ACCESSING INFORMATION TO RURAL COMMUNITIES: CASE STUDIES OF SELECTED TELECENTRES IN UGANDA

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Abstract

There is increasing recognition that "Information is Power" and consequently, playing a vital role in development. The increasing use of Information and Communication Technologies (ICTs) has made possible new methods to deliver services through Telecentres. In view of this, access to information has the potential to contribute to poverty alleviation, create employment opportunities and, playing a central role in decision making. Community leaders seek information to resolve and manage conflicts; information on market demands and availability of commodities drive community business activities; and quite often, quick communication of information is essential among family members on the state of health of relatives. Community access to information and communication facilities is, therefore, a basic need. This paper defines Telecentres, reviews Information Communication Technologies, and gives an overview of selected Telecentres in Uganda and their users. It concludes with discussing challenges and possible solutions.

Introduction

Information and Communication Technologies (ICTs) are becoming powerful tools in accelerating the development process because they are generating an information revolution, which is changing the way people live, work and learn. ICTs are usually understood as pertaining to computers, networking and electronic data processing, as well as rapidly improving communication technologies, including mobile telephone, satellite communications, multifold expansion in bandwidths for voice and data carrying capacity. They have been defined as *'electronic means of capturing, processing, storing, and communicating information'* (Heeks, 1999:2) *and 'a diverse set of technological tools and resources to create, disseminate, store, bring value-addition and manage information'* (Vikas, 2000: 1).

Genesis of Telecentres in Africa

Drawing from experience of how Information and Communication Technologies (ICTs) have transformed the way people in the industrialized

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world manage their professional lives, International Communications Union (ITU), United Nations Educational, Scientific and Cultural Organization (UNESCO), and Canada's International Development Research Centre (IDRC) jointly financed the "Multipurpose Community Telecentre (MCT) Pilot Project for Africa". Within this pilot project umbrella, is the Acacia Initiative, an international effort led by IDRC to empower sub-Saharan African communities with the ability to apply Information and Telecommunication Technologies to their own social and economic development. Thus, Acacia is meant to test the proposition that ICTs can also have significant transformation effects in the developing world like they did in the developed countries.

In the mid 1990s, the International Development Research Centre, the International Telecommunications Union and UNESCO, invested time, effort and money to study this phenomenon of such growing importance. The telecentre is a relatively new institution in Africa, and indeed in Uganda. Although it is still surrounded by many unknowns, it is believed that as a delivery model for ICTs, telecentres have the potential to transform the lives and livelihoods of many in the developing world and even those in remote locations in developing countries (Etta, 2003).

She adds:

> Between 1997 and 2000, Acacia an IDRC Programme Initiative was launched in 1997 as Canada's response to the call and support for an African Information Society Initiative (AISI), concentrating its work in four countries in sub-Saharan Africa: Mozambique, Senegal, South Africa, and Uganda. A few projects were implemented in other countries, for example, Mali, Benin, and Tanzania. Since this beginning Acacia has supported a total of 35 telecentres in seven countries in sub-Saharan Africa five of which have been jointly funded with other international partners such as UNESCO, International Telecommunication Union (ITU) and others.

The Community Telecentre is one way that developing countries can accelerate their participation in the information economy. These three videos, which can be watched on the web, each present a short telecentre "life-story". In Senegal, Paraguay, and Uganda, the videos show how telecentres have both shaped and been shaped by their communities, and how they are helping to bridge the digital divide. IDRC and the World Bank Institute, both of which have rich experiences in supporting telecentres, are co-producers of the videos (**http://www.panasia.org.sg/vod/index02.htm**)

Methodology

The author visited the three selected telecentres in Uganda and made some observations about the services offered and how they were used. Literature was reviewed, and the radio was also used as an information resource. Focus

group discussions were also held with some colleagues who were directly involved with the Telecentres and more Information was accessed from the Internet to enrich the information that was obtained in the field. In addition, in-depth interviews were also used in collecting data from both the users and the telecentre managers.

Telecentre Defined

A Telecentre is a community owned, managed and incorporated facility, which incorporates some "Hi Tech" equipment for the purpose of providing services which stimulate the creative use of telecommunications, computer technology, information access, education, employment, training and business enterprise. Emberg (1996) states that a Telecentre is a shared information and communication facility for people in rural and isolated areas. Share (1998) concurs: "a telecentre refers to virtual village halls, telelearning centres, telecottages, electronic cottages, community technology centers, networked learning centers and digital clubhouses".

Selected Telecentres in Uganda

Currently, Uganda has experience of Buwama, Nabweru and Nakaseke Telecentres among others.

Buwama Multipurpose Community Telecentre

Buwama Multipurpose Community Telecentre is located approximately 80 km South of Kampala along a major highway and off a small trading centre built around a Local Administration Headquarters. The local administration is responsible for a population of approximately 35,000 people, which is also the population that the telecentre is meant to serve.

Services Offered

Buwama Telecentre provides services according to the needs of this community. The Telecentre Management Committee plays an important role in prioritizing services and representing the community. Therefore, the centers can play multiple roles in the rural community including the area of e-commerce, health, education, and community group capacity building. Examples of the services include among others are:

- ◆ Telephone/fax;
- ◆ Library and information access point for digital and print materials, on a wide range of issues;
- ◆ ICT training and visual applications;
- ◆ Internet and email;
- ◆ Topical Video shows;
- ◆ Photocopy;

- Outreach programs and community development programs;
- Indigenous Knowledge (IK) compilation, recording and dissemination and
- Entertainment through radio and television production facilities

Nabweru Multipurpose Community Telecentre

Nabweru Multipurpose Community is located approximately 8 Km North of Kampala City. The telecentre is located at the Local Administration Headquarters that is also a centre of administrative activity for the population around. The telecentre is located some 2 km from a commercial trading centre comprising a population of about 10,000 in the low income bracket.

Services Offered

- Telephone/fax;
- Library and information access point for digital and print materials, on a wide range of issues;
- ICT training and visual applications;
- Internet and email;
- Topical Video shows;
- Photocopy;
- Outreach programs and community development programs and
- Entertainment through radio and television production facilities

Nakaseke Multipurpose Community Telecentre

Nakaseke Multipurpose Community sub-county is located approximately 50km North of Kampala and 16 km from Luweero District Offices. From the 1991 Census, It has a population of 31,004 out of which 15,6172 are women. The 1997 projected growth is put at 35,953. Nakaseke Town itself has a population of 3,000 people. Most of the people are Baganda who are the biggest tribe in Central part of Uganda. Other tribes in the area are Basoga, Banyoro, Luo and Etesot. The youth (below age of 15) form the biggest single population age group. The community is largely oral and does not have a credible reading culture. Till the Telecenter started, there was no newspaper supply in the area it was only available at the next town that is 16 kilometers of a rough road.

Services Offered

Nakaseke MCT provides telecommunication and information services (telephone, fax, and library, Internet, education video, daily newspapers, photocopying) and several other services including:

- Electronic delivery of Agricultural Information from National Agricultural Research Organization (NARO).

- An outreach program that has opened 16 community satellite telecentres at parish level.
- Computer applications training in primary schools and institutions of higher learning such as Nakaseke University and Nakaseke Core Primary Teachers College and Nakaseke Hospital.
- A partnership and network of Community Based Organizations and Non-Governmental Organizations e.g. Micro Finance, World Vision, Volunteer Effort for Development Concern (VEDCO) as well as research and educational institutions (e.g. NARO, Makerere and Kyambogo Universities).
- Annual sports events involving locally grown teams based at parish level.
- Subscription to national and international networks such as the East African Theatre Institute and the British Council.
- Indigenous knowledge management.
- A virtual reality program focusing on social needs such as water and sanitation and household health and HIV/AIDS.
- A primary-schools-focused computer based mathematics program (B-Maths) and
- Soon to commence Community Radio turning the Telecentre into a Community Multimedia Centre (CMC). We are currently on track with a ready radio studio with equipment, an established radio committee and training activities.

While discussing the basic Multipurpose Community Telecentre functions in Support of people's development, Rose represented the services offered by Telecentres diagrammatically as shown below:
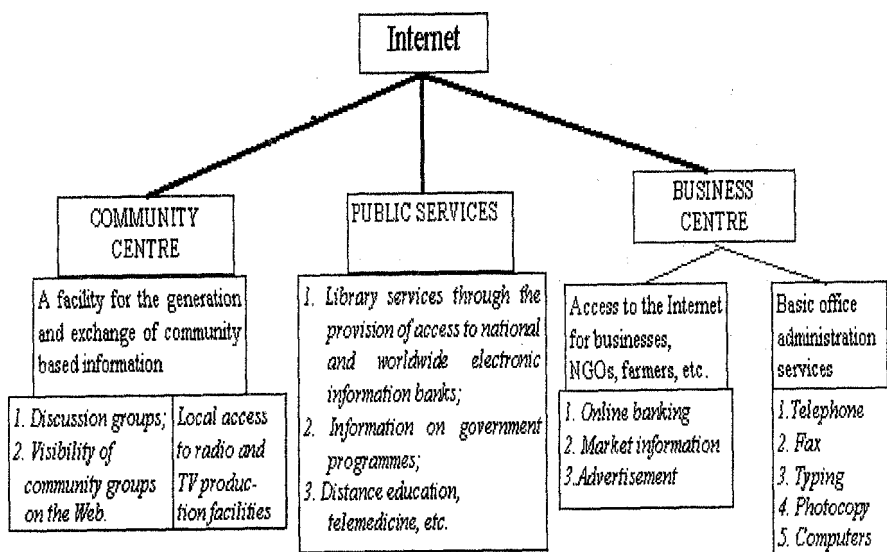(http://www.sdnpbcn.org.bj/partenariats/tcpm/unescocontr.html)

Diagram 1: Services offered by the Multipurpose Community Telecentres

Telecentre Users.
Telecentres users include:
- Teachers, students and pupils who need photocopy services and a good resource centre;
- Medical officers who often want a good and appropriate reference library;
- Business people with the interest of communicating with others in the capital city and an interest in innovations to make own receipt forms and custom letters;

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    │   CENTRE     │ │              │   │   CENTRE     │
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COMMUNITY CENTRE	PUBLIC SERVICES	BUSINESS CENTRE	
A facility for the generation and exchange of community based information	1. Library services through the provision of access to national and worldwide electronic information banks; 2. Information on government programmes; 3. Distance education, telemedicine, etc.	Access to the Internet for businesses, NGOs, farmers, etc.	Basic office administration services
1. Discussion groups; 2. Visibility of community groups on the Web. ‖ Local access to radio and TV production facilities		1. Online banking 2. Market information 3. Advertisement	1. Telephone 2. Fax 3. Typing 4. Photocopy 5. Computers

- Community members, elders and opinion leaders interested in reading newspapers and following current affairs;
- Young people who are interested in learning new skills and trying them out and Women in development groups who want to enhance their work by getting information on videos.

Benefits of the Three Telecentres to the Rural Communities

From the information gathered in the field and observations made, below are the benefits that have been accrued to the rural communities from the telecentres. They have:

(a) Stimulated and created capacity for the community access to local, national and international information services and resources;
(b) Utilized information from the Centres for rural community development;
(c) Imparted skills in information searching including the use of modern information technologies;
(d) Generated local information and knowledge from resources available within the community;

From the findings based on the field data 2003, it was noted that Information and Communication Technologies (ICTs) have repeatedly demonstrated their potential for alleviating poverty in Uganda. In many instances, poor people have experienced benefits in the form of: increased income; better health care; improved education and training; access to job opportunities; engagement with government services; contacts with family and friends; enterprise development opportunities; increased agricultural productivity, and so on.

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Furthermore, participation from all levels requires negotiating and securing of sustainable contracts, win-win situations and provision of quality services. Participation at a community level ultimately comes down to "What's in it for me?" Telecentre clients are looking for a quality, competitively priced and timely products, accessibility, customer service, new learning opportunities, social and work opportunities, less travelling, new and maintained services, and services to make them more efficient and competitive. Telecentre volunteers are seeking to learn new skills, be part of a vibrant organization, meet new people, employment opportunities, and recognition and reward.

Challenges and their Solutions

From the content analysis, interviews conducted and observations made, it can be said that, while many African countries are rapidly mastering modern Information and Communication Technologies (ICTs) and applying them in development, the poorest countries and especially the most disadvantaged population groups are often prevented from benefiting fully from these advances because of isolation, lack of hardware/software, insufficient infrastructures and cultural factors. This is especially true in rural and remote areas of Africa where the majority of the people in the continent live.

Perhaps the major factor, which has prevented many rural regions from benefiting fully from the potential of ICTs, has been the low penetration and quality of telecommunication services. Although recent developments and cost reductions in wireless communication technologies, including both local loop and satellite communications, permit the availability of telecommunication services at any spot on the globe, there is still a cost barrier that rural communities will not easily be able to overcome.

From the same view, Moyo (1997) concurs: The centres face many challenges that characterize other developing countries. The centres have struggled with phone lines and trying to get online. Power backups have not in some centres been installed, and the reality remains that any breakdown of a computer or technical breakage requires time and distance to fix.

Richardson (1997) adds, "rural communities represent the last mile of connectivity, telephone density is very low in the country". Therefore, due to poor connectivity, inadequate infrastructure and human resource limitations, most of the centres provide very limited services. Low level of communication infrastructure in the rural areas makes it difficult for such areas to be linked electronically.

Solutions

Arising from the findings, below were some of the proposed solutions to the challenges faced

    i)   *Cost Barriers*

The government should offer Telecentres services at a very low subsidized charge to allow accessibility and usability of the services offered by these telecentres.

ii)   Low Penetration and Quality

The government should:
(a) Expand the Information and Communication Technologies (ICTs) environment and Public sector agencies should spend their budgets by using Information Technology (IT) tools i.e software, Networks to improve the performance of public programs such as in education

b)   Have the duty to provide for and support the development of all citizens, although rural areas have long suffered neglect with respect to telecommunications networks, in a global climate of equality, this disadvantage and bias are creating growing irritation, which requires attention.

(iii) Computer Illiteracy, Attitude & Culture
People living in rural communities in which these centres are situated should be trained and sensitized to access the required information in order to lower the traditional barriers to using any new technology. This will better. performance in work, self-employment, communication and life long learning

(iv) Telephone Connectivity
There must be a change in state policies that will make access to telecommunications more democratic. This means that organizations and social groups involved in the telecentre projects must press for the definition of policies and decisions, for which they need to have strategic allies at all levels in the region.

Conclusions and Recommendations
From the field research (2003), the following are the conclusions and recommendations:

i)   The Telecentre Managers and Information Officers, though computer literate, lack both technical and professional skills necessary for the challenging ICT tasks ahead of them. As a matter of extreme urgency, Acacia should intervene in strengthening a range of human resource development needs right from the

community users of the MCT, through the intermediaries (telecentre managers) IT specialists servicing the facilities.

ii) Constant sensitization of the community, as opposed to a one-shot sensitization exercise, to create awareness and sense of telecentre ownership among the local communities is very crucial for the success and sustainability of the telecentres. This effort should start as early as possible and seen through the project lifetime. Thus, the project should avail funds for routine outreach sensitization exercises.

iii) Although telecentre initiatives are community based, and therefore participatory, there is need to jump-start them off with some guidelines on roles and responsibilities to avoid conflicts between operations and steering committee roles.

iv) Reliance on telecentre volunteer trainees (Core User Group) as a computer-literate corps of users who, once they have acquired skills, could serve the interests of the community does not seem to be reliable as "voluntarism" without some form of motivation is not sustainable in a dynamic society. This is an issue that the steering and management committees should consider.

v) The Telecentre Managers need not underestimate the importance of keeping updated user registration logs and recording daily usage data to enable routine monitoring and evaluation of the telecentres. It is from these periodic assessments of the telecentre operations that efficient utilisation and reinvestment in the telecentres will be based. Thus, the resident Acacia Project Manager should keep an eye on this important aspect.

vi) The Acacia telecentres, though connected at project level through the Project Manager, are not operationally linked. As pilot telecentres, they should be connected to foster collaboration between the different participating communities.

vii) Acacia should encourage and, funds permitting, support the development of the communication infrastructure (network) for Buwama MCT-otherwise lack of telephone connection works against the perceived objectives of Acacia.

viii) Satisfying the local information needs of the users will be one way, among others, to attract big numbers of the community to the telecentres. This will therefore, be a healthy process towards both the sustainability of the MCTs at the expiry of IDRC funding, and the fulfillment of the ACACIA vision that "by utilizing ICTs to their own ends, disadvantaged communities may be able to shift away some of the decision-making from metropolitan centres and international development organizations towards the places where development challenges are faced most acutely".

Communication centres /telecentres in Uganda are small businesses. They may be commercial or community, or education-oriented giving priority to learning, productivity and communication services that will be paid for. The learning services they provide are vocational in nature (typing, accounting, software and PC maintenance skills). The provision of access to information and communication services offered by these Telecentres is currently seen as a key to accelerating development in Uganda. Until recently, the high cost of providing even basic telecommunication services limited the potential for widespread access to information and communication facilities. Today, information technology is opening up new possibilities and frontiers. The increasing use of information technology has made possible new methods to deliver services and to supplement existing ones. it is necessary therefore, to put an end to the isolation of rural communities so that they can pool experience and keep abreast of progress in society, and thereby identify for themselves the opportunities that exist for their own activities and needs - in short, so that they too can have a chance to contribute to and draw on the global information society.

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