Building sustainable rural information service networks

Gram Vaani Community Media

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Information services in rural areas

The role that the Internet has played in building awareness through information access and building collaboration through interactive info services cannot be denied. But the Internet has made one other fundamental contribution. Even though Internet access is available currently to only 150M Indians, projected to increase to 300M by 2017, leaving just as large a population without access to the Internet, the Internet has demonstrated the NEED for universal information services, irrespective of the nature of the infrastructure.

The Internet has shown how interactive information services can be useful to make people aware, allow self expression, allow participation in governance discourse, and use info services to supplement existing economic activities while also creating new markets.

So how can an information eco-system be developed with or without the Internet, which can do the following:

- Provide a means of **information dissemination which is sensitive to the local context** *to help make people understand the information more easily*

- Provide an **interactive environment to allow communities to discuss and debate**, *and consequently help each other understand and arrive at consensus on issues of relevance*

- Provide an environment **to build custom information services** *which can supplement local economic activities and even enable new markets such as those created on the Internet*

- Enable all of the above in a financially **sustainable manner, using appropriate technologies, at low costs**, *in ways that can interleave seamlessly with the local context and capabilities of people*

We consider 4 essential layers, bottom up:

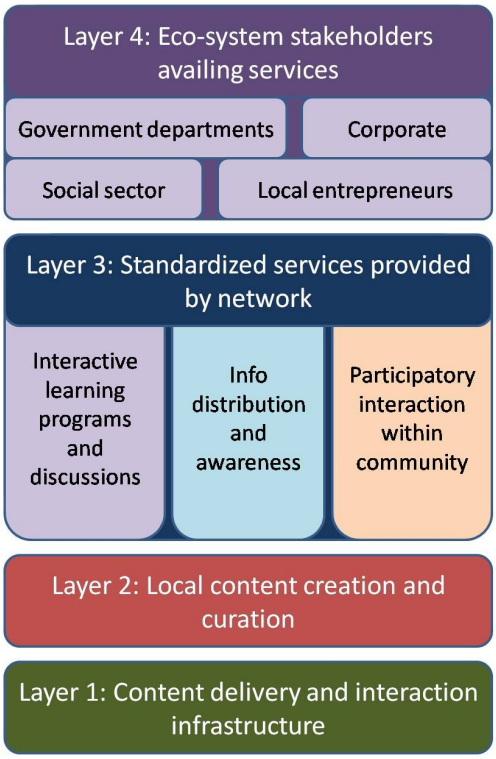
*- **Layer 1:** Technology infrastructure capable of building interactive information services*

*- **Layer 2:** Local content creation and curation, to ensure contextual relevance*

*- **Layer 3:** Methods to ensure standardization of services to guarantee clean interfaces for third parties to use the information services*

*- **Layer 4:** An eco-system of stakeholders concerned with providing information and info services*

The rest of this whitepaper aims to unpack these layers and demonstrate how this eco-system can be enabled sustainably.



Pieces to building a nationwide sustainable rural information services network

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Empowering communities through technology, media, and development

Awards we have won:

- Knight News Challenge in 2008

- Manthan Awards in 2009

- Economic Times Power of Ideas awards in 2010

- Rising Stars in Global Health award in 2012

- mBillionth South Asia Award in 2012

www.gramvaani.org

We started Gram Vaani in 2009 with the intent of reversing the flow of information, that is, to make it bottom-up instead of top-down. Using simple technologies and social context to design tools, we have been able to impact communities at large - more than 2 million users in over 7 Indian States, Afghanistan, Pakistan, Namibia and South Africa. More interesting than this are the outcomes of what we have done: Forty rural radio stations are able to manage and share content over mobiles and the web, corrupt ration shop officials in Jharkhand were arrested due to citizen complaints made on our platform, Women Sarpanches in Uttar Pradesh shared learning and opinions on their work with senior government officials, and citizens were able to monitor and report on waste management in 18 wards of Delhi to hold MCD officials accountable for their work. We work with organizations all across India and in other developing parts of the world.

Information networks for the BoP – is voice the answer?

Internet penetration in rural and low-income urban populations is under 12%. Poor text literary coupled with sparse Internet connectivity and the inability to afford access devices such as smartphones are some factors that inhibit reach of the Internet to the bottom of the pyramid population.

How then can Internet-like eco-systems be created for this demography?

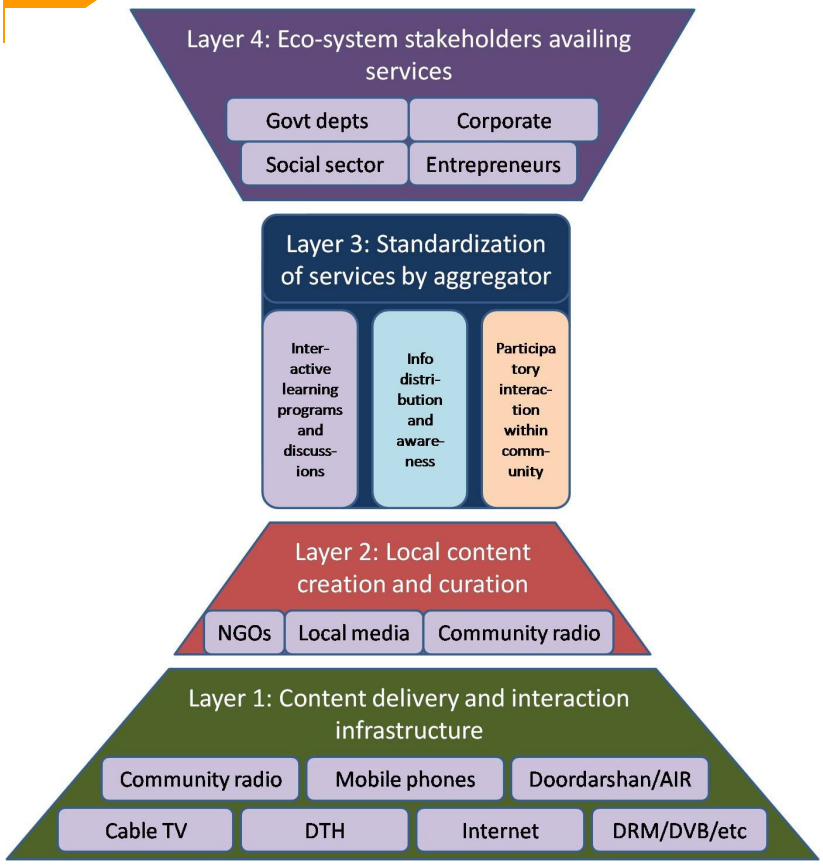
The answer probably lies in the use of voice-based information services. Being able to communicate in voice automatically jumps literacy barriers, and the wide proliferation of mobile phones even at the BoP provides a ready medium.

Several pilots using IVR based systems to enable voice-based services and the success of community radio have demonstrated the potential in using voice to build information services potentially equivalent to the Internet for rural India.

Successful pilots have demonstrated how to enable voice based social media, like Facebook; run data collection for polls and organized discussions, much like a wiki; run classifies networks such as ebay; and run voice based Q&A live and offline, much like hangouts and bulletin boards.

Workflow of a voice based social media network

Unpacking the layers to build nation-wide information service networks



Unpacking the layers: A variety of means exist at layer 1 for technology infrastructure, at layer 2 for local organizations to participate, and at layer 4 for various stakeholders requiring a connect into rural populations. The thin waist at layer 3 is necessary to allow the network to operate in standardized ways and ensure SLAs

Layer 1, technology infrastructure: *The invariant properties required from the technology infrastructure are (a)* **broadcast**, *to reach a large number of people in the desired catchment area, and (b)* **bi-directional communication**, *to allow people to reply and give feedback. The actual type of infrastructure that provides this, is to a large extent a secondary question, and different infrastructures can be substituted. 2G/3G data services coupled with DVB, is as much a viable solution as compared to FM community radio broadcast coupled with IVR based mobile services. Other alternatives also include leasing of air time on public broadcasting infrastructure such as Doordarshan and All India Radio, which have a large reach but so far have not experimented with community based participatory content.*

Layer 2, local content production and curation: *Content needs to contextually relevant. Agricultural techniques in use in Khunti in Jharkhand will be little applicable in Dumka in the same state. Similarly, local governance discussions will lose significance from one Panchayat to the next. The need therefore is to build templates and content guidance messages that can be customized locally, rather than broadcast the same content everywhere. This contextualization can be achieved by local organizations including NGOs, community radio stations, and local entrepreneurs who can take up the function of local content production and curation of discussions.*

These layer 2 organizations can choose the more appropriate layer 1 content delivery infrastructure, for example, by leasing space from AIR to broadcast their content, or setting up their own infrastructure as with community radio, or using third party technologies to set up interaction services such as using IVR systems.

Layer 3, aggregation of services: *Large institutions such as government departments interested in spreading awareness about the latest schemes, corporations interested in reaching to the rural consumer, and development agencies with a mandate to create awareness on health and education, cannot interact with individual local organizations directly. An aggregation service is needed that can establish standardized processes, train local organizations in content, and guarantee service level agreements to third party stakeholders interested in gaining access to rural areas. These aggregators or system integrators can offer geography specific services or theme specific services, by connecting the layer 4 stakeholders with the layer 2 local organizations.*

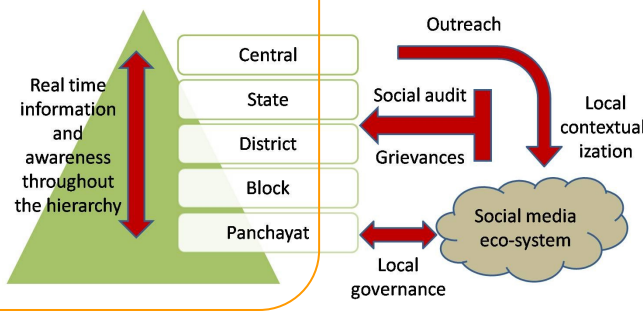
Layer 4, eco-system stakeholders: *The layer 4 stakeholders include governments and other institutions interested in reaching out to rural areas for information broadcast and reverse feedback. Government departments use their IEC budgets for rural outreach, and are increasingly getting interested in receiving citizen feedback on the performance of public services, and use the feedback to improve their performance. Having access to standard outreach services via aggregators will make it easier for them to interact with the network.*

Use of local information networks for citizen-government engagement

Other than integrating social media eco-systems with government departments, social media can be used for more inclusive local governance. This includes the following:

- Create deliberations among communities on local issues such as budgeting, resource allocation, running education and health institutions, and management of the commons

- Run polls to collect inputs around building consensus on local issues

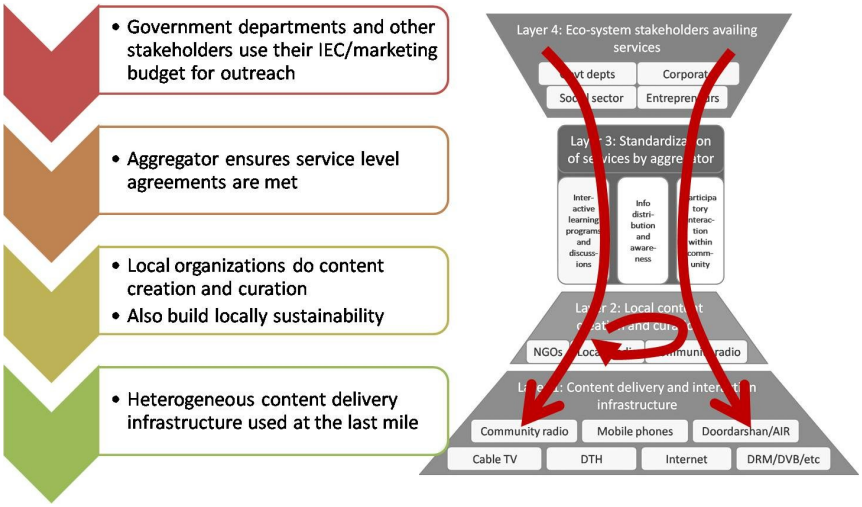


Financial models for sustainability of information networks

We postulate two ways of jointly building financial sustainability for the model:

- **Local revenue generation by content creation and curation organizations:** *Entities such as community radio stations already get revenues from local advertisers and classifieds, which is not sufficient for them to break even, but does help cover up to 20% of their operational costs. Some networks are also partly supported through micro-donations from the community, but these are rare exceptions.*

- **Channeling of third party funding:** *Government departments, development agencies, and corporate organizations are keen to sponsor interactive learning programs, information dissemination, and community participation in governance decision making. The current gap lies in assuring SLAs on outreach, quality of programming, measurable return on investment, and coverage in desired geographies.*



Funding model for sustaining information service networks: Our estimates indicate state-level unit economics can work with average revenue per user of Rs 11 per month, distributed among aggregators, local content organizations, and infrastructure providers, at margins of up to 50%

Gram Vaani case study: Jharkhand Mobile Vaani and its linkage with government and other stakeholders

The Jharkhand Mobile Vaani network is a voice-based interaction platform operated by Gram Vaani on which people can call and share messages and stories with each other.

The Mobile Vaani network in Jharkhand reaches out to more than 35,000 users who regularly interact on the platform contributing call volumes as high as 2,500 calls per day.

Concerned rural citizens are the primary participants, and the content contributed and accessed is broad based comprising of folk songs, local news and announcements, questions and sharing of best practices on health and agriculture, and feedback on government schemes.

Gram Vaani has also built a large network of field partners who are instrumental in carrying out significant offline activity and follow-ups on the information discussed on the forum. This includes a number of local partner organizations:

- Panchayat Nama which covers JMV discussions in their weekly publication

- Organizations including PHRN, GSA, Leads Trust, Sesame, IDF, PLAN, JSACS, Red Cross Society and PRADAN, which help answer questions and provide information to JMV callers

- Progressive district collectors from a few districts who take the community feedback into consideration while planning projects

- State departments including the Department of Labour which helps address grievances and community audit reports put out by the JMV callers

JMV has so far published over 4,000 stories, run 8 information campaigns, and has documented more than 150 impact stories that resulted because of its interventions.

"JMV demonstrates an integrated model of using IVR technology at layer 1, an application of voice-based social media at layer 2, and using standard content creation and curation methodologies inspired by the CLP method to connect with eco-system stakeholders, to build a sustainable model."