

# ICT Aided Education for People's Empowerment

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## INTRODUCTION

It is widely recognised that knowledge and education are the key factors that need attention to eradicate poverty. Yet the poorest sections of the community have the least access to conventional means of gaining knowledge and education. Thus we are witnessing a polarized world where on the one side we would find an "information elite" and on the other, the digitally illiterates or excluded. Such a position is very apparent from the world map of the Internet users (Zooknic, 2003). This paradox is common in the developing countries across the globe. The gap between population groups and accessibility to knowledge resources is widening as the awareness, information, as well as education and skill development efforts fail to reach the right target. The major reason for this lies with the present system of knowledge dissemination and not with knowledge resources. India, where literacy is still very low, cannot simply rely on printed books for effective education and knowledge dissemination.

Therefore to bridge the gap between the target disadvantaged population and the knowledge resource, appropriate methods of communication are needed so that the shortcomings of the print and audio-visual media, especially lack of participation, are mitigated. In this regard the digital media and information and communication technology (ICT) have immense potential. This is one of the primary concerns of practice of Community Informatics (Marshall et al., 2003). Community Informatics emphasises that the method of its deployment is particularly important rather than the technology itself. In this article we will describe a model for the community informatics approach that we followed in order to harness the digital media for education, health awareness and development in a specific location in India.

## HOW THE PROJECT STARTED

The concept of the project started with our conviction in "ICT-mediated human network creation to complement skills and assemble resources for development." It started with the following questions:

- What is appropriate model for using interactive media for education and awareness?
- How is it best to tackle the challenge of removing people's mental barriers (especially in the developing countries) to ICT?
- Where Internet bandwidth is still a problem how is it possible to spread the effective use of ICT using the existing human network?

After their belated entry, Personal Computers (PC) and communication facilities are now becoming more available in urban and semi-urban areas in India. However the PC has not generally been considered as an information dissemination tool. This is particularly because of two reasons: (a) people in many cases consider the PC as a sophisticated device or a device for playing games, and (b) there is not enough content that presents knowledge or information suited to local needs. Therefore our first priority was to project the PC as an easy to use "information appliance" for the community. We targeted the stated goal with the following directed efforts:

- Low cost media development using student resources to reach out to people for basic education, health and environment awareness; and
- Creating awareness by involving stakeholders in both developing and promoting the media.

Consequently we created a forum where like-minded NGOs (Non-Government Organizations), ICT experts, students, and schools exchanged views and collaborated to adopt the digital media that would add value to the current method of knowledge dissemination. We started with a consultative workshop with all the stakeholders and fixed the following plan of actions:

- Developing interactive multimedia content as a low cost alternative for awareness and education;
- Promoting the content to the grassroots community through the NGOs;
- Developing Community Information and Learning Centers where ICT activities could be conducted; and
- Promoting the creativity of student community for development of such media.

It was decided that emphasis would be placed on the design of content so that it provided more interactivity in using the media, participation of target groups in realizing the media and lastly development in low denominator technology so that it ran on any platform or machine. Appropriate guidelines were prepared for this purpose.

## **PARTNERS AND THEIR ROLES**

This project evolved through collaboration with various strategic partners that are listed below with their respective roles.

### **Grass Roots NGOs**

There are many NGOs that are already engaged in promotion of education, health and other developmental activities related to local needs. Therefore they are often more acceptable to the community and more likely to have rapport with members of the community. Their role as partners was to extend the community reach quickly and to provide advice on the subject matter, design, approach and language of the digital content. Our long-term goal was to empower the NGO's and the community so that they could initiate their own content development as well as set up a Community Information and Learning Centre in their locality.

### **Schools**

Schools being the centre of education in the community can act as a crucial bridge for the underprivileged. Schools can be the first place to introduce Digital Media-aided learning. If ICT can make learning more inter-

esting and joyful, dropout rates could be reduced with the possibility of inducing others into a positive learning cycle.

## **TECHNICAL EDUCATIONAL INSTITUTES**

There are many technical institutions in the urban areas of India. The students from these institutes need on-the-job experience and scope to work on projects to exercise their skills. We organized the necessary facilities to support such student projects in the community. We directed our efforts to enthuse the students to work for a social cause and to work on projects having practical utility rather than on dummy academic exercises. Our volunteer list is growing.

## **PROJECT DESCRIPTION**

The project did not start with a rigid plan. This was a learning exercise for all involved and the project grew out of an evolutionary cycle of interaction. The methodology evolved through interaction with the stakeholders. The main phases of the project are described below.

### **Initiation Phase**

The project was initiated with a digital conversion of a booklet that was developed by one of our partner NGOs to teach students basic language skills. The booklet was nicely created and adapted to local needs and context. It contained pictures relating to Disaster Preparedness drawn by local students. However because of the colour illustrations the printing cost was high and only few copies were prepared. When we enquired for an extra copy we found that the NGO lost the master copy itself.

We got hold of one old copy and converted it in a digital form with animation. Then we facilitated a process to allow the digitisation to be demonstrated at a local school. The impact was simply fantastic. Convinced by the approach, community members, the NGOs and students now want more such digital presentations. This demonstration also made other NGOs interested in the project. Thus without any persuasion we were able to convince people about advantages of digital media.

### **Group Formation Phase**

Realizing the emerging need because of the digitisation experience we started evolving a work strategy. This led to formation of technical resource group (TRG) compris-

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