Telecenters: A Model for Community Access to ICTs

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Abstract

The paper presents research in progress carried out within the Bulgaria Public Computer and Communications Center (PC3) project sponsored by USAID. An alternative telecenter model for community access to information and communication technologies (ICT) is presented, derived from the global telecenter experience while taking into account the Bulgarian context. The specifics of the model are highlighted and the main aspects of the implementation process are discussed. Projections are made towards expected results and potential challenges.

Keywords: Telecenter, Bulgaria, Information and Communication Technologies (ICT), Internet, economic development, public-private sector partnership

1. Introduction

The "digital divide" problem has emerged alongside the rapid development of the information and communications technologies (ICT). How to ensure equal access to the benefits of the modern technologies is a dilemma for many developing countries and emerging economies. Such concern has been expressed in the Program 2001 of the Bulgarian Government. The international experience suggests that telecenters are one potentially appropriate approach to alleviating the effects of the "digital divide".

The paper presents a particular model of telecenter development. The model is being implemented in the Bulgaria Public Computer and Communications Center (PC3) Project, sponsored by the United States Agency for International Development (USAID). The project is carried out in the framework of the Internet for Economic Development (IED) Initiative, and is implemented by the Academy for Educational Development (AED), an American not-for-profit organization.

The aim of the PC3 project is, in partnership with selected Bulgarian entrepreneurs, to establish private sector-driven PC3 enterprises located in smaller, underserved communities in Bulgaria. The PC3 approach represents a pilot model drawn from the global telecenter experience.

2. Telecenter overview

The term "telecenter" broadly describes a variety of organizational models. Telecenters (also known as Infoshops, Telecottages, Community Access Centers and others) have emerged as an important means for providing public access to a range of telecommunication and information services, including the Internet (Gurstein and Harris, 2001).

Telecenters originated in Europe and North America in the mid-1980s. By the end of the 1990s, they had become a key component of development strategies in many countries in Latin America, Asia, and Africa as a model to provide publicly accessible information resources and communications services to undeserved and low-income populations. A telecenter's services and technologies are designed to meet the needs of the particular community that it serves. While telecenters vary in the services and technologies they offer, they most often provide access to telephones, fax, computers, and the Internet (including e-mail and the World Wide Web).

In practice, the telecenter model is very diverse. Some charge for services, and some are free. Some are commercial and some are not-for-profit. Some specialize in training in software applications and helping new users, while others focus on serving experienced users. Some are large with many machines, while the smallest ones consist of a single unstaffed computer kiosk (Fontaine and Foote, 1999). Depending on its mandate and funding source, a telecenter may be publicly or privately owned, or a combination of both. Eventual financial sustainability is usually an explicit goal of the telecenter as well – though this is a fundamental challenge faced by telecenters.

Most telecenters share two objectives:

- To benefit the communities they serve by contributing to economic, social, and educational development.
- To become self-sustaining through sound management and customer training, and by providing appropriate fee-for-use services.

Each telecenter offers its own brand of services and develops its own identity, ideally designed to meet the needs of its constituent community.

Telecenters represent one method by which rural and otherwise undeserved communities can secure access to ICT resources. They represent potentially cheaper, more efficient, and more decentralized approach to development than traditional large-scale infrastructure projects (such as, for example, those found in energy and water provision).

Telecenters also can play an important role in poverty reduction by:

- Bringing employment and human resource development to an area where it is difficult to find work, or where people lack the skills to obtain that work. The telecenter itself employs people who are trained in business and ICT skills, and who then train others. Many of these individuals may start or expand small business, providing additional employment opportunities.

- Increasing the level of skills training in information technologies by providing access to and training in the use of ICTs. Training community members in the telecenter's computers is an essential role of the telecenter's staff. The greater the level of skill passed on, the more sophisticated a community's use of ICTs becomes.

- Enhancing the ability of micro, small and medium enterprises to seek out and evaluate timely market information, as well as find better and less costly inputs.

- Provide a central meeting place for community members to exchange ideas, research solutions, and plan future community development projects.

- Making accessible information of government, social, educational and other programs and facilitating the generation and exchange of community-based information.

- Improving access to information, training, research, and education resources through distance learning programs.

- Offering indirect economic benefits to the community, such as improved productivity and increased trade, savings in transport, and improved quality and reduced cost of health care and education.

- Providing incentive for young people to remain in their villages or towns and to acquire new skills, whether as employees or as customers. As the Information Age and the trends toward globalization and economic competitiveness continue to sweep the globe, workers increasingly need to be computer literate. Providing young people access to and training in ICTs increases their employability and builds a skilled workforce.

3. The Bulgarian context

Modern ICTs are rapidly penetrating the professional and personal lives of the Bulgarians living in urban areas. Trends indicate that Internet usage is increasing quickly in cities where the necessary infrastructure is in place, training opportunities are available, and affordable access to computer and Internet services is growing (LearnLink, 2001). The situation is different though outside the more populous cities. While multiple Internet providers compete with one another in the cities, few even operate in small towns and rural areas. There is a growing demand for access to computer and Internet facilities and related services in these areas.

The first Bulgarian telecenter in the towns of Septemvri was established with the technical support of the European PHARE project (http://www.phare-pcu.bg), initiated by the Ministry of Transport and Communications (Slavcheva, 2001). Telecenters are under development in other towns as well. A Bulgarian Association of Telecenters (BAT - http://www.infotel.bg/~telecenter/) was also founded with the aim of building a network of telecenters throughout the country (Lazarov, 1999).

4. The PC3 model

The Public Computer and Communications Center (PC3) model represents a new approach to the use of telecenters for providing information and communications technologies products and services to under-served communities. The model addresses critical sustainability issues in partnership with local entrepreneurs, and involving the provision of for-profit and "public good" services within a sound business plan. Perhaps the most unique PC3 feature is the approach of using pre-paid service cards to stimulate public usage, to promote skills enhancement and business development using technology and to minimize start-up risks.

Though flexible in design in order to meet specific community needs, a typical Bulgarian PC3 takes the form of a locally owned and operated enterprise. It serves a small town with between 5,000 to 30,000 inhabitants, offering fee-for-use and, to a limited extent, subsidized access to Internet and computer services, related training, and business support services. The successful PC3 alleviates the location and infrastructure problems faced by the selected communities, particularly with respect to communication and information access, education and training, local competitiveness and employment, and the provision of government and social services.

4.1 Project support

AED will incrementally provide the PC3 operators with an appropriate mix of technical, material, and other subsidy

support designed to reduce the initial business risk faced by the entrepreneur and to build demand for PC3 services within the community. More specifically, the project will provide the following support:

- **technical assistance**, including business planning and operation support and training, and applications development support and training;

- provision of **hardware** and **Internet connectivity** subsidies;

- distribution of **prepaid access cards** within the communities served by the PC3s to encourage initial usage and create an immediate source of revenue for the PC3 operator.

The prepaid access cards will be distributed mainly to community groups involved in "public good" activities. In addition to raising community awareness and generating demand, the prepaid access cards are intended to help reduce the initial business risk for the PC3 operators.

Another direction of the project support is **content development**. The PC3 project will assist local and national organizations to convert already available information resources, broadly relevant to the economic and social development of smaller communities, "digitalized" into Bulgarian language computer-based and Internet accessible formats. These resources may include training courses, reports, databases, and other materials appropriate for multimedia and Internet distribution in locations represented by PC3s.

4.2 PC3 target groups

Potential clients of the PC3s are primarily teachers, students, local administration, business people, and health workers. During the selection phase of the PC3 operators the applicants were strongly encouraged to identify their potential clients groups within the local community and to suggest an appropriate scheme for prepaid cards distribution.

4.3 PC3 Services

The products and service mix of the PC3s will vary both by community and stage of PC3 development. Initially, the PC3s will offer a combination of basic services, such as Internet access, e-mail accounts, printing, scanning, CD-ROM use, file storage, desktop publishing, public telephone access, fax and photocopying services, and other IT related products and services. More advanced activities will include training in computer applications and Internet use, multimedia language courses, development of Web pages, and

business development assistance for small and medium-sized enterprises.

It is expected that the PC3s will act as a catalyst of small business spin-offs, such as Web design and development, and desktop publishing. Over time, the demand will shift in each community, the capabilities of each PC3 will expand, and the PC3s will evolve and reshape as to best meet the needs of the changing market and community.

4.4 PC3 role in economic and social enhancement

The bottom line of the PC3 project is to improve the quality of life in undeserved Bulgarian communities. PC3s can support local development by enabling improved access to information resources and expanded means of communication by offering business services, by facilitating distributed education, by enabling the formation and functioning of virtual communities, and by promoting rudimentary e-commerce options amongst other possibilities.

5. The PC3 process

5.1 Initiation

A Request for Proposals (RFP) in both Bulgarian and English languages was widely disseminated through different channels - national and local newspapers, Web sites, USAID and USAID partners networks. In order to assist respondents in assembling the applications, a Pre-Bid Conference was conducted in Sofia. Minutes of the conference and a detailed list with questions and answers were compiled and circulated among the conference participants. The RFP and all conference materials were made available to all interested via e-mail, fax or at PC3 office. About 90 proposals from more than 75 Bulgarian towns were received in response to the RFP. This sound expression of interest (in fact, exceeding the initial expectations of the project team) is in itself indicative of the demand and relevance of the telecenters approach in this country.

5.2 Selection of PC3 operators

The global telecenter experience has demonstrated that the success of a telecenters depends to a high extent on the qualities of the telecenter's owner and manager, as well as on the characteristics of the local community. Therefore the PC3 project adopted the following criteria for selecting local entrepreneurs to act as PC3 operators (these criteria were clearly outlined in the RFP):

- **Understanding of PC3 concept:** The degree to which the respondent demonstrates an understanding of the PC3 approach to providing community access to infor-

mation and communication technology services, products and training.

- **Respondent's contribution:** The ability of the respondent to provide the human, financial and material contributions outlined in the respondent's proposal.

- **Business plan scenario:** The viability of the PC3 business plan scenario.

- **Town proposed:** The degree to which the town proposed by the respondent has the following features: population between 5,000 - 30,000; lack of publicly accessible commercial enterprise offering IT products and services; presence of other USAID-supported (and other donor) activities.

- **Infrastructure (weight 2):** Ready potential access to telecommunications and Internet infrastructure.

AED, in collaboration with key project stakeholders, conducted a thorough evaluation of the received proposals in order to identify the most qualified entrepreneurs and communities for partnership with the PC3 project. The selection process consisted of three phases.

During **the first phase,** each proposal was carefully studied and evaluated according the selection criteria. Evaluations were based on a total score of 100. The total score was calculated as a sum of weighted scores assigned for each criteria (based on a five-point scale). Resulting from this initial evaluation, 25 proposals were identified for further consideration.

During **the second phase,** PC3 staff visits to these 25 sites were performed, and interviews with the respondents and local teams were conducted. Based on these on-site evaluations, a short list of 10 sites was compiled.

During **the third phase,** all 10 short listed candidates were invited to the PC3 office to discuss the opportunity to enter into individual contractual agreements with AED, identifying respondent's and project's contributions and mutual obligations. **The final selection** of the PC3 operators was determined by the ranking within the short list, the required project contribution for each short listed site, and the overall budget of the project.

5.3 Future steps

The next steps in the process are the initial training for the PC3 operators, the build-out of the PC3s in the selected towns, the identification of relevant content for digitalization, pre-paid access cards development and distribution, and the implementation of a monitoring and evaluation scheme for the PC3 project. Throughout this process, the PC3 project

staff will work closely with the PC3 operators to develop an optimal mix of products and services, which will help each PC3 to achieve both its social and business objectives.

6. Conclusion

The PC3 model presented in this paper is derived from drawing on best practices within the global telecenter experience, and in adapting these lessons learned to a model appropriate to the Bulgarian context. The wide and enthusiastic response from local entrepreneurs to the PC3 Request for Proposals supports the hypothesis that at this stage PC3s are an appropriate solution for smaller Bulgarian communities with no or limited access to modern ICTs. Nevertheless, the authors are well aware that there are no panaceas for bringing access to ICT and building related human capacity in underserved communities. It's not just the technology that makes the difference. What is important is the potential of the local PC3 operators to take the initiative to create awareness within the communities, and be inventive and flexible in designing applications and ICT solutions directly relevant to local needs. As sustainability of the PC3s is a project priority, the project team will make every effort to assist the PC3 operators in meeting the challenges they face and expanding their potential.

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