Digital Inclusion Policies: Some lessons from India
IT for Change

India is known as an IT powerhouse but still has the greatest number of poor people of any country in the world. India's experience with policies for digital inclusion therefore may offer some useful lessons for other developing countries. This case study provides an analysis of the ambitious Common Service Centres (CSCs) scheme of the National e-Governance Plan. It looks at the challenges faced by the scheme in ensuring the delivery of development services in a socially inclusive manner using the ICT-based rural infrastructure it is building.

A brief background to policy initiatives in India

Digital inclusion policies in India initially consisted of using funds from the Universal Service Funds[1] to expand rural telephony. However, even with near universal land-line coverage and subsidised tariffs, rural teledensity[2] had only reached 12.6% of the population in December 2008 (with most of the recent growth in teledensity coming from the mobile telephony sector).[3] Use of the internet in rural areas was much lower, even in areas which had good dial-up connectivity.[4] Significantly, there is a well-developed fibre optic backbone that runs within 15-20 kilometres of 85% of villages in India,[5] which remains mostly unutilised due to the absence of viable business models.

Most of the stand-alone telecentre initiatives that have emerged across rural India have found themselves functioning almost exclusively as centres for computer education (in English) and for services like printing and digital photography, with little use of the internet by the community. This is because the provision of the internet in rural areas does not necessarily mean that people will be able to use and benefit from it. There are a range of other factors to be considered, such as the availability of relevant applications and digital services as well as content in local languages.

Some initiatives attempted to combine connectivity infrastructure with digital services. For instance, the first Indian rural internet service provider (ISP), n-Logue, soon realised that, in order to be relevant, internet connectivity had to be bundled

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1   Built from collecting a fixed sum from telecom revenues, which were rising fast due to very rapid mobile phone expansion.

2   The number of land-line telephones in use for every 100 individuals living within a certain area.

3   Telecom Regulatory Authority of India *An approach to rural telephony* (New Delhi: TRAI, 2009)

4   Author's direct observations from rural areas of Punjab, one of the most prosperous states in India. See also an analysis of rural internet connectivity figures in C P Chandrasekhar "Aspects of India's Engineered Traverse to an Information Society", in *Political Economy of the Information Society*: *ISS Series, Volume 1* (Bangalore: IT for Change, 2008)

5   See: www.csc-india.org/AboutCSCProject/ProjectComponents/Connectivity/tabid/174/Default.aspx

with services that rural people needed.[6] However, the initiative seems to have more of less folded up now after some unsuccessful attempts at partnerships with governments.

Another private sector-led initiative, Drishtee, began by working closely with many governments to provide e-government services. However, it now seems to have moved completely into private services.[7] Drishtee's present approach seems to focus on higher-income groups in the villages and does not appear to be engaging the socially and economically disadvantaged communities.[8]

Common Services Centres: A countrywide service delivery infrastructure

The government of India's current policy framework for providing ICTs to disadvantaged sectors builds on the three key policy lessons learnt from the pre-2005 experience with telecentre initiatives in India:

(1) People need real and relevant services rather than ICTs *per se*.
(2) Government services are among the key needs of disadvantaged groups.
(3) Building the infrastructure required for delivering such services requires a focused public sector effort guided and supported by the highest policy levels.

The union government of India announced the National e-Governance Plan (NeGP)[9] in 2005-2006. It is being implemented by the IT Ministry, which has infrastructural responsibilities.[10] A key objective of this plan is to set up a network of Common Service Centres (CSCs) in rural India. Under the CSC scheme, 100,000 ICT-enabled centres are being rolled out, one for every six villages, covering all villages in India.[11] This is being done in sync with extensive back-end reengineering to develop digitally deliverable government services in various government departments.

The CSC scheme has chosen private sector leadership and does not build any clear structural relationship with the district administration and local self-government bodies. Private companies willing to implement 500 to 1,000 CSCs each are chosen as Service Centre Agencies (SCAs) through open reverse bidding.[12] SCAs select

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[6] "n-Logue Rolls Out Telephony-cum-Net Services In Rural Maharashtra" *Financial Express* 20 January 2004 www.financialexpress.com/news/nlogue-rolls-out-telephonycumnet-services-in-rural-maharashtra/71715; "n-Logue communications makes rural Gujarat (India) to be online" *Business Standard* 24 January 2007 www.i4donline.net/news/news-details.asp?newsid=7487

[7] Roshni Nuggehalli et al. *Role of telecentres in development: Four case studies from India* (Bangalore: IT for Change, forthcoming)

[8] Meera Tiwari and Uma Sharmistha *ICTs in Rural India: User Perspective Study of Two Different Models in Madhya Pradesh and Bihar* (New Delhi: Sage Publications, 2008). See also Nuggehalli et al. *Role of telecentres in development.*

[9] www.mit.gov.in/default.aspx?id=144

[10] While the IT department of the central government retains the key overall project management role, state governments will designate a state-level body to coordinate the CSC scheme.

[11] Connectivity up to the block level (an administrative unit for a cluster of villages) is to be provided by NeGP-funded State-Wide Area Networks. Last mile connectivity up to the CSCs is being provided using funds from the recently launched National Rural Broadband Plan. See: www.csc-india.org/AboutCSCProject/Connectivity/tabid/583/Default.aspx?PageContentMode=1

[12] Whoever bids for the lowest subsidy per CSC gets selected.

village level entrepreneurs and set up CSCs. The project documents state: "The SCA would be the prime driver of the CSC scheme and the owner of the CSC business."[13]

The CSC scheme seeks to follow almost exactly the same private sector-led rural services model as employed by n-Logue and Drishtee, with some important added benefits for the service providers: guaranteed revenue stream from e-government services and a subsidy for each telecentre. Surprisingly, neither of these companies is participating in the CSC bidding, which points to a likely gap in the CSC model. There is also no evidence of the CSC scheme learning lessons from rural telecentre initiatives such as Akshaya and Rural e-Seva,[14] where district and local governments were in the driving role, and which have been much more successful in delivering e-government services in a socially inclusive manner. It is interesting to note that a joint study by the government-run National Informatics Centre and Stanford University on different rural telecentre and governance initiatives concluded that local government services and other entitlements should not be subcontracted to private players.[15]

The CSC scheme aims to build a new ICT-based rural infrastructure across India, which is to be used to deliver government and commercial services. The CSC scheme, however, remains stuck with an "identity crisis" in being unable to spell out clearly whether it is primarily a government services outreach plan or a general rural IT infrastructure plan. As a rural infrastructure plan it has been guided by current policy emphasis on using public-private partnerships wherever feasible. Accordingly, it seeks corporate partners with an interest in rural markets who can benefit from such an infrastructure and therefore may be ready to bear part of its cost. Corporate partners defraying the cost of laying rural infrastructure are obviously aiming mostly at prosperous rural sections.

Government outreach services, however, follow a very different logic. These are specially designed to prioritise the needs of disadvantaged sections. Development services most required by disadvantaged people have much lower than average revenue potential and higher than average resource requirements, for instance vis-à-vis the intermediary agent's time. A poor illiterate woman is unlikely to be able to pay much to get information regarding government assistance that she may be eligible for. At the same time she is likely to require considerable support to access this information.

The roll-out of the CSCs has experienced difficulties with the state governments, which have primary responsibility for development services. Gujarat had initially planned to merge its own rural telecentre programme, eGram, into the CSC scheme, but has now decided against it. This is due to incompatibilities between the two programmes, mainly related to ensuring that a rural IT services infrastructure built through public funds is able to meet the full range of requirements of rural governance. The Kerala government is having similar misgivings and is undecided about merging its successful Akshaya programme with the CSC scheme. Both state governments seem to be finding it difficult to reconcile the requirements of core governance and community-related activities with a corporate-led delivery model.[16]

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[13]   dit.mp.gov.in/proj.htm

[14] IT for Change *Pro-Poor Access to ICTs – Exploring Appropriate Ownership Models for ICTD initiatives* (Bangalore: IT for Change, 2005) www.itforchange.net/component/content/133.html?task=view

[15]   Rafiq Dossani, DC Misra and Roma Jhaveri *Enabling ICT for rural India* (Stanford University/National Informatics Centre, 2005) iis-db.stanford.edu/pubs/20972/Dossani_Rural_ICT_2005.pdf

[16]   Author's conversations with senior government officials of the two states over January and March

Significant modifications to the CSC scheme are appearing in some states:

- State rural development and village self-government departments as the lead department for CSC roll-out, instead of IT departments as recommended in the NeGP (for instance, in West Bengal and Gujarat).

- A structured relationship between the village CSC and the village self-government bodies, even though the CSCs are supposed to be only accountable to the private companies, the SCAs (for instance, in Kerala and Gujarat).

- A role for local community-based organisations (e.g., women's self-help groups) in managing CSCs, even though the NeGP specifies only viable entrepreneurs with business acumen for managing CSCs (for instance, in West Bengal).

The community end: Moving from a trickle-down model to a two-way flow

Development policies and programmes aim not only at delivering a set of services, but also at enabling communities towards greater empowerment, through building their capabilities (to use Amartya Sen's capability approach). Correspondingly, the potential of ICTs is also not only as a service delivery platform, but also as a means for empowerment of communities towards self-determined goals. Since CSCs are designed to focus on fee-based delivery of specific services, they ignore the potential of communities to explore the empowering use of ICTs.

Four pilot initiatives supported by the government of India and UNDP's ICT for Development (ICTD) project[17] provide some important directions for policy frameworks seeking to integrate community participation and empowerment into publicly funded telecentre programmes. These are projects that have been piloted within relatively large-scale established development initiatives.

- The Mahiti Mitra initiative in Gujarat has built its telecentre model around the felt need to coordinate large amounts of information and distributed activity in a community-centred manner during the reconstruction period following a severe natural calamity. As well as providing useful government information, telecentres are used for local community-generated development information systems, which are employed for micro-planning.

- Mahiti Manthana[18] is a project that uses community radio, community video and community telecentres to strengthen the government of India's Mahila Samakhya programme. This programme works with very disadvantaged rural women by organising them into collectives around knowledge seeking and community action. The *Mahiti Manthana* project experiments with a model of collective

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[17] For details about these initiatives, see the annual report of the National Institute for Smart Government, which is the project management agency for the ICTD project, at: www.nisg.org/docs/75_ICTD%20Annual%20Report%202006.pdf

[18] Disclosure statement: The project is run by an NGO with which the author is working.

ownership of ICT facilities by marginalised women who are mostly illiterate, and, in the process, builds their capabilities to claim their citizenship entitlements.

- The e-Krishi initiative of the government of Kerala shows how development agencies and local government bodies can partner with community-based organisations like self-help groups and farmer's clubs to develop ICT-enabled local agriculture services that are empowering to participants and not driven by the narrow commercial interests of corporate players.

- The Dristi initiative of the West Bengal department of rural development and self-government uses ICTs to strengthen village self-government bodies in terms of both service delivery and enhanced participation by the community.

Consolidating state-level and community-level experiences into a policy framework

It is important that digital inclusion policies are situated within overall development policy frameworks, and not just seen as a part of telecom or other infrastructural policies. This approach requires an appropriate institutional framework, and a programmatic design that is oriented towards community empowerment. Some specific elements of such a comprehensive policy framework are suggested below:

1. The central government's telecom and IT department should focus on providing basic connectivity and other necessary ICT infrastructure across the country. Such basic ICT infrastructure should be provided as a public good for governance and community activities, and at a minimal cost for other activities, in rural and other under-served areas.

2. A basic national template for an ICT-based delivery system for development and government services should be developed in consultation with departments and agencies directly involved with social development activities. This should preferably take place under the leadership of the departments for rural development and self-government, with enough flexibility for states to use contextual alternatives.

3. At the state level, ICT departments should also restrict themselves to ICT infrastructural and capacity-building issues. Plans and activities related to developing rural points-of-presence and coordinating the development and delivery of digital services should be led by rural development and local self-government departments.

4. The district administration is still the most important implementation level of the governance system in India, and its role in the services delivery system should be clearly defined.

5. Private companies have a role in developing commercial digital services that can be delivered using the CSCs. The state- and district-level agencies in charge of the programme should develop close partnerships with all possible private sector players for this purpose.

6. Most importantly, corporate players should not be allowed to play the all-

important and central "Service Centre Agency" role in implementing CSCs. A rural ICT-based services delivery infrastructure driven and centrally controlled by private companies is unlikely to have outcomes favouring disadvantaged sections of the population.

7. The CSC operator at the village level needs to have a clear structural relationship with, and accountability to, the local self-government bodies.

8. Community-centric telecentre models developed by some NGOs and community-based organisations that have sought to integrate ICTs into a range of community development activities, and that have experimented with new community ownership models, should be integrated into the government-led schemes. Many development sectors in India follow such a pattern (e.g., education, health, agriculture support, women's empowerment, natural resource management, etc.).

References

Chandrasekhar, C P "Aspects of India's Engineered Traverse to an Information Society". In *Political Economy of the Information Society*: *ISS Series, Volume 1* Bangalore: IT for Change, 2008

Dossani, Rafiq, DC Misra and Roma Jhaveri *Enabling ICT for rural India* Stanford University/National Informatics Centre, 2005 iis-db.stanford.edu/pubs/20972/Dossani_Rural_ICT_2005.pdf

IT for Change *Pro-Poor Access to ICTs – Exploring Appropriate Ownership Models for ICTD Initiatives* Bangalore: IT for Change, 2005 www.itforchange.net/component/content/133.html?task=view

Nuggehalli, Roshni et al. *Role of telecentres in development: Four case studies from India* Bangalore: IT for Change, forthcoming

Telecom Regulatory Authority of India *An approach to rural telephony* New Delhi: TRAI, 2009

Tiwari, Meera and Uma Sharmistha *ICTs in Rural India: User Perspective Study of Two Different Models in Madhya Pradesh and Bihar* New Delhi: Sage Publications, 2008