

## **Imperatives of the 'information society': A critical perspective on ICT policy and practice in Indian distance education**

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### **Abstract**

The 'information society' or the 'knowledge society' are terms used by sociologists to describe post-modern societies that are affected by, amongst others, explosive technological changes and economic globalization. Open and distance learning has also been impacted by these changes and every discussion on it subsumes a technology component. A meta-analysis of the relevant literature will reveal the alarmist rhetoric, nebulous objectives and technological determinism that characterize the discourse surrounding the positioning of ICTs in distance education in India.

Distance education accounts for 25 per cent of the total enrolment of higher education in India, of which the share of students in dual-mode universities is around 8 per cent. This paper will attempt to present an overview of the discontinuities and imbalances between policy and practice in India, with the focus on the dual-mode universities. A historical perspective reveals a recurrent pattern of investment in ICT-based initiatives but little improvement in the quality or quantum of education. This does not imply a rejection of the potential benefits of ICTs, but the necessity for a creative approach that is not shaped by western models of distance learning and does not shy away from adopting low-tech solutions. What is needed is a more pragmatic and context-specific approach so that the social mission of higher education is extricated from what is fast becoming a technicist one. In a developing country, where only 9 per cent of the population in the relevant age-group receives tertiary education, policy makers and academics need to steer clear of goals that are a drain on the limited financial resources set aside for extending access to higher education and rearrange their priorities.

### **TOWARDS THE ESTABLISHMENT OF A GLOBAL 'INFORMATION SOCIETY'**

In 2006 the United Nations General Assembly declared 17th May as World Information Society Day: to be observed annually, with the ostensible purpose of raising awareness of the possibilities that the Internet and other ICTs can have for societies and economies, as well as help bridge the digital divide. This was in response to an appeal, incorporated in the Tunis Agenda for the Information Society, prepared during the second phase of the World Summit on the Information Society [WSIS 2005]. The first phase of the summit resulted in the formulation of the Geneva Plan of Action, which urged developing countries to form national strategies to integrate ICTs in education and take concrete steps to establish the foundations for an Information Society [WSIS 2003]. Underlying the strategies of implementation and associated issues is a belief that,

...it will be possible to succeed in our challenge of harnessing the potential of ICTs as a tool at the service of development, to promote the use of information and knowledge to achieve the internationally agreed

development goals and objectives, including the Millennium Development Goals. [WSIS 2005, p.1]

Such statements stem from assumptions that organized knowledge and information are socially beneficial and major assets of an 'information society' (UNESCO 2005). The WSIS was an attestation of the growing ideological dominance of the concept of an 'information society' and the emancipatory powers of ICTs.

### **Attempting a definition of the 'information society'**

Within the limited scope of this paper it is possible only to begin a deconstruction of the notion of the 'information society' and bring to the fore its inherent contradictions and complexities. As a heuristic device the 'information society' is incapable of mapping the changes taking place around us as it is dominated by the techno-scientific paradigm. It is technology that is identified as the prime driver of change. To be more precise, small clusters of innovations in ICTs are considered responsible for global transformations in the structure of the economy, politics, and culture. Technological determinism and evolutionary thinking qualify most of the prophetic pronouncements on the advent of the 'information society'.

Seduced by the rhetorical claims about the empowering potential of ICTs, governments all over the world are investing millions of dollars to bridge the 'digital divide' and ensure a basic level of universal access for its citizens. Assimilation and integration of technology into any society is contingent upon social, cultural, affective, cognitive, and even psychological factors. These issues are pushed to the periphery and the focus is on supplying hardware.

Within educational communities too, access to ICTs has become the favourite refrain of policy makers. This is not to summarily dismiss the possibilities of ICTs but appeal for an indigenous, context-specific, and prosaic approach to ICT adoption that should form the basis for policies that otherwise reek of conformist thought. It is true that developed countries have graduated to sophisticated models of e-learning but Western models of technology adoption are not suitable for our socio-economic context, as they are based on assumptions of personal ownership of PCs and uninterrupted power supply. In India, the number of Internet users per 1,000 of the population is only 55 ( UNDB 2007).

This rather sketchy critique is intended to demonstrate the highly contestable nature of the concept of an 'information society'. Evidence to support the claim that we are entering the information age is insufficient, and based on quantitative indices and metadata such as growing numbers of white collar workers or number of telephone lines. It is all the more necessary for developing countries, where public funds are scarce, to re-arrange their national priorities. There is an urgent need to step aside from, what has now become, a global agenda to provide ICTs to every segment of society.

### **The positioning of ICTs in distance learning**

Since the inception of the first correspondence course institute at the University of Delhi in 1962, open and distance learning in India has grown to include one national open university, 13 state open universities, and 119 correspondence course institutes affiliated to traditional universities, accounting for around 25 per cent of the total enrolment in higher education. (Department of Education 2007, p.108 )

For decades various committees have made ICTs a central article of faith in their quest to improve the quality of open and distance learning in India. A cursory survey reveals that extending access is the governing paradigm of nebulous policy statements are rarely translated into detailed plans of action.

Echoing policy directives in developed countries, the University Grants Commission has included "Knowledge and the use of the new information and communication technologies" as one of its objectives for the Tenth Plan ( UGC 2006, p.21). The UGC has committed financial resources to set up a network of its 325 universities, build computer resource centres, and provide training facilities. So far 149 universities have been connected under the UGC-INFONET programme ( UGC 2007, p. 108 ). In its vision statement the Distance Education Council, the apex regulatory body for open and distance learning in India, lays down its commitment to "encourage use of innovative technologies and approaches" [ DEC n.d.]. In 2004 the Inter-University Consortium for Technology Enabled Flexible Education and Development (IUC-TEFED) was set up "to lead the transformation of the conventional distance learning to modern ICT-enabled, multi-media based, online and blended learning" .( IUC-TEFED n.d.)

Though countless workshops are organized with the ostensible purpose of training teachers to use ICTs, none of them is preceded by an analysis of the available infrastructure, academic requirements of the students or other major determinants like gender, age or economic status.

Policy makers and bureaucrats seem to have lost sight of the social mission of higher education; to extend access to the disadvantaged and marginalized sections of society. Discussions of open and distance learning subsume a technology component and educational pundits routinely herald the salutary role of technology: "ICTs are bringing systematic evolutionary change in how to teach and learn". ( Nigavekar 2006, p.7 ) Barriers to education, whether they are cultural, economic, structural, or attitudinal are seen as removable through the use of technology. Such pronouncements are uncritical and unreflexive; seldom based on substantive analyses of the necessity, suitability, or sustainability of technology-based initiatives.

A comparison with another national strategy, the Interim Report of the Task Force on Human Resource Development in Information Technology, is a study in contrast in terms of vision and planning .(Department of Education 2004) With a detailed plan of action, fund outlay, and implementation schedule it is aimed at developing infrastructure, improving training facilities, and tripling the student intake. Meant primarily for the Indian Institutes of Technology, Regional Engineering Colleges, and Technical Training Institutes, the ambitious national strategy is meant to enhance the competitive edge of India's software services industry that has been an off-shoring success. This clearly signals a shift to a utilitarian, economic-rationalist agenda for higher education, which will contribute to the creation of a mobile and flexible information and knowledge society.

## **THE REALITY OF ICT INTERVENTIONS**

An overview of the ICT-based initiatives reveals a strikingly similar pattern: huge amounts are spent on infrastructure, which eventually remains underutilized due to a discernible lack of planning. To illustrate, I will discuss in detail, on one such ambitious national strategy to harness space technology.

In 2004 the Indian Space Research Organization and the Ministry of Human Resource Development launched EduSat, the first satellite dedicated to meet the demand for an

interactive satellite based distance education system for the country. Launched at a cost of US\$ 25 million it was meant to bridge the digital divide between rural and urban schools and solve the problem of low student-teacher ratios. With 2-way interactive, satellite interactive terminals (SITs) and receive only terminals (ROTs) it has the capacity to provide access to databases and digital repositories for content, interactive virtual classrooms, and video on demand (VOD). At present its 12 transponders beam lectures into 10,000 classrooms in primary schools and technical institutes across the country.

A report, prepared by The National Institute of Advanced Studies, reviewed the efficacy of the project and concluded that it is weak on many grounds: technical, academic, managerial, and institutional. ( Gandhi 2007) Notwithstanding its life-span of seven years, most initiatives are still at the planning stage and there is no clear picture about its applications or outcomes, though it is believed that EduSat will facilitate a nation-wide network for distance education in India. There is no formal review procedure in place and planners did not anticipate the problems that arise from linguistic, cultural, and regional differences. In addition there are technical hitches, uninspiring content, low attendance, and shortage of trained staff.

But by the end of 2006 the 443 SITs and ROTs were mainly being used by the All India Council for Technical Education, National Council for Educational Research and Training, the Indian Agricultural Research Institute and the Indira Gandhi National Open University, which already have the infrastructure required on ground ( ISRO 2006 ). The state governments are yet to exploit the satellite's capacities due to shortage of funds and many are yet to sign agreements to bear the costs. The NCERT could not use 80 of its 100 SITs due to non-availability of TV sets. At IGNOU problems with bandwidth have delayed the process of creating online repositories of content. (ISRO 2006) These facts raise questions about the wisdom of such enterprises that are hastily conceived and implemented.

There is no reliable institutional mechanism to document, monitor, or evaluate the ICT based initiatives ( Reddi & Sinha 2003, p.251) . The Distance Education Council has lapsed in its avowed mandate to disseminate and document information about ODL institutions. There is no comprehensive database or large-scale empirical study on the extent of outreach or effectiveness of technology based teaching and the available literature is overwhelmingly descriptive or prescriptive. There are a plethora of inconclusive small-scale studies but not enough empirical evidence to warrant cost-intensive initiatives.

In open and distance learning institutions the investment and implementation in ICT interventions have been sporadic. The infrastructure is there but it does not warrant the massive financial inputs that have gone into it, as at the centrally funded Indira Gandhi National Open University, which has 790 teleconferencing centres, 6 TV channels, and 17 radio stations ( Department of Education 2007, p.189). With the support of EDUSAT, India's first geostationary satellite dedicated to education, IGNOU has recently set up 100 interactive terminals at various study centres to enable student-teacher interaction.

Beyond the official pronouncements and optimistic rhetoric of India's showcase open university lies the shadow of underutilized technological resources, flawed planning, "lack of standards in production and technical formats and lack of an agreed mechanism to share resources" ( Khan & Dikshit 2006, p. 193). There has been progress in setting up media centres like the Electronic Media Production Centre and networks but the growth has been marred by shortsightedness and an absence of consolidation:

A growing mismatch is in evidence between the availability of network capacities and hardware facilities on the one hand and the generation of educational media software in adequate quality and quantity on the other. ( Khan & Dikshit 2006, p.192 )

Teleconferencing adopts a “formal teaching approach” with unimaginative incorporation of visual elements ( Khan & Panda 2006, p.214 ). Audio-video cassettes replicate content available in the printed study-material and TV programmes beamed by IGNOU’s official channels are of a general nature and not targeted at specific audiences ( Ramanujan 2002 ). Data about enrolment and modes of delivery across programmes is not available. The other open universities are using ICTs to a limited extent, in the form of web-based tutorial support, CD-ROMs, video and audiocassettes distributed to students, and rudimentary websites.

An attempt has been made to solve problem of access and cost of Internet usage. The most recent initiative of the Ministry of Human Resources Development, launched in 2007 is Sākshāt, an e-portal designed to cater to students’ concerns and needs in as comprehensive a manner as possible. There are e-resources like dictionaries and encyclopedias, online testing, counselling, for all levels of students; primary to doctoral. There is no cost for accessing this site and the government plans to solve the problem of access by setting up 100,000 IT kiosks in the rural areas. The Indian Institute of Science is working on developing a laptop that will cost around US \$ 100 so that every student and teacher can afford one. It is too early to evaluate the outcome of this initiative as it is a pilot project.

### **ICTs in dual mode universities**

The correspondence course institutes attached to the traditional universities account for around 23 percent of the total enrolment in open and distances learning in India, though IGNOU and the state open universities are its more visible face. ( DEC 2004) The Correspondence Course Institutes have been marginalized within their own universities, and their contribution to higher education has been neither acknowledged or needs addressed. For instance, the School of Open Learning, affiliated to the University of Delhi is the oldest and largest distance teaching institution in India, with a cumulative student enrolment of around 200,000. In the absence of reliable data it is safe to assume that the situation mirrors that of other correspondence course institutes in the country.

The CCIs are plagued by a total absence of autonomy in financial, academic, and administrative matters. Though the university is theoretically committed to granting them the status of open universities, it is reluctant to forgo the revenue that the CCIs earn for them. Bureaucratic neglect and institutional apathy have only compounded problems. The UGC has discontinued its maintenance grant since 1999 and in 2004, for instance, no funds were spent on developing infrastructure ( DEC 2004). There is one study-centre and about 10 per cent students are able to attend the contact programmes held in the university’s colleges on weekends. The total number of courses remains at a constant of ten. Caught in a time warp the students receive only the printed study material with no supplementary audio-video materials. There are five telephone lines and one fax machine to cater to the institution. Investments, when made are done in the most unimaginative way possible, with academic faculty not involved in the decision making. In 2007 Delhi University started an FM community radio at the School of Open Learning. With a range of just 10-km and no clear objectives formulated, it follows the familiar pattern of investment and subsequent under-utilization.

As Reddi & Sinha ( 2003) observe: "India has the policy and the technology to implement both small scale and large-scale interventions in education. What is missing is the translation of policy and technology into good practice" ( p. 252).

### **RE-APPROACHING THE ROLE OF ICTs IN ODL**

Findings from a whole body of research on the human-computer interface suggest that access to ICTs continues to be largely patterned according to pre-existing socio-economic factors. This goes against the strain of received wisdom within educational communities wherein mono-causal relationships between access to ICTs and learning typify most pronouncements. As a result, overwhelming attention is being paid to setting up ICT infrastructure. This acts as an impediment to its more pragmatic applications.

Simple formal provision of ICT facilities at community sites such as universities or libraries, as in the UGC-INFONET project, which has been conceived as a "tool for the distribution of educational material and journals to the remotest areas" (UGC 2007), may mean potential physical access but no empirical evidence to prove that it will benefit the teaching-learning process.

I would like to reiterate that the objective of this paper is not to discredit the role of ICTs in overcoming temporal and spatial barriers or its archival capacities. For instance, simple, cost-effective communication through e-mail or blogs is extensively used by teachers to communicate with students although there is no official mandate to do so. Educators accept that the Internet is an invaluable research tool.

The point I wish to make is that each community appropriates technology and evolves its own idiom of use. Policy makers should sensitize themselves to the undercurrents of technology-adoption in society and draw inspiration from them, instead of wasting precious national resources on ambitious projects, driven by alien Western imperatives, that don't benefit the students.

In the context of Indian higher education, depleting funds for public universities coupled with the growing demand has caused a mushrooming of private universities, which have poor academic standards and facilities. Foreign universities operate without any off shore campuses and are yet to be brought within the purview of domestic regulations. A growing exodus of students to foreign universities is another discouraging trend.

Developing countries like India, which have yet to universalize primary education, need to steer clear of alarmist rhetoric surrounding ICTs and totalizing accounts of the dawn of an 'information society'. In India only 8 per cent of the population in the age-group 17-23 years receives tertiary education whereas the corresponding figure is 50 per cent in many developed countries. It is important for distance education practitioners not to lose focus, and extricate the social mission from what is fast becoming a technician one.

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