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An Evaluation of a Donor Funded Information and Communication Technology Centre in a South Africa Indigenous Community: Reflections on the Bhamshela Telecentre

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Abstract

This study investigated the role of donors in the establishment, implementation and sustainability of information and communication technology centres in indigenous communities. This was achieved by looking at success factors and challenges experienced at the Bhamshela donor-funded telecentre in South Africa. The objectives of the study included determining the mission of the telecentre, identifying the services offered, the factors that affected the use and non use of services and identifying challenges that the telecentre encountered in the course of providing services to its users. The study used both secondary and primary sources of data. The population of the study consisted of senior representatives of the organisation that facilitated financial and technical support to the telecentre. The study showed that the success of the telecentre enterprise in indigenous communities can only scale up if donors comprehensively review the current implementation and management model for these initiatives, taking into account the diverse political and socioeconomic realities existing in different communities.

Introduction

There is a direct link between the socioeconomic disadvantages experienced by indigenous people and their access to information and communication technologies (ICTs). These social disadvantages, directly related to marginalisation and characterised by poverty and powerlessness, are reflected in measures of education, employment and income (Carson *et al*, 2007). Significantly, these social disadvantages also inform the so-called 'digital divide' phenomenon (Digital Divide Network, 2004).

The 'digital divide' refers to inequalities in access to computer-based ICTs such as the Internet, and in the capabilities required to utilise these effectively (Digital Divide Network, 2004; Lester and Koehler, 2003; National Office for the Information Economy (NOIE), 2002). The fundamental cause of the digital divide lies in the patterns of socioeconomic stratification that shape access to all social services (Norris, 2001). In South Africa, the digitally disadvantaged predominantly include indigenous communities living in peripheral areas and other vulnerable groups such as those on low incomes, the unemployed, those without tertiary education, those from non-English speaking backgrounds and the physically challenged (Burton, 2002; DiMaggio and Hargittai, 2009; Etta and Parvyn-Wamahiu, 2003; Chisa and Hoskins, 2013).

The significance of the digital divide lies in the increasing importance of ICT access to economic, social, and political opportunities in the current global information society (Hendry, 2000; Horrigan, 2003; NOIE, 2002). For example, information-based goods, services, and employment represent increasingly significant sources of wealth in an information-driven economy (NOIE, 2002). Governments and private

sectors are also increasingly shifting to online information and service delivery (Holloway, 2002; NOIE, 2002). Moreover, the Internet has emerged as a new site for economic empowerment, education, social interaction and political engagement (Curtin, 2001; Norris, 2001; Page and Katitjin, 2000). Thus, as opportunities become synonymous with ICT access, there is concern that existing social inequalities constraining ICT access for the disadvantaged will be perpetuated or even exacerbated (Curtin, 2001; Holloway, 2002; Horrigan, 2003; Norris 2001). While commercial ICT centres such as cybercafés and Internet kiosks are now prevalent in the urban areas of many sub-Saharan African countries (Acheampong and Dzandu, 2012), rural areas still remain relatively underserved (Internet World Stats, 2012). One of the answers to the problem of the digital divide in rural and other marginalised communities, therefore, has been the diffusion of donor-funded information and technology centres, commonly known as telecentres (Etta and Parvyn-Wamahiu, 2003; Chisa, 2006; Chikumba, 2011).

Telecentres are known by different names in different places. Some of the names commonly used include: telecottage (Europe), community technology centre (US), multipurpose community telecentres (Africa) and public Internet cabin (Cuba) (Menou, 2003). For the purposes of this study, a telecentre will be understood as: an integrated information and communication facility that houses a combination of both new and not-so-new ICTs (e.g., television, video, facsimile, telephone, computers with Internet connectivity, printer, newspapers and sometime books). This type of facility, according to Etta and Parvyn-Wamahiu (2003), is called a multipurpose community telecentre

Harris (2001) explains that multipurpose community telecentres (MCTs) provide an alternative to the model of one-to-one individual access to ICTs that is common in the 'developed' world. As community resources, MCTs offer opportunities for development that are based on improved access to information for whole communities. Thus, telecentres have become increasingly important to promote widespread access to and use of ICTs in peripheral areas, as evidenced in both academic and industry literature on ICTs and development (Heuertz *et al* 2003; Kamssu, Siekpe and Ellzy, 2004; Selwyn, 2003; van Dijk, 2005; Bertot, McClure and Jaeger, 2008; Kuriyan and Toyama, 2007; Wilson, 2004).

The Telecommunications Act was enacted in 1996 and the government declared universal access to telephony as the cornerstone of this policy (Benjamin *et al*, 2000). The Telecommunications Act created the Independent Communications Authority of South Africa (ICASA) in 2000 as the telecommunications regulator. The Act also established the Universal Service Agency (USA) as the primary vehicle for the provision of ICT access throughout the country. The USA has largely focused on setting up MCTs mainly in rural areas of the country (Burton, 2002; Benjamin *et al*, 2000). According to Benjamin *et al* (2000), twelve of the MCTs set up by the USA were with financial and technical assistance from the International Development Research Centre (IDRC). One example of the USA/IDRC funded telecentres in the country is the Bhamshela MCT (IDRC, 2002).

Contextual Information of the Bhamshela Telecentre

Bhamshela is a rural area about 90 km east of Pietermaritzburg. It is in an area bedevilled by high illiteracy and unemployment levels (Burton, 2002; Schreiner, 2006). According to Burton (2002), the process of establishing the MCT arose from a call of expressions of interest by the USA to which the community responded by forming an organisation to take the initiative forward. Two community groups owned the telecentre, namely the Bhamshela Arts and Cultural Group and the Open Window Network. The building housing the ICTs was donated by the local community. It was expected that the telecentre would work as a small business enterprise whereby clients would pay for the use of services such as telephone, fax, photocopying, printing, email and Internet at a rate that would generate income for the initiative (Burton, 2002). It was projected that this income would enable the telecentre to become viable after a year, and that future profits would be ploughed back into the telecentre to upgrade and develop services. The telecentre officially opened in April 1998. The operating hours were 08h00 to 18h00 every day of the week, with flexible hours applicable during weekends and public holidays. The MCT started with six telephone lines, a fax machine, a photocopier, a printer, six computers and a scanner.

Its two managers, one of whom was a woman, received basic training in ICTs and management from the donors (Schreiner, 1998).

However, what had begun as a promising information resource centre soon became a technological and financial burden to the community. According to Schreiner (1998), the Internet facility was only successfully installed at the end of 1999, one year after the MCT's inception. The printer stopped working almost immediately and staff members had to walk a long distance to print at an alternative facility since they were unable to raise enough funds from the telecentre services to repair or replace the printer (Schreiner, 1998). Schreiner (1998) adds that services such as scanning, email and the Internet were underutilised due to lack of ICT skills and low literacy levels amongst users. Moreover, the telecentre was unable to keep service rates affordable in a community where unemployment was rampant. The telephone was the largest source of revenue. However, the revenue realised by the phones was not sufficient to ensure financial security. By March 1999, prices for telephone services had increased exponentially, rising from 40 cents per phone call unit to one Rand per unit (Schreiner, 1998). The telecentre was closed in late 2001 mainly after experiencing problems with Telkom resulting from a large bill it could not pay (Schreiner, 2006).

Statement of the Problem

The typology, the sociology and the politics of MCTs suggest that it is established and operated to meet the needs of the "geographically disadvantaged, economically weak and infrastructurally poor majority" (Etta and Parvyn-Wamahiu, 2003). This group is demographically diverse and prevalent across all sub-Saharan Africa. The first issue then is to determine the actual role, donors play in the process of establishing and implementing MCTs in such heterogeneous and challenging environments. It is clear from the literature that various problems have plagued donor-funded telecentre initiatives in Uganda, Senegal, Malawi and Mali amongst many other countries on the continent (Benjamin *et al*, 2000; Etta and Parvyn-Wamahiu, 2003; Chisa, 2006; Chikumba, 2011; Chaputula, 2012; Chawinga, 2014).

In the case of Bhamshela MCT, some researchers have alluded to donor policies for its poor performance. For example, Benjamin *et al*, 2000) observe that the USA "was unable to get crucial information from the ground that would allow it to map out [relevant] services and … effectively monitor progress". In addition, the Agency, "partly in response to political pressure", moved quickly towards implementing the project without other supporting institutions such as schools, hospitals and other government departments which could have formed a strong supporting base (Burton, 2005). Schreiner (2006) also claims that a community needs assessment that could have reconciled the requirements of the community with the services offered by the MCT was never carried out. Significantly, Khumalo (2001) cites the underutilisation of Internet and email services as a reflection of poor project planning by the donor.

The above suggests that although donor assistance has acted as a seedbed for the diffusion of ICTs in marginalised communities, future use and development will largely depend on whether the donors themselves have embraced policies that guarantee the sustainability of these initiatives (Harris, 2001). Since donor support is always time bound and limited (Harris, 2001), this study intends to determine the role donors can play in creating a dynamic sustainability framework that would ensure continued and effective service delivery after the termination of donor support.

Objectives of the Study

The objectives of this study, therefore, are to:

- assess donor policies on telecentre incubation in an indigenous context by looking at key areas of success and failure (if any) at the Bhamshela telecentre;
- determine the extent to which the donor-funded telecentre model can engender indigenous community ownership;
- explore whether donor-funded MCTs provide a sustainable way of providing indigenous access to ICTs and determine the conditions that must be met to make them sustainable;
- explore the dynamics of strategic partnerships between donors, the indigenous community and other stakeholders; and

- assess the monitoring and evaluation process of donor-funded MCT services in light of the Bhamshela case.

Research Framework

This study adapted Gomez's (2010) Access, Capacity and Environment (ACE) framework, and structured it as a tool to understand a range of cultural, socioeconomical and technological issues that affect the way in which indigenous people use ICTs in community telecentres to access information.

The three pillars of this framework are:

- **Equitable access**: This embraces the physical access of the telecentre, the suitability and affordability of telecentre services as well as the technological access therein;
- **Human capacity**: This pertains to the training of both users and staff of the telecentre in order to meet indigenous needs and ensure social appropriation; and
- **Enabling environment**: These are the socio-cultural factors, political will and policy framework which bear on the sustainability of the telecentre

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This holistic approach is well suited to evaluate the role of donors in the diffusion of ICT interventions in indigenous communities, considering that a key characteristic of ICTs is their multi-sectoral dimension. This means that ICTs can affect people's lives simultaneously in the economic, social and political spheres (Heeks, 1999). This approach stands in contrast to the majority of existing ICT evaluations which have focused primarily on the issue of 'access', 'usage' and 'dissemination' (Heeks, 1999). This assumes that the mere improved access to ICTs will have a direct positive impact on the lives of the poor. These evaluations focus on measuring more immediate and quantifiable output indicators, such as the increase in total numbers of Internet hosts or increases in number of computers per capita (Heeks, 1999).

However, Gomez's (2009) ACE framework is in favour of going one step further by placing individual and collective capabilities of indigenous people at the centre, with information and ICTs playing a supportive role. This underscores the fact that ICTs are not a means to an end by themselves. Although it is argued that the right to information and knowledge is an important entitlement and its absence can be a contributing factor to poverty, this notion needs to be balanced against the broader context of existing socio-economic inequalities which may reinforce themselves through the ICTs (Castells, 1997; Howitt, 2001).

Literature Review

The digital divide experienced by indigenous communities in South Africa can be considered historical in origin, but perpetuation of the disadvantages owes much to contemporary structural and social factors, embodied in what have been termed as the 'social determinants' of access to information (Howitt, 2001). In broad terms, economic opportunity, physical infrastructure and social conditions influence the way in which individuals, communities, and societies can have access to information. These factors are specifically manifest in measures such as literacy levels, employment, income, access to ICTs, social networks and even racism (Chisa and Hoskins, 2013). On all these measures, indigenous communities in South Africa suffer substantial disadvantage (Carson *et al*, 2007; Marmot, 2004).

In recent years, two concepts have been used with regard to community access to ICTs: universality and usability (Chisa and Hoskins, 2013). Universality means that all human beings are entitled to access information, and usability is the potential of a device or service to be utilised to meet the user's needs. Threats to equitable access to ICTs prevent equitable social and economic empowerment (Kamssu, Siekpe and Ellzy, 2004). Moreover, the unequal access to ICTs among groups due to differences in demography, economic status and locations has been seen as a hindrance to globalisation through Internet connectivity (Kamssu, Siekpe and Ellzy, 2004). The findings of this study uncovered distinct patterns underlying the global disparities that ICT access carries. These disparities increase in developing countries such as South Africa where indigenous communities abound (Kamssu, Siekpe and Ellzy, 2004). The United Nations (UN) in its statement on Universal Access to Basic Communication and Information Services observes as follows:

> The information and technology gap and related inequities between industrialised and developing nations are widening: a new type of poverty, information poverty, looms. Most developing countries, especially the least developing countries are not sharing in the communications revolution ... (United Nations, 1998).

Due to the relative novelty of access to ICTs in telecentres and the shortage of guidelines for establishing and implementing MCTs in indigenous contexts, many questions remain unanswered as to how this innovation can bring about sustainable equitable access to information resources amongst the most disadvantaged sections of the population, especially in sub-Saharan Africa (Gomez and Ospina, 2001).

Telecentre Models

The literature shows that there are three main telecentres models: private owned, non-governmental organisation (NGO) owned and trusteeship owned. Bhamshela telecentre, the focus of this study, falls under the category of trusteeship. In this arrangement, the telecentre "is... held in trust by the executing agency [i.e. the funding institution] for a specified period until the owner, i.e., the community, is ready to take over" (Etta and Parvyn-Wamahiu, 2003: 163).

The main-donor funded telecentre programmes in Africa have been a partnership between such bodies as the International Telecommunication Union (ITU), the United Nations Development Programme (UNDP) and the IDRC, amongst others, in collaboration with local executing agencies (Benjamin *et al*, 2000). This partnership has seen the establishment of telecentres in Mali, Uganda, Mozambique, South Africa and many other sub-Saharan African countries. Donor-funded telecentres tend to be more expensive, costing well over US$250,000 each, and can offer a range of technologies such as telephony, word processing, faxing, printing, photocopying, scanning, Internet, e-mail and sometime library services (Benjamin and Dahms, 1999). Moreover, donor-funded telecentres stress community participation and sustainability, which is why they are also known as MCTs. According to Chikumba (2011), however, no donor-funded telecentre in Africa had, at the time of his study, shown that it could be self-sustaining after the external funding had ceased.

At best, donor-funded MCTs have so far only covered operating costs, sometime not including phone bills and salaries (Burton, 2002; Chisa, 2006; Chikumba, 2011). Moreover, no major donor-funded telecentre has been able to set aside funds for depreciating equipment, let alone generate enough revenue to repay the initial capital. In most cases, there have been greater technical problems than anticipated as attested by the Bhamshela experience (Schreiner, 2006). Many of the donor-funded telecentres have been top-down enterprises, certainly with some community participation, but within the strict precincts of the external funders' policy provisions (Etta and Parvyn-Wamahiu, 2003; Jensen and Esterhuysen, 2001). As a result, Chikumba (2011) warns that while there is some evidence regarding the usefulness of ICTs in marginalised communities, none of the existing donor-funded telecentres in Africa can be rolled out on any large scale as they do not represent a model that is sustainable for universal access.

The Donor-Funded Telecentre Model and the Indigenous Context

Even though there appears to be general agreement on the basic needs and the functions of donor- funded MCTs in rural areas, there seems to be little understanding regarding the effect of donor policies in the establishment, implementation and sustainability of these initiatives in such challenging environments (Webb, 2002). This could be due to the general lack of literature on this subject. However, it has been suggested that the establishment of donor-funded MCTs in marginalised communities has so far tended to evolve over time by following a rigid vertical trajectory. In this regard, Etta and Paravyn-Wamahiu (2003) make reference to three important stages in the metamorphosis of these initiatives in which donors play a crucial role, namely "the investment stage, the contract stage and the user fee stage".

- The **investment stage** is seen as characterising the early stages of the project. This is where donors form partnerships with local stakeholders in an attempt to build

community capacity by encouraging them to participate in the project. At this stage, the donor finances the project, as well as providing equipment and training for local partners, key persons and staff.

- In the **contract stage,** the telecentre has gained autonomy from the 'parent' agency. It then starts to make contractual agreements with other agencies and government organisations such as hospitals or schools while also building up the clientele to which it provides services and from which it derives support.
- By the time the telecentre gets to **the user fee stage,** donor dependency is a thing of the past. By this time, the communities are well aware of the products and the benefits of the telecentre and are, therefore, willing to pay for services.

The implication of an evolutionary perspective is that it is only a matter of time before an MCT becomes independent and self-sustaining. However, Etta and Paravyn-Wamahiu (2003) warn that this outlook is at best idealistic and has rarely been realised. According to the two researchers, the evolutionary thesis gives little attention to the political, cultural and socioeconomic realities on the ground that weigh heavily on the trajectory of all donor-funded development projects in marginalised communities. Harris (2001) observes, for example, that very few examples at the user fee stage have been reported in the literature, and this is perhaps proof that few projects of this nature have advanced to that stage.

Methodology

The purpose of the study was to examine the role of donors in the establishment, implementation and sustainability of donor-funded telecentres in indigenous communities. The nature of this study is applied research, meaning that emphasis was placed on providing information that can be used in addressing practical telecentre establishment, implementation and sustainability issues. To attain the objectives the study**,** the exploratory research design, utilising the case study methodology, was employed to gather data.

The population of the study was selected purposively mainly because the individuals would be knowledgeable about the research questions. The population, therefore, consisted of three senior officials from USA, the local organisation that oversaw the implementation of the project with funding from IDRC. By virtue of their high-ranking positions, these individuals were able to answer questions concerning their organisation's involvement with the project. An e-mail questionnaire was sent to the three people. One of the researchers also had the privilege of conducting face to face interviews with S. Burton in 2005 and H. Schreiner in 2006, in view of their previous involvement with the Bhamshela MCT. However, these two researchers were not part of the population of the study. The researchers decided against interviewing local community users and staff of the telecentre because it was deemed unfair to expect them to make any meaningful comment on donor policies regarding project implementation and sustainability.

In addition to collecting the data through interview and questionnaire, data was also collected from the literature (both online and print). The collected qualitative data was then analysed by thematic content analysis. In order to identify major themes, the labelling and categorising of phenomena was done as indicated by the analysed data. The methodology used does not allow results to be generalised (Ngulube, 2002) but it provides an in-depth insight into critical issues relating to the establishment, management and sustainability of donor-funded MCTs in an indigenous community in South Africa.

Findings and Discussion

It is clear from the literature that the socio-economic disadvantage of indigenous communities as a marginalised group has resulted in a weak community infrastructure for digital information access both technologically and economically and in terms of skills-based capabilities (Etta and Parvyn-Wamahiu, 2003, Chikumba, 2011; Chisa and Hoskins, 2013). However, this study has also shown that the success of ICT initiatives in an indigenous community in South Africa is not limited to physical or socio-economic factors only. Success can be impacted by donor policies on issues such as:

- the indigenous context**;**
- community ownership of the project;
- project sustainability;
- partnerships between the donor and other stakeholders; and
- monitoring and evaluation of services

These important factors are described and illustrated in detail below, aided by specific examples from the case study under review.

Indigenous Socioeconomic Context

This study has identified that one of the barriers affecting indigenous access to ICTs is the geographical distribution of the indigenous population, many of whom live outside major cities. For example, Bhamshela MCT was located in a remote and impoverished area making cost-effective implementation of technological infrastructure difficult. Similar communities in many parts of sub-Saharan Africa continue to lack basic access to ICTs due to high implementation and maintenance costs related to rural geographic location of the communities. The finding is supported by ((Institute of Africa Development, 2010; Asia Development Bank, 2008; Burton, 2002; Etta and Parvyn-Wamahiu, 2003; Schreiner, 2006).

This study has also shown that rural or remote Internet users often experience higher costs, inadequate bandwidth and poor or unreliable services as attested to by the Bhamshela case (Burton, 2002; Etta and Parvyn-Wamahiu, 2003, Schreiner, 1998; Schreiner, 2006). Crucially, the study has shown that although some form of Internet access can be made physically available to indigenous communities through MCTs, many people would be unable to afford the services due to low levels of income existing in these communities as was the case at Bhamshela. With that in mind, donors need to realise that limited exposure to ICTs constrains awareness of the benefits of Internet access and the development of basic computer literacy, barriers compounded by indigenous lack of ICT training as was the case at Bhamshela..

Community Ownership

The role of donors in identifying and moulding local 'champions' or what Rogers (1995) calls 'innovators', who can mobilise others in the community to accept the vision of the telecentre initiative is important. This is critical for the project's sustainability once the external funding has ended. This study has shown that ownership can be promoted if the beneficiary community contributes to the decisions made leading up to project implementation. At Bhamshela, respondents from the donor organisation reported that laid down guidelines were followed for the preparation of community champions at the site. These included invitation and selection of representatives of community organisations, validation of the champions after confirmation had been done with stakeholders, as well as champions' awareness training. The respondents added that the outlining of the expectations, roles and responsibilities of the champions during both the pre- and post rollout periods were part of the champion identification and moulding process in order to encourage community ownership of the project.

Mayanja (2001) explains that for the innovators to be from the community itself increases the credibility of the telecentre initiative. The professional literature on the diffusion of innovations also underlines the importance of the innovator: "the innovator," says Rogers (1995), "plays an important role in the diffusion process - that of launching the new idea in the system by importing the innovation from outside the system's boundaries and igniting early adopters." According to Mayanja (2001), this requires the zeal of individuals who can translate and demonstrate the relevance and application of these kinds of concepts to the realities of the community.

Project Sustainability

This study shows that when selecting telecentre locations, donors need to take into account the level of potential demand for ICT services from a large number and a wide range of users and the viability of the project in the particular area. This ensures maximum utilisation of the facility and through cost sharing reduces the expense to individual users. In this regard, one respondent explained that donors for the Bhamshela MCT appointed provincial coordinators (PCs) nationwide whose brief was to keep the organisation up to date regarding these critical issues. The inference is that, based on the

expert advice from the PCs, the donor was satisfied with the user demand, the surrounding infrastructure and the viability level of the Bhamshela project. Yet, evidence from the literature as well as comments from both S. Burton and H. Schreiner suggest otherwise.

The study has shown that no community needs assessment was carried out at the Bhamshela telecentre. This inference is apparent when one notes that a collaborative needs assessment at the MCT could easily have identified the lack of demand for some services which it was offering. The result was that some irrelevant services offered at the MCT computer classes and Internet service were being subsidised by a service very much in demand, the telephone, which in turn affected the pricing of the latter. Ernberg (1998) observes that good techniques for needs assessment can be easily developed and used according to specific situations. The time required for the assessment will vary depending on factors such as the availability of existing information about the proposed telecentre location, the depth of information required in the planning stage of the telecentre, and the level of use of ICTs at the proposed location (Ernberg, 1998).

The study has also shown that no basic training was incorporated as a central component in the general management model of the project. Yet, some of the problems experienced by the telecentre clearly point to inadequate training both for the telecentre staff and its users. In fact, one of the reasons why computer classes failed at the Bhamshela MCT was that its staff did not have the necessary skills to offer this service in the first place. The sad scenario at Bhamshela MCT highlights the fact that the provision of ongoing training for users of the telecentres and training, on an as-needed basis to upgrade staff skills is required to meet the changing technology and content requirements of community telecentres.

Finally, while the literature acknowledges some growth in online content creation by some telecentre donors in collaboration with indigenous communities and other stakeholders (Chisa and Hoskins, 2013), there was no evidence at Bhamshela to suggest that local content was ever discussed or used. Yet, as Ernberg (1998) advises, telecentres are not just technology centres; they can also be 'living laboratories', which facilitate local sharing of information and ideas, especially when relevant local content is created and used to enhance local social development.

Strategic Partnerships

The literature shows that to ensure project sustainability, donors need to consider the proximity of other organisations and institutions that can play roles in using, supporting, maintaining or operating the telecentre. Such organisations might include: health centres, schools/colleges, community and cultural centres, religious centres, libraries, organisations of farmers/fishermen/craftsmen, post offices, local/national government administration offices, NGOs and community-based organisations, among others. However, this was not the case at Bhamshela MCT which did not have the benefit of these organisations in its vicinity due to its isolated position. As a stand-alone project, the telecentre had a very narrow clientele base, which meant donors had to raise the cost of services quite high in order to keep it on its feet (Burton, 2002; Schreiner, 2006).

Other donor considerations that can enhance sustainability highlighted in the literature include: a location that is easily accessible to potential users (for example, near public transport or within walking distance); the availability of an existing structure (for example a school building, library, extension office and so on) or a new structure which is suited to use as a telecentre (appropriate layout, secure); access to electricity; and connection to telephone lines and the Internet. At the Bhamshela MCT, the building housing the ICTs was donated by the community and renovated to an acceptable level for the project to work in keeping with the above-mentioned purpose. However, evidence from the collected data and the literature shows that problems regarding telephone connectivity and electricity supply severely affected the Bhamshela project. In fact, when the MCT was finally closed, it was mainly due to the disconnection of phone lines by Telkom owing to huge unpaid bills. These problems suggest that, in some situations, the development of MCTs may be inappropriate, and other types of communication solutions, electronic or otherwise, should be explored by donors.

Finally, the study has shown that, to ensure project success, donors need to consider the socio-cultural aspects that may affect the utilisation of the

telecentre. This is important because, to be effective, telecentres need to be integrated into communities so that they lessen, instead of widen the communication gaps between the information rich and the information poor (Ernberg, 1998; Subedi and Garforth, 2001). Donors need to realise that in the face of widespread interest in the 'digital divide' debate, broad-based community participation should become part of the telecentre's mandate. This is important in order to reach out to ethnic minorities, women, children and the elderly who are often on the wrong side of that divide. In this context, it is noteworthy that one of the two managers at Bhamshela MCT was a woman (Schreiner, 2006). To their credit, Bhamshela donors paid attention to the communication gaps based on gender that often exists, and sought to incorporate into the telecentre management structure the different communication patterns that exist between men and women, especially in rural patriarchal communities.

Monitoring and Evaluation

Finally, the study has underlined the importance for donors, in collaboration with all stakeholders and the local community, to monitor and evaluate the process of telecentre development and implementation. The literature observes that the evaluation of telecentre projects in Africa is still a donor-driven exercise, which remains external to beneficiary communities. Even if institutions specialised in conducting evaluations may represent a different industry, the fact is that by contracting private evaluators, donors keep firm control over telecentre evaluations . Typically, beneficiaries are cut off from the entire exercise and are seen only as the objects of the study and not subjects that can contribute to the evaluation process (Khumalo, 2001). Etta and Paravyn-Wamahiu (2003) advise that the elements monitored should not only include the number of users and the telecentre services that are most utilised, but also the impact of the telecentre on the quality of life in the community.

At Bhamshela, an internal evaluation carried out by Khumalo (2001) cites the underutilisation of the Internet and email services. Khumalo attributes this to three main things: firstly, staff/user incompetence in using these services; secondly, poor bandwidth; and thirdly, access to ICTs was expensive and the content irrelevant to many users.

Conclusion

Evidence from the literature and from the data collected for this study shows that telecentre management is also improving at community, government and donor levels by way of policy formulation, planning, management, evaluation and monitoring. Despite the noted progress, the study has revealed that donor-funded telecentres remain fragile. This is because most sub-Saharan African countries still depend on external funding and expertise to establish and implement such expensive projects. Consequently, they have sometime tended to bear the full burden of top- down management policies used by some donors. Operational problems experienced at Bhamshela telecentre can be largely ascribed to such poor management policies by the donor.

The various experiences from the case study clearly demonstrate that donors cannot apply a single model of implementation uniformly across the board due to varying political and socio-economic realities on the ground. On the contrary, relative success stories in some donor funded initiatives reported in the literature have largely been based on factors such as collaborative and participatory mechanisms. These enabled the beneficiary community and other role players to have a strong input into the establishment and management of the telecentre; and as a result, project heroes were identified and incorporated by the donors. This type of community involvement corresponds with, and contributes to the achievement of the social goal of donor-funded telecentres, namely to address the information needs of the community, and to undertake actions based on the use of ICTs to improve the quality of life of the local population.

Finally, the study has also highlighted the fact that if project sustainability is to be achieved, donors need to constantly improve the training and management components of telecentres. The study has shown that the training of staff at Bhamshela telecentre was essential not only for the general management of the telecentres but also for the transfer of knowledge and information to the local community. Similarly, the training of users was also necessary to ensure the effective appropriation of that knowledge and the purposeful use of ICTs such as the Internet.

Recommendations

Experience gained from the examination of the Bhamshela MCT and pointers from the literature, assisted the researchers to make the following recommendations to those who wish to fund future MCTs in Africa:

- The development of open and proactive donor policies is critical as they can make telecentres avoid basic problems such as those encountered at Bhamshela. Good donor policies can also inspire a considerable expansion of telecentre services across Africa. However, these policies need to drive this expansion within a social accountability framework and in awareness of the needs of the target community. In turn, there is a need for donor policies to stimulate local demand, thereby reducing investment risk for telecentres in rural areas.
- Another critical factor that has emerged from this study is the need for donors to court the community at large and make them aware of the different benefits from the telecentre services. Thus, identifying and training local people interested in telecentres will nurture the telecentre project in the long term can make the success of such a service. It is advisable for donors to have local stakeholders from areas such as health clinics, municipalities, political parties and teacher training colleges. People from these institutions are most likely to become the core users of the services and will most likely diffuse the technologies widely.
- Donors need to recognise that the buildings and the technology provided cannot be a measure of project success. Success must be measured by the project results delivered to the telecentre users and the sustainability of the telecentre itself. Donors should also note that an abrupt ending of donor assistance is often detrimental to the sustainability of the project. This is attested by the Bhamshela case which lasted only for three troubled years. Small financial support in a transitional phase should, therefore, be viewed as a valuable way to phase out the project. The most successful assistance instances are achieved when the project continues to run smoothly after external funding has stopped. In other words, a phasing out mechanism should be built-in when establishing (designing) the project.
- Donors should ensure that greater attention is given to the training and management components of the project. Thus, village seminars, workshops and training programmes for both the user community and the telecentre personnel must be integrated in the implementation strategy and should be followed up periodically. For example, ongoing training will be necessary for the users of the telecentres and periodical training will be required on an as-needed basis to upgrade staff skills as the technology and content requirements change. Moreover, rural colleges and schools, as well as extension services, can use MCTs for professional training, and as a facility for distance learning. Thus, when designing training programmes, donors should consider the users' requirements and learning preferences, which means that the content and the method of delivery should be developed in collaboration with the community
- The assessment of user needs and their translation into services and content was clearly an issue at Bhamshela. It is important at the earliest stage to articulate the core service (that which is most critical to the community or will most quickly attract users) and then structure other services around it. Thus, the study recommends that donors need to develop telecentre strategies and investments for rural areas while taking into consideration differences in languages, culture, socioeconomic conditions and infrastructure. This should be reflected in participatory needs assessment and the development of both the telecentre itself and the forms taken by information content and linkages to more conventional communication media such as radio.
- Finally, this study has shown that partnerships will offer benefits to grassroots telecentre networks, especially in social investments and support services. Social investments include funding the development of the telecentre network, workshops, training programs, online information sharing services, and innovative new community services. Support services

include business planning, which was conspicuously lacking at Bhamshela, facilitation, and an online community platform, all of which are designed to help telecentre networks succeed quickly (Roman and Colle, 2000). Strategic partnerships can also facilitate networking, content creation, applications and the mobilisation of users.

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