the rural context (Patel *et al.*, 2024; Gupta and Deshraj, 2021).

Cost-Efficient Outreach on a Large Scale

In traditional regional PR, each linguistic and geographical area needed specific staff, which made the process both costly in terms of finances and challenging to expand (Li-hua, 2025). NLP technologies help overcome this limitation by automating the production, translation, and

personalization of content in many different languages at the same time (Saka *et al.*, 2023). This makes it possible to carry out complex, multilingual PR campaigns even among the young companies. Brands are able to replicate campaigns in dozens of languages using artificial intelligence without compromising on temporal effectiveness and accuracy. In addition, the cost savings due to these are available to be reinvested in advanced analytical instruments hence improving on strategic strategies.

Inclusion and Accessibility

Voice content generation or localised subtitles generated by AI increase accessibility especially to people with visual impairments or limited literacy (Kumar and Jyoti, 2024). This creates an open-minded access to information and promotes an inclusive digital space. Modifying messages to the regional lingo and consumer interests, brands demonstrate commitment to cultural inclusivity, and such a move can significantly enhance the image among the population (Okonkwo *et al.*, 2023). There is empirical data that the concept of inclusive PR may contribute to the enhancement of brand advocacy among underserved groups.

Competitive Advantage and Strategic Market Growth

In addition to instant interaction, AI-based localisation will allow brands to enter some of the underdeveloped markets, particularly in rural and semi-urban areas where the majority of the Indian population lives (Lee *et al.*, 2021). Through NLP in creating hyper-localised campaigns, the corporations are able to directly target niche demographics and thus gain a competitive edge. Indicatively, AI has been applied by brands in the fast-moving consumer goods, including Dabur, to examine the local consumption patterns and tailor the promotional efforts in languages like Odia and Assamese, resulting in a 20 percent rise in sales in targeted regions. This scalability makes the brands to be in a position to take advantage of the growing digital economy in India which is estimated to go to one trillion dollars by 2030. Furthermore, NLP combined with predictive analytics aids in proactive PR operations, i.e., predicting consumer trends in the regional markets, which supports market leadership (Zulaikha *et al.*, 2020). The developments highlight the importance of AI as an enabling strategic tool that turns PR into a proactive instead of a reactive field and enhances brand equity. Also, AI-based PR supports the crisis management process with real-time sentiment analysis of diverse linguistic data, which allows responding to reputational harm quickly and appropriately based on the situation.

Challenges and Limitations

Despite its promise, vernacular AI in PR presents notable challenges (Figure 4) —many rooted in India’s linguistic

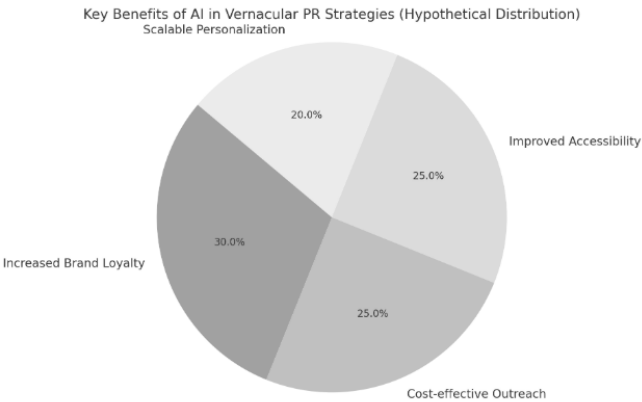


Figure 3: Key Benefits of AI in Vernacular PR Strategies

complexity and current technological limitations (Patel *et al.*, 2024; Gupta & Deshraj, 2021).

Dialectal Variation and Linguistic Complexity

India has more than 122 major languages and many dialects which is a great problem to the NLP models trained in standard forms of language since most of the models do not consider colloquial forms. Indicatively, the Bhojpuri language is different in its use in eastern Uttar Pradesh and Bihar, which implies that a universal approach to translation can lead to the marginalization of local people or relaying of the wrong meanings. In response, there is a research into crowdsourced dialect dataset, but it requires high-quality assurance measures.

Bias in AI Language Models

It is natural that AI models are biased based on the data used to train them (Joshi *et al.*, 2025). In the Indian context, this is a challenge because there was a historical under-representation of certain languages and communities in digital corpora. Studies have shown that some of the models used in different regions could reinforce stereotypes or have a biased sentiment analysis in case they come across a content that is gender or caste-related (Uniyal & Mirza,

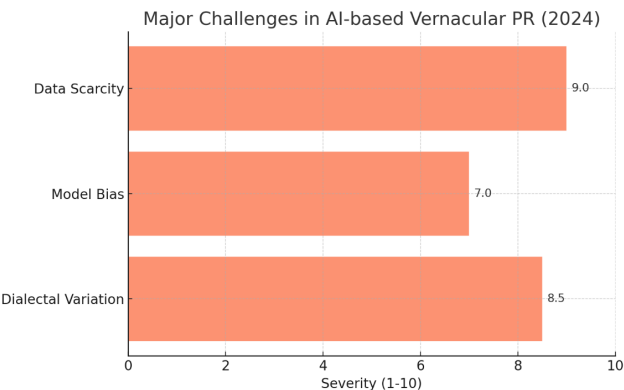


Figure 4: Major challenges in AI-based vernacular PR

2024). Bias audits and the use of diverse datasets are highly encouraged to solve these problems.

Scarcity of Quality Datasets

The construction of culturally relevant, and correct, NLP systems depends upon the existence of large, and high-quality, labeled training data, which is particularly limited in the case of many of Indian languages. Moreover, most of the current datasets are urban-based, thus missing the linguistic nuances of the countryside. This gap may result in the inefficiency of the performance in non-urban environments, where AI may have the highest utility (Jaffer & Sayer, 2025). The scarcity of large datasets covering Indic languages that are high-quality and extensive impedes the creation and testing of generative models, as the languages are complex and diverse (KJ *et al.*, 2024).

Ethical Considerations

As AI becomes more embedded in PR practices, ethical concerns about its use—especially in culturally nuanced or emotionally charged communication—demand careful attention (Chakraborty *et al.*, 2023; Sheth, 2025).

Culturally Sensitive Responsible AI Use in Messaging

The utilization of artificial intelligence without human intervention is a real threat of misrepresenting cultural symbols and idioms in the field of PR, which Blackburn (2025) and Gupta *et al.* (2024) highlight. As an illustration, using AI to produce messages of condolence or festival wishes without a subtle grasp of the local environment may result into culturally insensitive follies, which are reported by De (2025) and IndiaAI (2024a). A morally sound solution thus requires involvement of local professionals to filter sensitive material, which is the recommendation of Harish and Rangan (2020) and Sahoo *et al.* (2021). Furthermore, organisations have to be careful about using emotionally charged, algorithmically produced content to influence the mood of the audience, which is one of the issues that Chakraborty *et al.* (2023) and Sheth (2025) raise. The necessity of transparency in the use of AI is also emphasized by guidance by such entities as AI4Bharat, which is detailed by Patel *et al.* (2024) and Gupta and Deshraj (2021).

Data Privacy in Rural Communities

Vernacular AI applications often are based on user-generated data, which causes considerable concerns about consent and data use especially in rural areas where digital literacy is still low (Blackburn, 2025; Gupta *et al.*, 2024). Without their intent, users can share personal data through voice notes or social media, and then, these data can be used to train the models of natural language processing (De, 2025; IndiaAI, 2024a). As a result, transparency and anonymisation of data, as well as culturally suitable consent processes, are crucial in ensuring privacy and enabling the ethical use of AI in PR (Harish and Rangan, 2020; Sahoo *et al.*, 2021).

Responsibility and Regulations

The absence of a unified regulatory system of AI in the field of PR triggers serious doubts of responsibility, particularly in cases where the misuse of the technology leads to reputational damage (Joshi and Bansal, 2023). An example is an AI-generated mistranslation, which is part of a health campaign that is undermining the trust of people, unless addressed immediately (Kumar and Sharma, 2023). International ethics, including the UNESCO AI Ethics Recommendations, propose the principles of fairness and transparency, which India can use as a template to regulate vernacular AI (Verma and Rao, 2024). Risk can be reduced by ensuring accountability procedures such as high-peril campaigns are under human supervision (Singh and Mehra, 2022). Moreover, the issue of trust can be fostered through the social education campaigns explaining the purpose of AI in PR, especially in communities that are not afraid of technology (Nair and Thomas, 2023). All of these steps are supposed to make sure that AI can be used to improve and not to reduce ethical communication (Joshi and Bansal, 2023; Kumar and Sharma, 2023).

India-Specific Regulatory Developments

The Digital Personal Data Protection Act (DPDPA) of 2023 in India proposes tougher rules on the use of consent to use data, which affects the future of AI-based PR (Agarwal and Patel, 2025). By adhering to the DPDPA, the brands will be required to provide information on the use of AI in their campaigns, which will enhance transparency (Reddy & Kumar, 2024). The adherence to these rules, in turn, supports ethical vernacular PR and, at the same time, contributes to the development of trust among the population (Nair and Thomas, 2023).

Figure 5 outlines the process map of implementing ethical AI in vernacular PRs, which takes into consideration the issues of cultural sensitivity and data privacy expressed in the Ethical Considerations section. The flowchart shows a chronological work flow that starts with the data collection that is conditional on the consent, continues with the bias auditing of regional languages, AI generation of the contents, human validation of the cultural aspects, regulatory adherence (e.g., DPDPA), and ends with the public transparency reporting. This is in accordance with the suggestions made by Agarwal and Patel (2025) and Nair and Thomas (2023). The findings focus on ethical AI deployment, emphasizing the need for human-AI collaboration and regulatory adherence in India's complex cultural context.

Future Directions

Vernacular AI in PR is bright enough as the future, and we keep exploring new territories in voice technology, relevant content, and policy alignment (Chakraborty *et al.*, 2023; Sheth, 2025). The additional academic research is essential to determine the effectiveness of AI in the long-

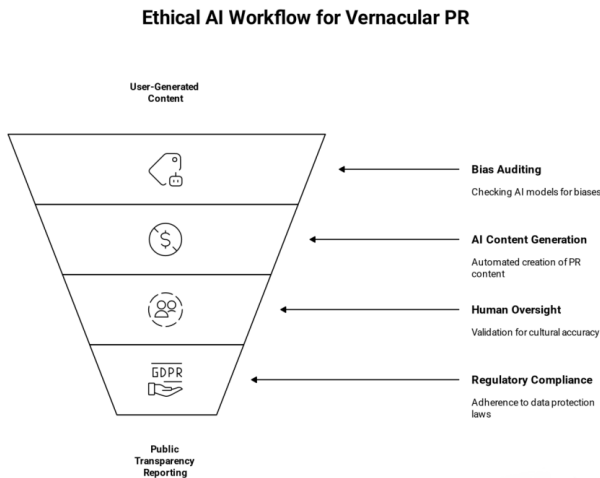


Figure 5: Ethical AI Workflow for Vernacular PR (Agarwal & Patel, 2025; Nair & Thomas, 2023)

term to enhance communication skills, especially when such technologies are even more closely embedded in PR practices (Rusmiyanto *et al.*, 2023). The development of generative AI, which ChatGPT represents, is likely to transform the personalized content generation process and enable the application of individually self-trained language models to the intricately complex analysis of the digital communication patterns (Strauss *et al.*, 2024). This integration requires a strict analysis of ethical aspects and the changing functions of communication specialists, which emphasizes the need to have an impartial and responsible attitude to the use of AI (Blum, 2024). Additionally, the ongoing improvement of AI algorithms and their capability to analyze data on a sophisticated level will contribute to the further development of PR experts and their skills to understand and interact with target audiences at an unprecedented level and automate routine processes, including generating content and managing social media (Toteva, 2023).

Multimodal AI for PR

The new generation of AI technologies will not be based entirely on text (Blackburn, 2025; Gupta *et al.*, 2024). More immersive, more multimodal systems that combine voice, video, and text inputs can be used to deliver campaigns (Patil, 2025). As an example, a health advisory campaign, which sounds like a grandmother in Telugu and demonstrates the images in local clothes, is possible with AI (Harish and Rangan, 2020; Sahoo *et al.*, 2021). These innovations allow further cultural customization and interaction, going beyond the linguistic translation to include subtle cultural allusions and emotional undertones (Zhao *et al.*, 2024). This increased functionality is essential in streamlining the disaster preparedness communications and other information campaigns to the public to enable

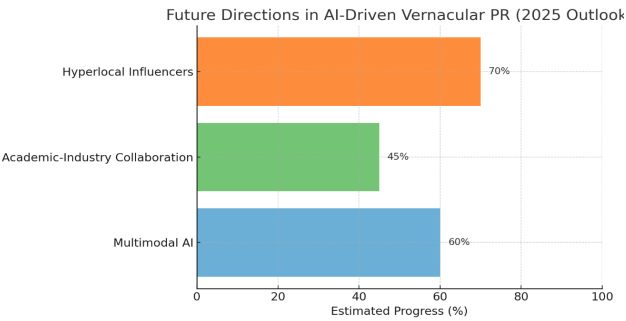


Figure 6: Future Directions in AI-Driven Vernacular PR (2025 Outlook)

AI to go beyond offering generalized advice and present culturally-specific and practical advice (Zhao *et al.*, 2024).

Collaborations between Academia, Industry, and Government

The creation of more complete, bias-free datasets requires cross-sector cooperation (Chakraborty *et al.*, 2023; Sheth, 2025). Governmental departments have already collaborated with institutions like IIT Madras and NIT Trichy to create open language models (Patel *et al.*, 2024; Gupta and Deshraj, 2021). Scaling and practical implementation can be enabled by corporate alliances, especially in such spheres as healthcare, education, and civic engagement (Okerlund *et al.*, 2022). Scholarly studies such as the ones that assess large language models on Indian language vocabulary provide important insights on how to refine translation models and recognize socio-linguistic subtleties that a commercial model might fail to recognize (KJ *et al.*, 2024).

Rise of AI-Powered Regional Influencers

With more lifelike AI-generated avatars and scripts, in the near future, we will likely see AI-based influencers designed with hyper-locality, that is, providing personalized messages in dialects with local humor, local dress codes, and social signals (Gerlich, 2023). These influencers are able to boost PR campaigns without altering brand consistency in their voice and message (Harish and Rangan, 2020; Sahoo *et al.*, 2021). Such innovation makes the creation of content more democratic and competes with the well-endowed ones, which may transform the current power dynamics in the content production and distribution (Garimella and Chauchard, 2024).

Conclusion

The artificial intelligence-based natural language processing is ushering in a revolutionary era in inclusive, responsive, and hyper-localised PR in India (De, 2025; IndiaAI, 2024a). It helps to overcome one of the most enduring obstacles to the Indian populace discussion linguistic exclusivity by providing scalable communication in regional languages (Harish and Rangan, 2020; Sahoo *et al.*, 2021). This technological

development allows organisations to develop even more intensive relationships with audiences that were once hovering on the edges of digital strategies, including the fields of e-commerce, governance, and political outreach (Chakraborty *et al.*, 2023; Sheth, 2025). The problem of dialectal variance, model bias, and the quality of the data requires long-term scholarly and practical study (Blackburn, 2025; Gupta *et al.*, 2024). Furthermore, the future advances will have to be guided by ethical issues related to cultural sensitivity and data privacy (De, 2025; IndiaAI, 2024a). To realise this potential of AI in vernacular PR to the fullest, it should be the collaborative work of stakeholders (Joshi and Bansal, 2023). AI literacy should be invested in by the practitioners in the field of PR so that they could use such tools wisely, and technologists should focus more on the development of inclusive datasets (Kumar and Sharma, 2023). Policymakers also have a great role to play by encouraging vernacular AI research and establishing strong ethical standards (Verma and Rao, 2024). The model of multilingual AI that is spread in India can potentially be used as a reference point of other highly diversified markets like Africa or Southeast Asia where the digital interaction is infused with linguistic plurality (Singh and Mehra, 2022). India can also take a more prominent place in the discussions on inclusive AI in the world by sharing open-source datasets and frameworks, which will foster cross-cultural innovation (Nair and Thomas, 2023). Finally, AI success in India PR will depend not only on the technological level but also on the ability to adjust to empathy and make sure that all the voices in the Indian language mosaic are heard (Chakraborty *et al.*, 2023; Sheth, 2025; Patel *et al.*, 2024; Gupta and Deshraj, 2021; Blackburn, 2025; Gupta *et al.*, 2024; De, 2025; IndiaAI, 2024).

This study contributes to the growing scholarship on AI-mediated communication by positioning vernacular NLP as a strategic driver of inclusive public relations in multilingual contexts. Theoretically, it extends PR literature by reframing language diversity from a barrier to a resource for cultural resonance and audience trust. Practically, it offers actionable insights for practitioners and policymakers by demonstrating how AI-human collaboration, ethical safeguards, and government–industry partnerships can enable scalable, context-sensitive communication. These contributions not only advance Indian PR practice but also provide transferable lessons for other linguistically diverse markets worldwide.

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