

## Looking Back And Looking Forward At India's Journey In Technology And Education Since The Satellite Instructional Television Experiment

Prof Usha Vyasulu Reddy (Retd)

### Introduction

As a student of development and communication in the United States, I was exposed to many, albeit, Western perspectives on issues pertaining to development. Within communication, models of diffusion and adoption, along with discussions on what kinds of media, i.e. small or big; were debated. Scholars were not really discussing the potential use of satellites for development and on the few occasions that they did—the questions that arose centered around “Can a poor country afford such high technology? No one except those of us students from developing countries in Asia and Latin America asked: Can we afford NOT to? Questions like these persuaded me that if I were to understand the role of technology and media in development, it could not be done from the West. I would have to immerse myself in the Indian experience to look for the answers.

In 1975, when I returned to India armed with advanced degrees in political science and communication, India was just launching the Satellite Instructional Television Experiment (SITE). I was, therefore, not an active participant in the experiment which I observed from a distance as a fresh lecturer at Osmania University. Over the next few years, I studied the experiment and became more familiar with similar efforts such as the ANIK satellite deployment in Canada, the Telesecundaria of Mexico, and the University of the South Pacific—all efforts to use satellites and television for education to far flung and remote communities, poor and underserved.

A more and intense engagement with India's work in communication and education began with my being placed in charge of the Osmania University project as part of the Countrywide Classroom in 1984. It is during the next 14 years that I realized the enormity of the effort involved, and the essential combination of satellites and '*jugaad*' which have made India's use of technology for education a relative success. *Jugaad* is a uniquely Indian concept and refers to the practice of finding creative low cost solutions to problems by improvising with available resources, including repurposing objects to meet a need. At its core, *jugaad* is about resourcefulness and ingenuity in the face of adversity. It is a mentality that turns challenges into opportunities. And in my view, it is this mentality that has led to India's pioneering and ground-breaking efforts in using satellites for education, especially SITE. Many years later, scholars and practitioners from different parts of the world often asked how a poor country like India repeatedly pulled off success stories in technology use in this vast, diverse (in every way) sub-continent. And I would say “*jugaad*’ with a smile referring to this innovative mentality working against all odds.

The last quarter of the twentieth century was the heyday of television in India which grew from nascent efforts in the 1960s to one of the biggest television systems in the world. The

first quarter of the 21<sup>st</sup> century has relegated television to a place of lesser importance, but the role of technology in education continues, although in a completely different way.

The role of satellites is well known today. Their applications are visible everywhere and everyday, whether for whether information or for agricultural information. The focus in this perspective is however on education and exclusively on government driven and delivered initiatives. This is in line with the view that, in any developing country, government with its vast resources and its commitment to public service, is the only agency capable of driving change without a profit-driven motive. It is also with the view that, in India, private players did not consider educational content to be commercially viable; and hence stayed away from such content until the IT revolution and the COVID pandemic made the need and the hunger for educational/instructional content financially profitable.

### **A Quick Background and the Heyday—up to the year 2000**

When Arthur C Clarke (1945) wrote of radio broadcasts through extra-terrestrial relays, communication scientists paid little attention to his path-breaking work. World War II had just ended and researchers in the West were still concentrating on the effects of conventional mass media upon society. Even when communicators turned their attention to the possibilities of using media technologies for development, it was within the existing paradigms of diffusion and adoption of innovations. The emphasis was on the innovation that was sometimes not linked to social and institutional realities existing in the developing societies.

In outlining India's perspective on the use of communication technologies for development purposes, Dr. Vikram Sarabhai, head of India's Space Research Organization, in a widely quoted paper stated that,

“in any developing country, one of the prime ingredients of development is the dissemination of information: information about new fertilizers, seeds, insecticides, cropping patterns, and so on. The process of education is basically related to an information dissemination process...mass media are clearly the main component in this system of information transfer...therefore, television is ideal as a medium to convey information and news to the masses of population, on whom such an audio-visual medium would have a profound effect.”

He further added that India's national goals involved “leap-frogging from a state of economic backwardness and social disabilities attempting to achieve in a few decades a change which has historically taken centuries in other lands. This involves innovation at all levels.”

(Sarabhai, 1969)

Sarabhai's perspective has formed the basis for many of India's experiments in the use of communication technologies for development.

During a time when global discussions around communication for development centered around the use of small media, scientists at the Indian Space Research Organization began working out the details of the most ambitious experiment in the use of technology for development, the Satellite Instructional Television Experiment in 1975-76.

The Indian experience with educational television had begun with small efforts in the late sixties. The real push, however, began with SITE in 1975.

**The Satellite Instructional Television Experiment (SITE) in 1975**, as it came to be known, has remained to this day as the major watershed in technology applications in education and development. Other authors have most likely described the experiment in detail. Suffice it to say here that it been globally recognized for its vastness: 2600 villages, six clusters in six states, programming in one video, two languages format; and delivery through direct reception systems consisting of very 'Indianized' chicken mesh parabolic antennae. Indian content consisting of news, education and recreation targeted for three types of audiences—school age children in and out of school and illiterate and semi-literate adults.

Three things became abundantly clear after the SITE experiment. First, satellites are not a panacea nor are they the only methods of delivering information and education. Terrestrial alternatives are available; but satellites can help developing countries to bypass traditional developmental stages of communication. Most important, education or development through satellite-based television cannot work unless content meets the requirements of the audience in terms of timeliness, relevance, and utility. Failing this, the effect of expensive technology may be nil or minimal.

Concurrent to the SITE experiment was ISRO's experimentation with narrow-casting in the widely acclaimed Kheda Development Project—where one district became the focus of developmental communication efforts.

There was no looking back for Indian educators, broadcasters, and technocrats after the SITE experiment. The setting up of massive communication infrastructure began with the launching of India's own satellite INSAT IB in 1982. An awareness that such a potentially large network of electronic media could be harnessed for education led to initiatives to establish special telecasts for school and college students.

Spin-offs of the SITE experiment after 1976 were many. I list a couple here.

- **TELESCHOOL** was the project for school children. A Central Institute for Educational Technology (CIET) formed the hub of production activity for school telecasts with six State Institutes for Educational Technology (SIET) producing programmes in the regional languages. Teleschool continues to this day.

- For college students, the University Grants Commission's higher education programming called the **COUNTRYWIDE CLASSROOM (CWCR)** commenced transmission on August 15, 1984. Media centres located in universities throughout the country produce programmes which are then sent to a UGC established autonomous institution, the **CONSORTIUM FOR EDUCATIONAL COMMUNICATION (CEC)** for capsuling and forwarding to Doordarshan for transmission.

Educational programmes are both curriculum based and enriched oriented. In both school telecasts and in the **COUNTRYWIDE CLASSROOM**, programmes aim to upgrade, update, and enrich the quality of education while extending their reach. Attempting to be interdisciplinary in nature, the programmes seek to provide insights and to show inter relatedness of the various disciplines to student audiences in resource poor locations.

**The single mode open universities** are also engaged in the production and telecast of educational programmes. The Indira Gandhi National Open University (IGNOU) has been broadcasting since the late 1980s, while the B.R. Ambedkar Open University, Hyderabad has been sustaining a radio programme since its inception and a regular telecast of educational content since 1999.

By 1991, Indian undergraduate students had access to a minimum of 12 hours of educational programming a week. Audience size for the **COUNTRYWIDE CLASSROOM** had stabilized at a peak of 22 million by 1996.

The next major landmark in satellite use for educational purposes began in a serious way in 1991. Although the system had been tested in the early 1980s, the first experiment in using satellite based teleconferencing to support education began with the **UGC Talkback Experiment in 1991**.

Using one way video and two way audio as the basic teleconferencing format, these experiments over the next four years explored the technical feasibility and the educational effectiveness of using a national satellite based system for education with interactivity built in. Both goals established, teleconferencing became operationalized as an integral part of distance education.

Institution and situation specific teleconferencing configurations have been experimented with and the results from each experience have been used to improve the subsequent application.

The 1990s saw the opening up of the skies for broadcasting followed by a fast growth of commercial television resulting in the waning of Doordarshan's pre-eminent position in Indian broadcasting. As commercial interests took over, educational broadcasting got the short shift, and was moved from a successful afternoon slot to a very early morning one.

Educational broadcasting, as previously known, has transitioned into different modern formats i.e.

- **VYAS Channel:** The programs produced by the CEC and EMRCs are telecast on the dedicated "VYAS Higher Education Channel," rather than the general Doordarshan network.
- **SWAYAM Prabha:** The content is also a major part of the SWAYAM platform which is a group of 32 DTH (Direct-to-Home) channels providing high-quality educational programs 24/7 using the GSAT-15 satellite. These programs are also webcast on the CEC's website and other government portals. Massive Open Online Courseware (MOOCs) are available on the **SWAYAM** platform to Indian students globally.
- **State level initiatives such as T-SAT, Telengana's Skills, Academic and Training DTH channel and GYAN DARSHAN** are some examples of dedicated educational television channels.

In short, the content continues to be produced, but the mode of delivery has shifted from a specific slot on Doordarshan to dedicated, modern digital and satellite platforms hopefully to reach a wider audience.

I have only briefly described a few of the diverse efforts in the application of technology in development in general and the education sector in particular. There are many lessons to be learned from the experiences, and I will now highlight the areas which need greater explanation after a review of what changed after 2000 A.D.

### **The post 2000 era and the march of technology.**

The pre-eminent role of television as a medium of information, education, and entertainment began to wane with the emergence of the Internet and the World Wide Web. By the year 2000, Internet and the World Wide Web exploded onto the scene, racing ahead in both applications and usage. Television (satellite and terrestrial) fell far behind and became primarily a medium of entertainment.

The synthesis of the satellite with the computer, aided by deregulation of telecommunications resulted in the information superhighway, dramatically changing our understanding of the world (in much the same way as the telegraph, telephone, automobile had transformed earlier societies). For educators, this has meant an unparalleled opportunity to provide access to quality education on a much wider scale at significantly lower costs and in an equitable manner. For learners, this has meant wider exposure to different media and more information.

Technologies have always driven education—from early printing processes that democratized access to education and later led to correspondence education; from the development of radio and its subsequent use for the agricultural, education and development sector; from the emergence of television and use of this medium for extending the reach of education; and finally to today's world wide web and the Internet. What has made today's age different,

however, is the coming together of the satellite and the computer and the convergence between traditional and new media through the processes of digitalization and integration, so that text, audio, video, and interactivity are all available on one hand-held device such as the smart phone

Technology enabled learning systems remain similar to conventional systems, yet have a distinct identity. Both systems aim to provide access, equity, quality and relevance to educational content irrespective of time and distance; both aim to achieve certain minimum standards of education and training; both have administrative systems that enrol and instruct learners; and both usually require learners to sit for examinations before receiving certification.

With technology as the main driver in the process of transformation today; and with repeated calls from international donor agencies and national policy and decision makers to use information and communication technologies to address the burgeoning needs of educational access, equity, and quality amid scarce resources, policy makers and educators began to explore new ways of harnessing these technologies, relegating satellite-based television to a lower priority.

There are many definitions of technology enabled learning, or e learning. The term e learning itself refers to a wide range of IT related activities, and is used interchangeably with terms such as distance education; web based education; computer based training; virtual education, on line learning, to cite a few. While many definitions of this term may be found by browsing the site [www.eLearners.com](http://www.eLearners.com) and other similar sites, we are essentially referring to a paradigm of education that uses information and communication technologies. E learning provides a cyber space where teachers and learners can interact across time and space whenever and from wherever they want.

Just as with satellite or terrestrial television, e learning has been seen as providing opportunities leading to an anytime, anywhere, learner paced, learner friendly, just in time, without disruption to work, cost effective form of learning not constrained by traditional limitations.

Although the use of web-based video conferencing platforms such as WhatsApp, Facetime, Skype, among others in connecting with family and friends became commonplace, it is important to note that resistance to e-learning in mainstream educational systems persisted until the COVID pandemic of 2020—an occurrence, which for all its negative implications, still transformed the role of technology in education bringing it into the mainstream, rather than as an outlier.

Overnight, policy makers in government as well as education systems at school and higher education levels had to provide access to curriculum content. Within days, the use of freely available video conferencing platforms such as ZOOM, Webex, Google Classrooms, Microsoft Teams, among others became popular. Classes were taught online by teachers

from their homes to students distributed across the city. Students attended online classes and submitted their assignments also online. Hybrid models, where schools and colleges alternate between face-to-face and online classes have also emerged widely.

To summarize, the past half century of experience in technology and education have given rise to a system that reflects the Indian sub continent in its diversity of applications across geographic, linguistic, and cultural ethos. It combines the use of advanced satellite and other technology based systems available at a zero or very low cost to the user and with a down to earth jugaad—innovating and addressing location specific issues with local solutions.

### **The Impact of SITE on India's technology and education journey.**

My career of four and half decades was spent in teaching, researching, practicing, managing technology in education projects, and evaluations of projects. The first two decades were at the institutional and content production levels alongside designing and executing national projects. The second half of my career was spent at the national and international level helping institutions and governments to build capacity and address real life problems that compromised the effectiveness of national and local efforts in the Asia Pacific region.

It would be presumptuous on my part of assume an unqualified success in technology use for education in India. At the same time, I cannot deny the long term and lasting impact of the SITE experiment in determining the trajectory of technology applications. I say 'technology' rather than SITE and satellites alone because of the direction that technology has taken as it has driven broad scale change in the way that Indian citizens transact their lives. I say 'technology' rather than 'satellites' because satellites are but one medium among a plethora of options that Indian educators have to deliver and transact educational content with learners.

SITE was not only a technological experiment—it became a template for how India integrates advanced technology into social development. Its 50-year legacy offers several enduring lessons for present-day policy and practice.

SITE was an experiment to test the feasibility of using the most advanced technology available at the time to provide vital information and education to the most far flung, underserved and impoverished rural areas of the country. As I see it, the results of the effort have to be placed in such a context and to discern long term impact from SITE from the short-term effects.

The long term impact of SITE has been in five different but related areas—policy, infrastructure, funding, research, and social and cultural concerns. These are what I will discuss. Following that, I would like to draw attention to issues to today's scenario in educational technology applications, concluding with the way in which the SITE experience has impacted, if at all, on what is visible publicly.

- **Policy.** SITE seeded and tested the idea that technology can and must be used to address issues of development as so eloquently delineated by Dr. Sarabhai. The technology

worked. From this emerged India's vision. SITE directly influenced the development and expansion of India's own satellite system particularly the INSAT series, which began in the early 1980s to provide communications, broadcasting, meteorology and educational services.

India's vision shifted technology applications toward developmental goals. SITE showed that advanced technology can and should be applied to address social development goals, and strengthened political and bureaucratic commitment to using space assets for education, rural development and national integration. From this vision emerged a series of dedicated satellites—GRAMSAT, EDUSAT, Telemedicine, and Remote Sensing, to cite a few.

SITE served as an early model of digital inclusion. By bringing TV to poor rural clusters, SITE demonstrated how state-led communication infrastructure can reduce inequality. Today's public technology platforms such as Aadhar, and UPI serve as digital equalizers and are based on the premise of digital inclusion.

- **Infrastructure.**

The ATS-6 satellite provided by NASA free of cost for a period of one year worked—showing that the technology segment was the least of the concerns in the SITE experiment. However, the satellite had limited transponders and coverage time, restricting broadcast hours.

At the ground level, there were many issues: the receiving equipment, i.e. community TV sets and dish antennae were fragile and poorly maintained, failing in touch rural conditions. Similarly, power supply was absent or erratic, disrupting regular telecasts. Weather conditions and technical faults, lack of trained maintenance manpower impeded signal quality.

What this means for current policy is that the last mile is the most important part of any technology use and that power supply, device maintenance, and broadband penetration must be treated as parts of one policy ecosystem, not as separate sectors.

Infrastructure issues were addressed by central government funding and establishing centres to embed technology for education in existing institutions where possible, and to create new structures and organizations where needed. Hence, the emergence of the educational media centres in universities for higher education and the state institutes of educational technology for school education.

It took a long time for the policy push from the central government to be reflected in state level policies and programmes. It was only 25 years after SITE, at the turn of the century that state governments began to see the value of and to invest in using technology for education, focusing largely on satellite based television. To some

extent, this has resulted in their being overcome and outpaced by web based solutions. But, as of today, they exist, alongside newer methods of delivering education.

- **Funding**

To have any impact, policy must be backed by funding support. During the SITE experiment period of one year, NASA's ATS-6 satellite was made available free of charge. Hence, it is not known how much it would have cost otherwise. Publicly available information suggests that the direct cost for running SITE for the government was about the equivalent of about 15 to 20 crores INR, including both direct costs and equipment, software, management, and evaluation.

The satellite and direct-to-home DTH segment for education continues to be freely available to Indian students and audiences making an accurate assessment of transmission costs impossible.

By its very nature, and by the Indian government's commitment to use technology for social and educational development, public domain educational content is a non commercial activity, and generally does not attract advertising revenues. In most instances, public funded institutions are mandated with the production of educational materials, in both print and non print formats. They need funding to do so.

Thus, funding overshadows all other issues. Cost is the biggest barrier to the use of technology for education and remains a contentious issue, an overpowering factor determining the success of educational technology.

Funding to cover the costs of infrastructure and equipment, human resource and content production has been a major factor in the effort to provide access, equity, quality, with limited resources equally across the country.

I do not know what is the total amount allocated for this activity. From field experience, I know it has been less than what is minimally needed, both in an aggregate amount and in the manner of its distribution across content creation centres across the country. More than half of what is provided is spent on salaries; leaving very little for production's direct costs. It pains me to say so, and I will probably attract criticism for openly admitting to this reality. It is to the credit of the passion of the producers that they continue to turn out learning content useful for their student audiences, despite shortage of funding.

Funding is today the determining factor in government decisions to use technology for educational purposes.

- **Research, monitoring and evaluation**

For me as a social scientist studying communication and development, one of the lasting impacts of the SITE experiment has been the paradigm shift in the way in which communication research is conducted in India in particular and Asia in general.

Research became an integral part of project design, providing vital inputs to design at the formative (before the programme) stage; the continuing monitoring (processual) stage for mid course evaluation and correction; and impact stage (summative) to enable a comprehensive evaluation of the project and serve as an input to future endeavours.

A mixed methods approach combining quantitative (survey and numerical data) with qualitative (participant observation, focus group discussions, and anthropological techniques) used during SITE are now commonplace, not just for media research but equally for the development and deployment of digital products. One may use different words like alpha and beta testing, etc. but it is essentially the follow-up of methodologies developed during SITE.

And a lasting contribution to the field of communication and development.

- **Social, Cultural, and Content Issues**

Social, cultural and content issues are discussed together here because of the interaction between the three impacting both delivery and success.

During SITE, many villagers were seeing television for the first time. They found it hard to relate to it as a medium and to understand the educational content that was presented, especially when there was a mismatch between the programme language and local dialect. Some programmes, although professionally produced did not match local customs, nor meet the immediate needs of the community.

Viewing habits were irregular often interrupted by agricultural work, local festivals, and household work in the case of women.

What this means for current reality is that content needs to be provided on demand at a time and place convenient to the user/learner and not in the synchronous way that traditional systems need. Content also needs to meet linguistic, cultural, and social realities to have anything more than a minimal benefit for the learner. Providers need to accept that learners are active, not passive, that learners need continuous interaction and that the presentation be in a socially and culturally acceptable manner rather than the didactic manner as before.

And this is exactly what has happened—pushed by web based technologies which have made it possible to deliver on demand content locally, in local languages and settings, with continuous interaction built into design.

## **Technology use in education in 2025.**

Fast forward to 2025. Those of us associated with SITE still remember the excitement of undertaking an experiment so unusual in a developing country barren of media penetration, one so vast as to challenge sceptic scholars and decision makers. Today, spurred by deregulation, the lower costs of smartphones, mobile connectivity and ever growing reach of wireless signals, any person with a cheap smartphone with access to the Internet and to data can create content and communicate the same to an individual, a group or a large audience through applications such as YouTube. The range of applications of technology in education at all levels and across all sectors defies description today. On the one hand, there is a booming EdTech sector valued at \$7.5 billion driven by massive internet/smartphone growth, pandemic acceleration, and policy support (NEP), with major adoption in K-12 & test prep, especially AI-driven adaptive learning. Segments covered include K-12, test prep (JEE, NEET), and higher education as major areas

There are also small home-grown initiatives with schools using video conferencing platforms such as ZOOM to provide online teaching when schools/colleges are closed for external reasons, and online learning, both in a single mode as also in a mixed mode among distance education institutions.

Addressing challenges such as the urban/rural divide, and the divide between rich and the poor is not financially profitable for the private sector. This is where government through platforms such as DIKSHA and SWAYAM seek to address gaps in service provision.

There are DTH channels also transmitting programmes on their free to air and paid channels to their audiences. There are the public sector institutions creating content uploaded and distributed on the SWAYAM platform.

For the private sector offerings, “*will it pay*” is the key question. If it does not give a good return on investment, it is not worth the effort. And this is where public funded institutions and initiatives providing access and content at zero charge can play an important role.

And despite such a mainstreaming of technology in education, the issues and problems described in the findings of the SITE era remain. The next section shall discuss some of these from the perspective of one who had to manage a system on the ground.

### **The Issues and Concerns**

Issues that confront educational broadcasters range from funding to technology, from content to managerial and operational to distribution.

The high costs of establishing educational production and broadcast centers coupled the rapid obsolescence of technology, and lack of common standards and technical formats is making technology choices difficult for educational planners.

Software issues have two dimensions: availability and relevance. Availability within the Indian context is no longer an issue. In culturally diverse circumstances, the question of relevance becomes even more important. To what extent the educational programmes generated from one region are relevant in another, whether in terms of curriculum, language, and culture remains a moot point. Further, the pedagogical value of existing programming also does not seem to have been demonstrated widely.

For educational content to succeed, both producers and academics need much more exposure and support if they are to be able to develop materials and use the technology effectively. Across all regions, academics, who are among most important persons in the production process, are however, the least exposed to the language and grammar of the medium. The gap between academics and production personnel is wide and the debate between style (promoted by producers) and content (defended by academics) needs to be narrowed through greater collaboration and team work for quality improvement.

New methods of developing materials while providing for local initiatives to originate content is going to be a must for survival and growth. No single institution can serve as a provider of educational content; and no success is likely unless individuals and institutions come together to share resources, knowledge, production, and distribution capabilities.

Today's globalized scenario consists of new economic and media realities; of a media saturation juxtaposed with increasing disparities in the distribution of and access to knowledge; of a situation where education has to compete with multiple other learner priorities; rapidly changing technologies realities, and a growing digital divide. The globalized scenario has led to a trend toward commercialization and consumerism, and an audience demand for an "international quality" of service. It has also led to an increasing knowledge gap that the convergence of technology has not been able to address effectively. Nor have decision makers, blinded by the glitz surrounding today's technology been able to develop legal and administrative frameworks to cope with technological change.

India's issues in technology application have to be taken as economies of scale because of the growing youth population and the inability of the system to cope with rising demands for education. The Indian learner, traditionally is also young and, generally living in a rural area, has little or no access to good teaching, libraries, laboratories, and other resources which are the supports of the urban student. The learner is also, in a sense, the 'out of school' youth who wishes to have education but cannot be accommodated in the conventional system. This young person is neither illiterate nor unskilled; he/she simply does not possess marketable skills. Uneducated, unemployed, and frustrated, this young person forms part of a lumpen group, suffering from both neglect and pressure—and is a group least addressed to by educators who generally see the conventional on campus student as their focus of attention. It is precisely this disadvantaged group which future technology application must seek to address.

India's educational problems are not because of the absence of strategic long or short term planning; but with the translation of planning to implementation. Most developmental projects in India can be accused of this weakness, where the problem is often well defined by policy makers, missions or projects drawn up to address these problems, funds identified, and set aside; and organizations created up to deal with the issue. Implementation gets tied up in knots of administrative politics, bureaucracy, secure government jobs, unionization and other social issues so that both the goals, targets, time frames for implementation are lost in the process.

The most important issue in any technology utilization is institutional planning, followed by an evaluation of technology, cost benefit analyses, etc. Absence of strategic short and long term planning has added another dimension to policy formulation in this area, one which requires an examination of other issues. The policy initiatives to date indicate a support for the use of communication technology in education. But the optimism which such support generates is dampened by other issues in education.

In the centralizing effect of technology lies the greater danger for the educator. There is danger here of ignoring local language, problems and needs and unless Indian educators move toward increasing decentralization in the planning and execution of technology experiments, technology will not be learner driven.

Educational use of technology is but one component in the educational system. The role ascribed to technology depends upon the purpose to which it is applied, and the success of such application depends upon how well we match technology with audience needs and demands.

## **Conclusion**

There is a common saying that those who forget the lessons of history are doomed to repeat it. Today's learners think of SITE as a historical event, taught in classes on the history of media in India. Students, on occasion, have asked me to talk about social media and digital cultures instead of SITE. I have to explain to them carefully that SITE was foundational and that foundations have to be strong for current efforts to succeed. And in every aspect of development studies, the SITE experiment laid the solid foundation upon which we have grown in our understanding of technology in education and development. And not learning from SITE, we have often repeated the same mistakes.

One has to applaud the innovative and fresh approaches taken in India to manipulate the latest technological options to address educational needs. At the same time, one has to recognize that there has to be a paradigm shift in the way we do things here. And the biggest lesson from the SITE experiment is that it pioneered such a paradigm shift, and laid a solid framework for how India's efforts to harness technology for education and development must move forward to address the unreached and underserved amongst us.



