

SITE and Its Lessons Beyond Technology: An Ethnographic Perspective on Development Communication

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The Satellite Instructional Television Experiment¹ (SITE) occupies a central place in the history of development communication in India and across the global South. Conceived at the intersection of postcolonial nation-building ambitions, international power competition over information and influence, and widespread optimism about the transformative potential of technology, SITE was envisioned as a pioneering attempt to deploy satellite communication for rural development. It was widely celebrated as a bold experiment in India that could overcome infrastructural constraints and deliver modern knowledge directly to dispersed rural populations.

Conventional evaluations of SITE, undertaken by planners, communication scholars, and policy institutions, have largely framed it as a landmark initiative in development communication. These assessments focused primarily on technological feasibility and programmatic effectiveness, measuring outcomes in terms of audience reach, message comprehension, recall, and behavioural change. Emphasis was placed on sector-specific impacts—particularly in agriculture, health, and education—where communication was expected to translate into measurable improvements in practices and outcomes.

While such evaluations generated substantial empirical data, they shared a common epistemological orientation. Communication was treated as a neutral and measurable input, whose effects could be isolated, quantified, and assessed against predefined developmental objectives. This approach prioritised questions of efficiency and impact while marginalising the social contexts within which communication was received and interpreted. As a result, little attention was paid to how televised messages entered everyday village life, interacted with existing social hierarchies, or reshaped relationships between rural audiences and state-controlled media institutions.

SITE is examined here not simply as a technical system or a vehicle for behavioural change, but as a socially embedded intervention whose meanings and effects emerged through everyday practices, interpretations, and interactions. This paper departs from the dominant evaluative paradigm by offering an anthropological re-examination of SITE – not merely as a technological initiative, but as a social and political process unfolding in village life.

The analysis is grounded in extended ethnographic fieldwork conducted in a SITE-participating village. Drawing on sustained village-level observation, it traces how SITE was encountered, discussed, negotiated, and contested in everyday settings. Rather than focusing only on intended or measurable outcomes, the paper foregrounds the unintended, uneven, and relational effects that emerged through local interpretations, interpersonal dynamics, and moments of conflict.

By situating SITE within lived social worlds, the paper argues that the experiment functioned not only as a medium of instruction but also as a site where power, expectation, and authority

were actively produced and contested. In doing so, it demonstrates that the significance of SITE cannot be fully understood through impact metrics alone. An anthropological perspective reveals how development communication initiatives acquire meaning through social processes, and how technological projects aimed at transformation may simultaneously generate new tensions, aspirations, and forms of political engagement at the village level. Let us examine it in its historical perspective.

SITE in the Context of the Technology–People Interface

SITE was unprecedented not only in scale but also in its communicative design. By deploying satellite television, the Indian state sought to bypass conventional intermediaries—extension personnel, local elites, and print-based channels—and address rural populations directly. Developmental messages on agriculture, health, family planning, education, and civic responsibility were transmitted into villages, often into spaces such as schools or panchayat buildings. These locations were not neutral; they already carried symbolic associations with state authority and public governance, lending the televised messages an added aura of legitimacy.

This mode of communication radically compressed time and space. Information that would otherwise have circulated slowly through bureaucratic hierarchies and interpersonal networks now appeared instantaneously, framed as authoritative knowledge accompanied by visual demonstration. For many villagers, the content of the broadcasts was inseparable from the medium itself. Few fully understood the technology, yet most recognised television as a powerful conduit of state knowledge. The screen functioned as a symbolic portal through which the government appeared to speak directly to its rural citizens.

From an anthropological perspective, SITE thus marked a reconfiguration of communicative authority. It did not merely introduce a new medium; it reordered existing hierarchies of credibility. Television, by virtue of its technical sophistication, centralised production, and association with national institutions, often came to be regarded as more reliable than local officials, teachers, or traditional leaders. This recalibration of trust would have significant social consequences as the experiment unfolded.

Yet SITE's significance lay not only in its technological novelty or institutional ambition. The experiment covered nearly 2,330 villages across six relatively underdeveloped states, in addition to 443 villages in Kheda district, Gujarat. More importantly, it introduced development communication to communities where over half of the viewers had never seen moving images, and more than one-third had never travelled by train. It represented a dramatic leap—from near absence of modern communication facilities to the sudden presence of sophisticated satellite-based television in everyday village life.

This vision was deeply shaped by Dr. Vikram Sarabhai, the architect of India's space programme, who imagined communication satellites not merely as instruments of scientific advancement but as tools for reaching the unreached. For Sarabhai, space technology combined with audiovisual media such as television could address concrete social problems and foster national development. SITE was the most ambitious realisation of this philosophy, translating abstract technological capability into an explicitly social project.

Far from being a mere technological demonstration, SITE was among the earliest large-scale experiments in mediated social change. It deliberately sought to influence knowledge, attitudes, and practices in rural communities with little or no prior exposure to mass media. Its innovation lay in integrating multiple elements—satellite infrastructure, locally produced and culturally adapted content, inter-institutional coordination, and village-level reception mechanisms—into a single national framework. SITE demonstrated that development communication does not arise from technology alone, but from the interaction of technological systems, institutional arrangements, content relevance, and community engagement.

The audacity of this intervention becomes clearer when situated within the communication landscape of early 1970s India. Television at the time lay far beyond the experiential horizon of most citizens. When I was first approached in late 1973 regarding the possibility of working with ISRO, I was unfamiliar even with the meaning of the acronym. By early 1974, following my induction into SITE, I encountered a steep learning curve, grappling with technical concepts such as antennas, ground segments, uplinks, and downlinks. Even among those directly involved, the proposition that television could function as an effective communication medium in remote rural settings appeared highly implausible.

This scepticism reflected television's extremely limited diffusion at the time. Before August 1975, broadcasting was confined to a few urban centres – Delhi, Mumbai, Amritsar, and Srinagar – while major metropolitan cities such as Calcutta and Madras (now Kolkata and Chennai) remained outside the television network altogether. Given this minimal and uneven penetration, doubts expressed by senior administrators in prospective SITE regions regarding the feasibility of rural television were both predictable and institutionally rational.

Field encounters during the preparatory phase revealed the depth of this disbelief. During a village selection survey conducted in mid-1974 in Muzaffarpur district, Bihar, a District Development Officer, in the course of an informal conversation, openly questioned the logic of installing television sets in villages when neither officials nor villagers had any prior exposure to the medium. His pointed query – under which Five-Year Plan such an initiative will be implemented – captured a wider administrative uncertainty. Despite assurances that satellite transmission would commence within months, such doubts persisted well into the preparatory phase.

These reactions were not isolated. They reflected a broader institutional mindset across many regions that would eventually become part of SITE from 1 August 1975. Viewed from the present, shaped by the ubiquity of digital and networked media, it is difficult to fully grasp the scale of SITE's intervention. The experiment introduced satellite-based development communication into rural communities that had virtually no prior encounter with modern mass media. It was precisely this unprecedented leap – anchored in technological innovation and guided by a clearly articulated social vision – that established SITE as a defining moment in India's communication and development trajectory.

The novelty and uneven diffusion of television continued well beyond the SITE period. An episode from early 1979 illustrates this vividly. When ISRO's Space Applications Centre

planned a direct satellite transmission from Gangtok, Sikkim, a Transportable Remote Area Communication Terminal (TRACT) was deployed to receive the Republic Day broadcast from Delhi and to uplink local cultural programmes for national telecast. The terminal, roughly the size of a bus with a mounted antenna, was stationed in the cantonment area near the helipad for logistical and security reasons.

During this exercise, the Director General of Doordarshan, Shri P. V. Krishnamurthy, invited me to accompany him to meetings with senior officials in Sikkim. In a meeting with the Governor, Shri B. B. Lal expressed a desire to visit the transmission site. When informed of the logistical complications involved, he remarked that neither he nor his family had ever seen a television programme. Despite the challenges, arrangements were eventually made for the Governor and his family to view the broadcast.

This episode serves as a powerful reminder that even at the highest administrative levels, television remained unfamiliar in several regions of India as late as the end of the 1970s. It underscores the broader communication environment within which SITE was conceived and implemented—one marked by profound technological novelty, uneven access, and extraordinary expectations. SITE thus stands as an early and instructive example of how advanced technologies, when purposively deployed and socially embedded, can extend communication to populations long considered beyond the reach of modern media systems.

Mandate, Objectives, and the People-Centred Logic of SITE

The social orientation of the Satellite Instructional Television Experiment (SITE) was embedded from the outset in its institutional mandate, programme architecture, and evaluation design. The bilateral agreement between the National Aeronautics and Space Administration (NASA) and the Government of India, implemented through the Indian Space Research Organisation (ISRO) between August 1975 and July 1976 using the Applications Technology Satellite-6 (ATS-6), reflected a shared commitment to acquiring practical experience in direct-broadcast satellite technology (NASA–Government of India Agreement, 1974). Within this framework, SITE operated under a dual mandate shaped by converging institutional priorities.

From NASA's perspective, SITE functioned as a large-scale field laboratory to validate emerging communication satellite technologies and to generate transferable knowledge for development-oriented broadcasting (NASA, 1976). For ISRO and the Government of India, the experiment was conceived as a strategic learning exercise aimed at building indigenous capability in satellite and ground infrastructure, programme production, inter-institutional coordination, and system management (ISRO, 1975). This technological learning was explicitly tied to socially relevant communication for rural populations, reflecting Vikram Sarabhai's developmental vision of space applications (Sarabhai, 1969).

Conceived during a period of optimism about the developmental potential of science and communication, SITE constituted the world's largest techno-social experiment of its time. It carried an explicitly people-centred mandate to extend communication to geographically dispersed and media-deprived rural communities, addressing the "last mile" of development communication (ISRO, 1975). Satellite-based instructional television was envisaged as a

means of overcoming infrastructural constraints and informational asymmetries, and operational experience from SITE later informed the INSAT-based national television system (NASA, 1977).

From the Indian perspective, success was measured not only in technological terms but by resonance with rural audiences and engagement with everyday social realities. Empirically, SITE demonstrated the feasibility of delivering educational and developmental content simultaneously to remote regions (Agrawal, 1985; Sinha, 1989). More importantly, it underscored that effective development communication must be grounded in people's informational needs, cultural contexts, and institutional environments. SITE thus advanced technological and institutional capacity while remaining anchored in the social worlds it sought to influence.

This orientation gave SITE an explicitly people-centred developmental mandate. The experiment sought to extend communication to geographically dispersed and media-deprived rural communities, addressing what planners described as the “last mile” of development communication (ISRO, 1975). Satellite-based instructional television was envisaged as a mass medium capable of overcoming infrastructural constraints and informational asymmetries, thereby accelerating rural development processes. NASA documentation later acknowledged that the operational experience gained through SITE directly informed the conceptualisation and deployment of India's subsequent national satellite system, particularly the INSAT-based television network (NASA, 1977). Yet, from the Indian perspective, the experiment's success was to be judged not only by technological feasibility but by its resonance with rural audiences and its engagement with everyday social realities.

Social and Developmental Objectives

At the core of SITE lay a clearly articulated social objective: to educate rural communities and stimulate social change in priority areas such as family planning, health and hygiene, nutrition, improved agricultural practices, education, and national integration. SITE was explicitly conceived not merely as a technological trial but as an intervention in development communication, designed to address persistent informational and educational gaps experienced by rural populations.

This people-centred logic shaped the structure of SITE programming. The experiment included a substantial educational component through a 1.5-hour morning transmission (10:00–11:30), aimed primarily at primary school children and teachers. School-oriented programmes, each approximately 22½ minutes in duration, were produced in four regional languages—Hindi, Kannada, Oriya, and Telugu—and telecast on all school days for children aged 5–12 (Grades I–V). These programmes were intended to supplement classroom teaching, support teachers with limited training or resources, and make learning more engaging through audiovisual methods.

The principal thrust of SITE's development communication strategy, however, lay in the 2.5-hour evening transmission (18:00–20:30), designed for adults and the wider village community. This slot was divided among major Indian languages to ensure linguistic accessibility and cultural relevance. Each evening broadcast included a national news

segment from Delhi, followed by regionally produced programmes addressing locally salient issues. These programmes were carefully designed to speak to villagers' everyday concerns, drawing on familiar social contexts while introducing new ideas and practices.

All transmissions were received at community television sets installed in participating villages. The underlying assumption was not that information alone would automatically produce change, but that television – if socially grounded, linguistically accessible, and institutionally supported – could become a powerful medium for collective learning, discussion, and reflection within village settings.

Rationale for Social Impact Evaluation

The centrality of people's experience to SITE was most clearly reflected in its unusually rigorous social impact evaluation framework. Evaluation was not treated as an afterthought; it was a formal requirement embedded in the NASA–ISRO agreement, which called for an “objective and quantitative social evaluation plan” whose findings would be relevant for other developing countries considering direct satellite broadcasting. As a result, social evaluation became integral to SITE's design, execution, and policy relevance.

Because SITE involved direct transmission of instructional television into rural communities, policymakers required systematic evidence on how villagers received, understood, used, and responded to the programmes. Evaluation was expected to address not only exposure and comprehension, but also interpretation, discussion, utilisation, and the extent to which televised information interacted with existing social practices and institutional structures. Such evidence was critical for assessing whether satellite-based communication could meaningfully contribute to development and whether it could be scaled up through a national system such as INSAT.

To coordinate this effort, the Government of India constituted the National Satellite Communications Committee, comprising representatives from ISRO and the Ministries of Information and Broadcasting, Education, Health, Agriculture, and Family Planning. Acting on the Committee's recommendations, a Social Research Group was established at the Space Applications Centre (SAC), Ahmedabad, the nodal agency for SITE. This group was responsible for designing and overseeing a comprehensive, multi-method evaluation strategy.

People-Centred Evaluation Design

The evaluation framework was explicitly multi-layered, reflecting an understanding that social impact could not be captured through a single method or indicator. It included large-scale surveys, process monitoring, utilisation studies, educational assessments, and in-depth anthropological research. Governments, international agencies, and academic institutions viewed this evaluation not as peripheral but as central to SITE's legitimacy and long-term significance.

One core component was a large-scale longitudinal survey covering approximately 2,339 SITE villages. Data were collected at three points: before SITE (T-0), midway through the experiment (T-1), and after its conclusion (T-2). Wherever possible, the same respondents were interviewed at all three stages to assess changes attributable to SITE exposure, despite

inevitable attrition due to migration and other factors (Agrawal, Doshi, Jesudasan, Verma 1977). This survey provided quantitative measures of exposure, comprehension, attitudes, and reported behavioural change.

Another evaluation component – the utilisation study – focused explicitly on people’s capacity to act on information. Villages were divided into three categories: those not exposed to SITE, those exposed to SITE alone, and those exposed to SITE along with an on-ground facilitator who helped villagers access institutional support. Using a Solomon four-group experimental design, the study assessed whether information combined with facilitation produced greater developmental outcomes than information alone (Bhatia and Chauhan, 1977).

The educational broadcasts were evaluated independently by the National Council of Educational Research and Training (NCERT), which assessed learning outcomes among primary school children and the effectiveness of teacher training programmes (Shukla and Kumar, 1977; Shukla, Singh, and Batra, 1977).

Recognising the limits of survey-based measurement, the Social Research Group introduced an innovative qualitative component – the Holistic Study – drawing on anthropological research traditions. For the first time in India, trained anthropologists were deployed for extended fieldwork in selected SITE villages for a total of 18 months: three months before SITE broadcasts began, the full twelve months of transmission, and three months after the experiment ended.

During the pre-SITE phase, anthropologists documented villagers’ socio-cultural contexts, information needs, expectations, and apprehensions regarding television. These findings were actively used by programme producers to shape content that was locally meaningful and socially grounded (Agrawal, 1985; Sinha, 1989). The post-SITE phase examined how changes initiated during the broadcasts were sustained, modified, or abandoned once transmissions ceased.

Several academic institutions participated in SITE’s evaluation, including the Department of Communication, Bangalore University, and the A. N. Sinha Institute of Social Studies, Patna, which was responsible for anthropological fieldwork in Bihar and Rajasthan. Of the nine anthropologists initially engaged, only two remained in the field for the entire 18-month period due to personal and logistical constraints. The author was one of these two.

Taken together, SITE’s mandate, objectives, programme design, and evaluation framework reveal a rare attempt to place people – not technology – at the centre of a large-scale communication experiment. Technology was important, but it was consistently treated as a means rather than an end. The true ambition of SITE lay in understanding how rural communities encountered, interpreted, negotiated, and acted upon mediated information, and how development communication could be reshaped by grounding it in lived social realities.

Holistic Study - Methodology and Fieldwork Reflexivity

Fieldwork was carried out over eighteen months, spanning three phases: a three-month pre-SITE period to understand the communication system in the village and people’s perception

about the new communication technology, the full twelve months of satellite transmission to understand the process of change in information system and to capture the changes triggered by the new communication coming directly from New Delhi, and a three-month post-SITE phase to see the continuity of change brought about even after SITE was over. This longitudinal design made it possible to observe not only initial reactions to television but also the gradual formation of expectations, reinterpretations, and longer-term social consequences—processes largely invisible to short-term impact evaluations.

The research involved a prolonged stay in SITE villages and relied primarily on participant observation, supplemented by informal conversations and semi-structured interviews with a diverse range of actors, including landless labourers, farmers, teachers, village leaders, women viewers, youth, and local officials. Observation extended beyond organised viewing sessions to everyday spaces such as fields, tea stalls, schools, and administrative offices, where televised messages were discussed, contested, and translated into local terms. This approach repositioned technology from a neutral delivery mechanism to a catalyst within ongoing social relations.

Reflexivity was integral to this ethnographic method. Despite efforts to present myself as a long-term resident rather than an authority figure, villagers frequently perceived me as an official associated with the ‘television department’ or the state, a perception reinforced by official correspondence from the Space Applications Centre (SAC–ISRO) marked “On Government of India Service (Sinha 1985).” Rather than treating this misrecognition as methodological bias, the study treated it as analytically productive, revealing how SITE itself was experienced as an extension of the state information system mediated through technology, institutions, and persons.

Thus, by deploying ethnography as a mode of technology research, this study departed from dominant evaluation frameworks centred on reach, recall, and behavioural change. It demonstrated that the social life of communication technology can only be understood by examining how people encounter, interpret, and negotiate it within their everyday worlds.

SITE: Implementation Obstacles and Challenges

SITE was implemented under exceptionally challenging political and social conditions. From my perspective, the experiment did not unfold under smooth or predictable circumstances. I witnessed at close quarters the manner in which SITE had to be executed within an unusually volatile political environment.

In Bihar, this period was marked by widespread unrest associated with the Nav Nirman movement, also referred to as Sampoorna Kranti, led by Shri Jayaprakash Narayan. This was accompanied by the nationwide railway strike of May 1974 and the bomb blast in Samastipur on 2 January 1975, which resulted in the assassination of the then Union Railway Minister, Shri Lalit Narayan Mishra. Together, these events created an atmosphere of political instability and heightened public suspicion towards government-led initiatives.

The Nav Nirman movement, driven by popular dissatisfaction with the government’s handling of public grievances, fostered a climate of distrust that directly affected field

operations. In this context, SITE's village selection surveys became particularly difficult. During field visits, our project vehicle—clearly marked “Government of India: Satellite Instructional Television Experiment”—was occasionally stopped by groups of agitated youth associated with the JP movement, who questioned our presence and, at times, insisted that we turn back.

On one such occasion, our team was surrounded and prevented from proceeding further. Through patient dialogue, I explained my personal association with Shri Jayaprakash Narayan and clarified that SITE was a people-oriented developmental initiative, independent of local administration or law enforcement. This engagement gradually helped to build trust. The group ultimately allowed us to continue our work, and notably, one youth volunteered to accompany us to nearby villages to facilitate safe passage.

Operational challenges were compounded by the nationwide railway strike from May 8 to 27, 1974, which severely disrupted logistics. Questionnaires and field materials dispatched from Ahmedabad reached Muzaffarpur with considerable delay, leaving the field team temporarily idle and postponing the commencement of survey activities.

The Samastipur bomb blast further heightened concerns at SITE headquarters in Ahmedabad, prompting discussions on whether Bihar should continue as part of the experiment. I recall being informed by Professor Chitnis that the prevailing conditions placed Bihar's participation under serious review, generating significant anxiety among the newly constituted research and operations teams.

A subsequent due diligence visit by Shri P. P. Kale of the SITE Management Team at the Space Applications Centre, Ahmedabad, proved decisive. Following detailed consultations and a realistic assessment of field conditions, he recommended that SITE operations in Bihar be continued. His favourable report ensured that the Bihar cluster remained within the experiment.

Despite persistent challenges, including recurrent floods, unreliable electricity supply, delays in equipment transportation, and difficulties in maintaining community television sets, the Bihar cluster completed SITE. Ironically, the subsequent declaration of the Emergency¹ facilitated smoother programme implementation, as governmental directives began to be enforced with greater administrative seriousness.

Ultimately, SITE's success in Bihar was achieved not through the absence of obstacles, but through sustained field engagement, responsive management, and the commitment of a determined local team operating within a highly turbulent political context.

The Arrival of Television as a Social Event

The installation of television sets and antennas was experienced as a collective event. Antennas mounted on school rooftops or near panchayat offices transformed familiar

¹ *India was put under a 21-month National Emergency from June 25, 1975, and the SITE commenced from August 1975. Understandably, the total experiment was conducted during the emergency.*

landscapes. In the village Ismailpur, Vaishali district of Bihar, where the author did his ethnographic study, the antenna was installed next to the village panchayat building. Some villagers gathered to watch technicians, speculating about the purpose and potential of the device. Children walked around it, and elders commented on earlier encounters with government schemes.

Viewing practices were socially patterned. Young men and children occupied central viewing positions. Women's engagement was often indirect, mediated through household conversations. Men were lined up at the back, and the women were on both sides of the periphery.

SITE, State Credibility, and the Dynamics of Development Communication

A less-examined dimension of the Satellite Instructional Television Experiment (SITE) was its reconfiguration of communicative authority in rural India. By transmitting development messages directly from the Government of India to villages, SITE bypassed traditional intermediaries—landlords, teachers, and local opinion leaders—thereby granting television exceptional credibility as an authoritative voice of the state. From a gatekeeping perspective (Lewin, 1947; White, 1950), this disrupted established information controls, yet it left underlying power relations intact; the resulting gap between symbolic authority and institutional capacity shaped reception and underpins the four-phase Development Communication Process Model presented here.

Phase I: Curiosity

Initial encounters with SITE were marked by collective curiosity. The novelty of satellite television and its association with the central state generated widespread attention. Broadcasts became focal points for discussion in fields, tea stalls, and evening gatherings. Curiosity extended beyond comprehension to interpretation, as villagers discussed and compared televised representations of agriculture, health, education, and welfare with everyday realities. Ethnographically, this phase aligns with pedagogical insights that information slightly beyond existing knowledge stimulates interest and collective sense-making rather than immediate behavioural change.

When SITE transmissions began, village life briefly reorganised around the television. People gathered not because they understood the programmes, but because the medium was new and carried state authority. Images of distant places, confident officials, and orderly schools and clinics contrasted sharply with village realities, turning viewing into a social event followed by discussion.

At this stage, attention mattered more than belief. Villagers asked simple but persistent questions: *What is being shown? Why is it meant for us? Does it apply here?* Broadcast scenes were recalled and debated in fields and tea stalls, often with uncertainty. Information was not taken as instruction but as something to be examined and compared with lived experience.

This phase did not generate demands or expectations. Instead, it disrupted routine understandings and opened space for collective interpretation. SITE's earliest effect,

therefore, was the production of shared curiosity. I labelled it as the **Phase of Curiosity**.

Phase II: Expectation

With continued exposure, expectation became SITE's central outcome. The authority of television and the symbolic legitimacy of the central government led villagers to read broadcasts not as illustrative messages but as binding commitments. This was reinforced by the Emergency context (1975–77) and repeated references to the Twenty-Point Programmeⁱⁱ, minimum wages, debt relief, welfare entitlements, and administrative reform. These were understood less as policy intent than as promises awaiting implementation.

Expectation emerged through everyday social comparison. Labourers measured their wages against those shown on television, while parents compared images of orderly schools and accessible health services with experiences of absentee teachers and weak health sub-centres. These comparisons were collective, discussed in work groups, tea stalls, and village meetings, transforming televised information into a shared language of entitlement—here termed the **Phase of Expectation**.

Crucially, these expectations did not emerge through gradual persuasion, as diffusion theory suggests (Rogers, 2003), but intensified rapidly due to the source's exceptional credibility. Expectation thus became a widely shared social condition that preceded – and exceeded – the capacity of local institutions to respond.

Phase III: Conflict

When expectations failed to materialise, conflict became unavoidable. Labourers invoked televised announcements during wage negotiations, citing minimum wages and labour protections shown on television to justify higher pay. Some cautiously approached landlords; others agitated collectively. Landlords refused increases and, in some cases, dismissed claims by telling labourers to seek work from the television itself. Labourers also approached block officers, framing demands around what they had “seen on TV”. These encounters rarely led to action but marked a shift from hope to confrontation.

Landlords experienced these claims as challenges to established authority, reflecting anxiety over lost informational advantage as labourers spoke in the language of state policy rather than dependence. Teachers and local officials became reluctant intermediaries: teachers faced parental complaints over school irregularities, while officials received repeated queries that they lacked authority or resources to resolve.

These episodes reveal a rupture between system-level communication and the lifeworld (Habermas, 1984, 1987). Policy messages circulated as authoritative declarations without matching implementational capacity. Communication moved faster than administration, generating conflict from credible but unfulfilled promises. This stage is termed the **Phase of Conflict**. Unlike Freire's dialogical model, SITE remained top-down and non-interactive, intensifying expectations without mechanisms for negotiation, clarification, or feedback, especially in cases where the recommended actions required external support or additional resources that villagers could not afford or access.

Phase IV: Indifference (Apathy)

Repeated failure to translate televised promises into material outcomes produced withdrawal rather than resistance. Villagers did not reject the messages immediately; belief eroded through repeated encounters with landlords' refusal and administrative deferral—office visits that led nowhere and assurances without action. Over time, hope gave way to scepticism, and engagement shifted to distancing from both the medium and the state authority it represented.

This trajectory was rooted in everyday economic realities. Labourers cited televised claims on minimum wages and welfare when negotiating with landlords or approaching officials. Landlords resisted, citing unaffordability, while officials, constrained by procedures and reluctance, hesitated to act. Caught between promise and paralysis, labourers returned to pre-existing wage levels to survive.

These experiences consolidated the Phase of Indifference. Repeated exposure to authoritative but unfulfilled communication produced frustration and quiet disengagement rather than protest. Contrary to agenda-setting theory, which assumes that repetition sustains influence, repetition here accelerated disillusionment and eroded trust in both the message and its source.

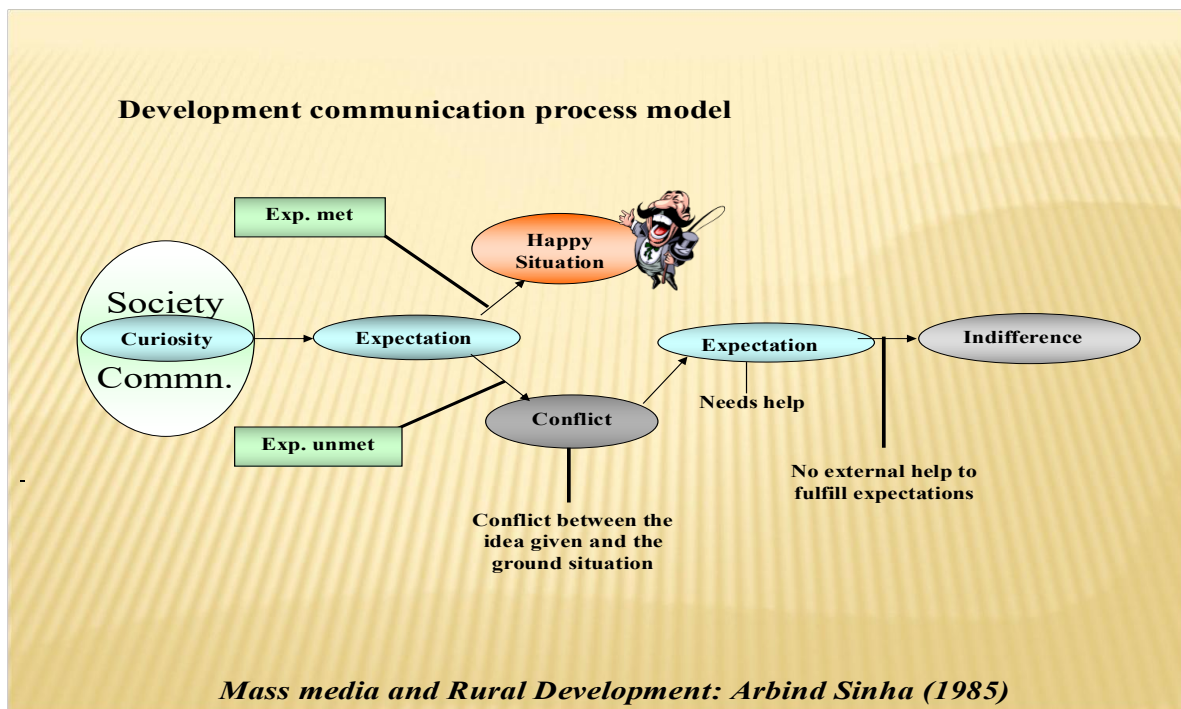
Theoretical Implications

The four-phase model – **Curiosity** → **Expectation** → **Conflict** → **Indifference** – extends a process-oriented extension of development communication theory by foregrounding emotional trajectories, relational dynamics, and institutional misalignment. Rather than treating communication outcomes as linear or purely cognitive, it situates them within lived social relations and administrative realities.

In contrast to the diffusion of innovations theory (Rogers, 2003), which assumes a gradual movement from awareness to adoption, the SITE experience demonstrates how highly credible media accelerate expectations faster than institutions can respond. When credibility outpaces implementation, communication generates tension and conflict rather than adoption. The model thus introduces the *expectation gap* – the distance between communicated promise and institutional capacity – as a key variable shaping outcome.

While Freire's dialogical framework (Freire, 1970; 1983) critiques top-down communication, it does not fully address the consequences of non-dialogical messages that raise material hopes without mechanisms for negotiation or fulfilment. SITE shows that such communication can erode trust and agency, leading to withdrawal rather than participation. The model also lends empirical depth to Habermas' system-lifeworld distinction (Habermas, 1984, 1987). State policy announcements, amplified through authoritative media, collided with everyday realities when enforcement and administrative support were absent, producing localised legitimacy breakdowns. Revisiting Schramm (1964) and social learning theory (Bandura, 1977), the analysis treats credibility as contingent rather than inherently beneficial. SITE reveals credibility as a double-edged force: it accelerates belief, but without reinforcement, it produces negative learning, culminating in disengagement.

Overall, the Development Communication Process Model, presented here, shifts attention from message effectiveness to the alignment between communication, institutional capacity, and social mediation. By framing conflict and indifference as predictable outcomes of misaligned high-credibility communication, it challenges techno-deterministic assumptions and highlights the ethical and political responsibilities of development communication practice.



Extending Development Communication Theory: Lessons from SITE

This analysis advances development communication theory by foregrounding dynamics that have remained under-theorised. Classical diffusion theory, particularly Rogers' model, treats mass media as an awareness-creation mechanism leading linearly to adoption (Rogers, 1962; 2003). Evidence from SITE complicates this view by showing that highly credible communication can generate expectations faster than institutions can respond. When institutional capacity lags behind communicative promise, diffusion gives way to conflict rather than adoption. The analysis therefore introduces the *expectation gap* as a key variable shaping communication outcome.

Freire's emphasis on dialogic communication exposes the limits of top-down information flows (Freire, 1970), but SITE shows that non-dialogic messages raising material expectations can actively erode trust and agency. The observed shift from curiosity and expectation to frustration and disengagement extends Freire's framework by identifying disillusionment as a dynamic outcome of failed communicative alignment.

Habermas' distinction between system and lifeworld gains empirical clarity in this case (Habermas, 1984). State policies, amplified through a highly credible medium such as

television, entered everyday social worlds without corresponding mechanisms of delivery. The resulting tensions reflect a breakdown of local legitimacy rather than simple communicative distortion.

The analysis also revisits Schramm and Bandura by treating credibility and learning as contingent rather than inherently positive (Schramm, 1964; Bandura, 1977). SITE reveals credibility as a double-edged phenomenon: accelerated belief without institutional convergence leads to disillusionment and withdrawal.

Overall, the Development Communication Process Model derived from SITE offers a process-oriented and conflict-sensitive contribution to development communication theory. By shifting attention from message effectiveness to the alignment between communication, institutional capacity, and social mediation, it challenges techno-deterministic assumptions and underscores the ethical and political responsibilities of development communication practice.

The Enduring Legacy of SITE

Viewed in retrospect, SITE retains contemporary relevance not only for its role in shaping the early expansion of television in India but also in relation to the country's ongoing digital transformation. Initiatives such as Digital India, online and distance education, EdTech platforms, and AI-enabled learning tools echo SITE's original aspiration to use advanced communication technologies to address educational and developmental gaps at scale.

Community radio, mobile-based platforms, and other decentralised media similarly continue SITE's core objective of extending information and educational resources to geographically dispersed and socially marginalised populations. Together, these developments position SITE as an early precursor to present-day digital inclusion strategies, offering enduring insights into both the possibilities and the limits of technology-driven communication interventions.

One of SITE's most lasting contributions lay in the institutional learning it generated within India's development and communication ecosystem. The operation of the ground segment strengthened national confidence in managing large-scale satellite-linked broadcasting systems and reinforced commitment to an indigenous satellite programme and the expansion of national television.

In the years immediately following SITE, television growth remained limited and largely terrestrial, with transmitters confined to a small number of cities. Widespread diffusion—particularly into rural areas—became possible only with the commissioning of the INSAT system, which enabled nationwide satellite broadcasting. A total of 116 transmitters were installed in 1984, followed by a second peak of 121 transmitters in 1989 (Sinha, 1996: 304). This rapid expansion underscores SITE's significance not as an immediate driver of mass television access but as a foundational experiment that shaped institutional capacity, policy orientation, and technological confidence, laying the groundwork for India's subsequent television expansion.

SITE generated extensive institutional learning, strengthening India's capacity for educational communication. Thanks to Prof. Yash Pal, the then Chairman of University Grants

Commission, under whose leadership SITE was executed, he led to the establishment of Educational Media Research Centres (EMRCs) and Audio-Visual Research Centres (AVRCs) across universities to produce educational programmes for nationwide classroom use, and the creation of the MMRC at Indira Gandhi Open University. The opening of the Central Institute of Educational Technology (CIET) in Delhi and State Institutes of Educational Technology to produce school-focused programmes for the Gyandarshan channel also followed from SITE's learnings. Indira Gandhi Open University expanded academic courses, widening opportunities in content creation, broadcasting, and media research. SITE also improved coordination among technologists, broadcasters, educators, and social scientists, shaping planning for future satellite systems. Its legacy lies primarily in institution-building rather than immediate social change.

SITE also advanced development communication research by redefining communication as a socially situated and institutionally embedded process rather than a narrow problem of message delivery or media effects. Its scale enabled systematic comparison across regions while holding the technology constant, revealing how social, cultural, and administrative contexts shaped reception and response. Methodologically, SITE integrated evaluation into its design through a mixed-method approach combining surveys with village-level observation, interviews, and close documentation of everyday interactions around television. It further shifted attention from static outcomes to communication as a process unfolding over time, capturing transitions from expectation to mobilisation, frustration, and disengagement. By linking audience research with institutional analysis and exposing unintended consequences of state-sponsored communication, SITE fostered methodological reflexivity and expanded development communication research toward a process-oriented, context-sensitive, and ethically grounded framework.

CONCLUSION

Drawing together the empirical, historical, and theoretical strands of this analysis, SITE emerges as a formative moment in the political, institutional, and social history of development communication in India. Conceived as a techno-social intervention, SITE moved across key phases of development communication – from information dissemination and persuasion, to education-oriented programming, to participatory intent, and finally to a recognition of communication as a negotiated and conflict-prone social process. It revealed both the promise and the risks of deploying highly credible communication technologies in contexts marked by uneven institutional capacity.

SITE's significance lies less in immediate developmental outcomes than in the expectations it produced, the conflicts it exposed, and the institutional learning it generated. As communication shifted from awareness creation to demand formation, credibility without institutional convergence led to frustration, disengagement, and crises of legitimacy. In this sense, SITE challenges linear and techno-deterministic models of development communication and foregrounds the ethical responsibility of aligning media interventions with administrative capacity and lived social realities.

As contemporary digital initiatives increasingly echo SITE's ambition to scale education and inclusion through technology, the experiment offers a lasting lesson: development

communication succeeds not through technological reach alone, but through institutional responsiveness, dialogic engagement, and sustained attention to the social contexts in which communication is received and contested.

ⁱ *The Satellite Instructional Television Experiment (SITE), conducted between August 1975 and July 1976, stands as the world's largest techno-social experiment. SITE was jointly executed by the Indian Space Research Organisation (ISRO), Government of India, and NASA, USA, using the services of Applications Technology Satellite -6 (ATS-6). SITE sought to demonstrate not only the technical feasibility of direct-to-village satellite television, but also its transformative potential for rural education and socio-economic change. For village India, it was a leap frogging from no communication to high-tech communication that made it possible to all parts of the country to receive television messages through satellite.*

ⁱⁱ **LIST OF 20-POINT PROGRAMME (1975)**

1. Attack on rural poverty
2. Abolition of bonded labour
3. Liquidation of rural indebtedness
4. Provision of minimum needs
5. Land reforms (including distribution of surplus land)
6. Special help to small and marginal farmers
7. Focus on agricultural growth
8. Increased supply of essential commodities
9. Price stability and anti-hoarding measures
10. Prevention of tax evasion and smuggling
11. Workers' participation in management
12. Encouragement of small-scale industries
13. Promotion of cottage industries and handlooms
14. Improved public distribution system (PDS)
15. Mass literacy programme
16. Family planning drive
17. Housing for landless labourers and weaker sections
18. Expansion of medical and health services
19. Drinking water supply in rural areas
20. Protection of the environment

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