

Connecting with rural India

The role of rural internet cafés

A.V. Balasubramanian



Ms Suganya

Compass partner organisation CIKS, the Centre for Indian Knowledge Systems in India, is exploring new ways of communicating with farmers in the rural areas about organic farming. The internet kiosks in rural villages open up exciting new possibilities. They are run by local people and feature, for example, interactive chats in the form of question and answer sessions with experts elsewhere. Even the illiterate seem to have warmed to the idea; using the kiosk operator as an interpreter and enabler, they have no problem using the facilities.

Ms Suganya is a very popular woman in Ulagapichampatti. Thanks to her, the people in this tiny village can, among others, get advice on farming, receive healthcare and communicate with loved ones in distant lands - all through the internet. Suganya is the operator of an unlikely internet kiosk located deep in the heart of rural Tamil Nadu. It is one of several hundred similar kiosks set up by N-logue Communications of Chennai. N-logue belongs to an alliance of organisations that is forging ahead in achieving their vision of a 'wired' rural India.

Each kiosk is equipped with a multimedia capable PC (personal computer), a webcam and other accessories. Kiosks offer villagers a bouquet of affordable services such as internet access, ATM (Automated Teller Machine) facilities, basic computer training for children and adults, as well as solutions to basic problems related to agriculture and health.

The N-Logue project

India has about 100 million telephone connections and 30 million internet connections, mostly concentrated in the large cities. The current cost of installing a single telephone line in a rural location is around Rs 35,000, or 674 Euros. This cost inhibits the use of conventional telephones in rural areas. Additionally, none of the major telecom companies are interested in focusing on the demanding rural markets, as they prefer to maximise their earnings from the much easier urban markets.

In contrast, cable television connections have increased from almost none barely a decade ago, to about 50 million today. The keys to this have been: affordable cable charges (Rs 60-150 per month, approximately 1.2 - 2.9 Euros), low-cost TVs and small-scale cable TV entrepreneurs whose overheads are far lower than that of the corporate sector. Cable TV is now affordable for nearly 60% of Indian homes, not only in large

cities, but also in small towns and rural areas. Thus, by decentralising distribution and using lower cost technologies, cable TV has been widely adopted in a short period of time.

PC and internet penetration in rural India were also facing a number of bottlenecks. But now N-Logue uses an approach similar to cable TV to drive the kiosk PC and internet project in rural areas. It uses a wireless local loop technology called corDECT, which replaces expensive cabling with wireless base stations. These cost savings enable small operators to invest and provide services in a limited area, and make incremental expenditures as the number of subscribers grows.

Bank loans are easily accessible for an operator like Suganya to help set up business. N-Logue provides training to the operators at a nominal cost.

Exciting possibilities

Internet connectivity opens up exciting new possibilities for rural communities. In the Melur district where Suganya's kiosk is located, N-Logue has tied up with several organisations to provide innovative services that can save the villagers a trip to the nearest city. Using a webcam, farmers can show diseased vegetables to experts at the Agricultural University, and receive recommendations. An eye hospital in the nearby city of Madurai provides preliminary diagnosis over the internet, and patients can also book appointments on-line. One of the most promising developments is the success of live chat sessions, using proprietary video-conferencing software provided to all kiosks. These interactive chats usually take the form of question and answer sessions featuring a consultant - doctors, agriculture experts or government officials - during which villagers can get answers on a variety of issues. This software enables several villagers to



Ms Suganya's internet kiosk in Ulagapichampatti, deep in the heart of rural Tamil Nadu.

participate simultaneously in the same session, making it convenient for the consultant to reach a large number of people regularly. These sessions are very well attended, and many have become weekly features.

Villagers adapt rapidly

The high acceptance level among the general public is very encouraging. Villagers seem to have adapted rapidly to the concepts of PC and internet usage, e-mail and live chat. N-Logue partner companies provide local language software in various regions, hence eliminating the most significant barrier to PC use. Interestingly, even the illiterate seem to have warmed to the idea - using the kiosk operator as an interpreter and enabler, they do not seem to have problems using the facilities.

The face of rural India is changing rapidly with affordable internet access becoming a reality. With the current bandwidth sure to increase, technology will tear down barriers, giving information providers an economical and reliable method of instantaneously reaching millions of people.

CIKS web-learning system

The N-Logue project has also opened up exciting new possibilities for CIKS - the Centre of Indigenous Knowledge Systems, in Chennai. CIKS is in the process of developing a web-based learning system designed to deliver content to a typical rural audience. It aims to make it a simple and user-friendly system, with a multimedia content, which can be updated regularly (see Box 1).

The system will make available a vast storehouse of information, techniques, practices and reference material on organic farming. This will include

The screenshot shows the 'WEB LEARNING SYSTEM' interface. At the top, there is a logo for 'Centre for Indian Knowledge Systems' and navigation buttons for 'BACK', 'HELP', and 'QUIT'. Below this, the title 'TRAINING MODULES - Organic Cotton Cultivation' is displayed. A large heading reads 'SELECT A CHAPTER BY CHOOSING THE NUMBER ON ITS LEFT THERE ARE 6 CHAPTERS IN THIS MODULE'. On the left, there is a 'VOICE' button with an equals sign icon. The main content area features a list of six chapters, each with a numbered circle icon: 1. PESTS, 2. DISEASES, 3. NUTRIENT DEFICIENCY SYMPTOMS, 4. PEST MANAGEMENT TECHNIQUES, 5. COMPOSTING TECHNIQUES, and 6. GENERAL TIPS. A small image of a cotton plant is shown next to the chapter list. A text box below the image says: 'Select a chapter by choosing its number. It is recommended that you go through the chapters in sequence, but you can always skip to a specific chapter if you want to.'

three elements: (1) training modules on various aspects of organic farming including best practices, pest and disease management; (2) resources and frequently asked questions related to organic farming; and (3) an on-line community for knowledge sharing. The project is now in an advanced stage of development. A multimedia training module on organic cotton cultivation has already been developed. The module includes detailed instructions for every aspect of cultivation, supplemented by pictures and video demonstrations.

To spread organic farming

While live interactions are definitely effective and useful, they depend on the coming together of a consultant and an audience at a given time. A multimedia module has the advantage of

being continuously available, does not require the interactivity of a live session, and can provide comprehensive and interactive information on demand. Used together, multimedia and the internet can be a powerful training platform. The intrinsic advantages of on-line content delivery - economy, reach, flexibility - make it an ideal way to rapidly extend the training work.

The promise shown by the N-Logue project has convinced us that the rural community is ready for multimedia content delivery. The success of the live video chat sessions demonstrate the ability of the audience to relate to a 'talking head' on the screen - which indicates that they will adapt to multimedia learning with relative ease. By making a comprehensive, user-friendly collection of modules available over the internet, we hope to grease the wheels of the spread of organic farming know how.

CIKS
30, Gandhi Mandapam Road
Kotturpuram
Chennai
INDIA
ciks@vsnl.com
www.ciks.org

Box 1 Features of the CIKS web-learning system on organic farming

Simple and user-friendly: The user interface has been kept extremely simple and easy to understand. Users can use either the keyboard or the mouse to navigate the system. On-screen instructions are available at all times, and help is available at the touch of a button.

Multimedia content: The content is presented as a series of multimedia screens. Simple, legible on-screen text is supported by recorded voice-overs. Videos and animation are used wherever required to demonstrate techniques and practices.

Updated information: The system is completely modular - new content can be developed and plugged in at any time, becoming instantaneously available over the kiosk network. This means that content can always be kept up-to-date and fresh. Adding content to a module is also simple. Modules, once developed, can be easily converted into other languages.

Bandwidth efficient: The system is designed to perform efficiently on any connection over 64 kilobytes per second. In fact, in early tests the system performed acceptably over even a 56.6 kbps dial-up line.

